

light+shadow



1 \_ screen study, digital photograph

# light+shadow

Lisa M. Spenello

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Paola A. Zellner  
William U. Galloway  
Frank H. Weiner

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# light+shadow

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Without light, there can be no shadows.

Architectural decisions can be structured in such a way as to filter, manipulate, or diffuse light to create an array of conditions in which both light and shadow become part of the architecture itself.

Light and shadow create spaces within a place, or a place inside of a space. They can define, emphasize, and disguise.

Abstract



2 \_ La Tourette, Le Corbusier digital photograph

From the bottom of my heart, I thank you:

Frank, for your thought provoking questions and statements, your profound idea of the need to rid ourselves of that expensive third dimension, and for helping me realize my architecture is only as strong as I make it.

Bill, for your priceless advice, your pure compassion for architecture, and your ability to allow that compassion shine through in your teaching as an inspiration.

Paola, for helping me realize and embrace my strengths and weaknesses, for encouraging me to constantly push my architectural process and ideas, and most importantly your genuine concern for me and my architecture.

My fellow studiomates for your friendship, encouragement, and nicknames, and finally to my family, friends, and especially Justin, for your constant, unwavering confidence and support over the last three years.

For all of your kind words, support, and care, I thank you.

Acknowledgements

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a question of light and shadow



3 \_ La Sagrada familia, Antoni Gaudi, digital photograph

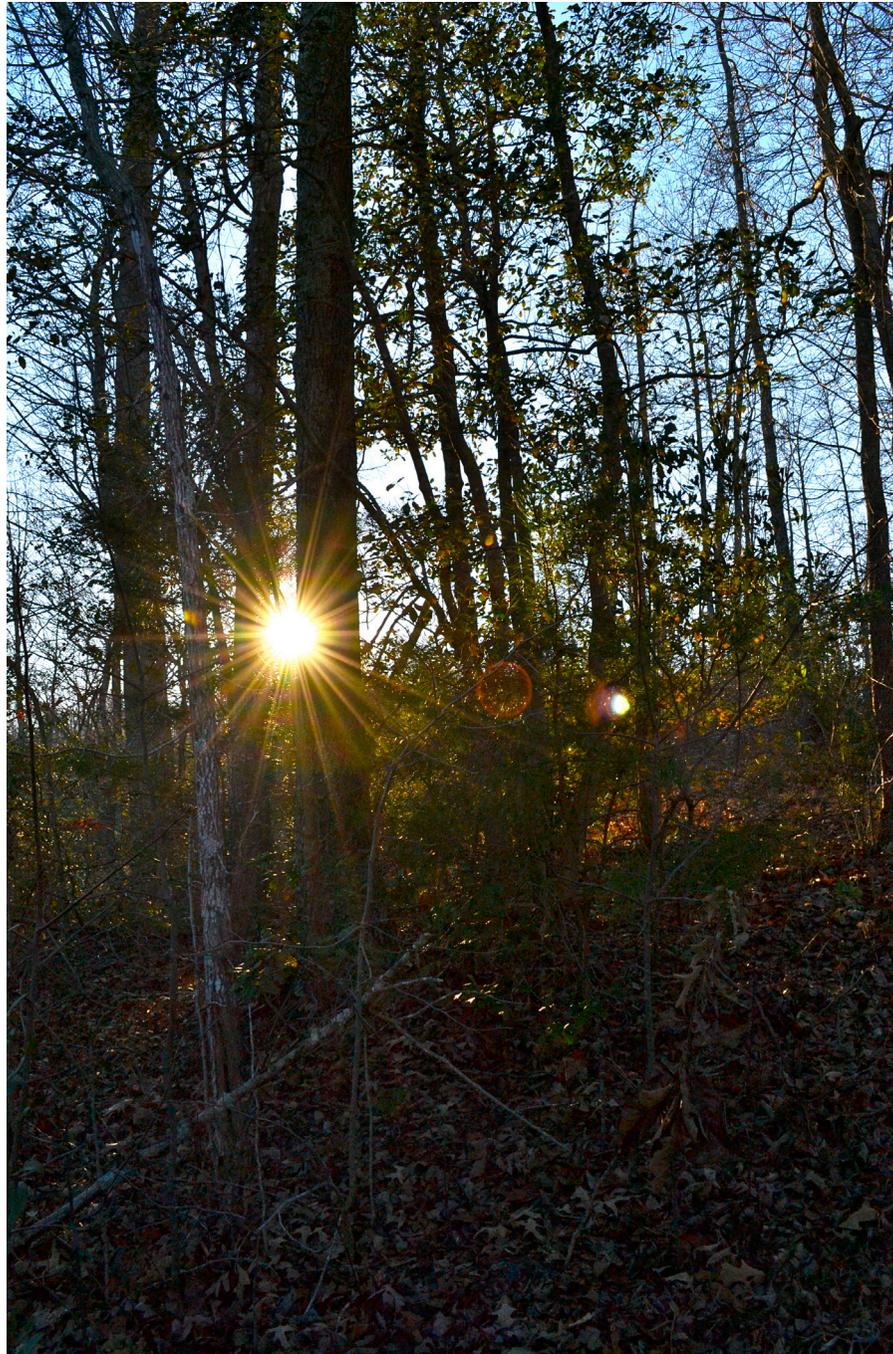
“all the grace of the window is in the outline of its light.”

- John Ruskin  
*The Seven Lamps of Architecture*

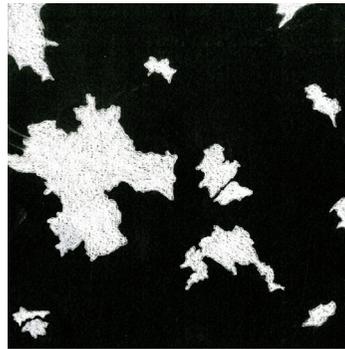
Its not the leaves themselves we draw, but rather the space between them.

By viewing the interstitial space between objects as primary, the resultant of that condition becomes a condition of it's own, developing a new means of viewing the original relationship between the objects.

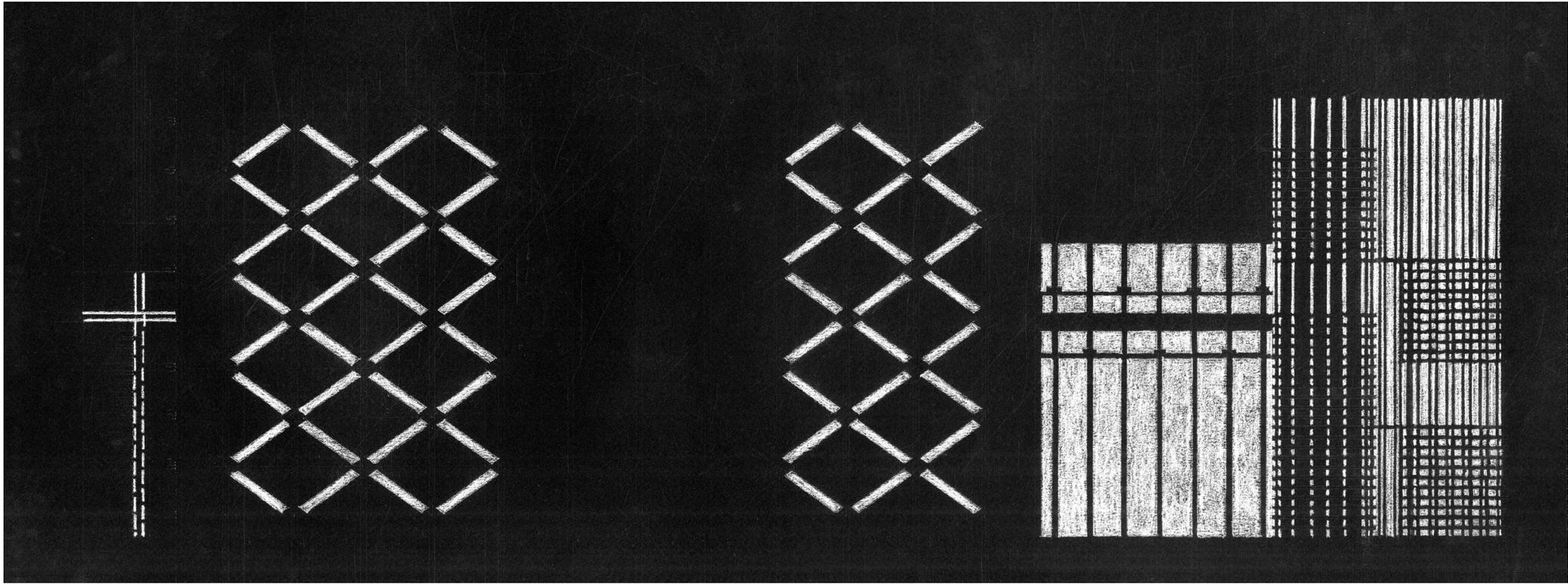
The interstitial spaces between the various elements of the built condition can be designed in such a way that a sense of control can be developed in the shape and condition of the shadows cast. In a sense, despite their ever changing nature, shadows can become a part of the architecture itself, elements that can be predicted and designed, creating a wide array of ever changing patterns of light and shadow.



4\_site - Courtney Millpond, Callao, Virginia, digital photograph



5\_ three piece set of interstitial space studies, white charcoal on black bristol



6 \_ drafted elevation - interstitial space, white charcoal on black bristol

the study

There is a moment when the two dimensionality that exists within the relationship of the wall plane and the floor plane can create a third dimension - one that is not tangible or permanent, but instead dynamic and interactive. This borrowed third dimension gives depth to a space and creates an opportunity to interact not only with the architecture itself, but also with its consequences.

These consequences manifest themselves as shadows. Customarily viewed as an accepted outcome of architecture, a shadow can be 'designed' by carefully creating architecture that is based solely upon the shadows created. This design process allows the architecture itself to act as a canvas, and the shadows move to the forefront of the design.



7 \_ model - intersecting boundary study, digital photograph



8 \_ model - intersecting boundary study, digital photograph



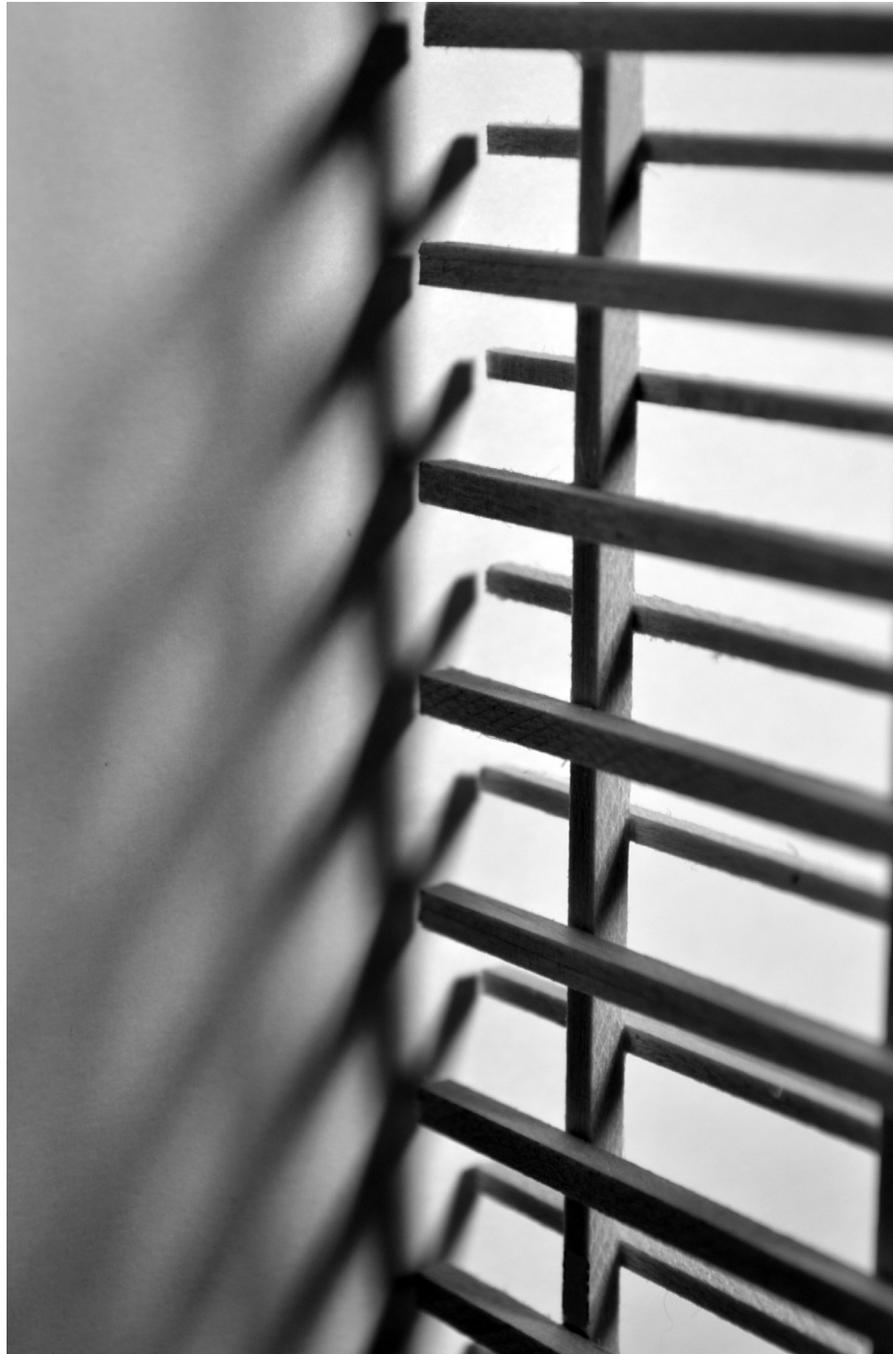
9 \_ model - intersecting boundary study, digital photograph

the manipulation

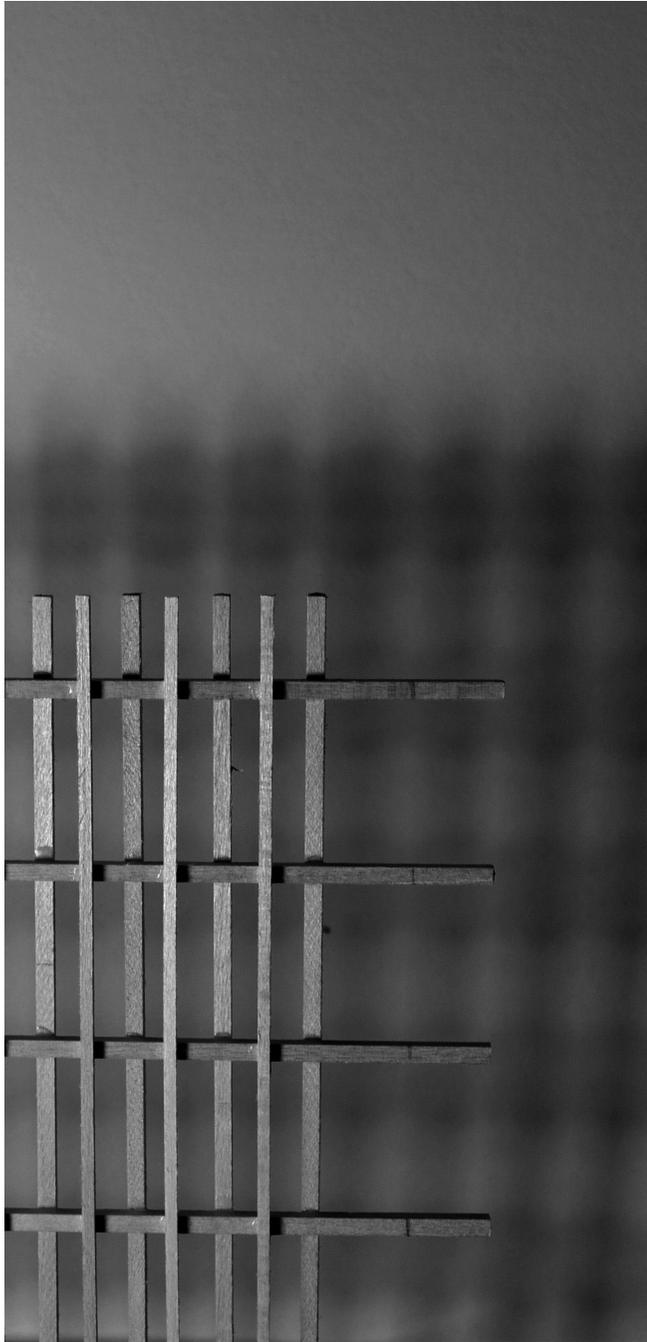
*“.. to plan the building as a pure mass of shadows then, afterwards, to put in light as if you were hollowing out the darkness, as if the light were a new mass seeping in.”*

- Peter Zumthor  
*Atmospheres*

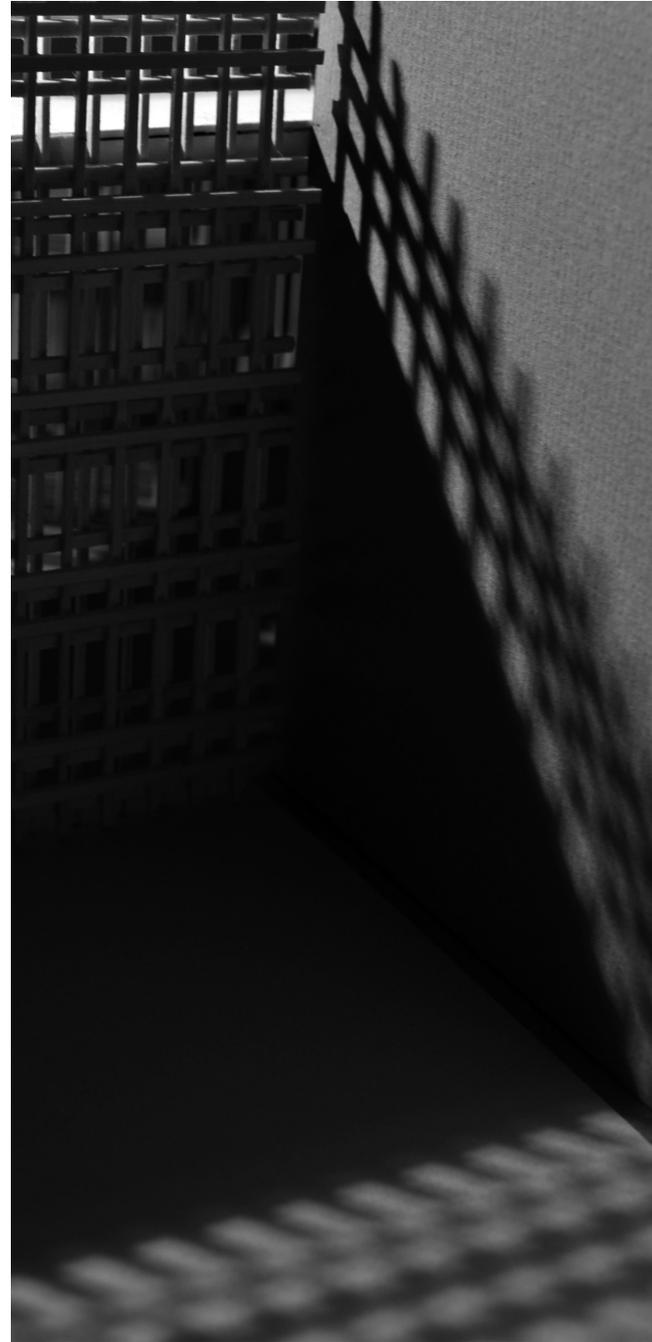
Shadows are generally considered as products, a result of the reactionary relationship between light and built conditions or natural forms. While only fleeting, a shadow is capable of altering the perception of a space in which the shadow is cast, or the object which casts the shadow. When considered during the design process, shadows become less of an afterthought and instead a piece of the architecture itself. Through architectural manipulation, shadows can be cast by built forms and projected upon various surfaces, allowing for the visual perception of new spaces.



10 \_ screen study, digital photograph



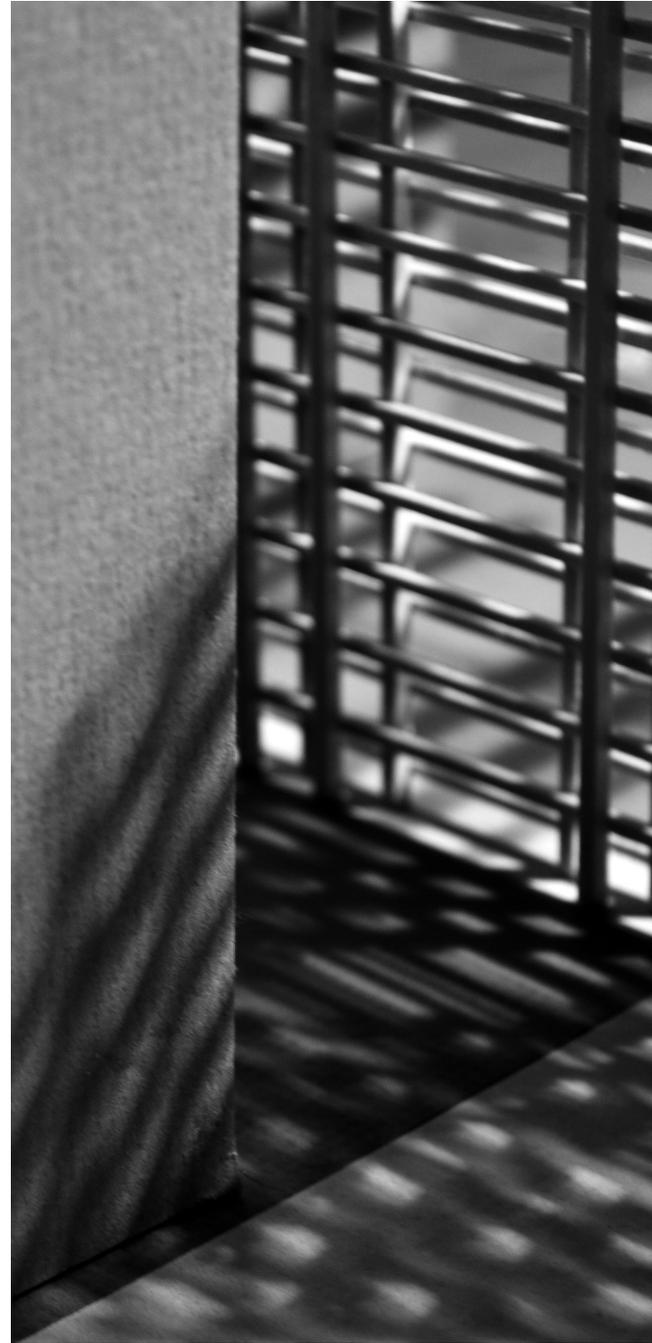
11\_model - shadow study, digital photograph



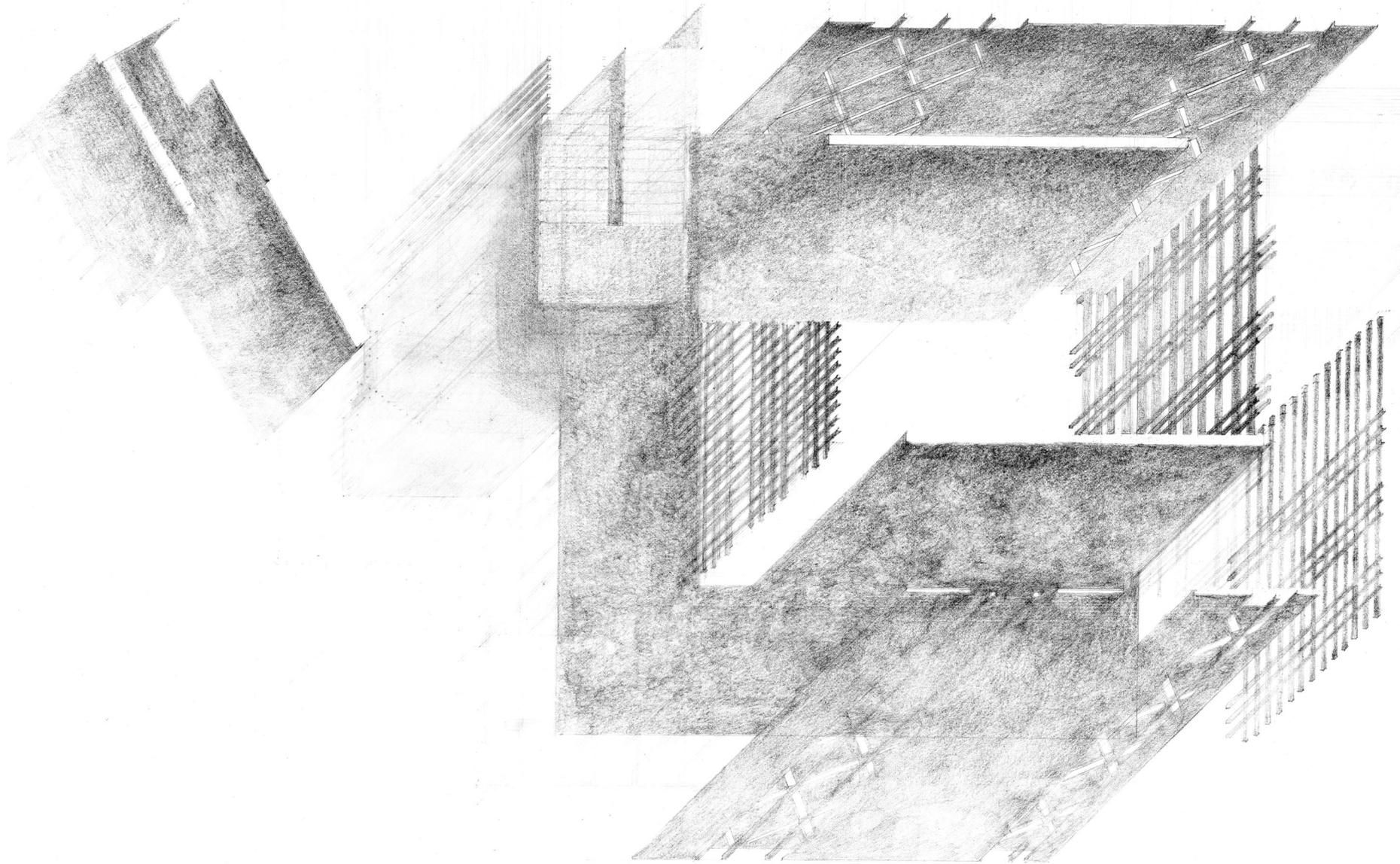
12\_model - shadow study, digital photograph



13\_model - shadow study, digital photograph



14\_model - shadow study, digital photograph

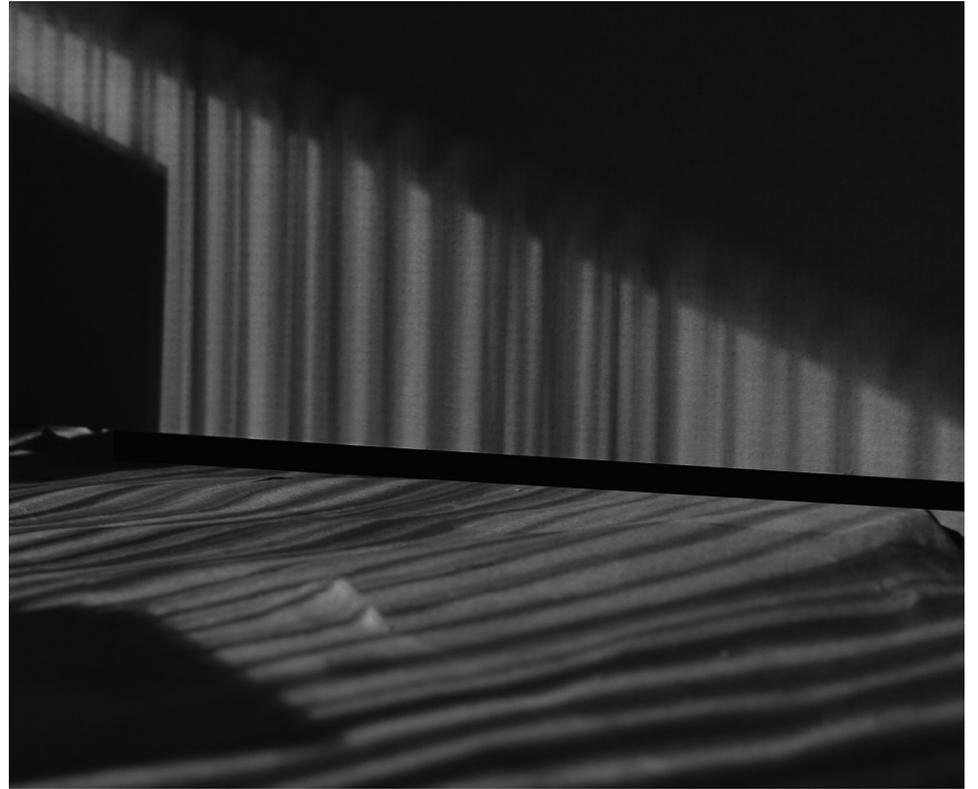


“it was in this instance when the rudeness of the intermediate space had been finally conquered, when the light had expanded to its fullest, and yet had not lost its radiant unity, principality, and visible first causing of the whole, that we have the most exquisite feeling and most faultless judgement in the management alike of the tracery and decorations.”

- John Ruskin  
*The Seven Lamps of Architecture*



16\_model - intermediate space between folly and main structure, digital photograph



17\_model - intermediate space between folly and main structure, digital photograph

Architecture is more than built forms. There are conditions that can exist between parts of the built environment that can become forms themselves, even if only temporary. By allowing the shadow of a form to interact with another form or its shadow, a new space is created.

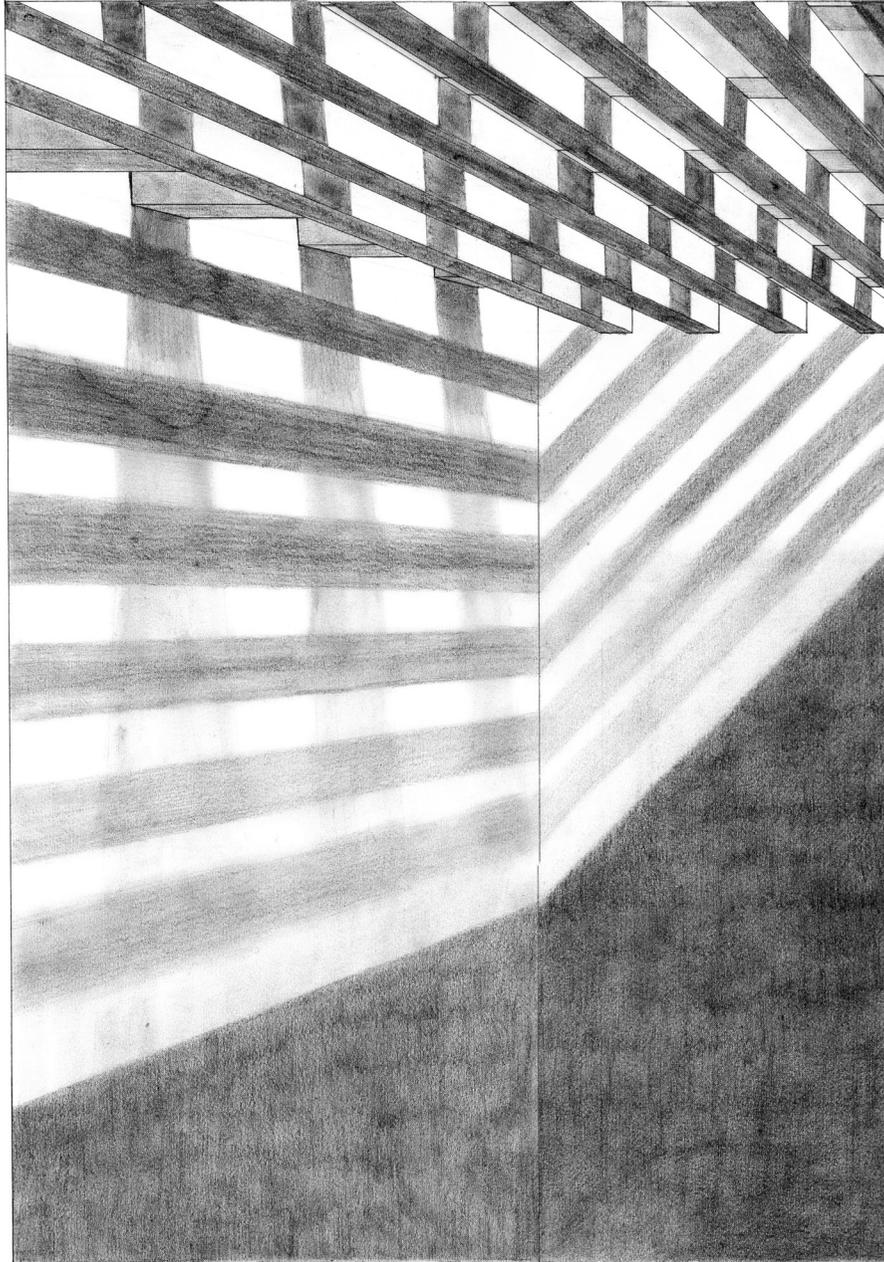
Effectively, these shadows create an interstitial space in which an individual can see the relationship between the two built forms. The interaction between one structure's shadow and its projection onto another shadow creates a sense of continuity across the architecture, while simultaneously giving presence to new spaces.



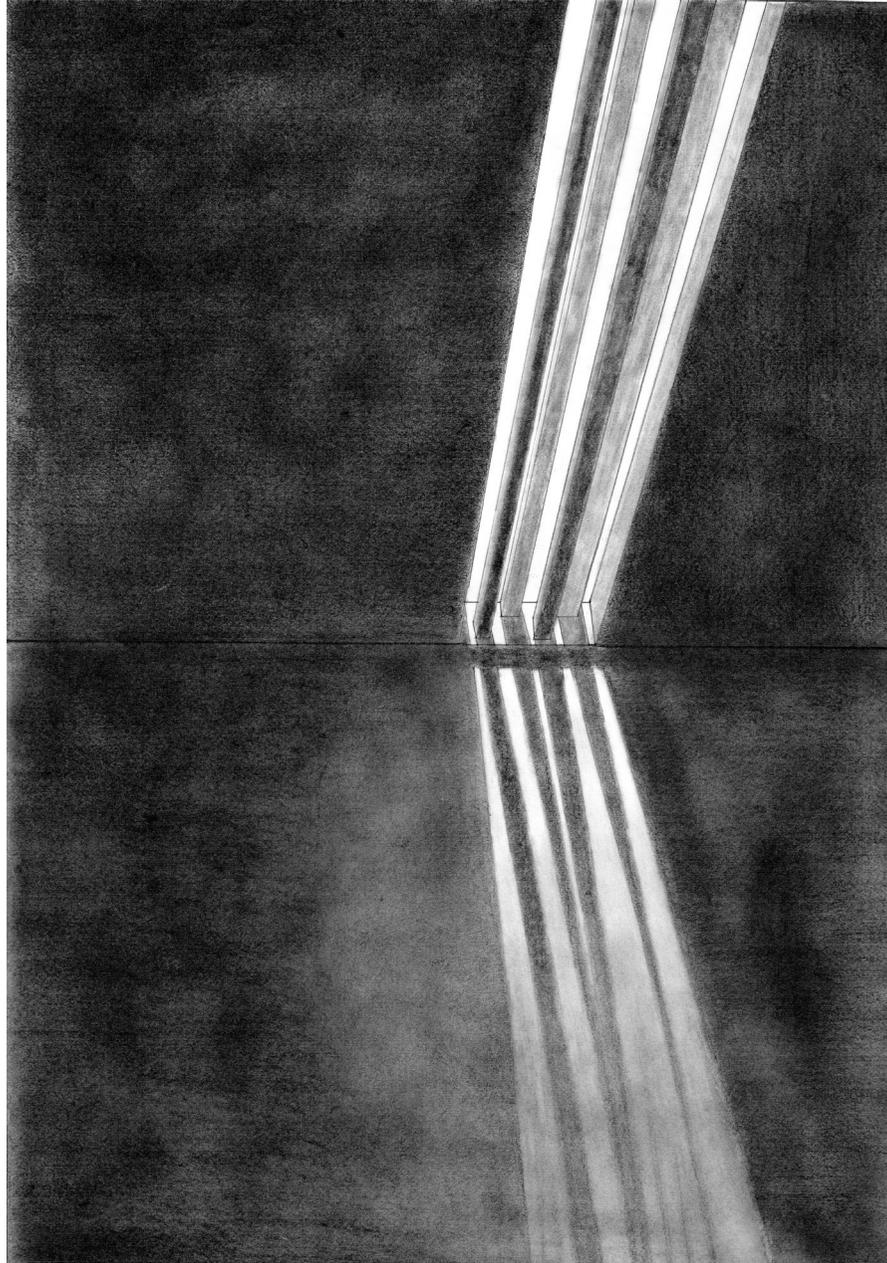
18 \_ model - intermediate space between folly and main structure, digital photograph



19 \_ model - intermediate space between folly and main structure, digital photograph



20 \_ screen study - drawing of photograph, graphite on bristol



21 \_ screen study - drawing of photograph, graphite on bristol

*Architects in planning rooms today have forgotten their faith in natural light. Depending on the touch of a finger to a switch, they are satisfied with static light and forget the endlessly changing qualities of natural light, in which a room is a different room every second of the day."*

- Louis Kahn

The beauty of light is its power to incur a change in an individual's perception of a space. With sunlight, the condition is temporary with the passing of the day and change in intensity of light. Therefore changing the environment and perception of a space is continuously changing. A space upon entry is a different space upon departure.

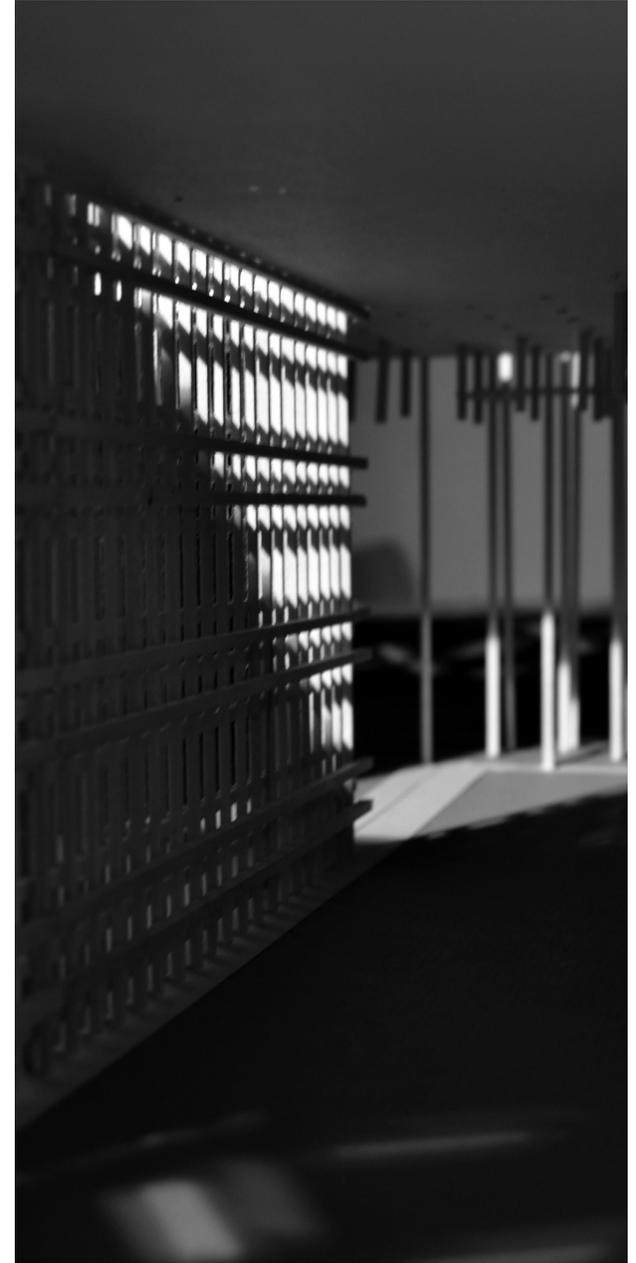
Light makes possible the understanding of the passing of time, as the longer one inhabits a space, the greater awareness one has of its changing conditions.



morning



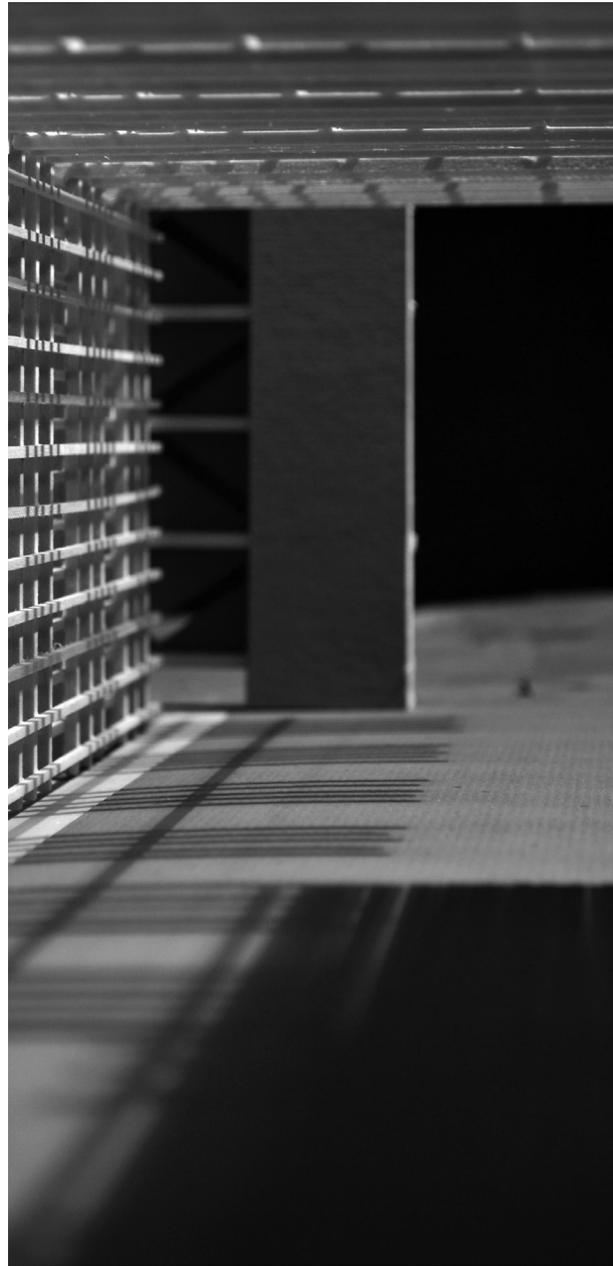
midday



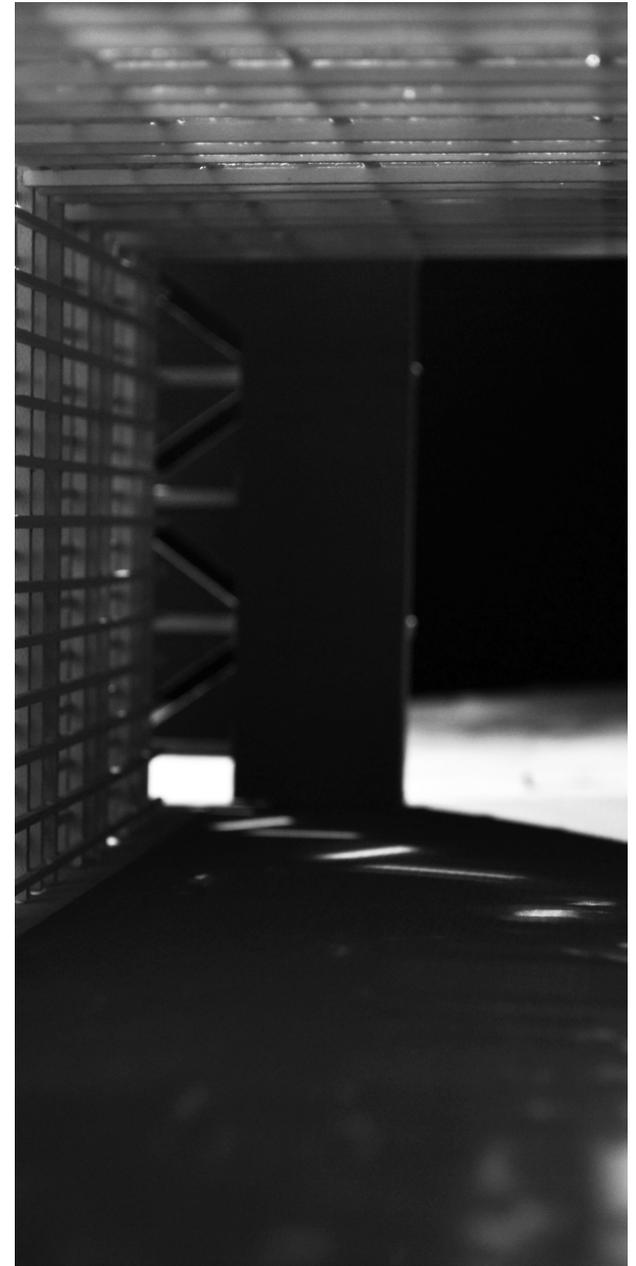
afternoon



morning



midday



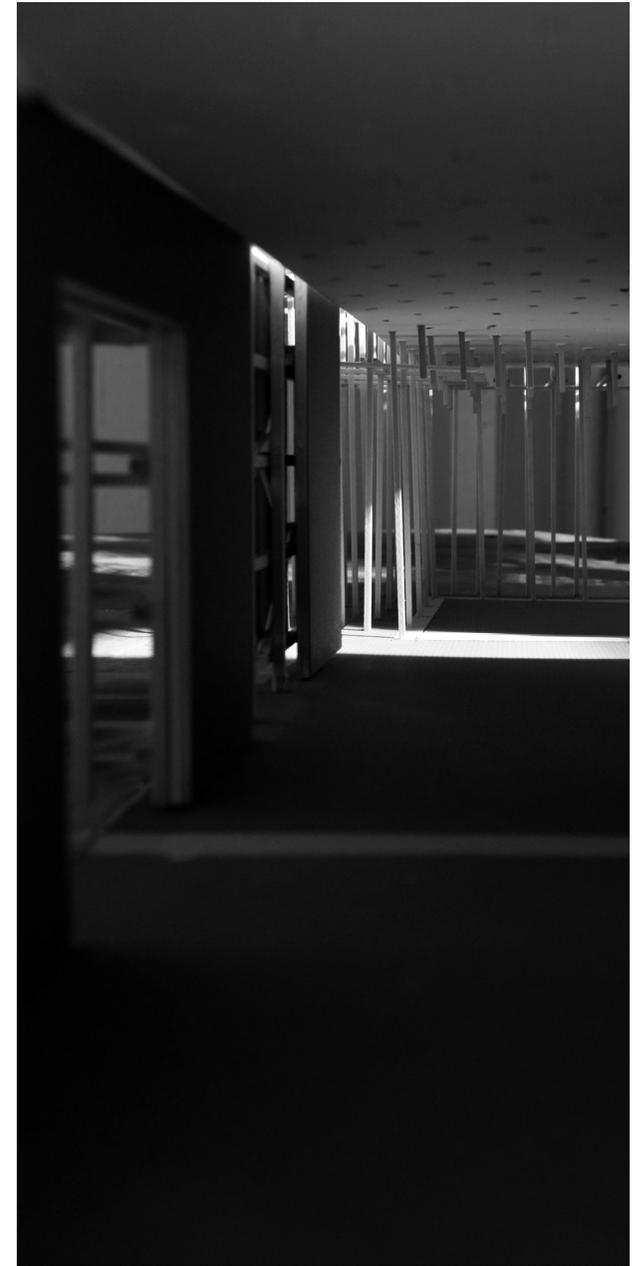
afternoon



morning



midday



afternoon

Situated in Callao, Virginia, the site rests upon a small plateau overlooking a large pond. The surrounding landscape is quiet and natural, and generally uninhabited by other built structures.

The site begins a mile and a half from the main structure, at a point where a field meets the forest. The stark contrast of plowed land to the wild nature of the forest creates a heightened awareness of the change not only in vegetation, but also in the influence of the sun and its relationship with the dense forest.

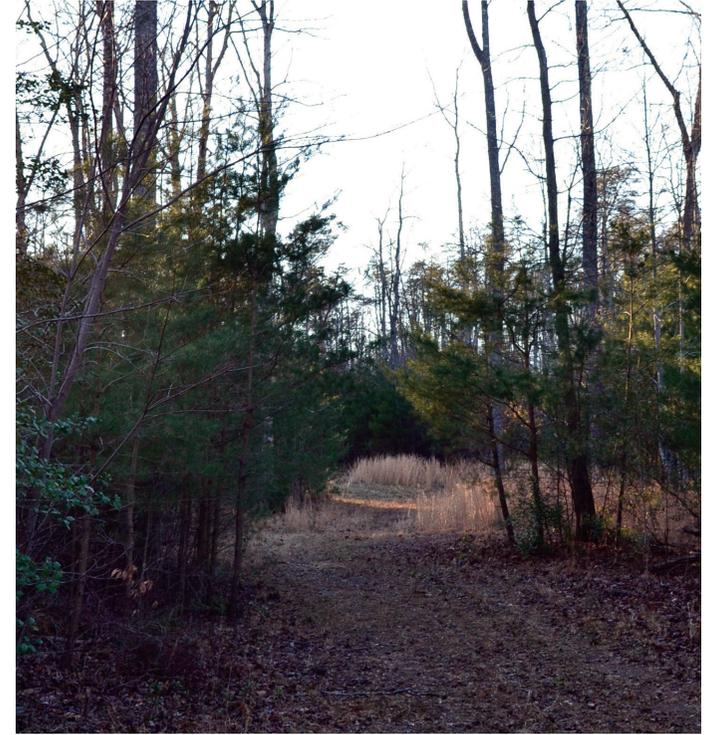
During the procession through the forest, a constantly changing shadow reveals itself, cast upon the forest floor as the sun passes through the leaves and branches. The wind rustles the leaves, causing a subtle shift in the shadows, the forest floor become a static palette for a dynamic condition.



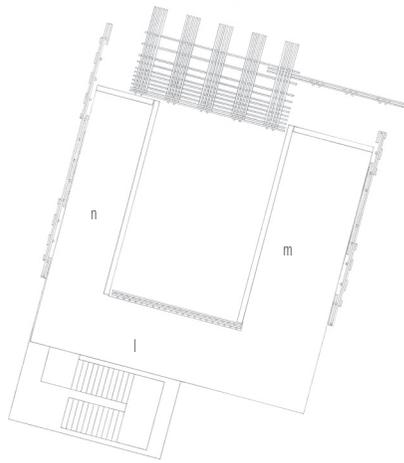
25 \_site approach - Courtney Milpond, Callao, Virginia, digital photograph



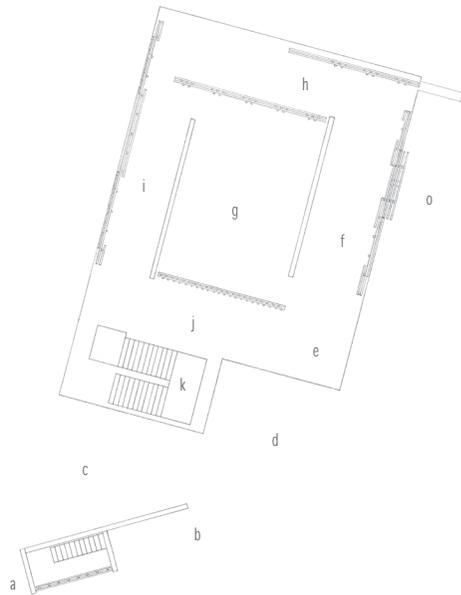
26 \_site approach - Courtney Milpond, Callao, Virginia, digital photograph



27 \_site approach - Courtney Milpond, Callao, Virginia, digital photograph

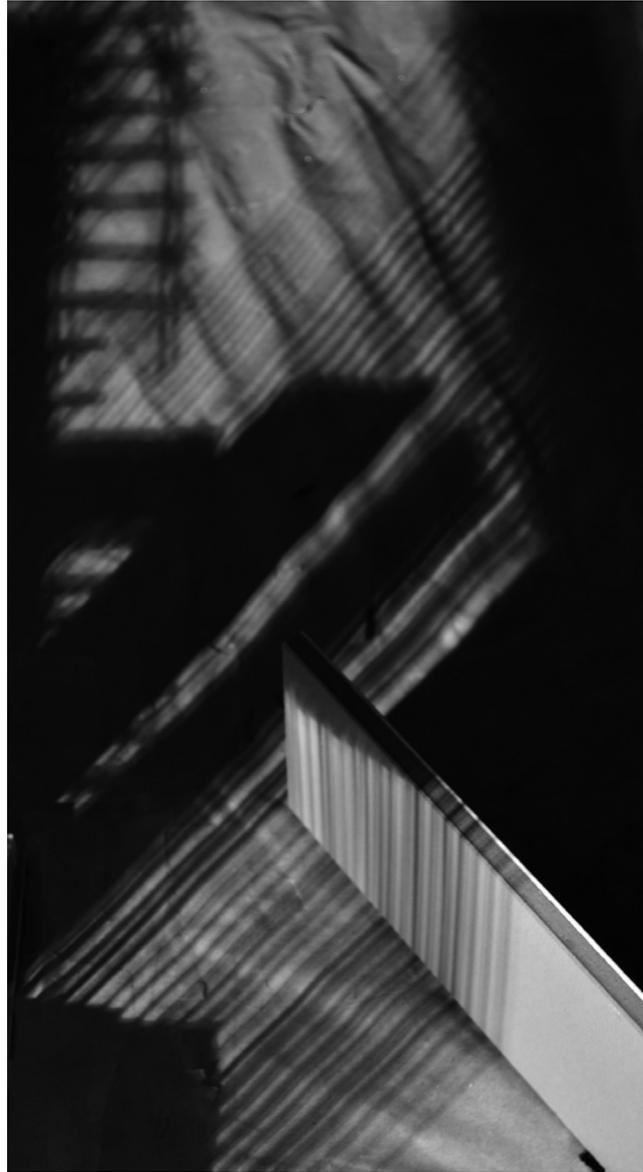


28 \_ second floor plan processional diagram, graphite on vellum



29 \_ first floor plan processional diagram, graphite on vellum

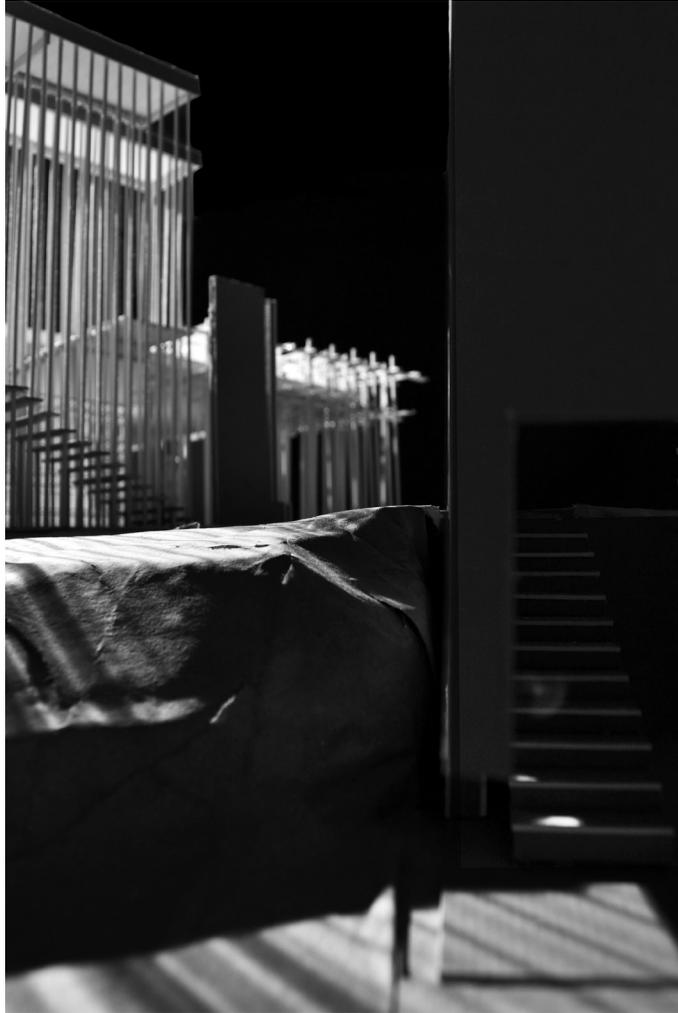
the Procession



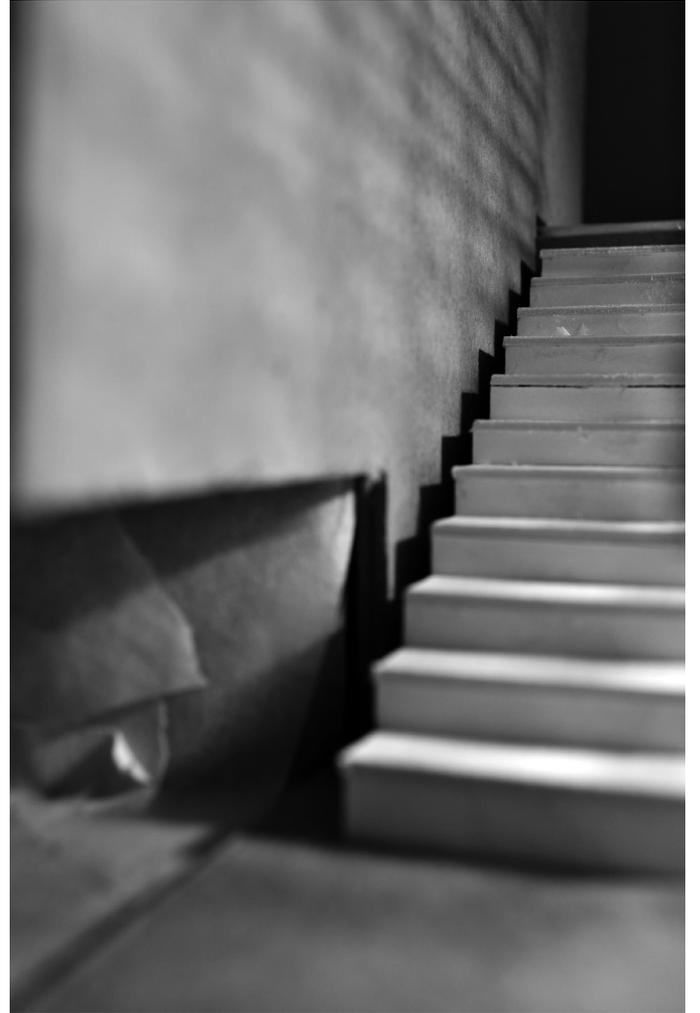
30 \_ model - digital photograph



31\_model - folly, location 'a', digital photograph



32\_model - folly, location 'a', digital photograph



33\_model - folly, location 'a', digital photograph

location a \_ folly



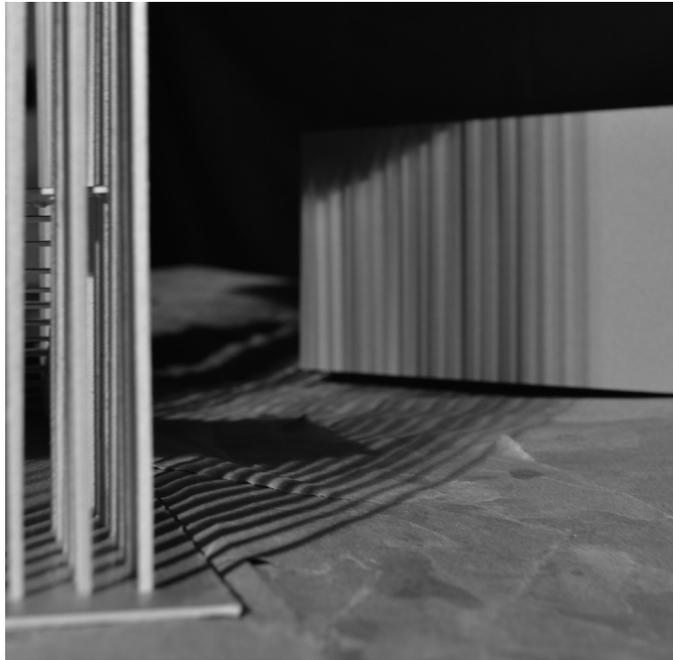
34 \_model - threshold, location 'b', digital photograph

location b \_ threshold

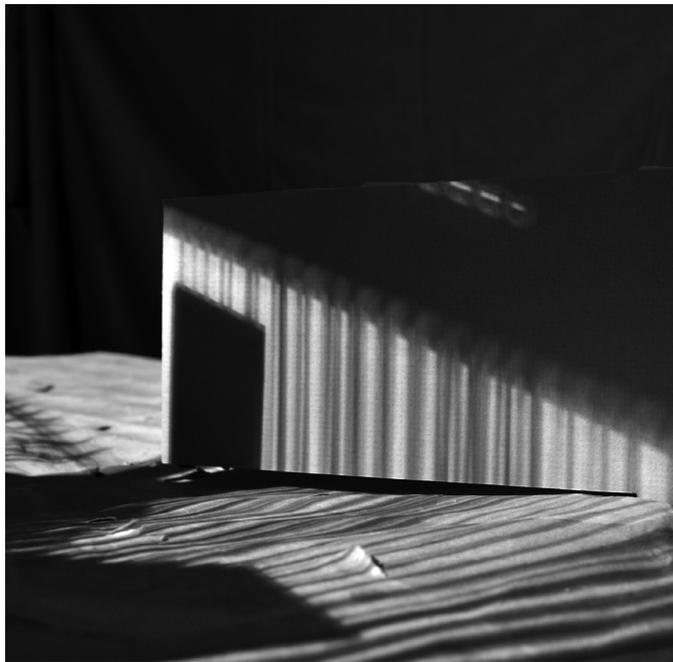


35 \_model - threshold, location 'b', digital photograph

location b \_ threshold



36 \_ model - interstitial space, location 'c', digital photograph



37 \_ model - interstitial space, location 'c', digital photograph

location c \_ interstitial space



38 \_model - interstitial space, location 'c', digital photograph



39 \_model - interstitial space, location 'c', digital photograph



40 \_model - interstitial space, location 'c', digital photograph

location c \_ interstitial space



41 \_ model - entry, location 'd', digital photograph

location d \_ entry



42 \_model - entry, location 'd', digital photograph

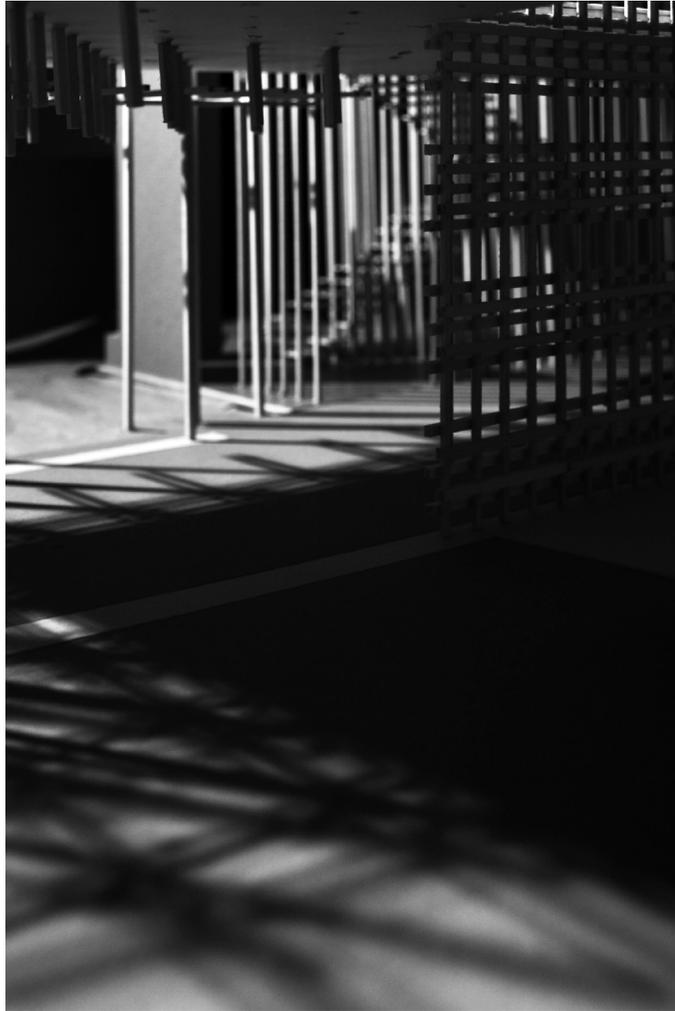


43 \_model - entry, location 'd', digital photograph



44 \_model - entry, location 'd', digital photograph

location d \_entry



45\_model - vestibule, location 'e', digital photograph



46\_model - vestibule, location 'e', digital photograph

location e \_ vestibule



47 \_ south hall, location 'f', digital photograph



48 \_ south hall, location 'f', digital photograph



49 \_ south hall, location 'f', digital photograph

location f \_ south hall



50 \_model - courtyard, location 'g', digital photograph



51 \_model - courtyard, location 'g', digital photograph



52 \_model - courtyard, location 'g', digital photograph

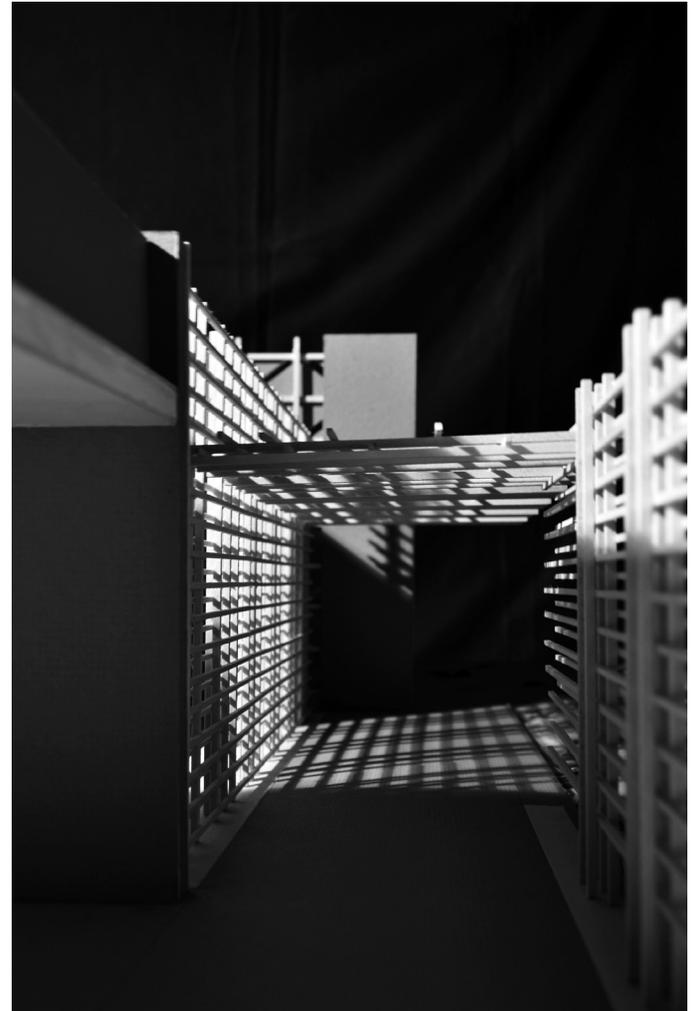
location g \_ courtyard



53\_model - east hall, location 'h', digital photograph



54\_model - east hall, location 'h', digital photograph



55\_model - east hall, location 'h', digital photograph

location h \_ east hall



56 \_ model - east hall, location 'H', digital photograph

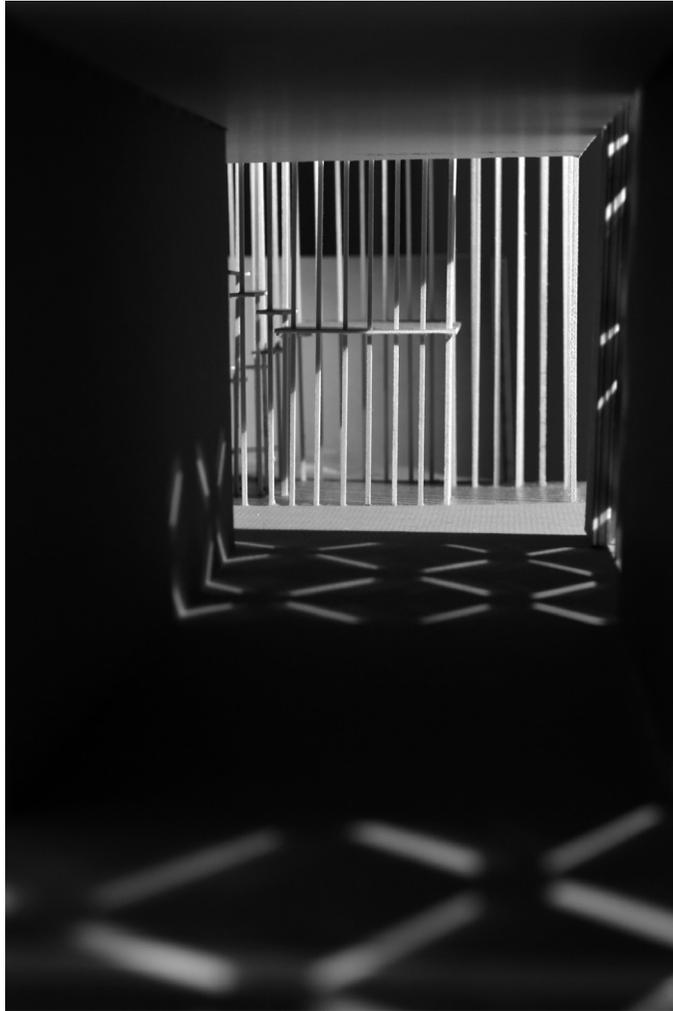


57 \_ model - east hall, location 'H', digital photograph

location h \_ east hall



58 \_ model - north hall, location 'i', digital photograph



59 \_ model - north hall, location 'i', digital photograph



60 \_ model - north hall, location 'i', digital photograph

location i \_ north hall



61\_model - west hall, location 'j', digital photograph



62\_model - west hall, location 'j', digital photograph



63\_model - west hall, location 'j', digital photograph

location j \_ west hall



64 \_ model - stairwell, location 'k', digital photograph

location k \_ stairwell

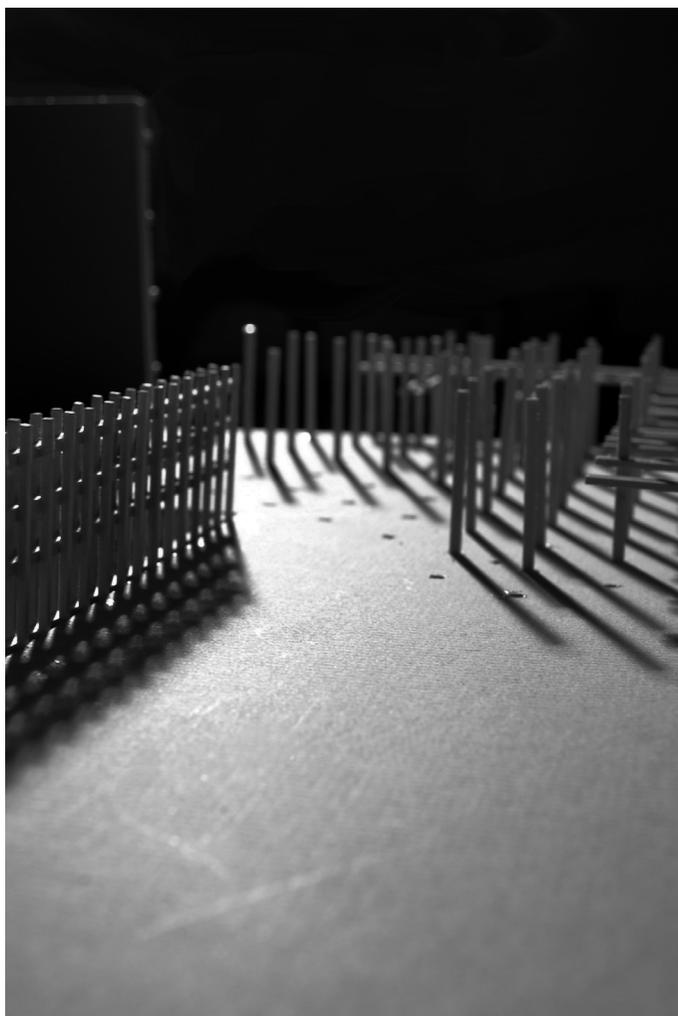


65 \_ model - stairwell, location 'K', digital photograph



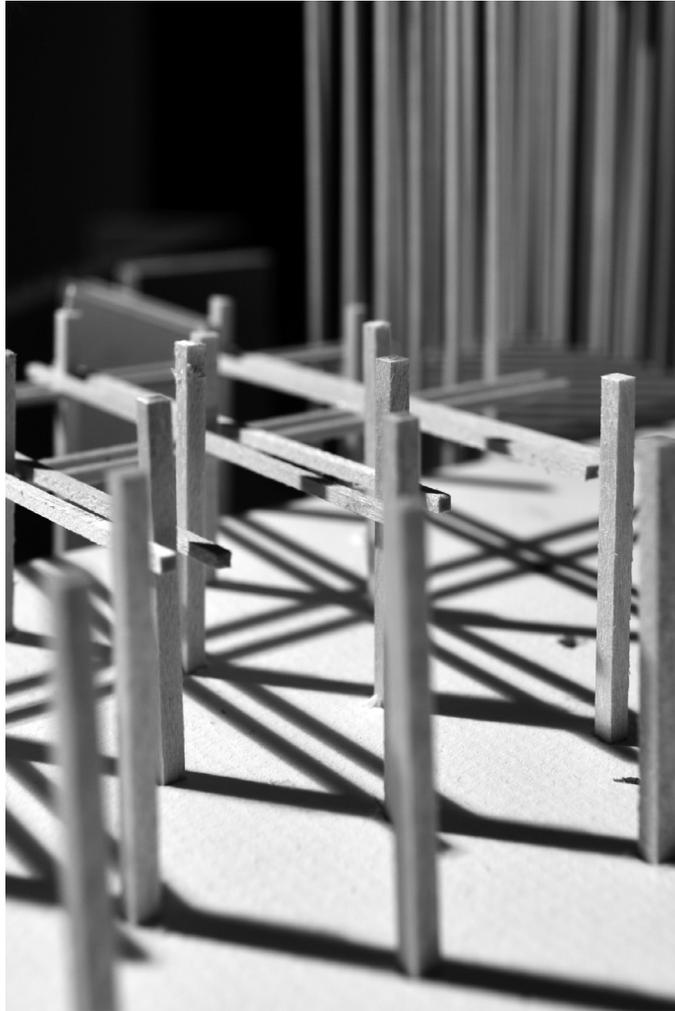
66 \_ model - stairwell, location 'K', digital photograph

location k \_ stairwell

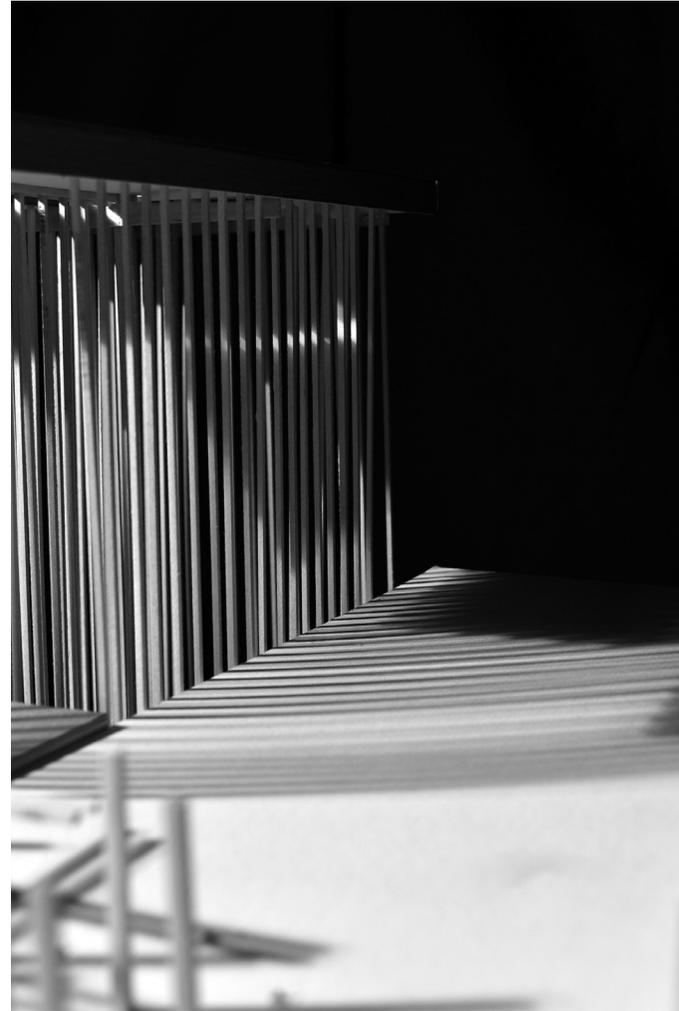


67 \_ model - stairwell, location 'k', digital photograph

location k \_ stairwell

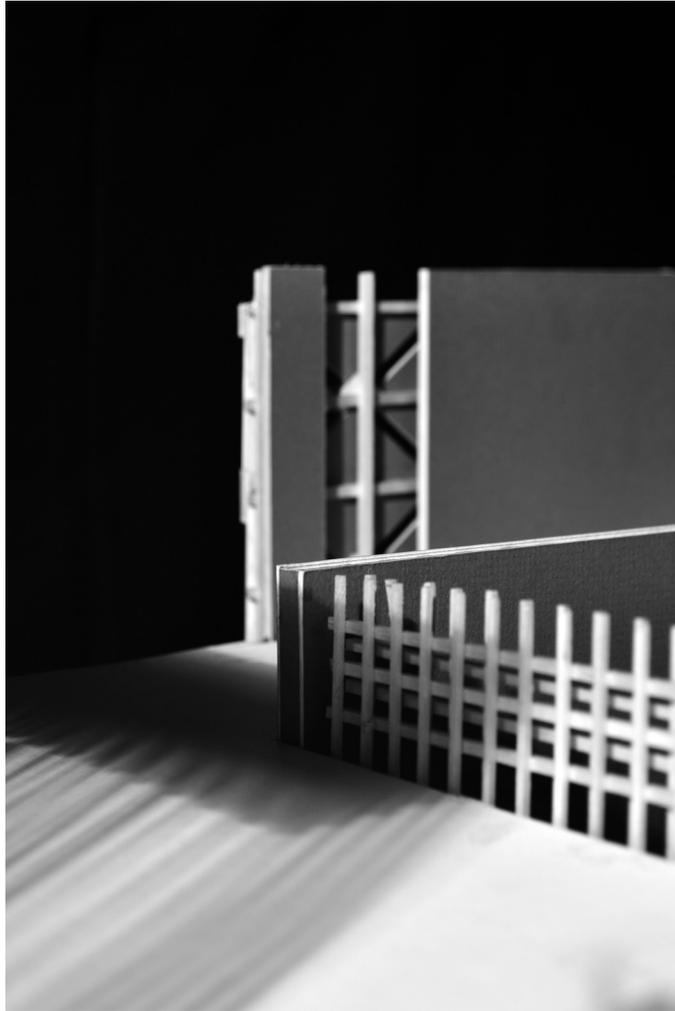


68 \_ model - second floor, location 'I', digital photograph

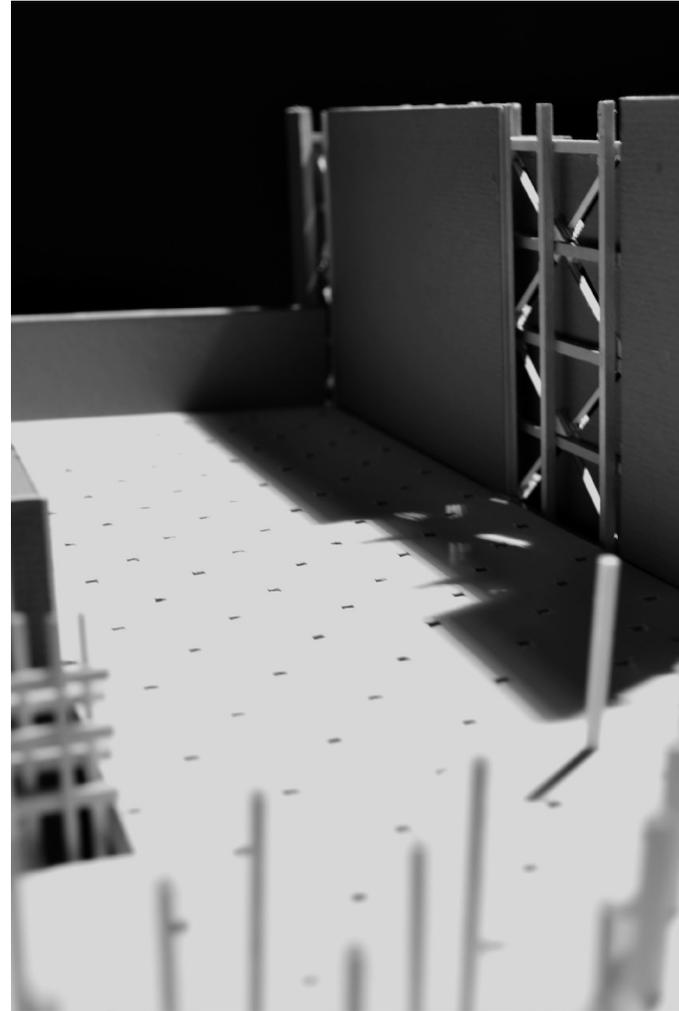


69 \_ model - second floor, location 'I', digital photograph

location I \_ second floor

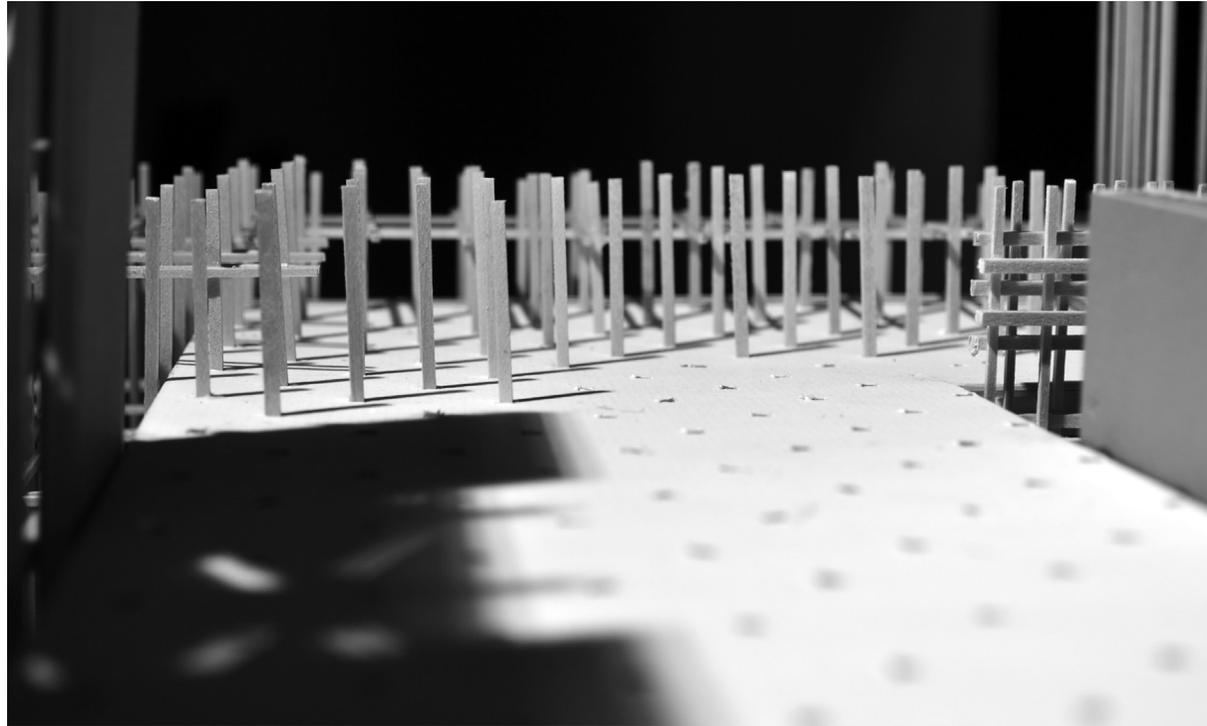


70\_model - second floor, location 'I', digital photograph



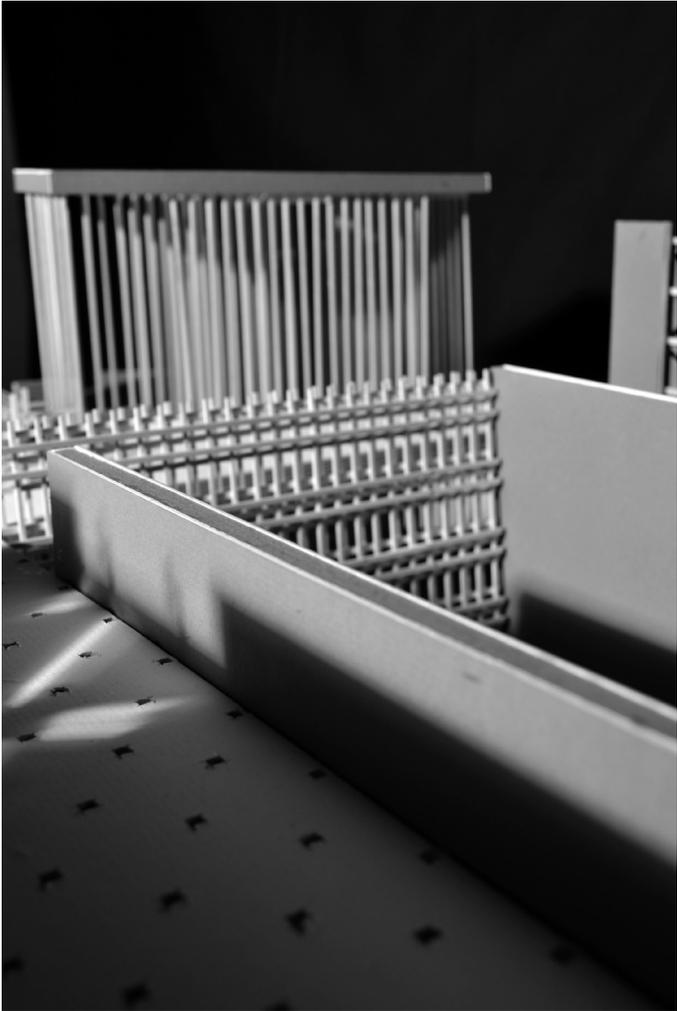
71\_model - second floor, location 'I', digital photograph

location I \_ second floor

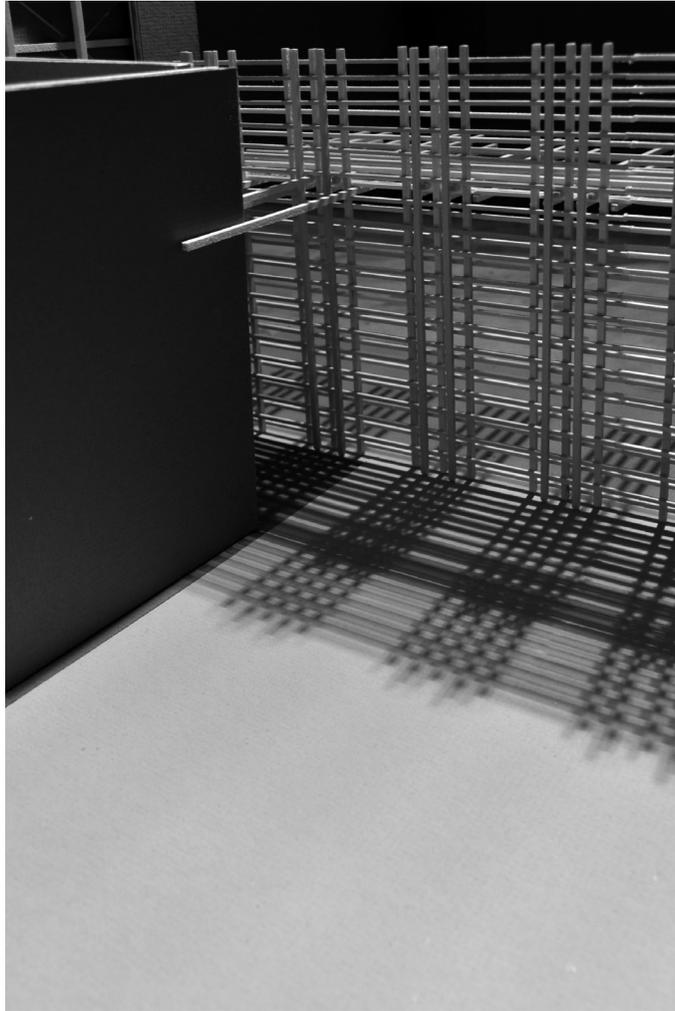


72 \_ model - second floor, location 'm', digital photograph

location m \_ second floor



73 \_ model - second floor, location 'm', digital photograph

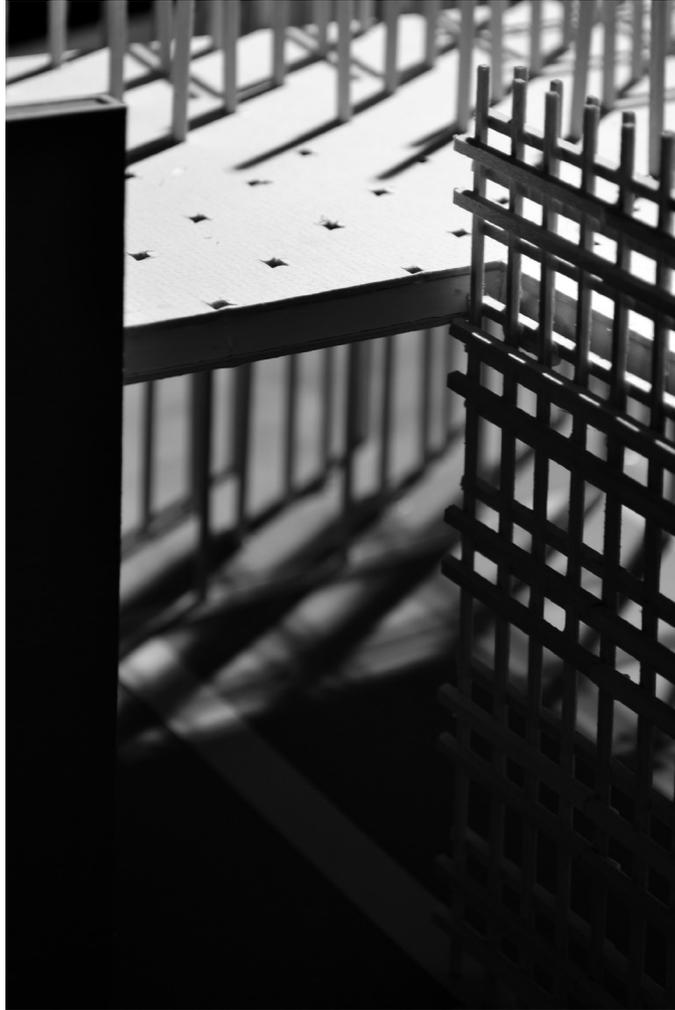


74 \_ model - second floor, location 'm', digital photograph

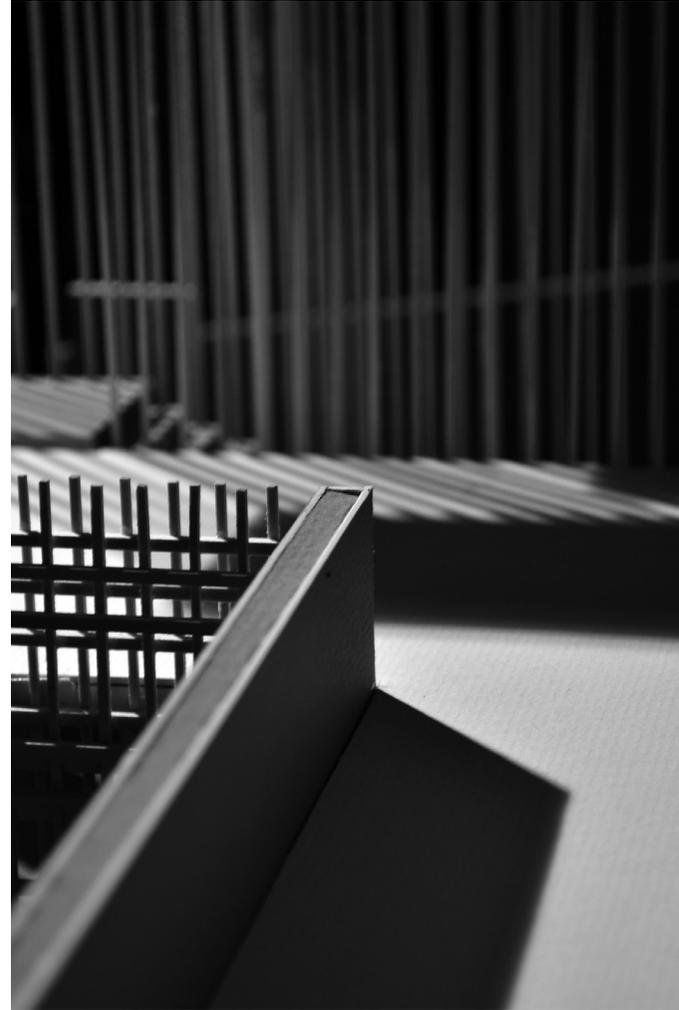


75 \_ model - second floor, location 'm', digital photograph

location m \_ second floor



76 \_ model - second floor, location 'n', digital photograph



77 \_ model - second floor, location 'n', digital photograph

location n \_ second floor



78 \_model - exit folly, location 'o', digital photograph

location o \_ exit folly



79 \_final view of Courtney Millpond, digital photograph

final view

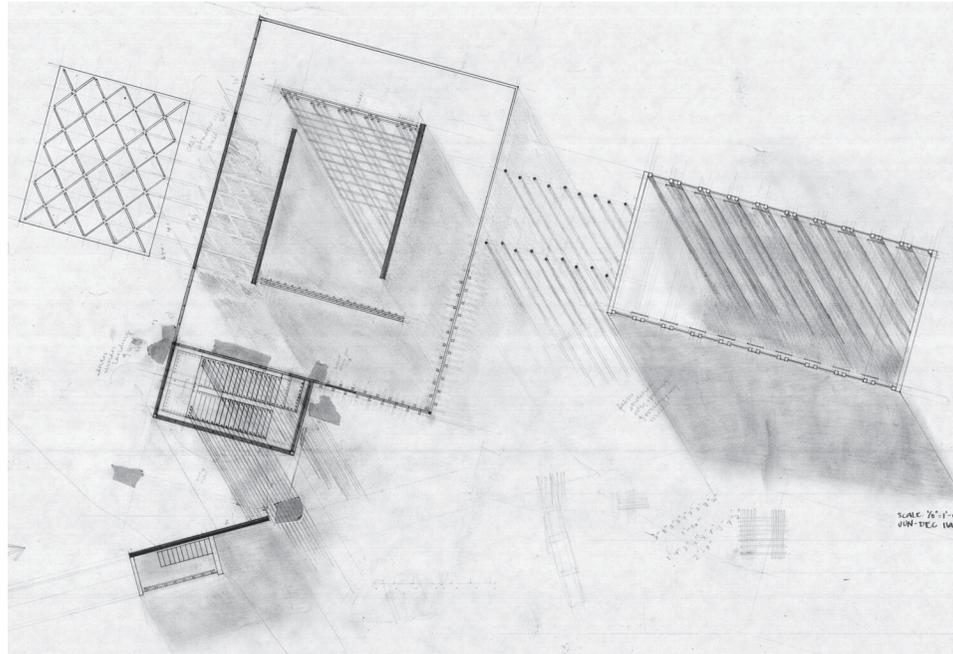


80 \_ site conceptual perspective, initial sketches, conte crayon on bristol



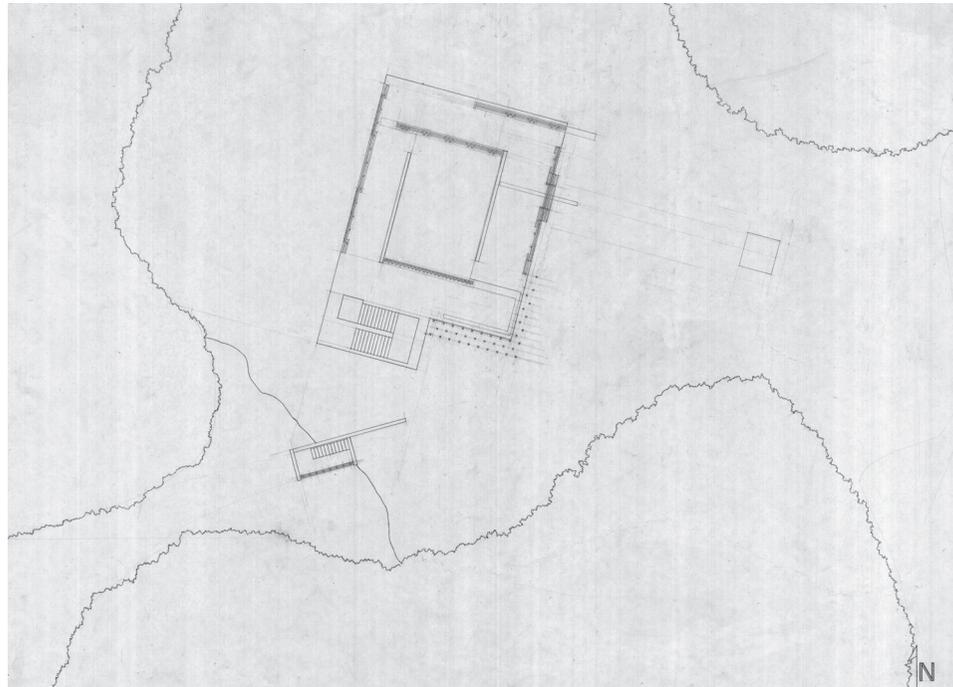
In this thesis, the designed element was the shadows. The built condition served as a means by which the shadows were made possible, but stood in the background of the design process. The architectural plans, sections, and elevations were dictated by the desired light and shadow conditions, and were therefore the supportive materials. Thus, these technical drawings are considered the appendices.

plans, sections, and elevations



81 \_ shadow plan, first iteration site plan, graphite on drawing paper

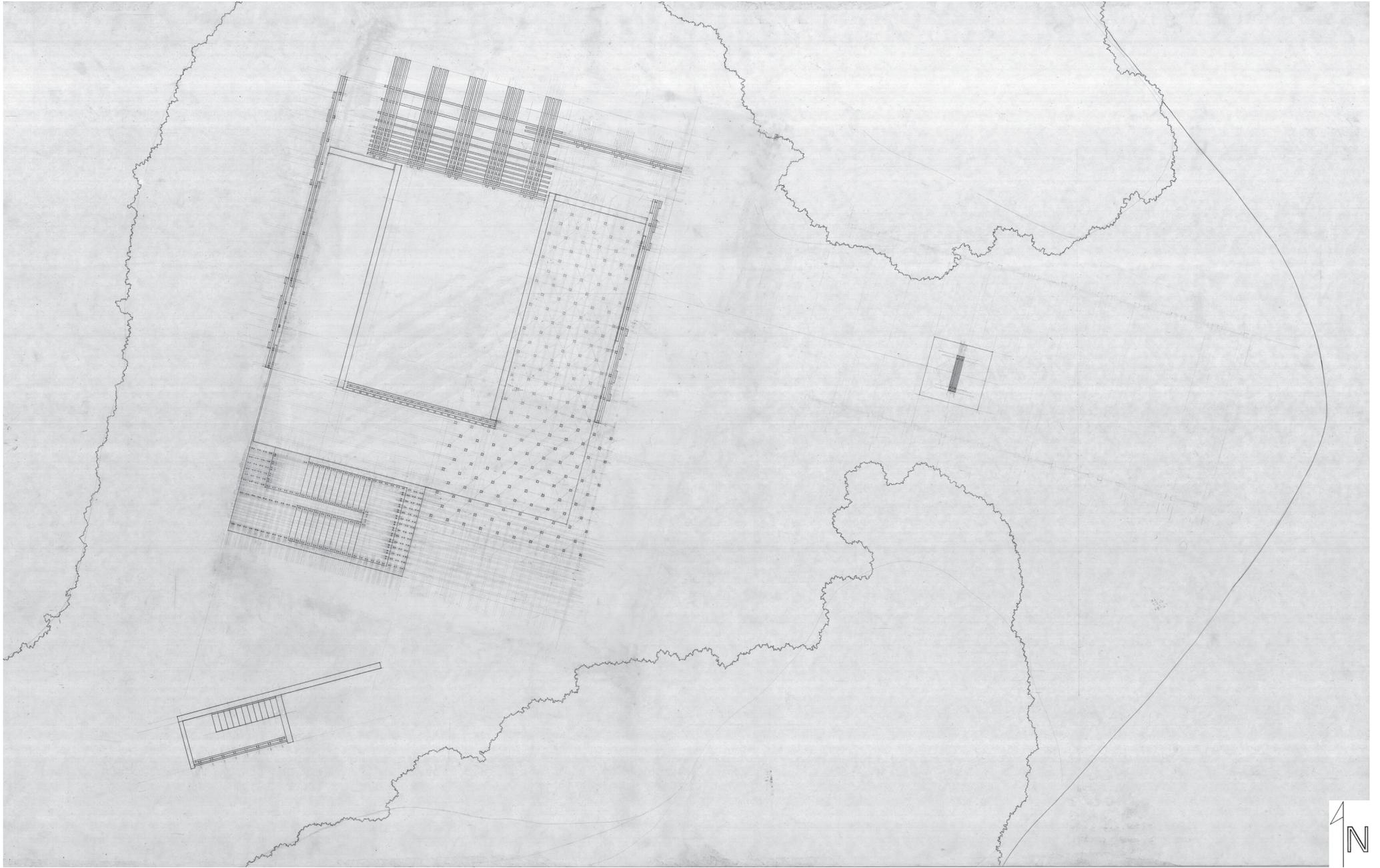
site plan - first iteration



82 \_ third iteration site plan including first floor plan, graphite on drawing paper

site plan - third iteration

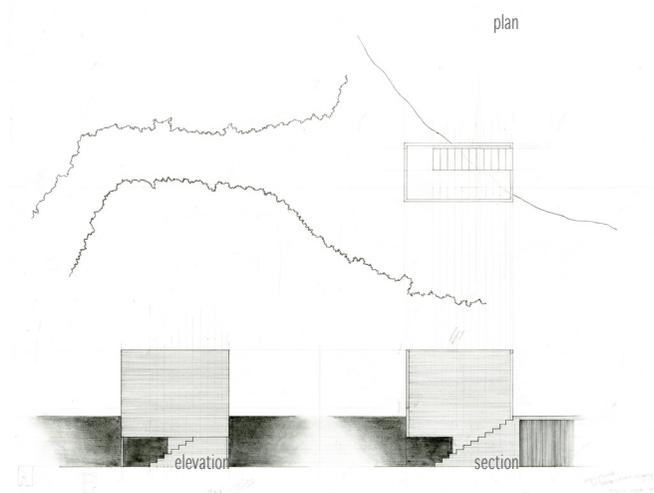




83 \_ final iteration site plan including second floor plan, graphite on drawing paper

site plan - final iteration

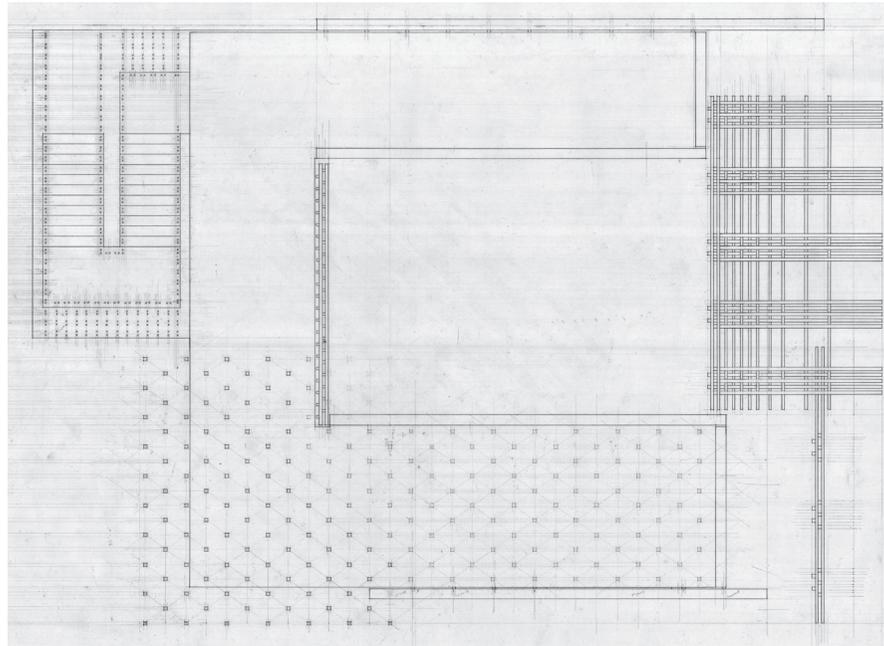




84 \_ folly second iteration: section, elevation, and plan, graphite on drawing paper

entrance folly - second iteration

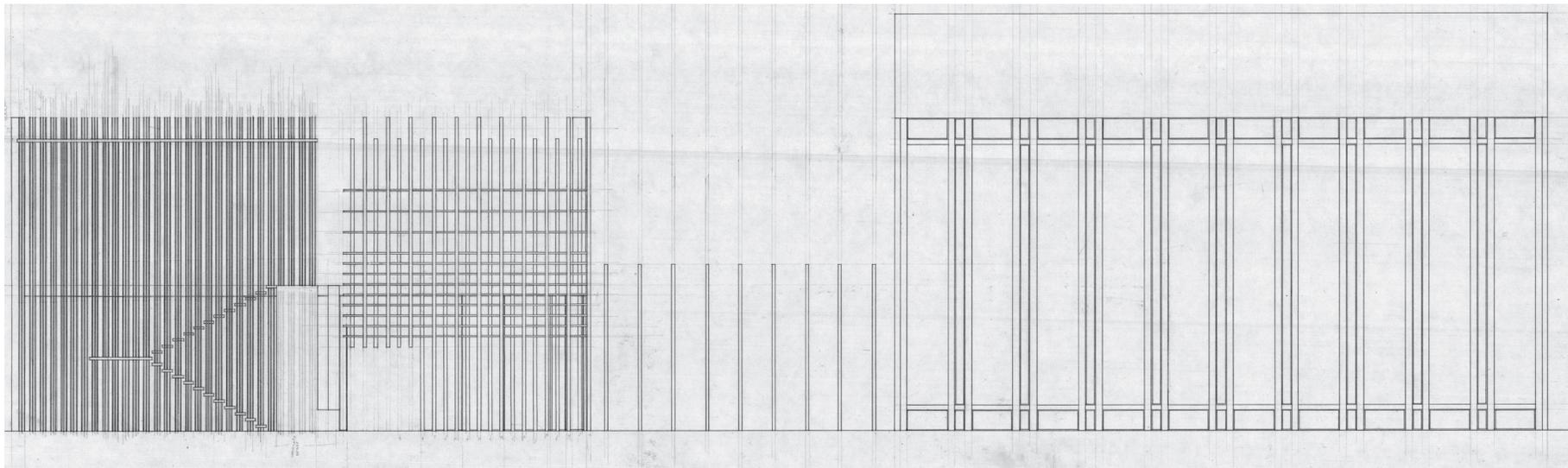




85\_second floor - final iteration, graphite on drawing paper

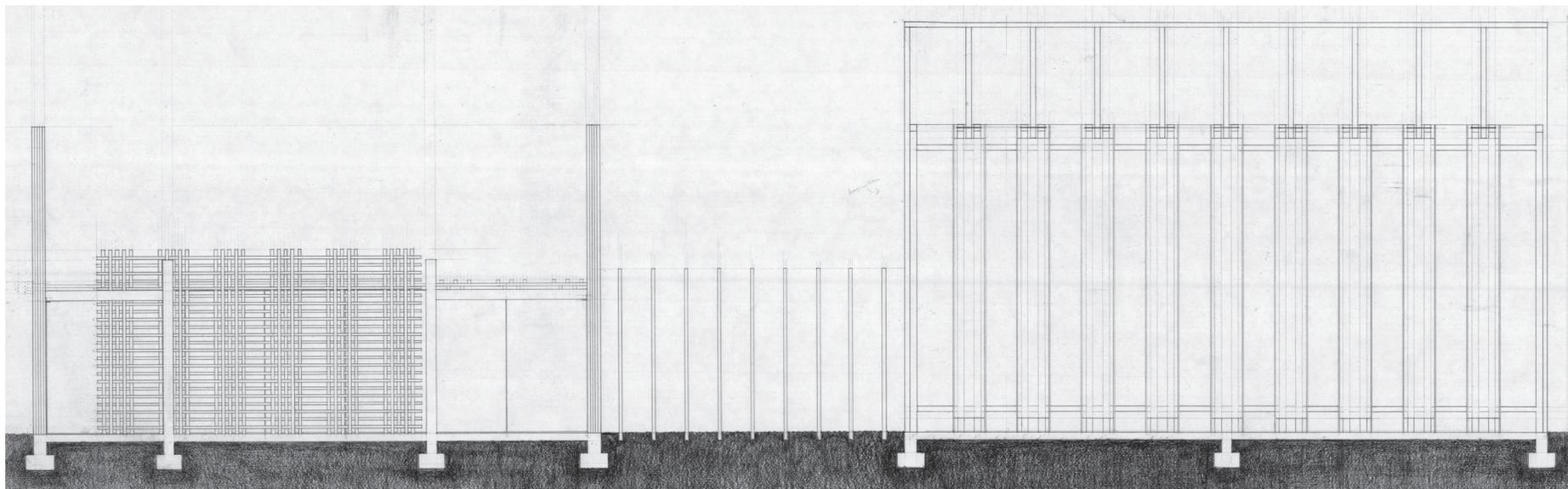
second floor - final iteration





86 \_ south elevation - first iteration, graphite on drawing paper

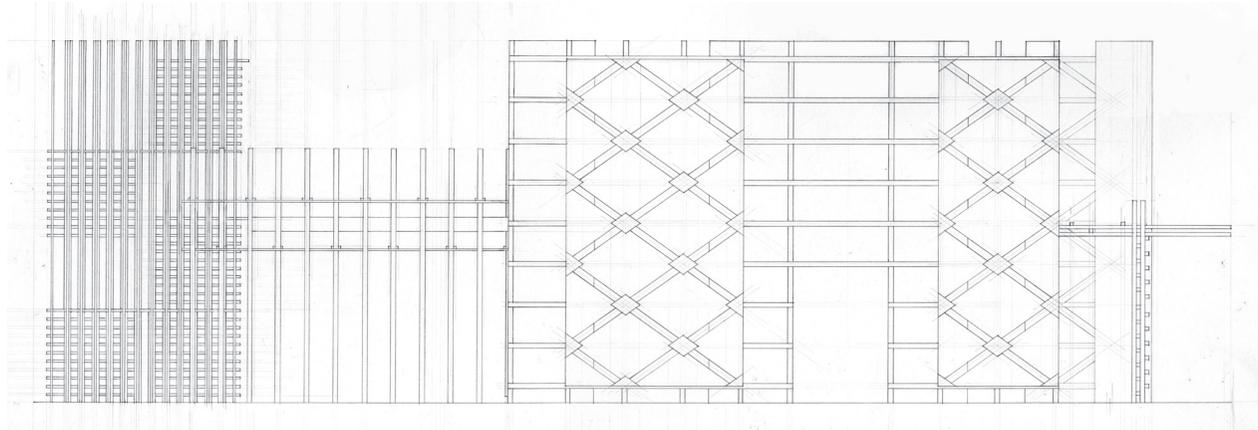
south elevation - first iteration



87 \_ south section - first iteration, graphite on drawing paper

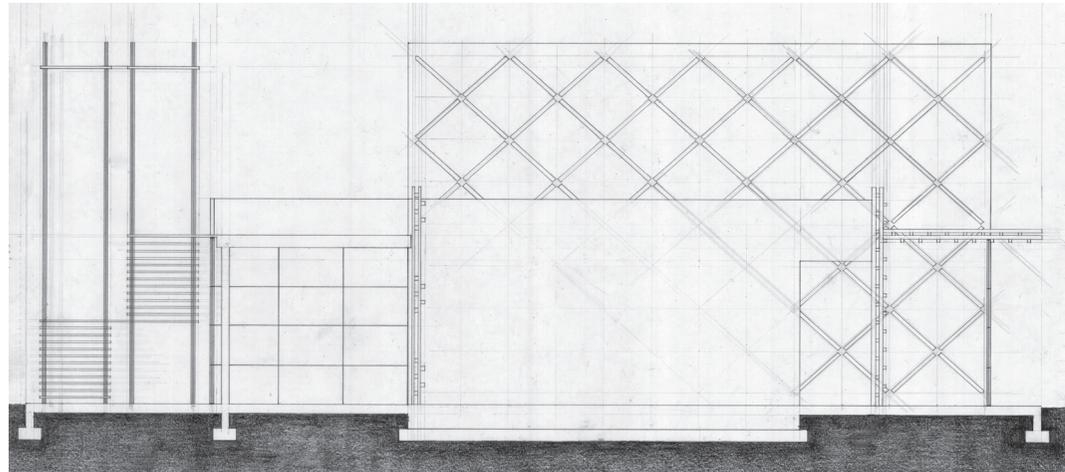
south section - first iteration





88 \_ west elevation - third iteration, graphite on drawing paper

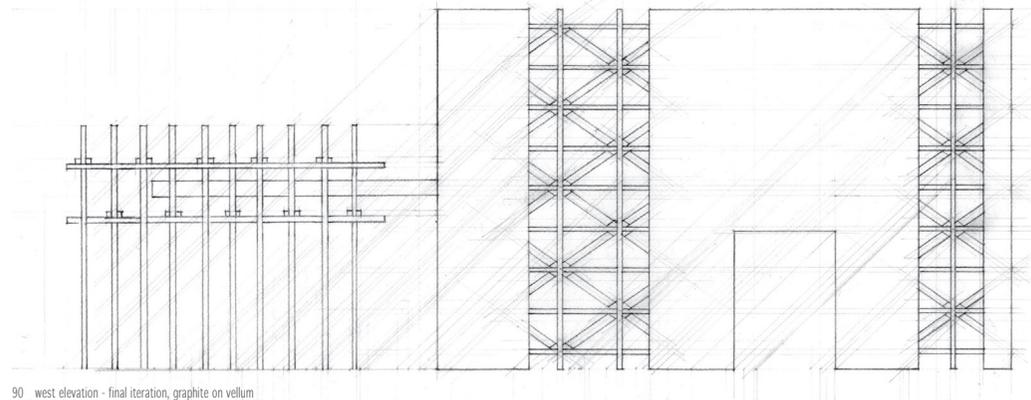
west elevation - third iteration



89 \_ west section - third iteration, graphite on drawing paper

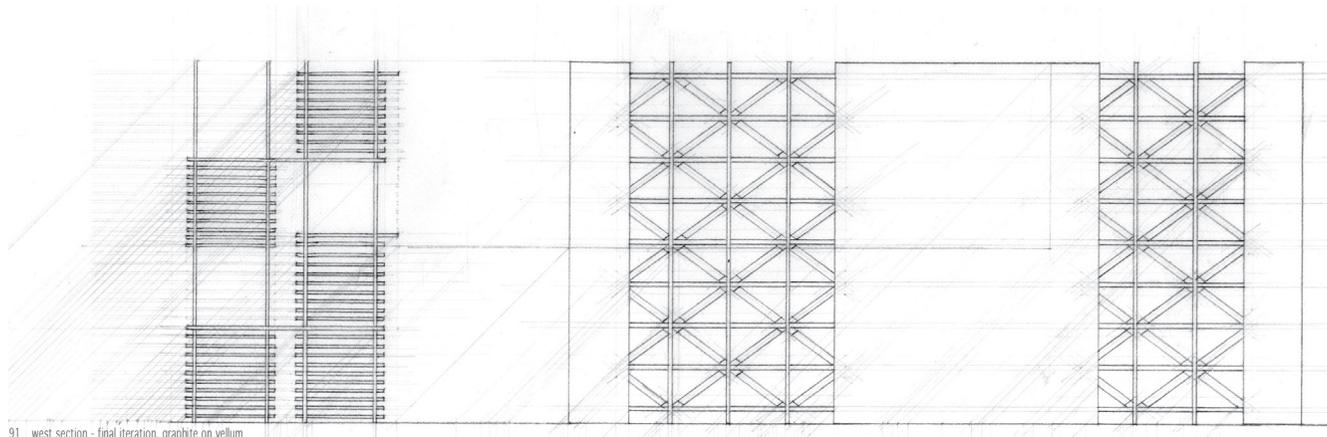
west section - third iteration





90\_west elevation - final iteration, graphite on vellum

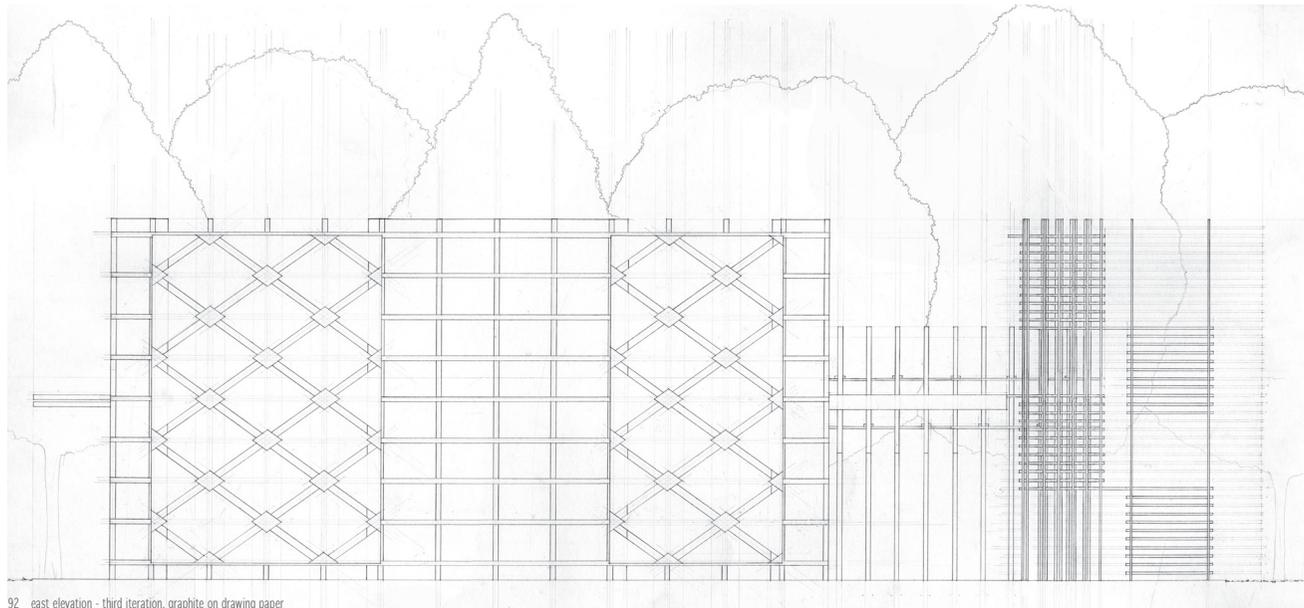
west elevation - final iteration



91\_west section - final iteration, graphite on vellum

west section - final iteration

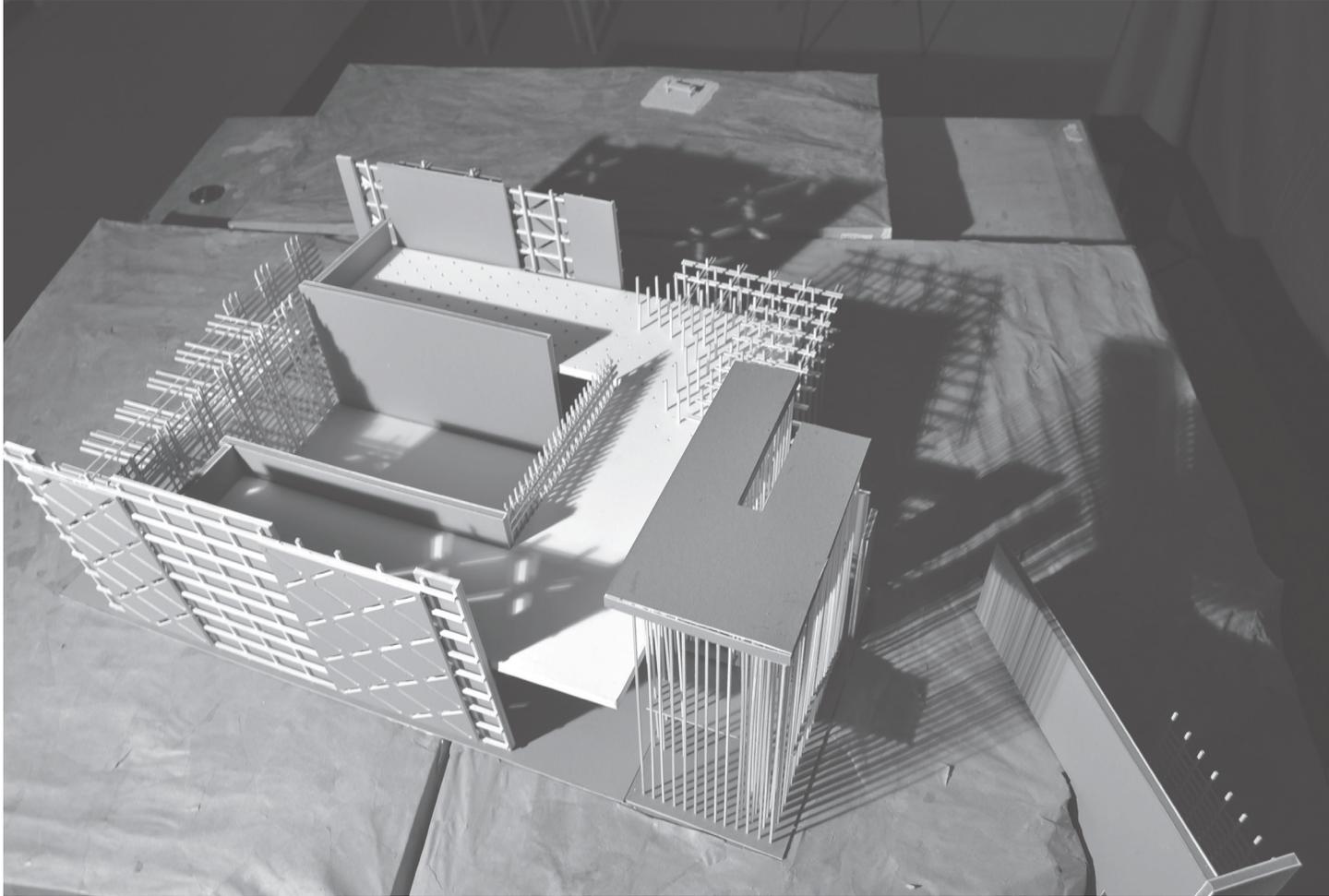




92 \_ east elevation - third iteration, graphite on drawing paper

east elevation - third iteration





93 \_ full model, 3/8" scale, digital photograph - chipboard, mat board, bass wood

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