

assemblage by taylor w. rogers

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a water taxi terminal for alexandria



assemblage

taylor w. rogers

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

in

Architecture and Urban Studies

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architectural data, process, layering





## assemblage

taylor w. rogers

## abstract

projects start with a goal, an end to be realized.

this project provided a platform to explore architecture. drawings, models, text and printmaking were used to this end. a project is found through the assembly of these pieces.

these pages contain no finite conclusion on architecture. rather they illuminate the path I choose travel.

where will my ideas take me from here?



to my family





## Acknowledgments

Without the advice, criticism, and love of my family and friends the last four years would not have been possible.

Mom, my unwavering number one fan.

Dad, for giving me the ability to capture spaces.

Timothy, taking the path of adventure and inspiring me to do the same.

Hannah, who never ceases to amaze me.

Candice and Mike, for making my parents happy.

Bill and Jane, my home away from home.

Chris, my loyal friend.

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Most importantly, to my committee. Susan, Paul, Jaan, and Martin. You made me uncomfortable with my decisions but comfortable with my progress. I will be digesting your wisdom and encouragement, which you dispensed with great patience, for the rest of my career.

Thank you all.



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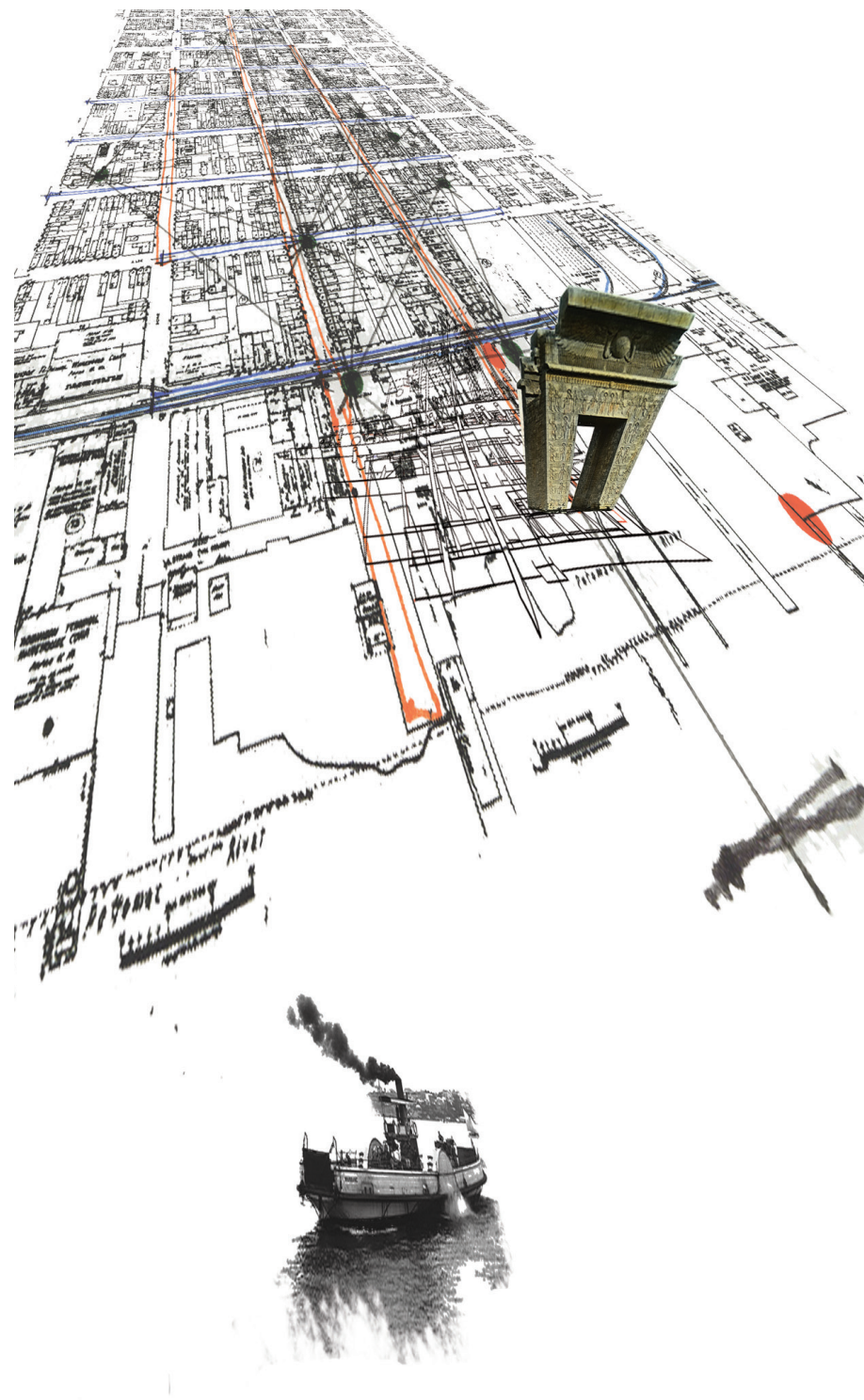
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book I - the project





*“In today’s practice of architecture, the problem of ‘drawing’ is the problem of ‘building’, both are perceived as final ends.*”

Mistaking the temporal nature of architectural work as being ‘eternally unchangeable’, they [drawings] have become fixed ‘models’ of their own image, projecting onto each other an unchanging vision of reality.

*“Prior to this contemporary understanding, the building was a perpetually unfinished entity, capable of being worked and reworked through the media of drawing.”*

- “From Models to Drawings.” p. 88.

“concept”, ideogram



thesis

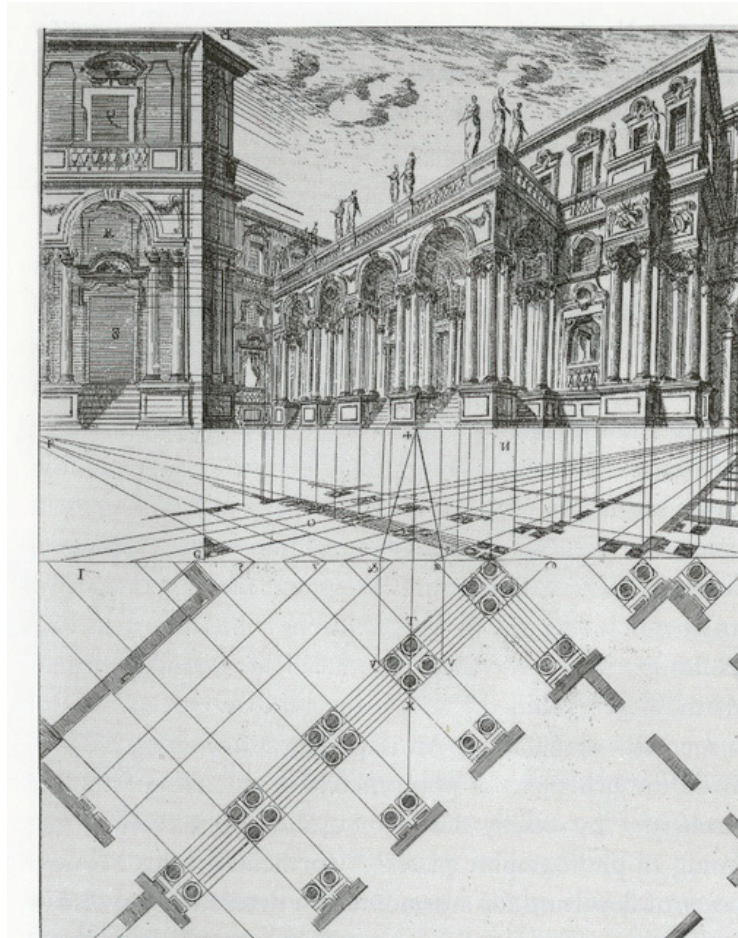
*what is an architectural drawing?*

*what is required of a drawing to describe a building?*

The drawings that the modern Architect produces have split into two categories, those that construct and those that illustrate. The former allows for the creation of space while the latter offers its experience. The increasing distance between these two modes of representation has led to the failure of our ability as both designers and constructors. Architects need to reflect on historical and modern drawings, as both artistic objects and technical documents and re-establish the architectural drawing's ability to communicate not only the definite questions of what or how, but also the more experiential of why and when.

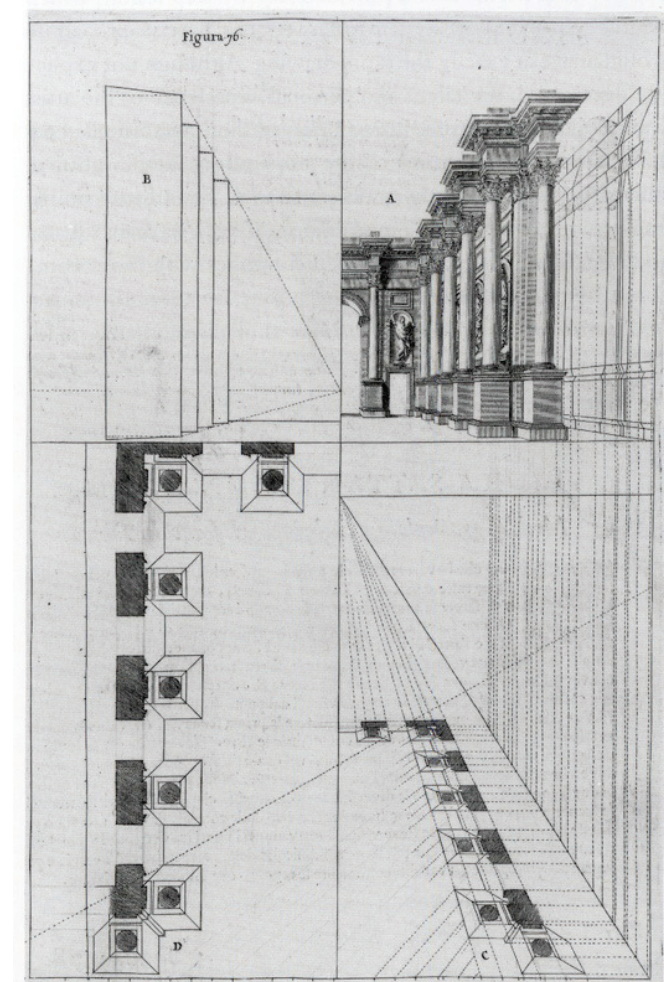
Architects have slowly lost their connection to the very medium that defines their profession, with the arrival of the "paperless office" and ubiquitous use of technology in the digital age the value of paper and its capacity to communicate ideas has been completely devalued. The Architect's drawing now exists either, as a piece of art to be hung on the wall, lacking finite connection to a built architecture, or as a set of construction documents tossed aside after use. Architects are by profession, communicators, we bring to the client the possibility within each project for great architecture; drawings are our vehicle for this interaction. The goal of an architect is to answer the needs of the client with a well-designed project; the drawings that are created are a means to this end. The architect is hired to create a finished building, not a set of drawings.

However, the emergence of new equipment, programs and the flood of codes and legal requirements have vastly altered the landscape modern architectural practice and the drawings produced. While these changes have allowed architects to be more productive (as well as safeguard the profession and client) it has been to the detriment to the quality of the drawings and ultimately the building..



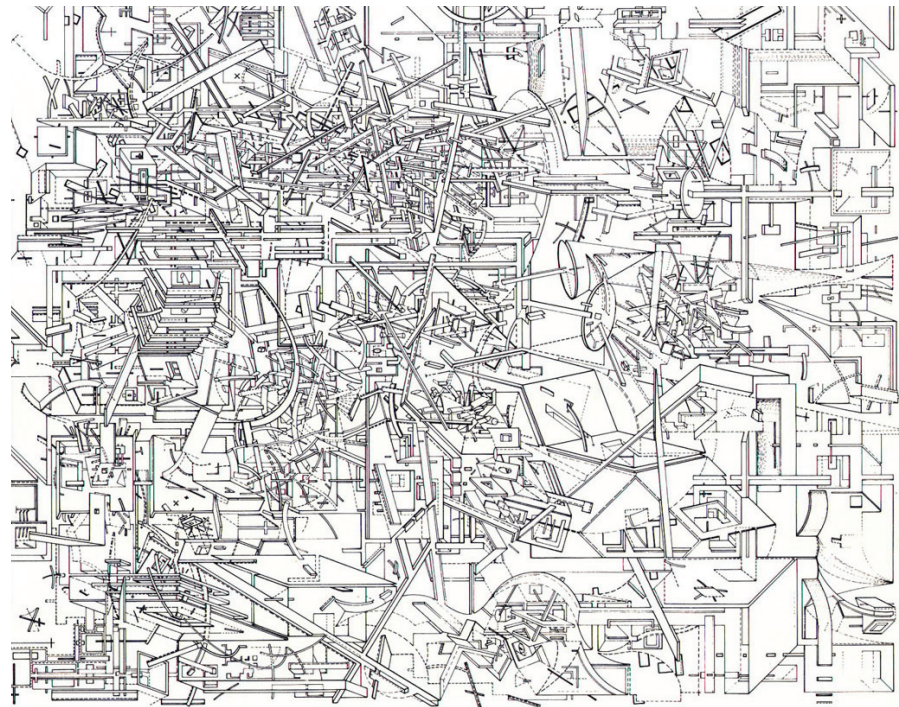
drawings break boundaries

2. Ferdinando Galli da Bibbina, *Architettura Civile* (1711)



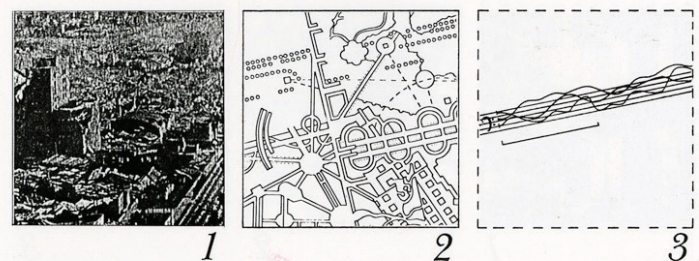
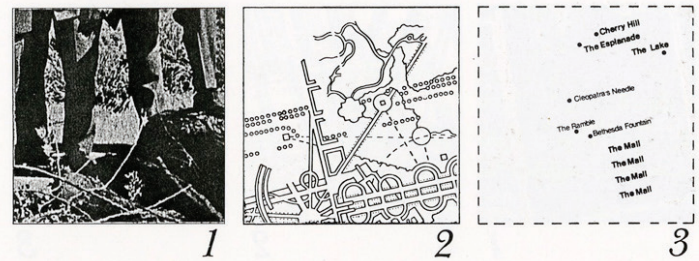
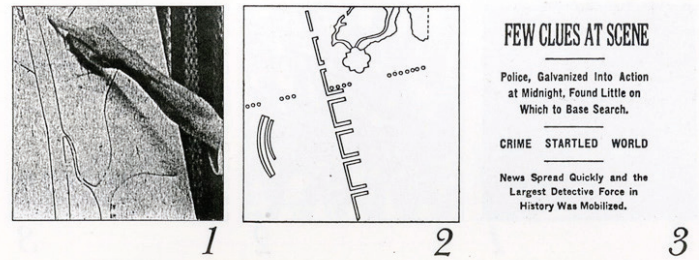
drawings describe

3. Andrea Pozzo, *Examples of Perspective* (1700)



drawings inspire

4. Micromegas, Daniel Libeskind (1990)



drawings tell a story

5. MT 2, Benard Tschumi<sup>5</sup>  
The Manhattan Transcripts (1983)

Moving into the modern architectural practice and the coming of age of programs such as Revit presents an entirely new set of issues for this relationship between the Architect and drawing. Architects no longer even work on the digital drafting board of CAD but now entirely within a single three-dimensional project. The idea of constructing the drawing within the workspace even through the basic elements of plan, elevation and section are lost. Now a building is constructed entirely within the digital realm. With the program creating the documents with little instruction from the architect. While making more efficient use of time these programs accentuate the separation of architect and drawing.

The abundance of technical data required in contemporary drawings is reflected the increased complexity of building materials and techniques as well as (and probably more importantly) the Architectural community's reduced faith in the construction industry. Not only in their understanding current materials or systems but lack of basic quality standards and the requirement to spell out standard details. Generally speaking the construction industry has lost the attention to detail and production of a quality product. And why not? With the vast increase in construction their services will always be required, regardless of the quality.

We must regain the reigns of the process of architecture (construction) through reclaiming the drawing. To infuse drawings not only with the technical data required for the successful competition of a project but inspire the laborers through the illustrative quality of the drawing. One is reminded of Le Corbusier's closing words in "Towards an Architecture", "Architecture or revolution. Revolution can be avoided" <sup>xxvii</sup> While we are nowhere near revolution, we cannot afford to give ourselves and our designs to technology and related professions. We must instead regain control of the process, both for investigations and actual commissions. If not, we will surely become but a cog in the wheel of construction instead of the engine that drives the machine.

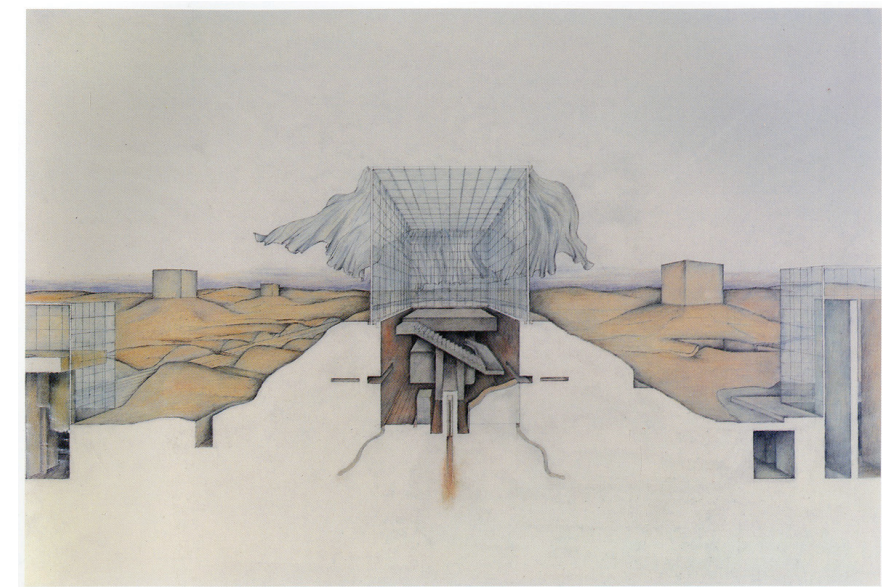
*architectural drawings are an assembly of data. a collection of quantity and quality.*

*is there a balance or are the two disparate elements? and if so, what does such a drawing look like? what information does it contain? and how does it aid in the presentation of the project to client, craftsman and fellow architects?*



drawings communicate place

6. Time Square Tower, Raimund Abraham, [Un]built (1996)



drawings reveal quality

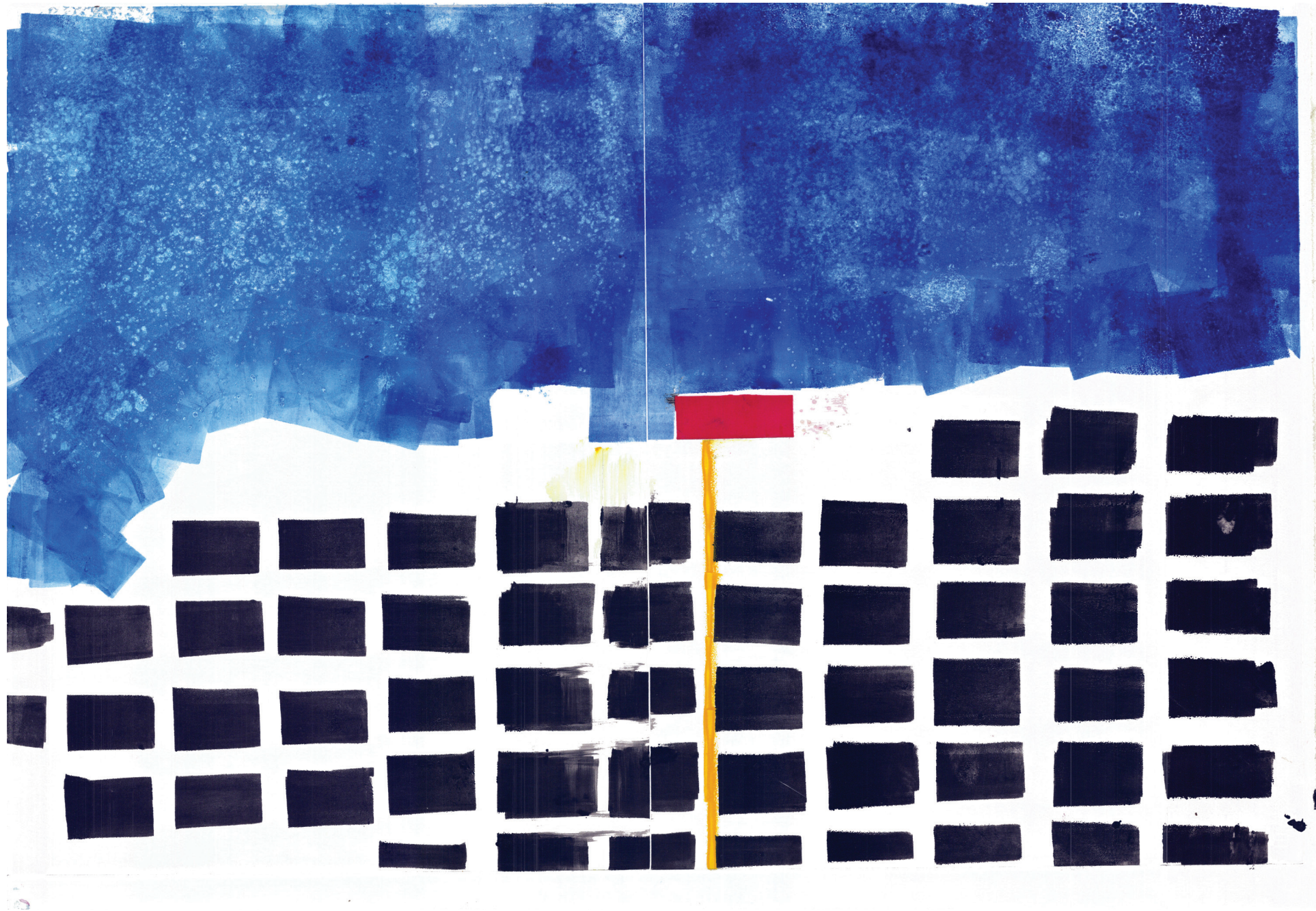
7. House with Curtains, Raimund Abraham, [Un]built (1996)





site

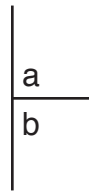




"waterfront", monotype



a visual is required.



- a. site from masonic temple
- b. site from potomac river



a  
b

the city is vibrant.

the city is dull.

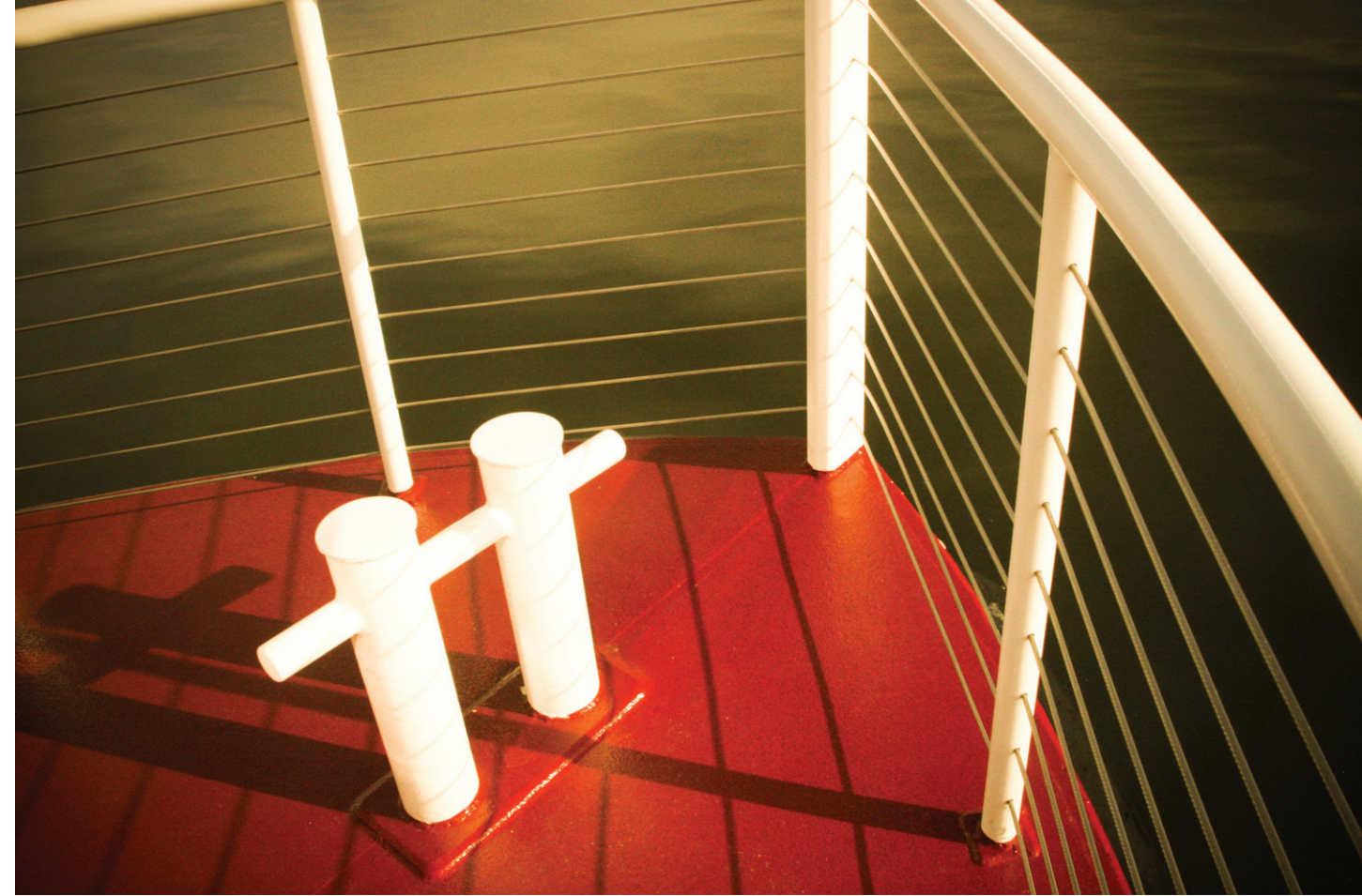


a. intersection of king and union  
b. parking lot at king and strand



program

a place of activity.

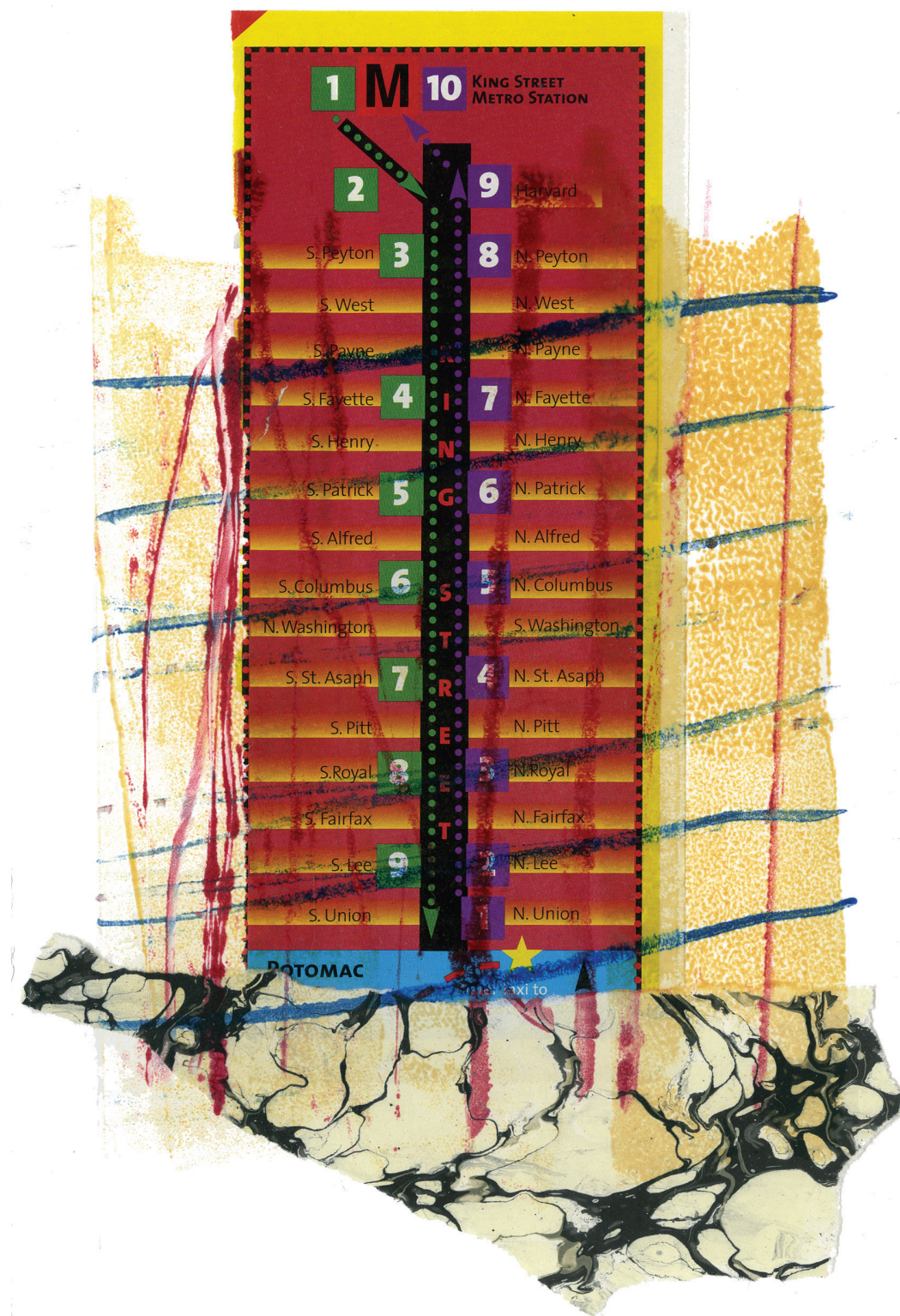




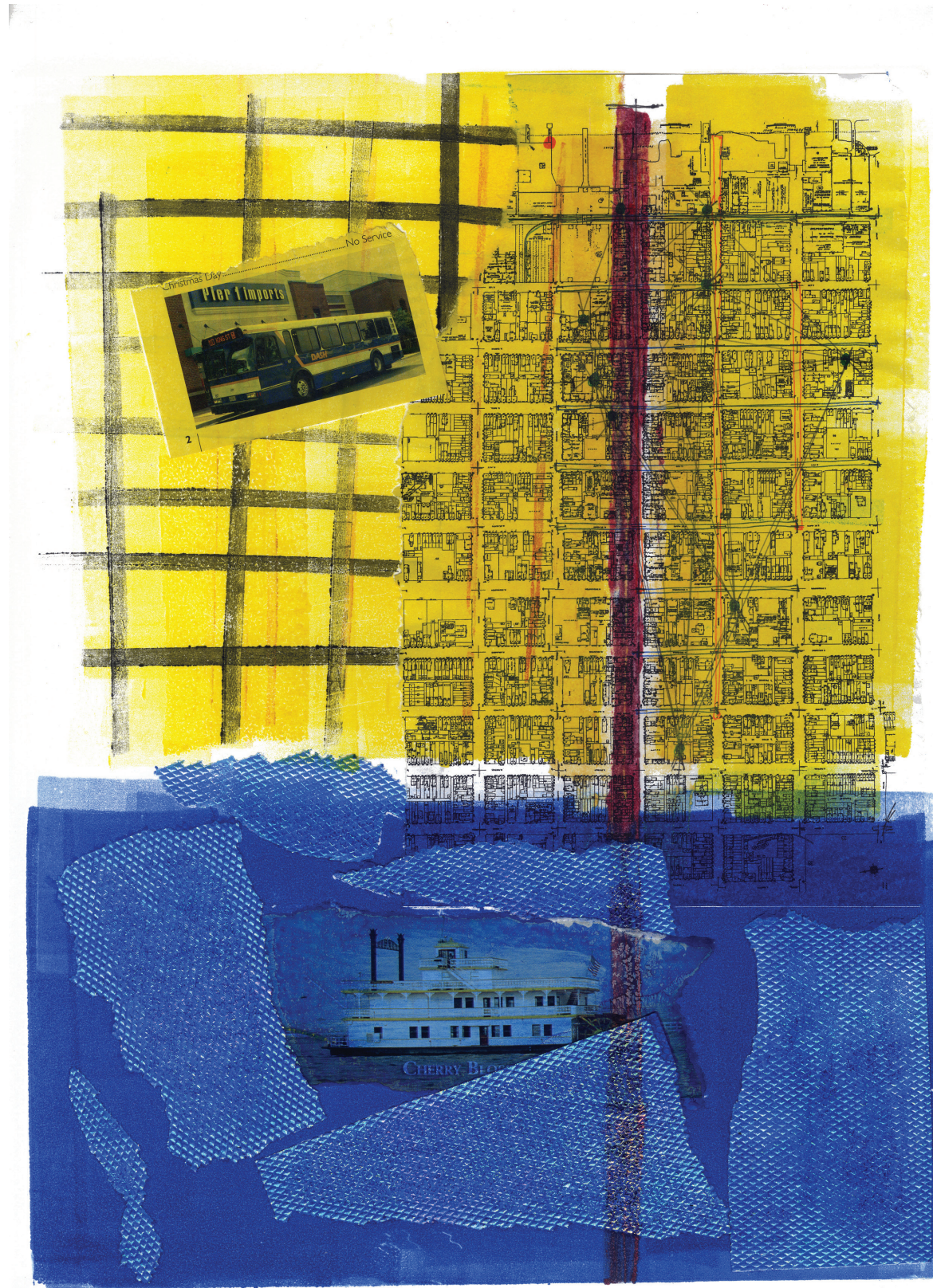
a place for the river.



a place of entry.

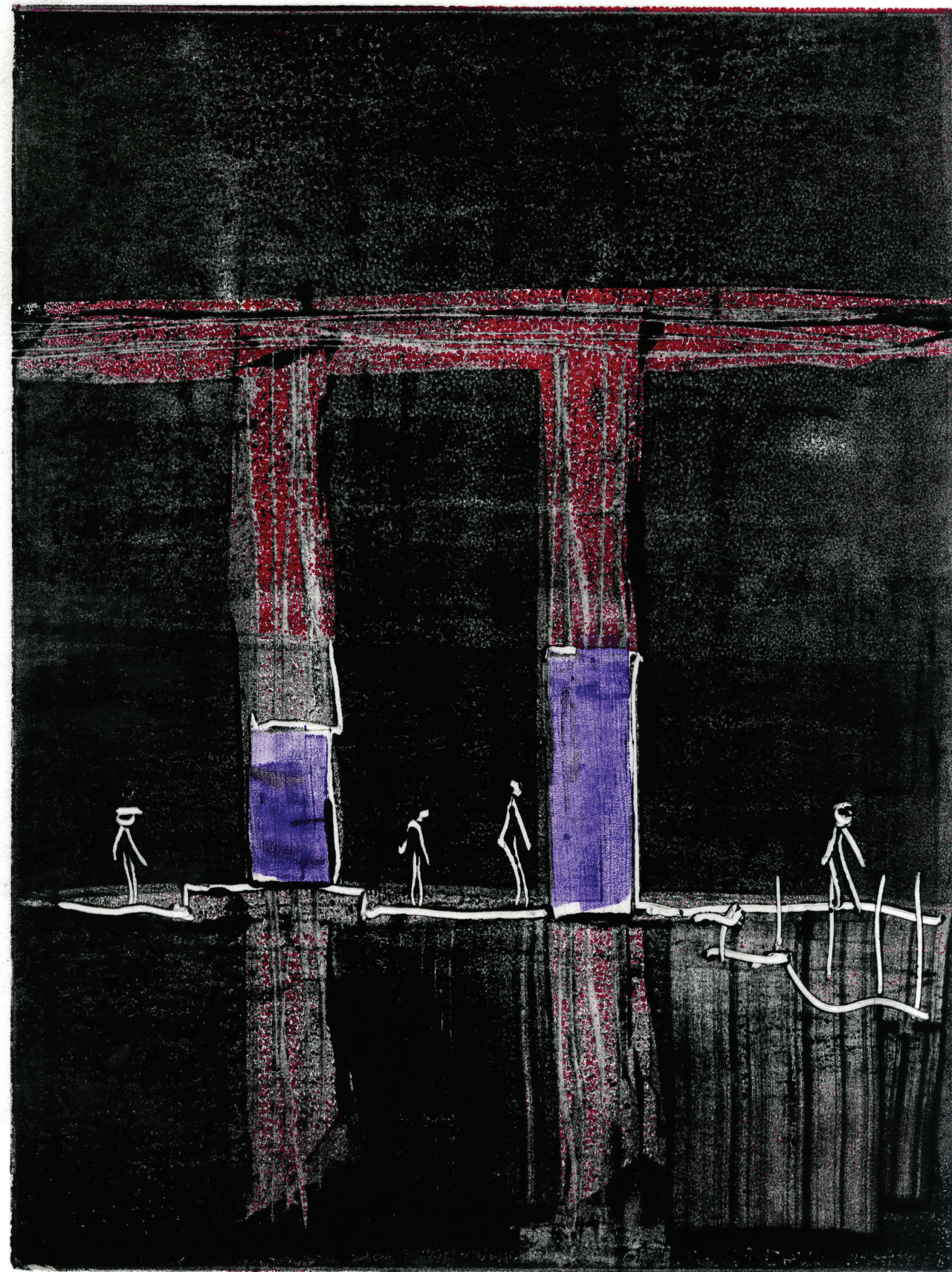


"king street axis", Chine-colle print



a place for the city.

a place for people.



"the cave", Chine-colle print



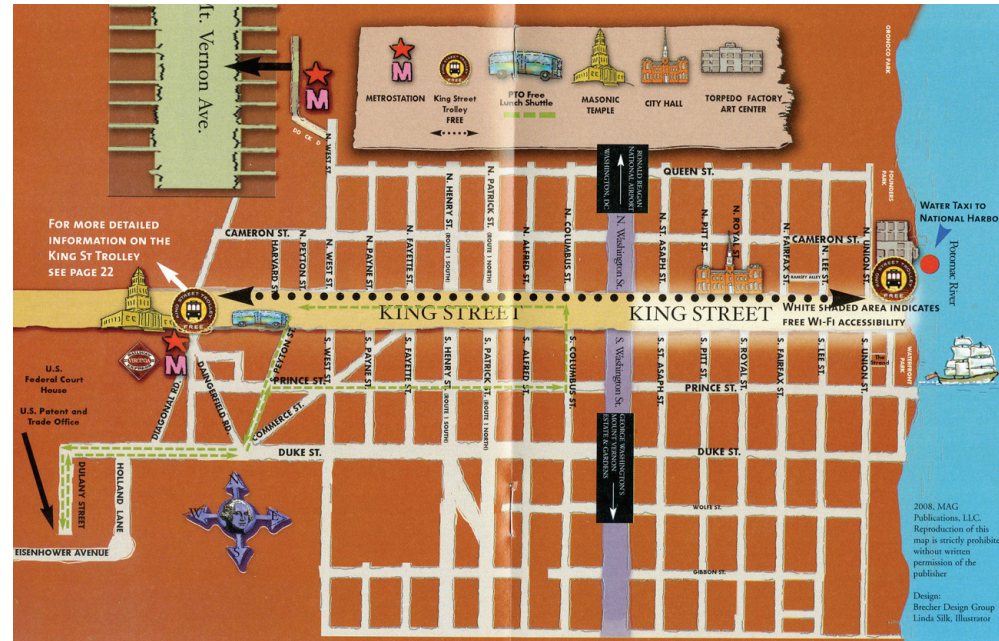
a place to reflect.



process

I start by studying the city, the place where the building will live. I would like to create a place that is informed by the city it inhabits. One can learn a great deal about a place by studying maps. While obvious, many overlook maps ability to efficiently illustrate the city, rather than just a path. By looking at different types of maps, or those aimed at different people one can deduce important landmarks and districts. Maps that are freely disturbed to the public have an important advantage to the traditional "road" map. With tourist maps ones focus is on a few key locations in the city, or even a particular genre of the cities atmosphere. The graphics are minimal, but effective, one can easily figure out their relationship to the points the map describes and the overall layout of the city

which maps are important?  
 what do the maps tell me about Alexandria?  
 what do the maps tell me about my project?



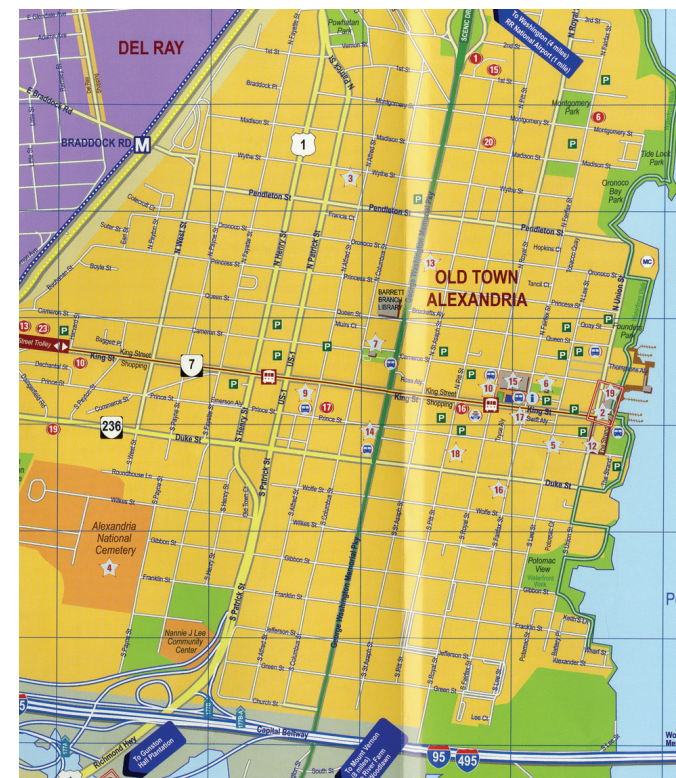
king street trolley



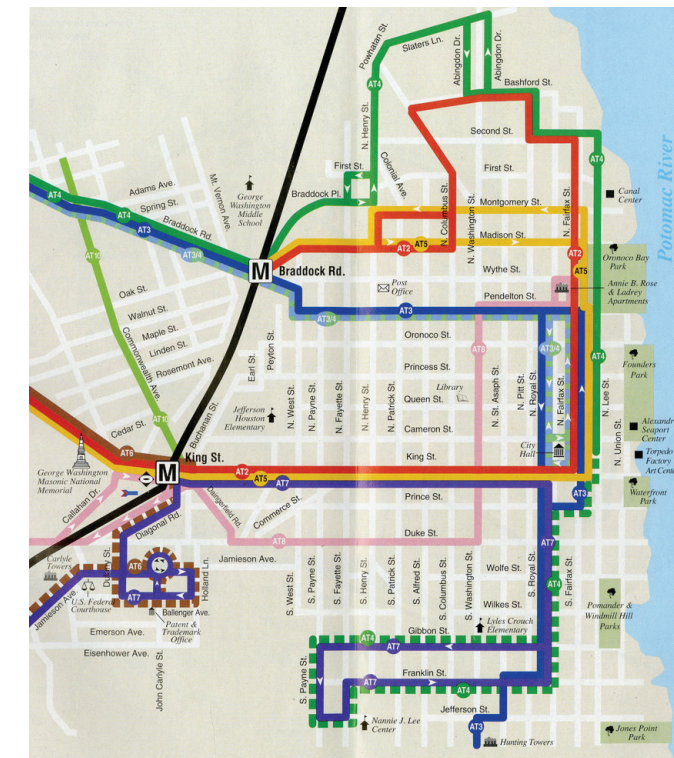
point of interest



water taxi

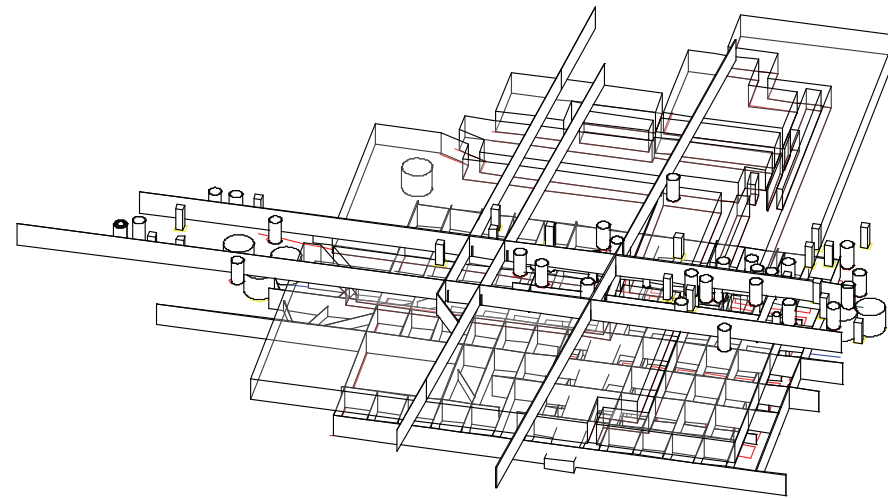
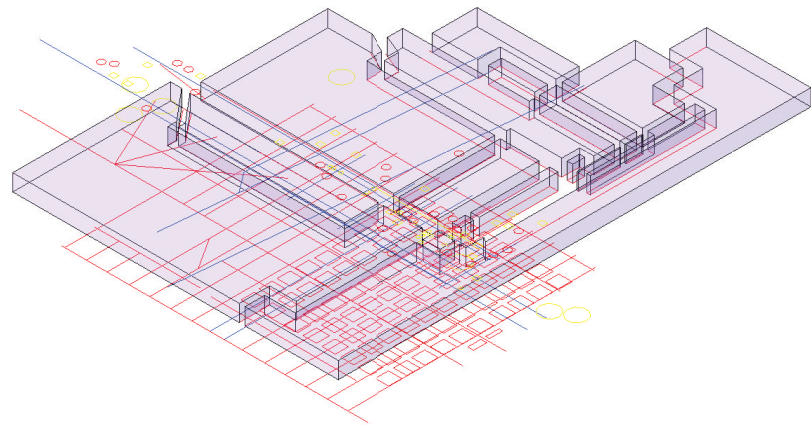
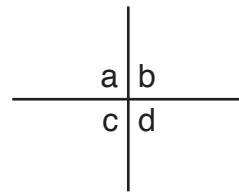
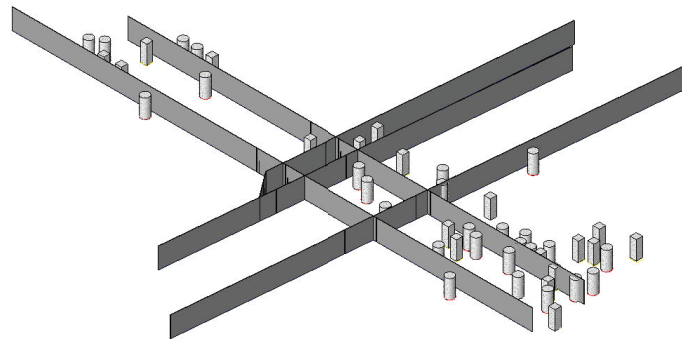
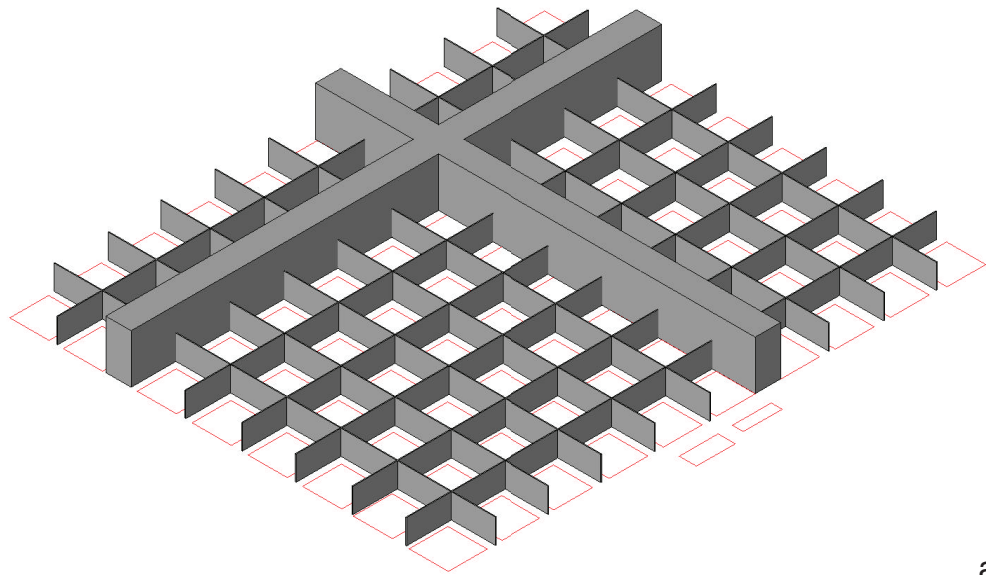


old town, alexandria



metro bus

maps publicly distributed throughout alexandria

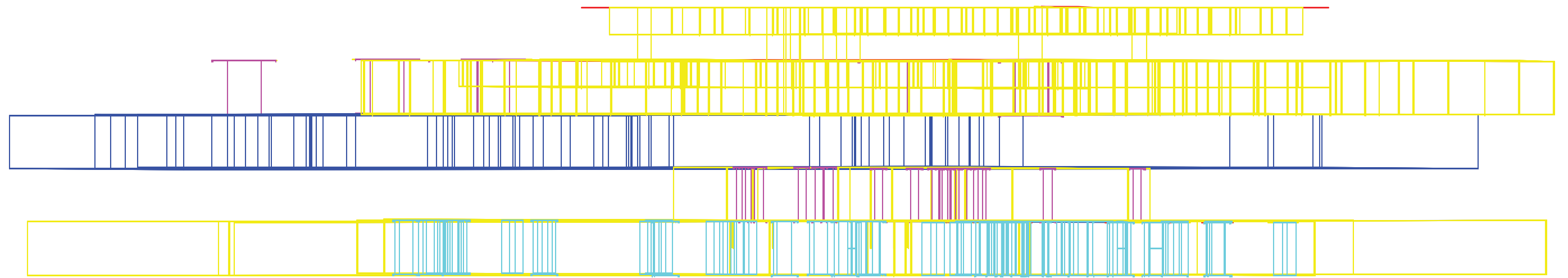


With the maps in hand I needed a way to take the “data” that they contained and then this information into a language that could describe an architectural notion. I decided to use one of the most recent programs in architecture for this. I wanted to see if Revit, a program where each architectural element is laden with data, could be used to abstract these maps. Points of interest were taken that occurred on multiple maps and placed along the grid of the city. Slowly the city revealed itself through layers of architecture. Places became columns, transit paths became pathways, layers and connections between them became roofs and stairs.

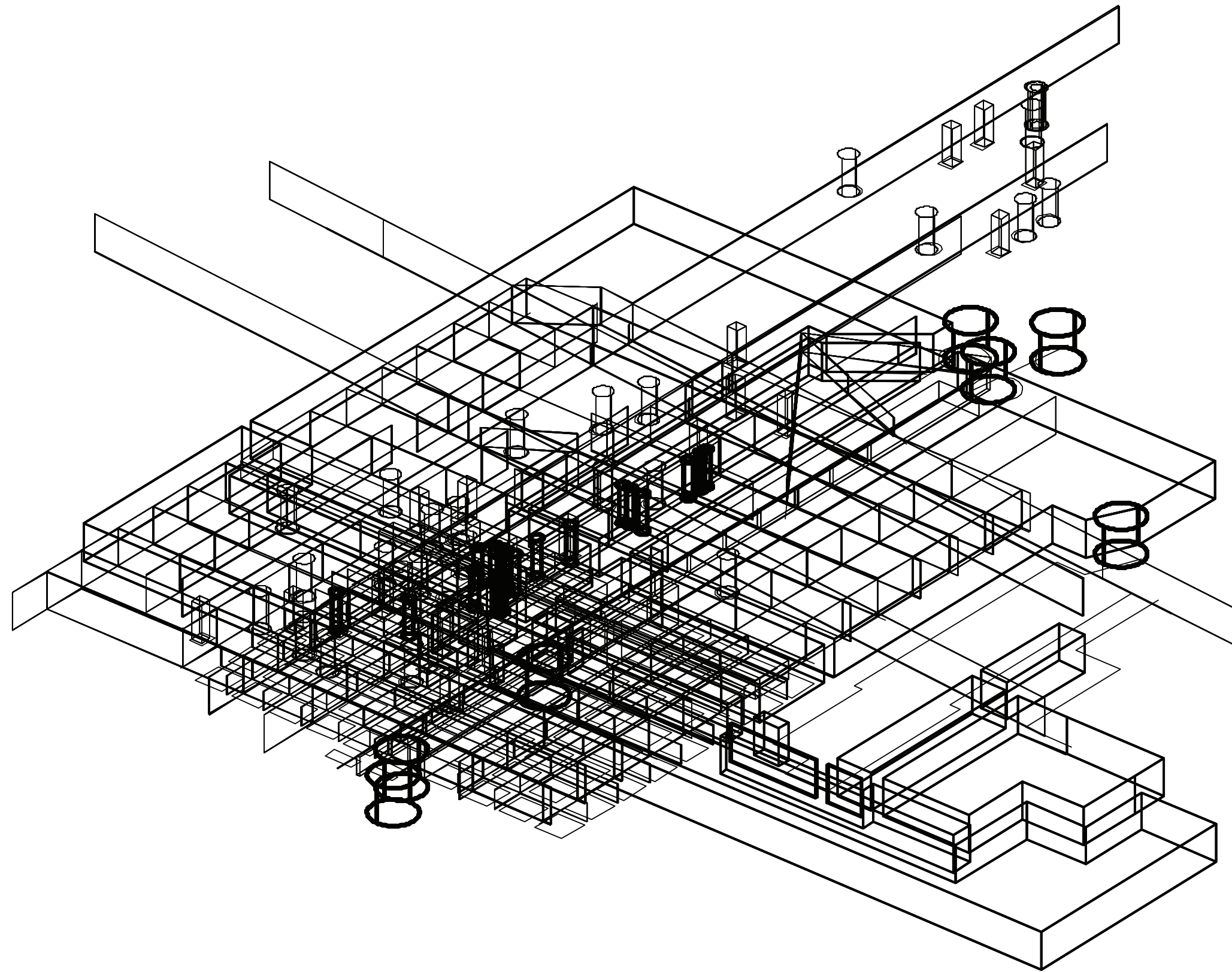
once reduced, each particular map illuminated a different truth about the city. but retained its connection to the fabric of the city

through the abstraction of places, grids, and paths an architectural language, unique to Alexandria emerged.

- a. the city grid
- b. places of interest
- c. transportation routes
- d. layered



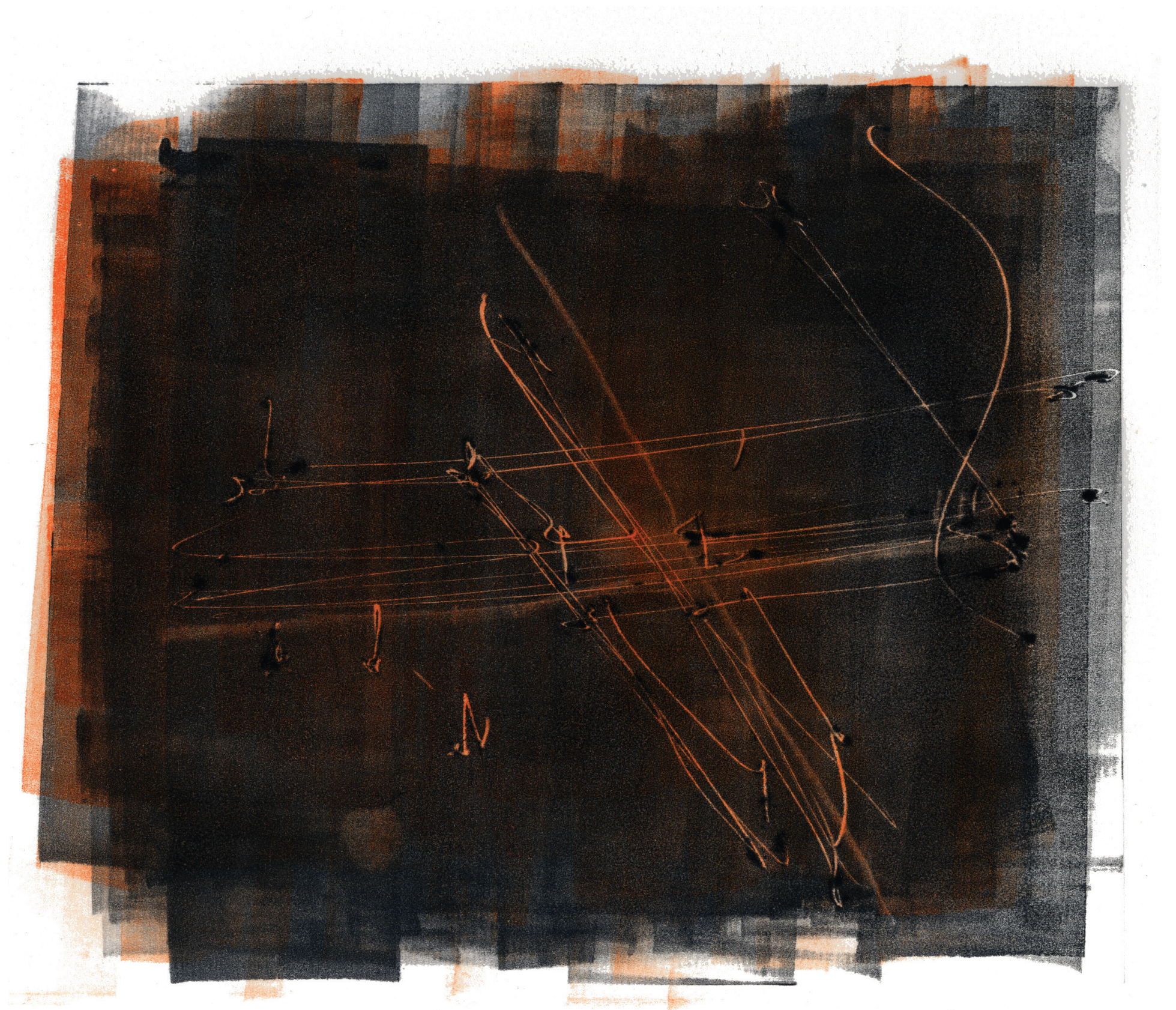
“dna”, south elevation



the city does not fit neatly into a box.

the maps alone cannot tell the entire story. the city cannot be understood through categorization alone. another media is needed to explore the volatility of the city, and expose its dirtiness.

While the use of Revit was a good starting point I quickly discovered what the maps had been missing and realized a flaw within my presumption that the maps would tell me what I needed to know. The city is not perfect. The maps illustrate a city that is clean, organized, without gray. By focusing on the maps I was missing the rawness of the city, the dynamic qualities of time and space. I needed another media that I could use to study the city, and inform my building.



“city study one”, monotype



Printmaking allowed me to use the language I developed through studying the maps in a less precise way. I could infuse color, and movement into these drawings. Through the intrinsic qualities of their production they could never be precise. They were a perfect compliment to the precision of the maps.

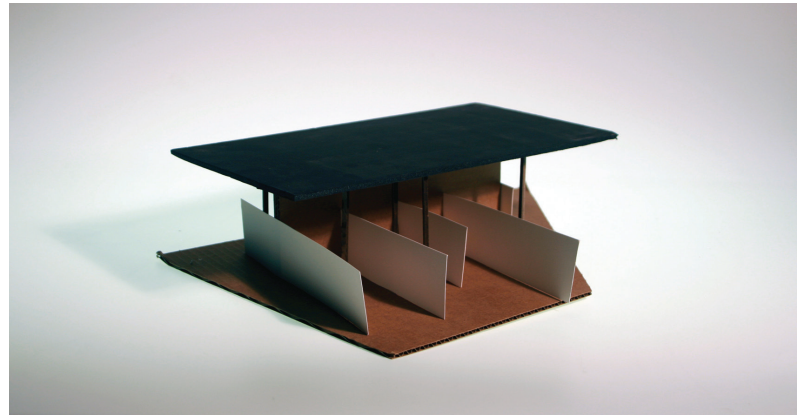
through the printmaking the city is distorted.

the language established through the study of the maps is translated. its meaning remains the the same, but the visual form is mutated.

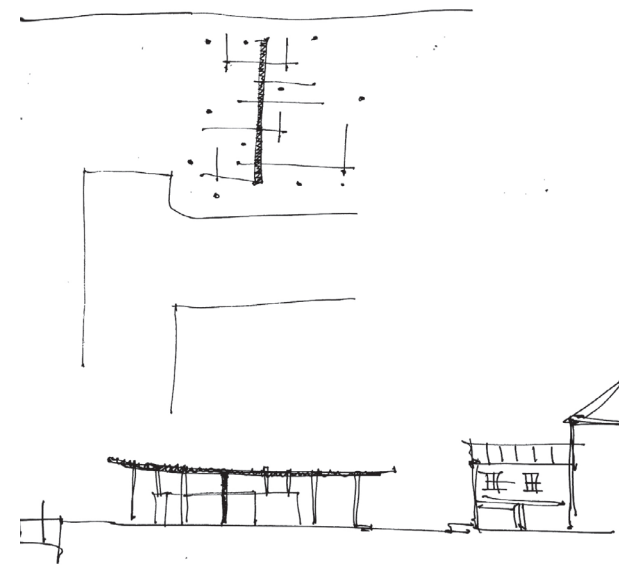
the project is discovered, and known through the process of print making.

architectural drawings contain layers of information. these different layers speak to individual aspects of the building. when applied together it can be understood as a collective system.

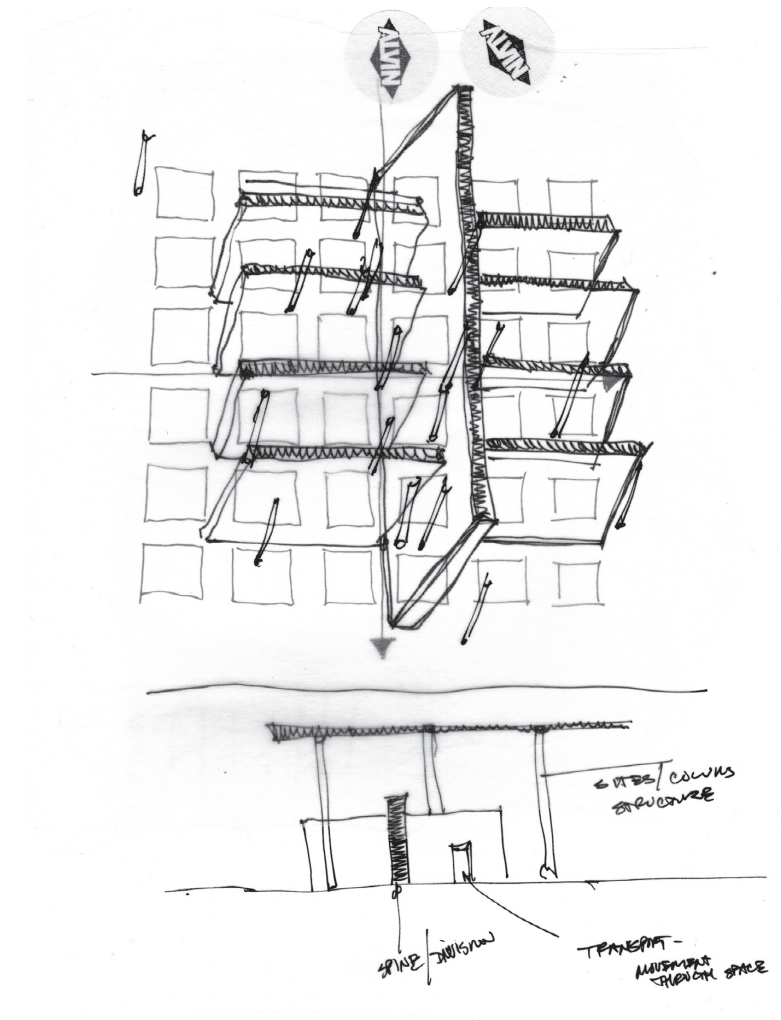
taking the information gathered from the maps and their assembly in the Revit model and through the prints each "part" of the building is assigned a layer. the roof, columns, walls, etc. I reassemble the peices of the city into the scale of the building



a.

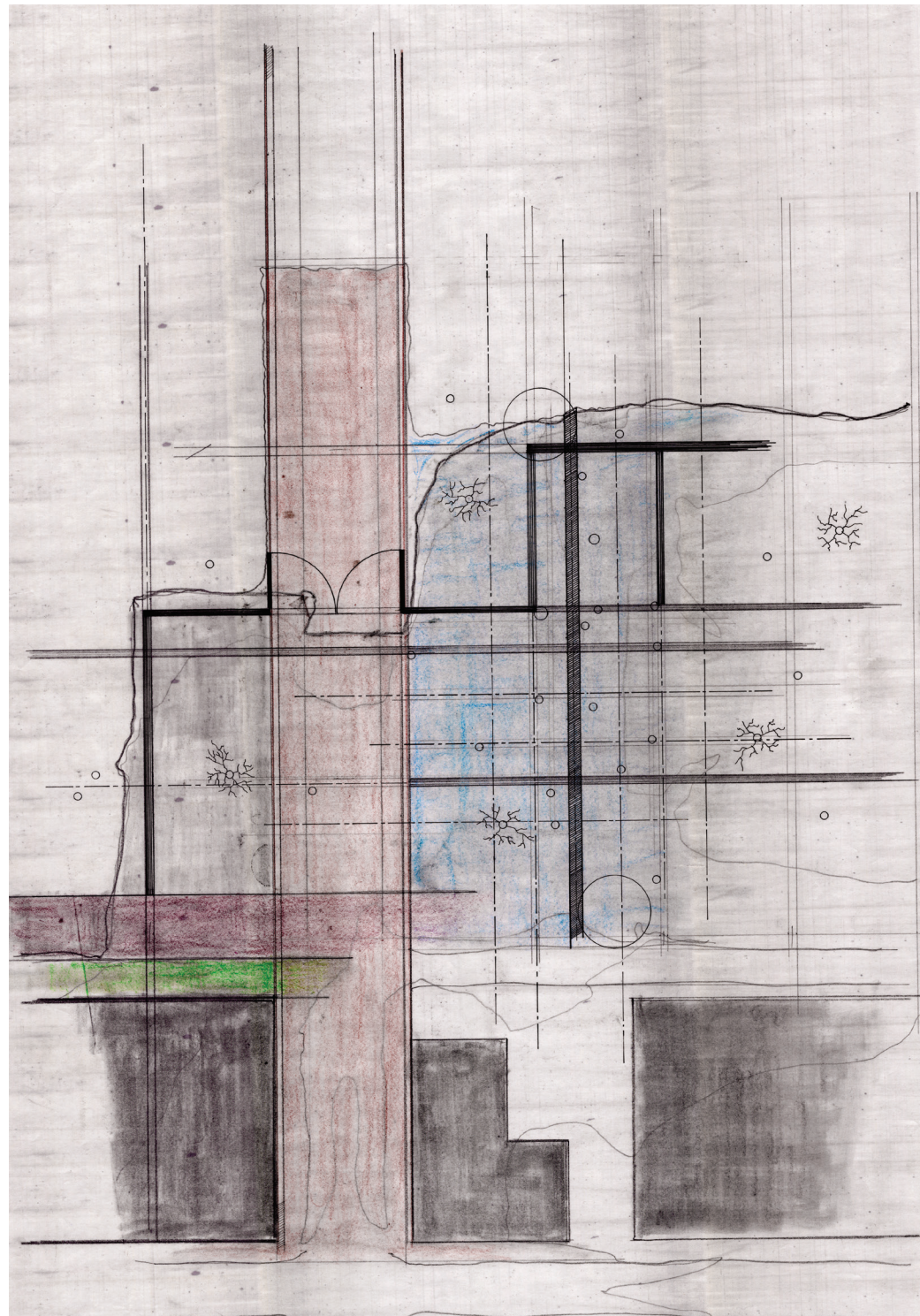


b.

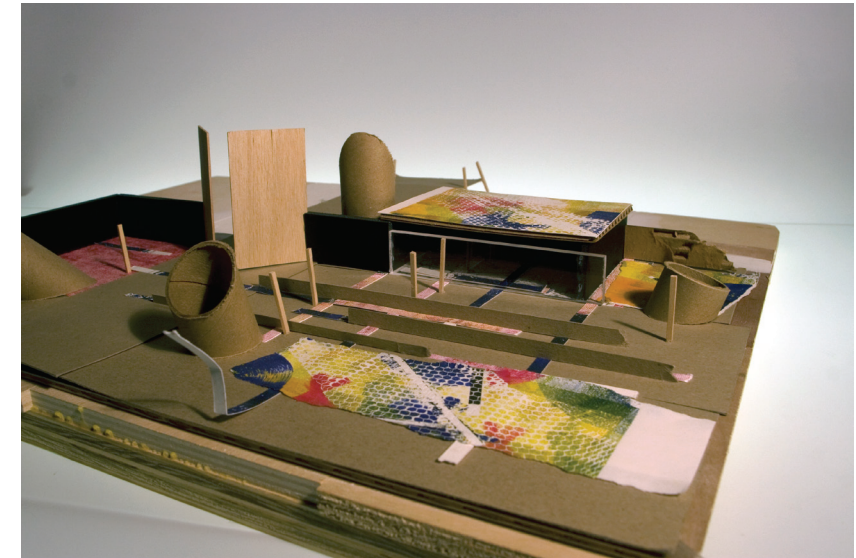


c.

- a. development model
- b. plan & elevation, sketch
- c. sketch, layering information



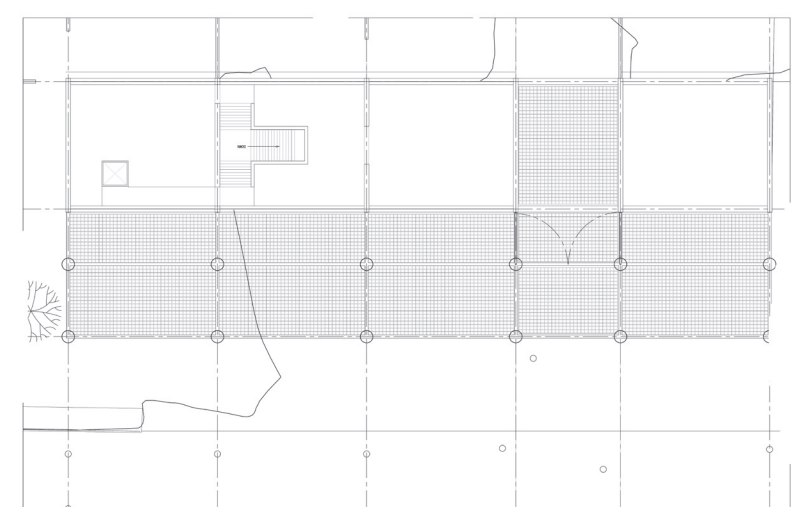
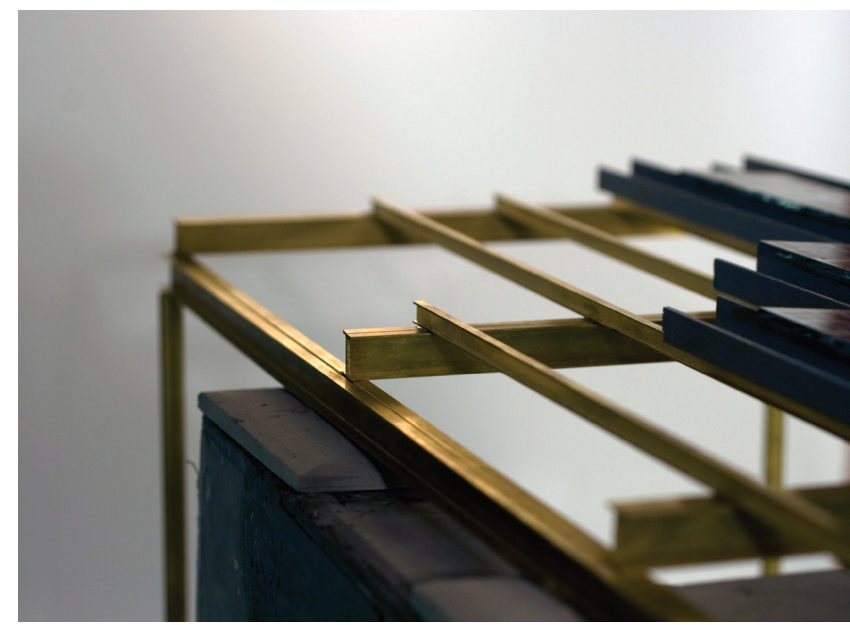
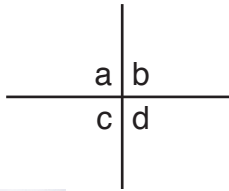
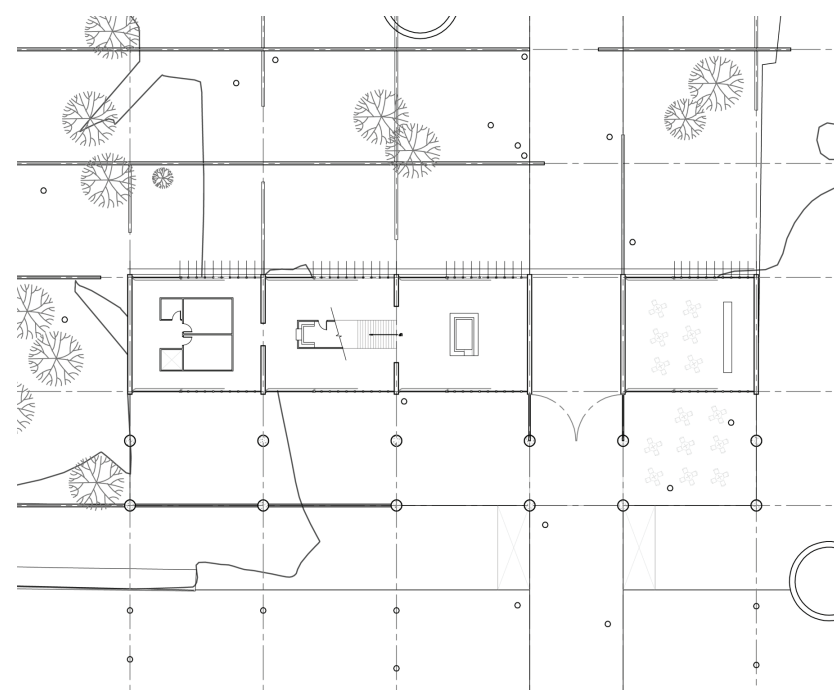
a.



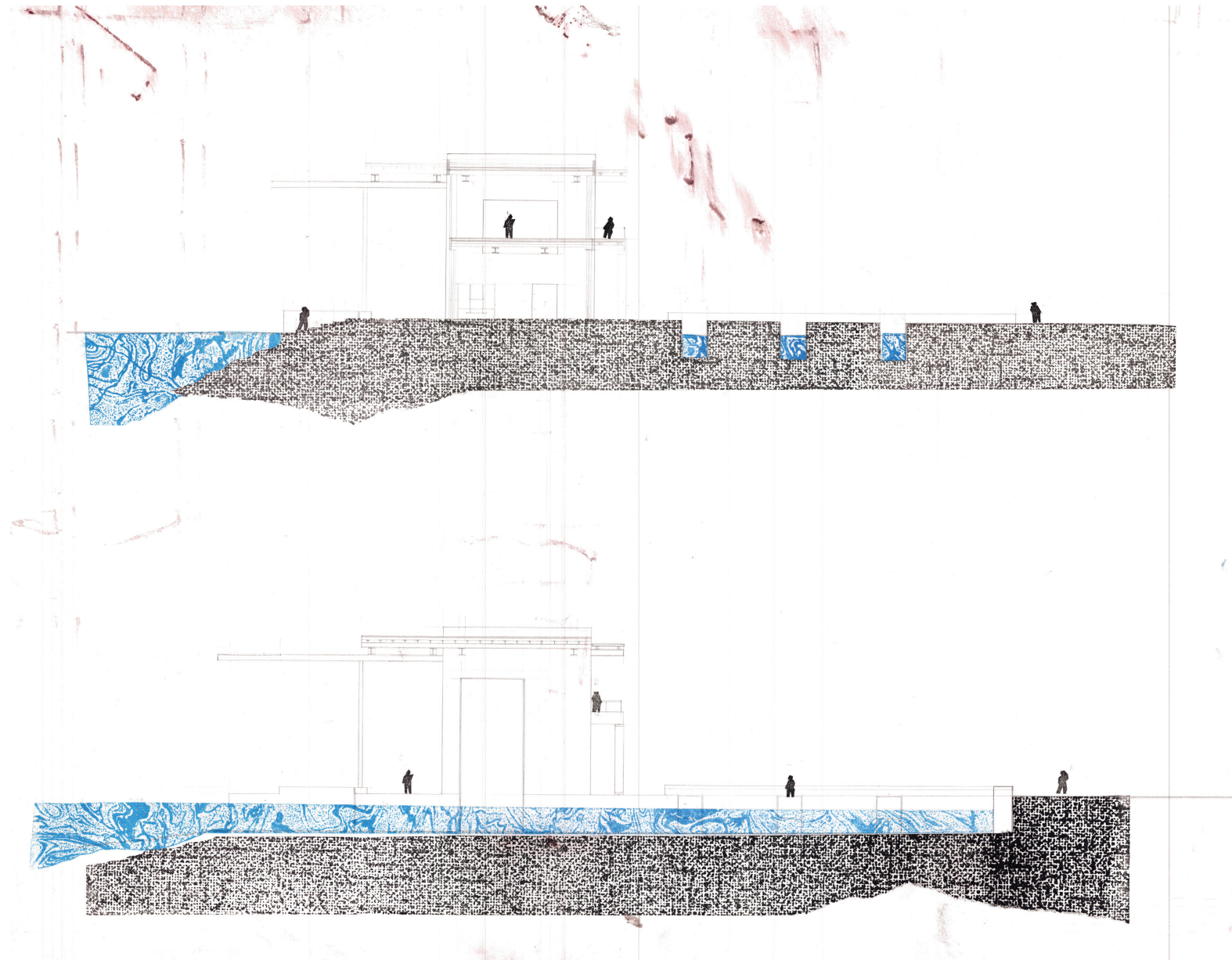
b.

moving between printing, drafting, and models gives me the opportunity to explore each piece in many dimensions. in this way the building, and the study of the city is refined. certain pieces become more important than others.

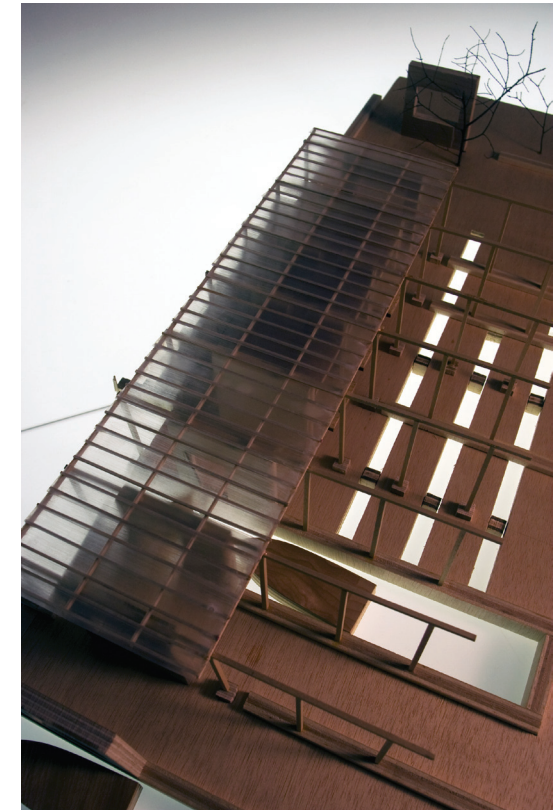
the modern architectural project demands a high degree of precision. printing, while it describes a valuable aspect of the project cannot replace the tightness of a drafted drawing. but a drafted drawing lacks playfulness and activity. in this fashion certain media are assigned representative tasks.



- a. plan, sketch
- b. perspective from alexandria
- c. layering of roof peices
- d. roof plan, sketch



a.



b.

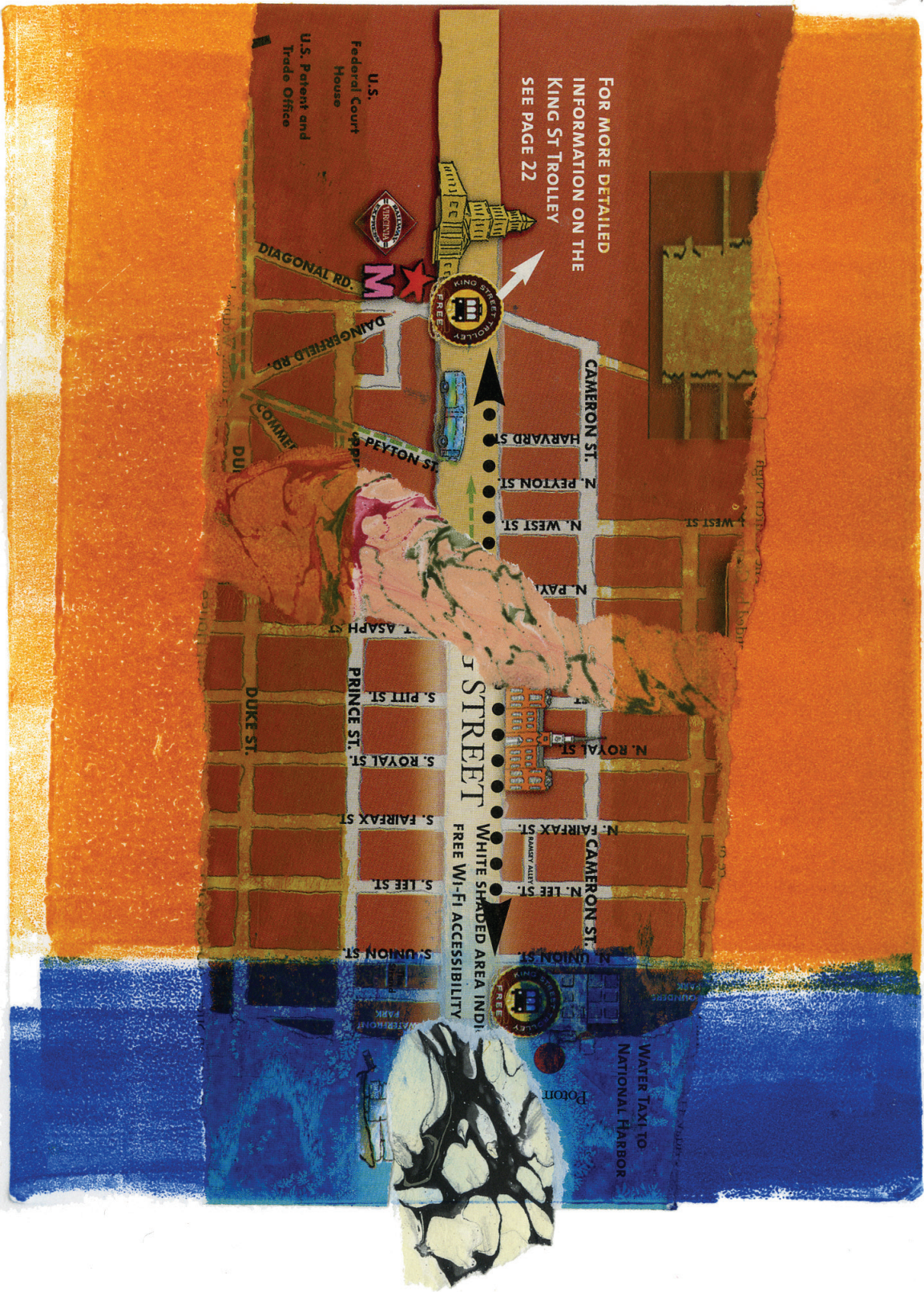
both the process and the building are refined through an understanding and melding of the different media. the best attributes of each are then used to describe the project.

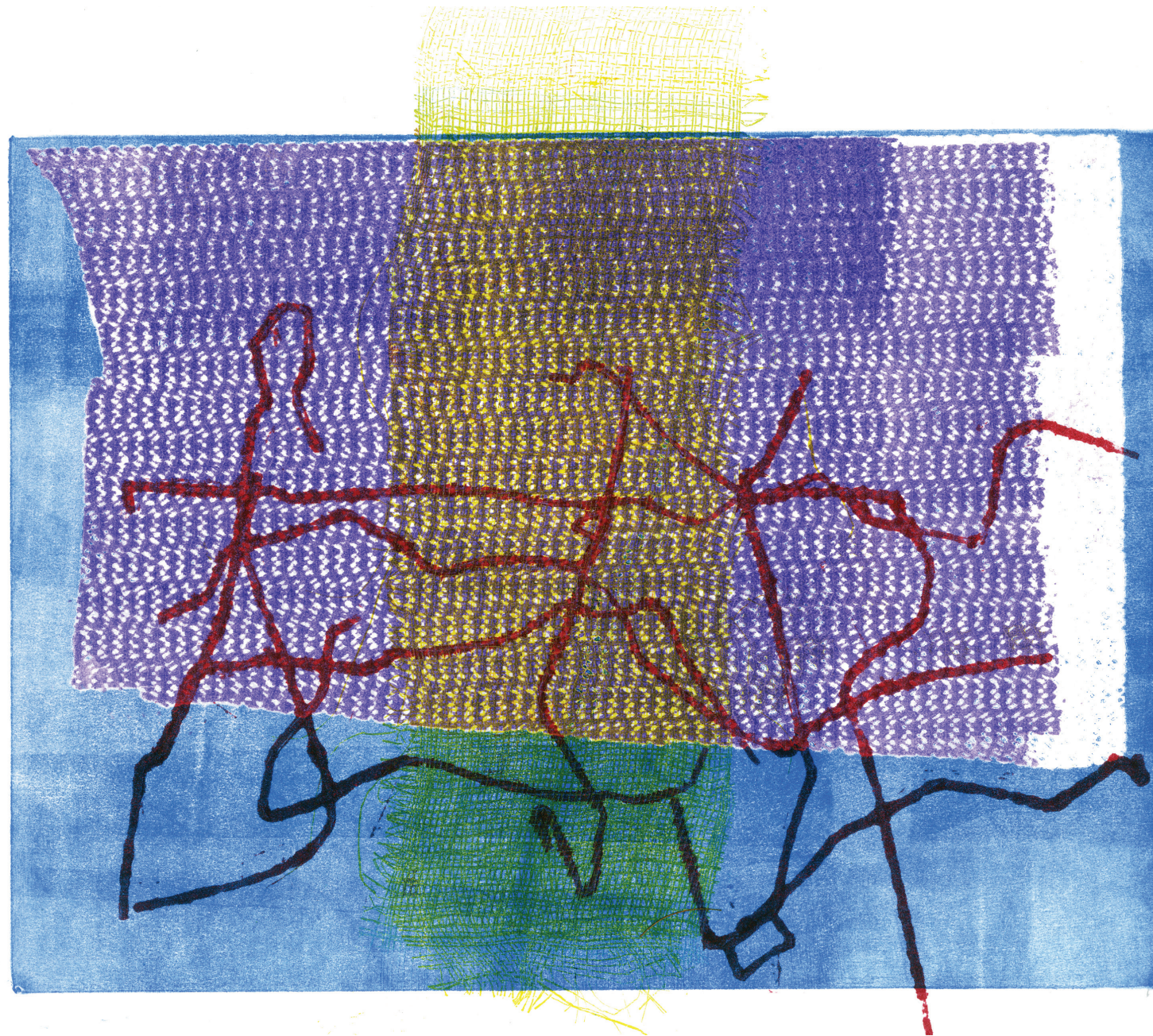


book II - the building

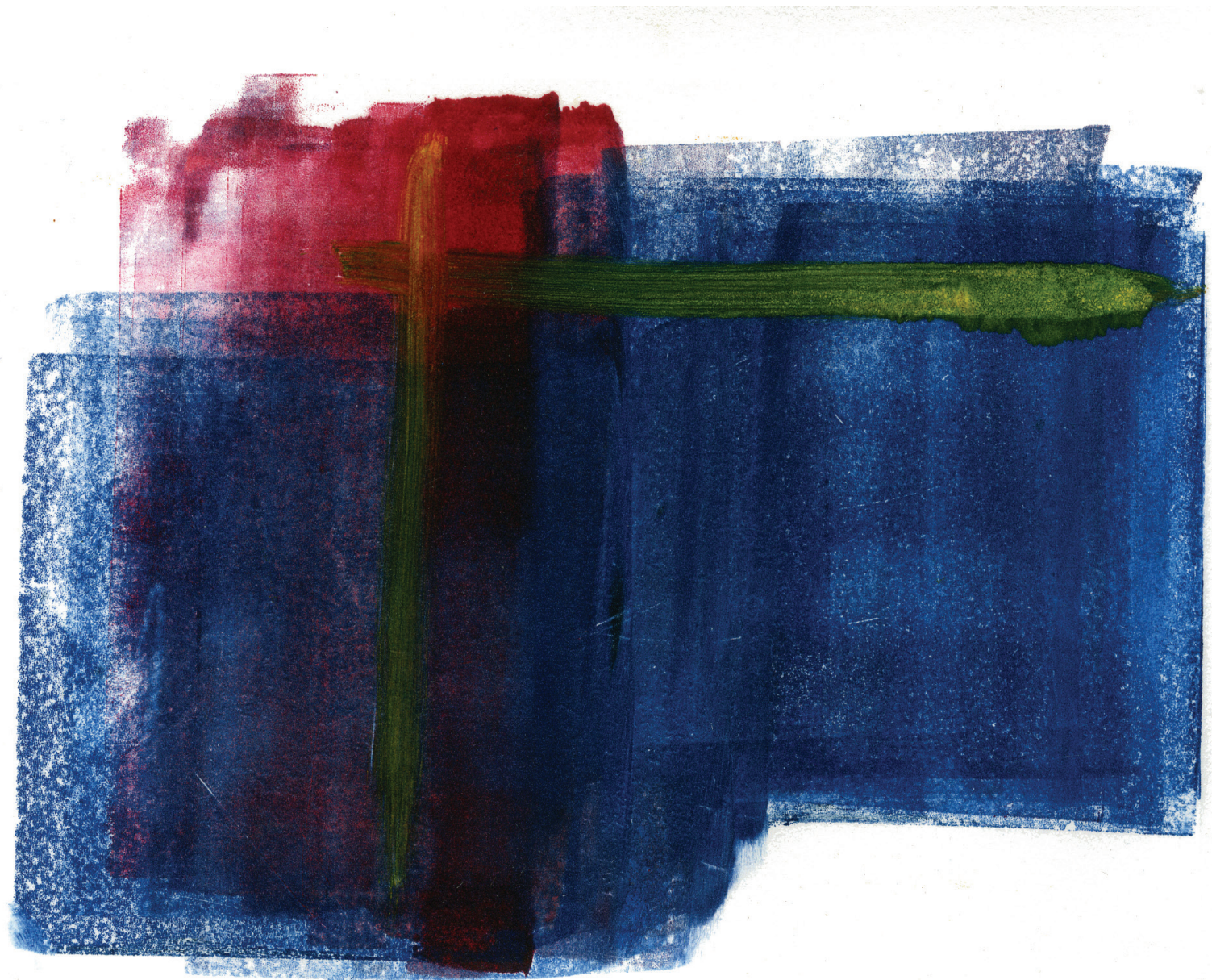


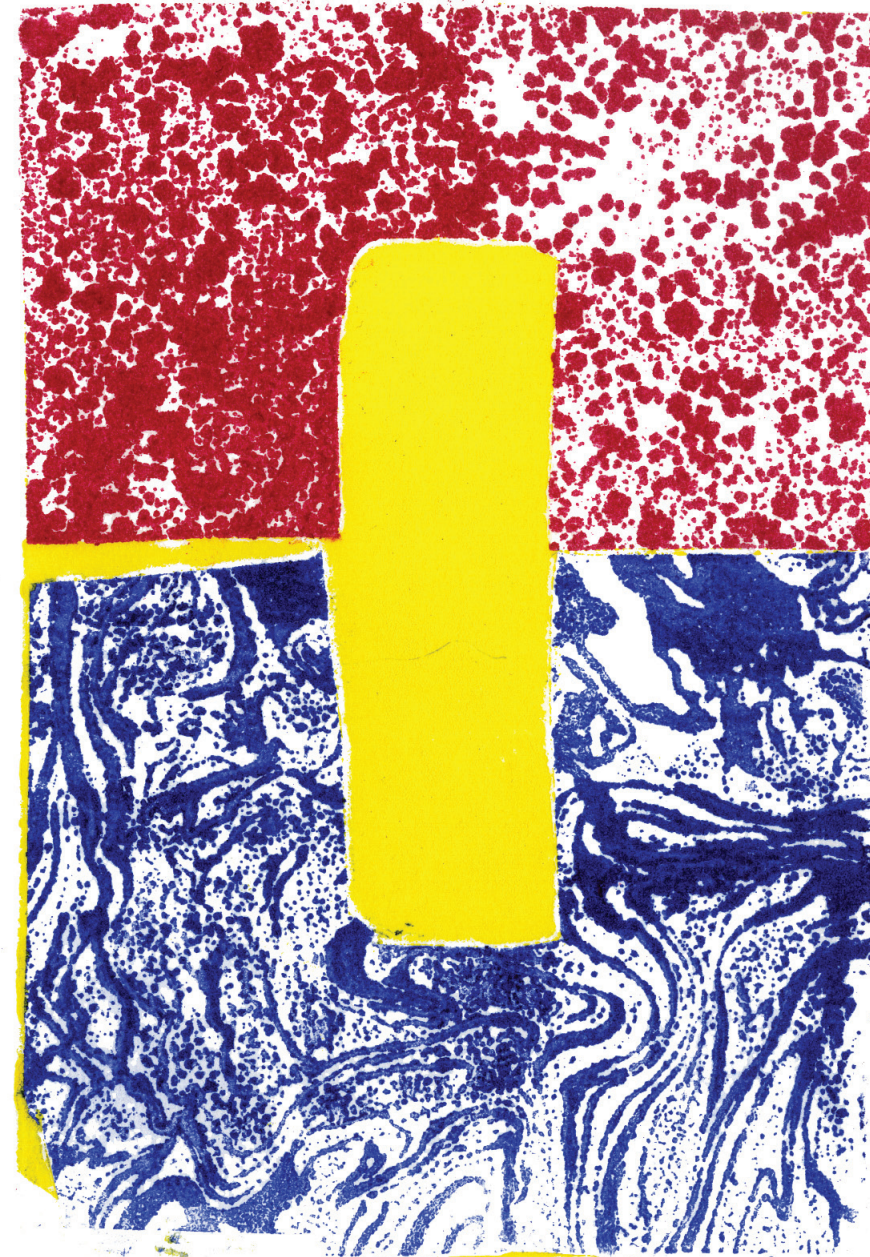
prints















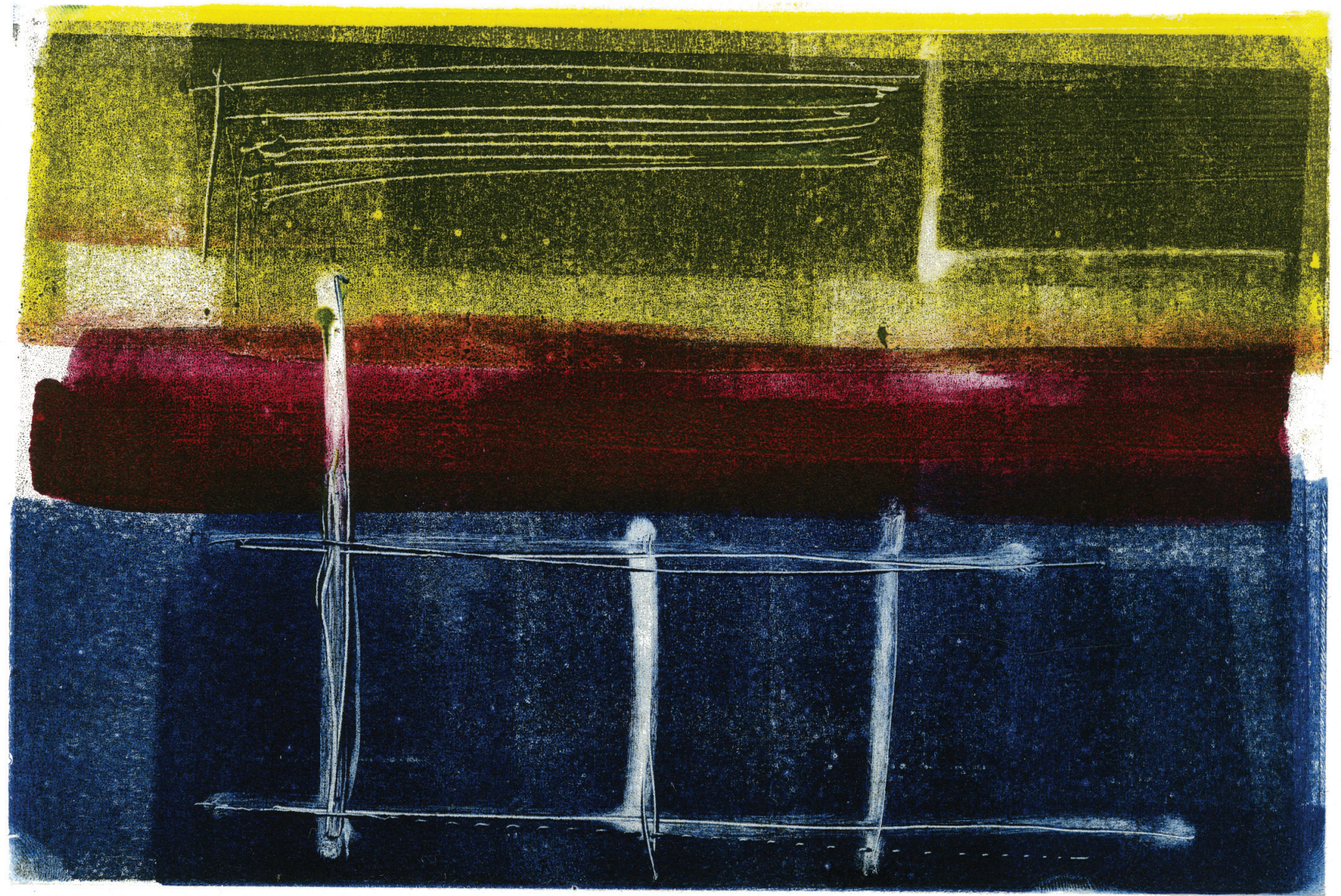


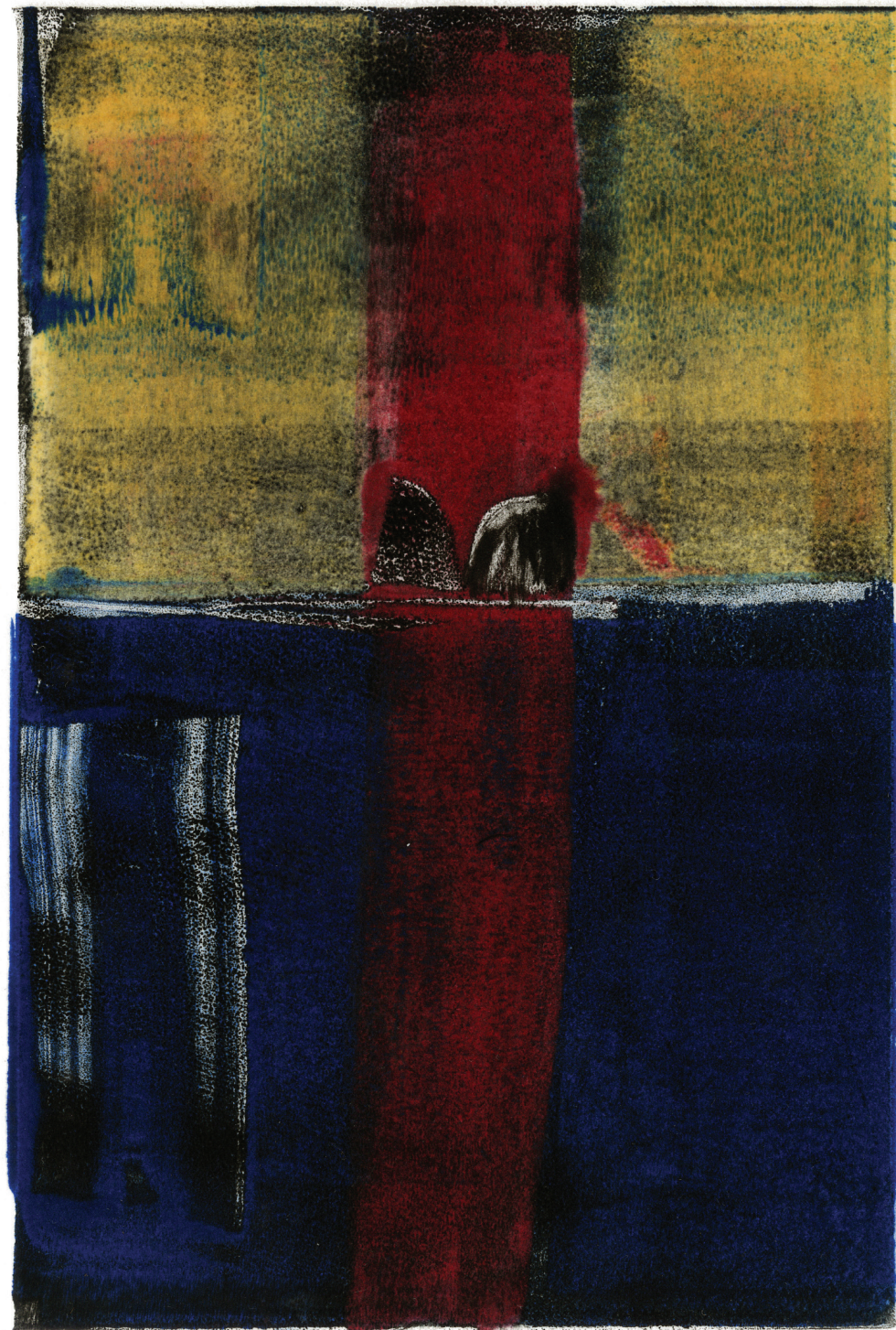
assemblage

"plan (refined)", monotype print

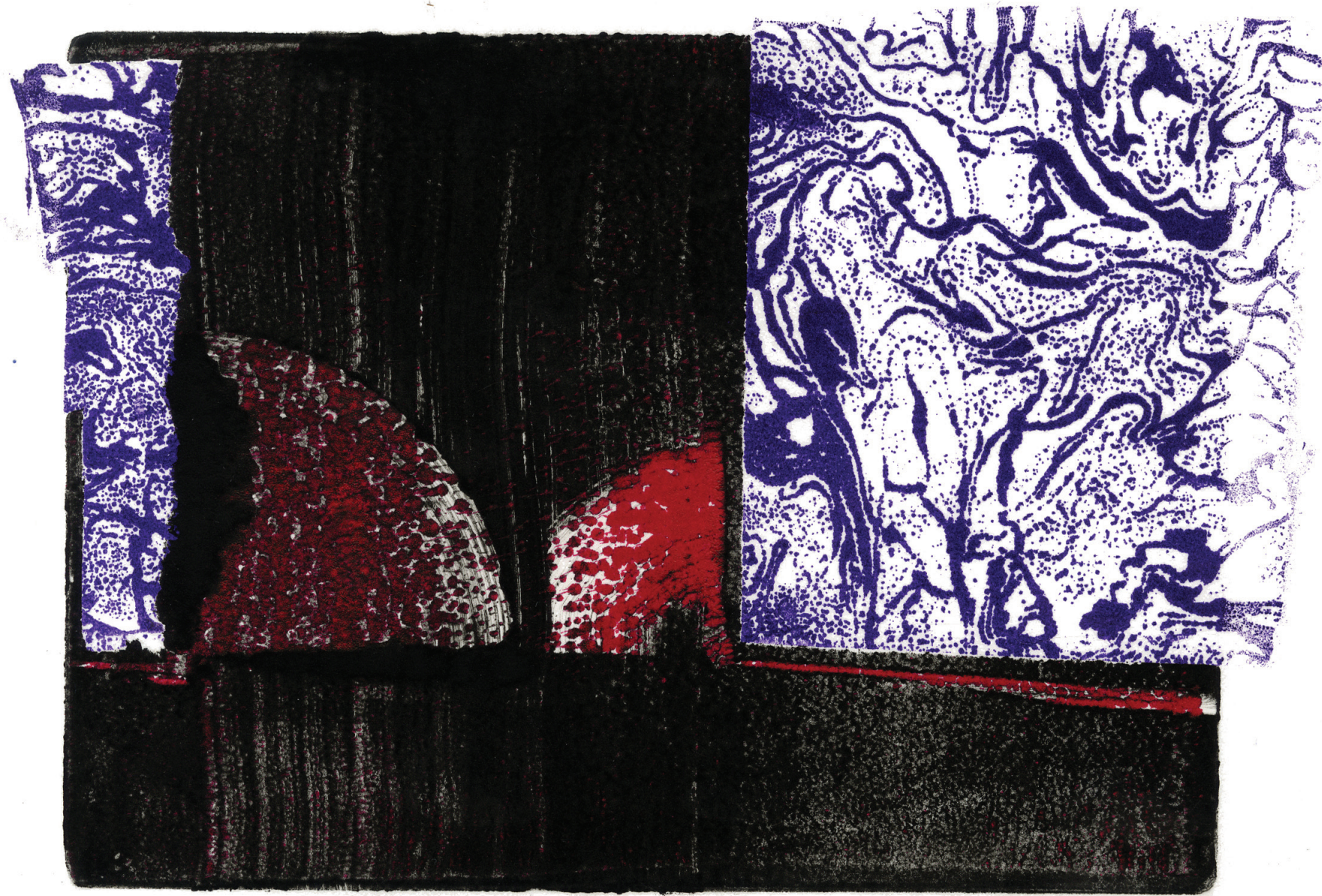


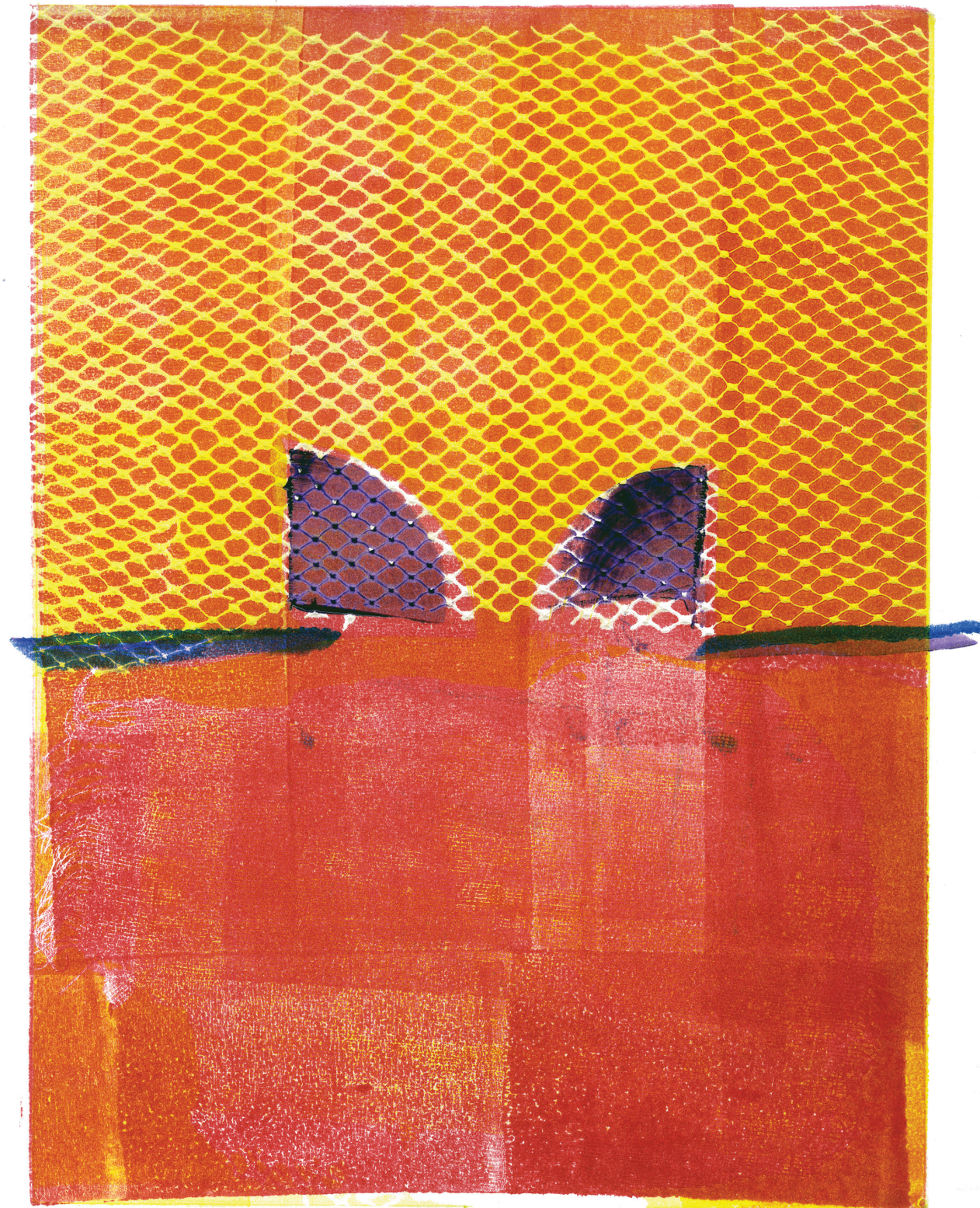








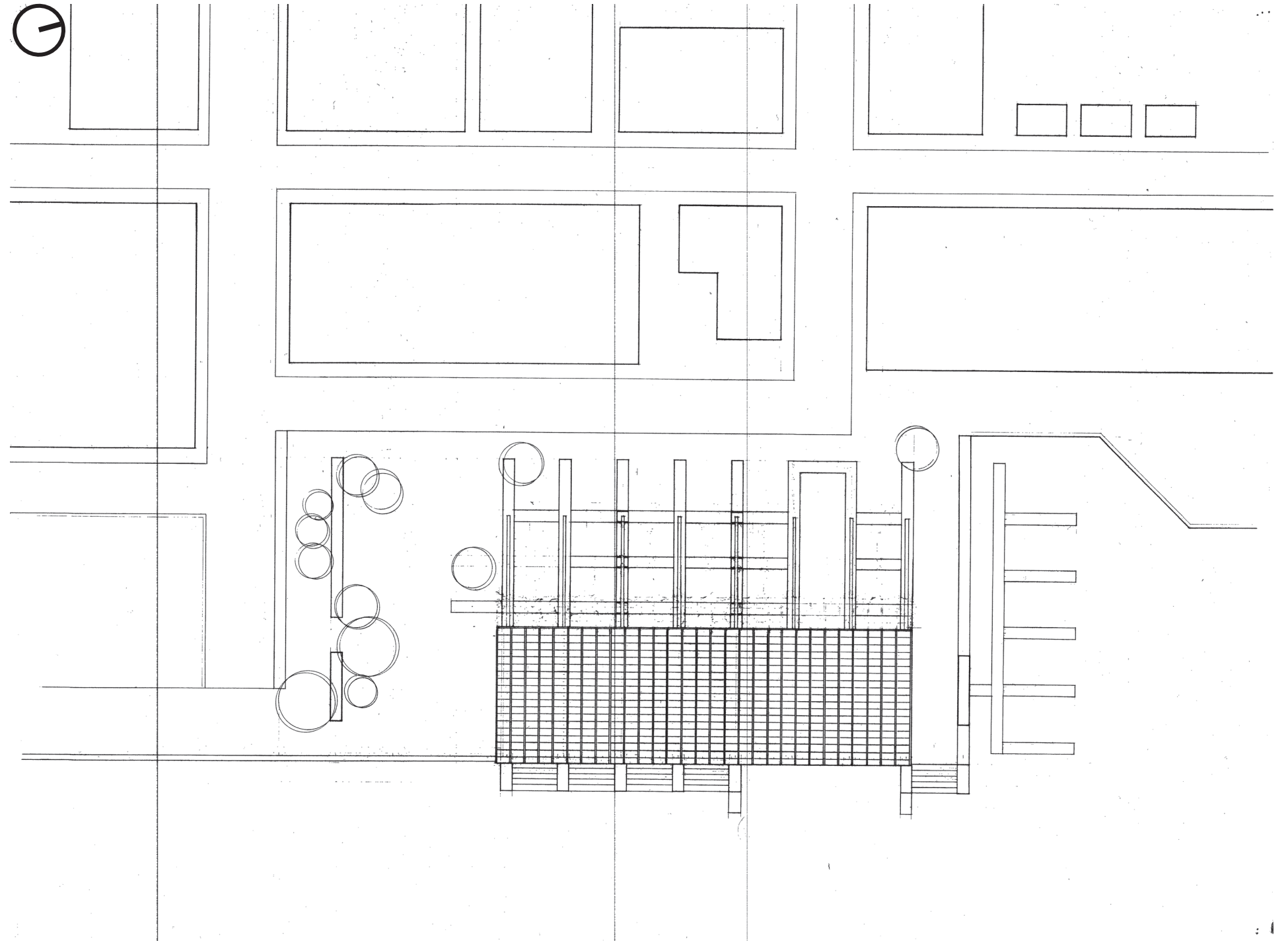
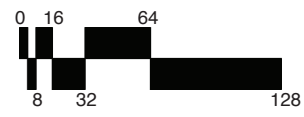




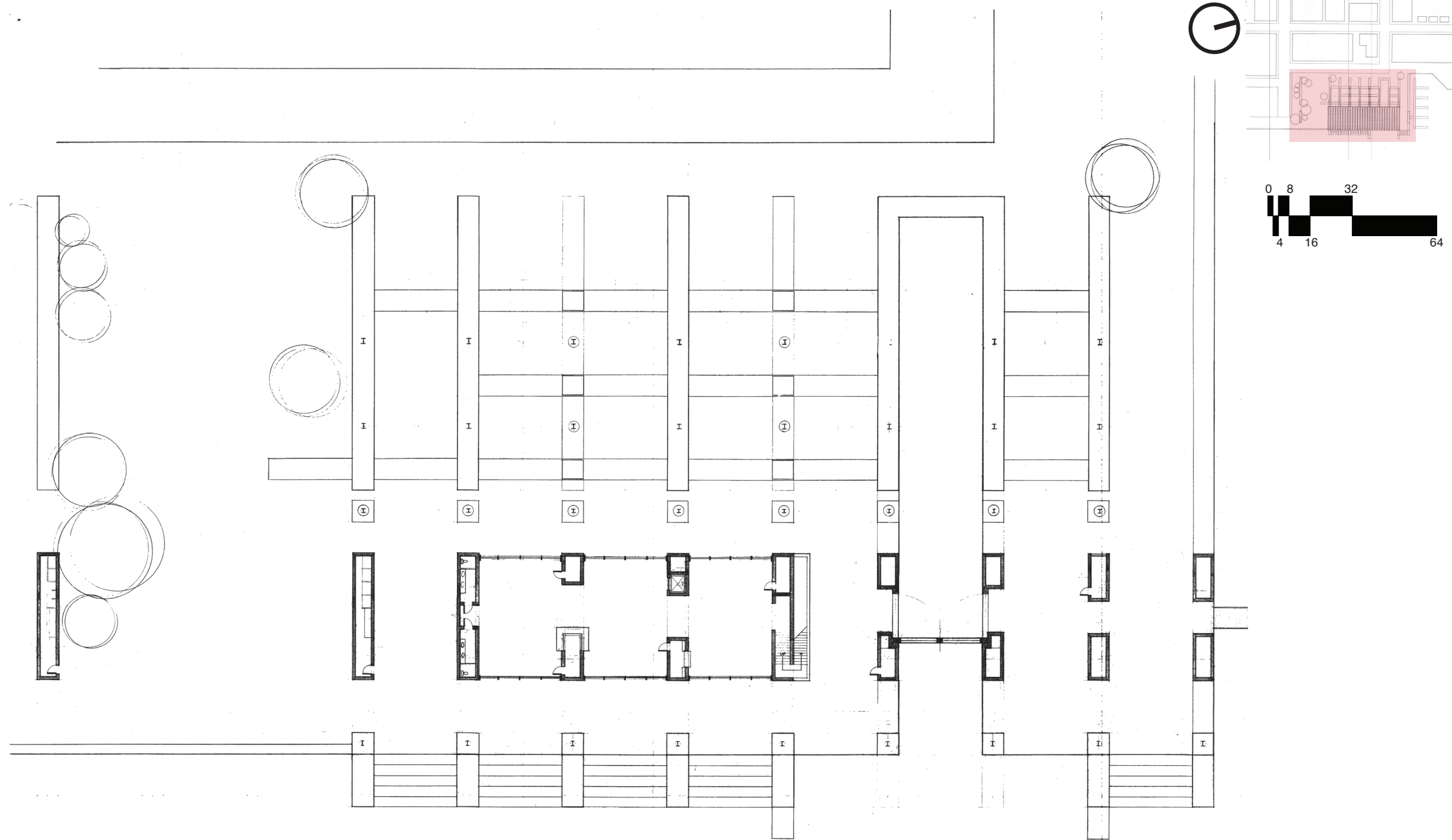




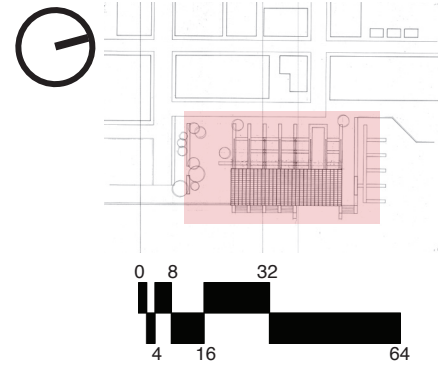
drawings



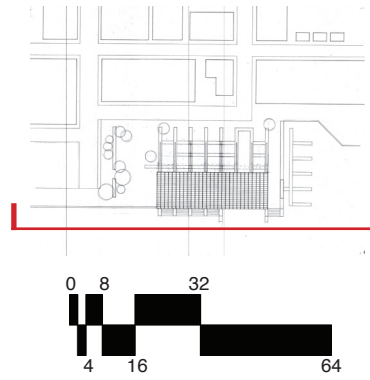
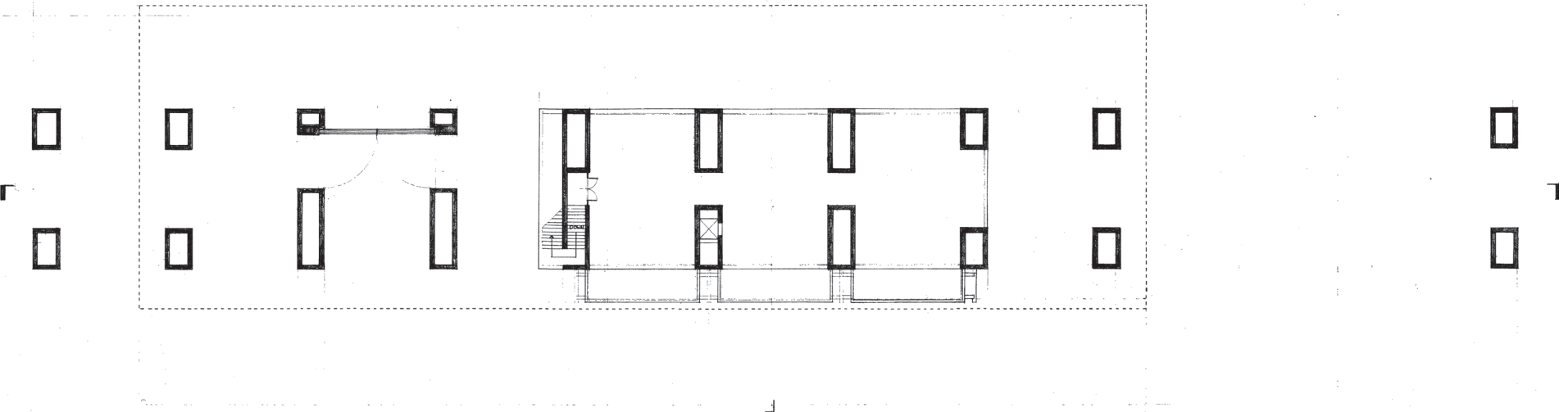
*site plan, drafting*



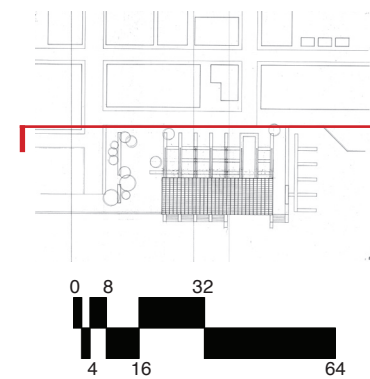
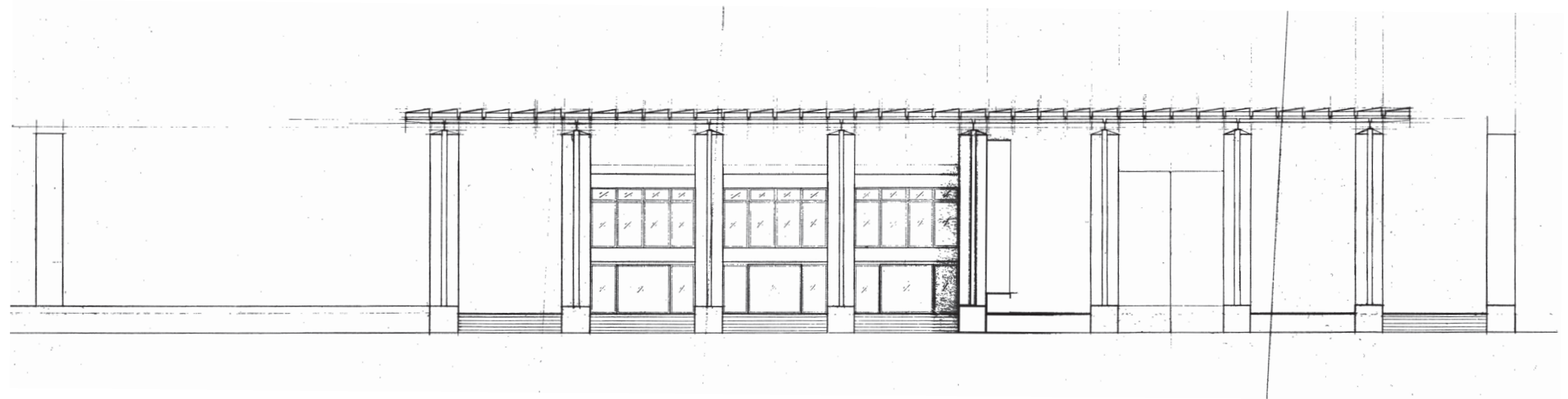
*ground floor plan, drafting*



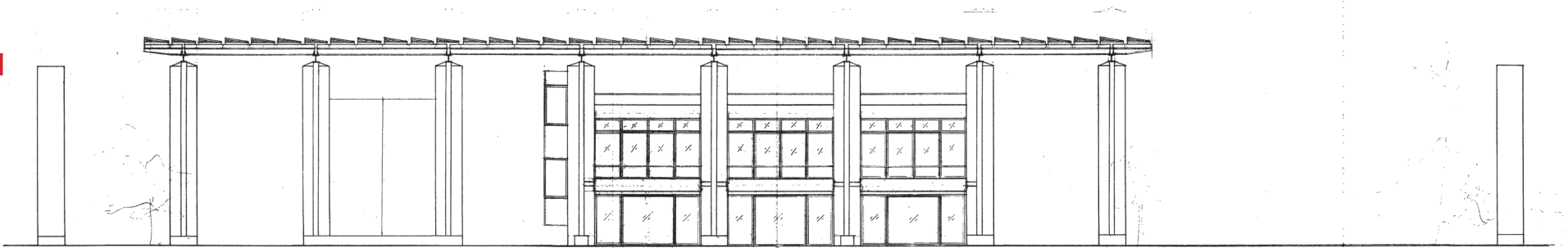
first floor, drafting

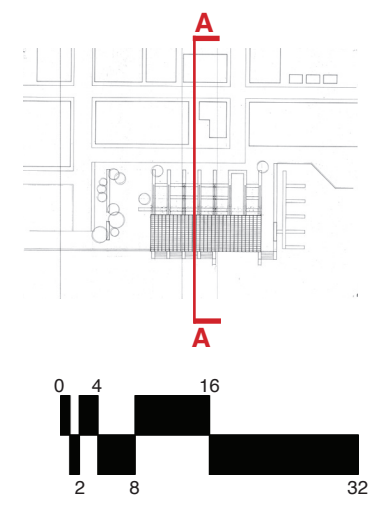
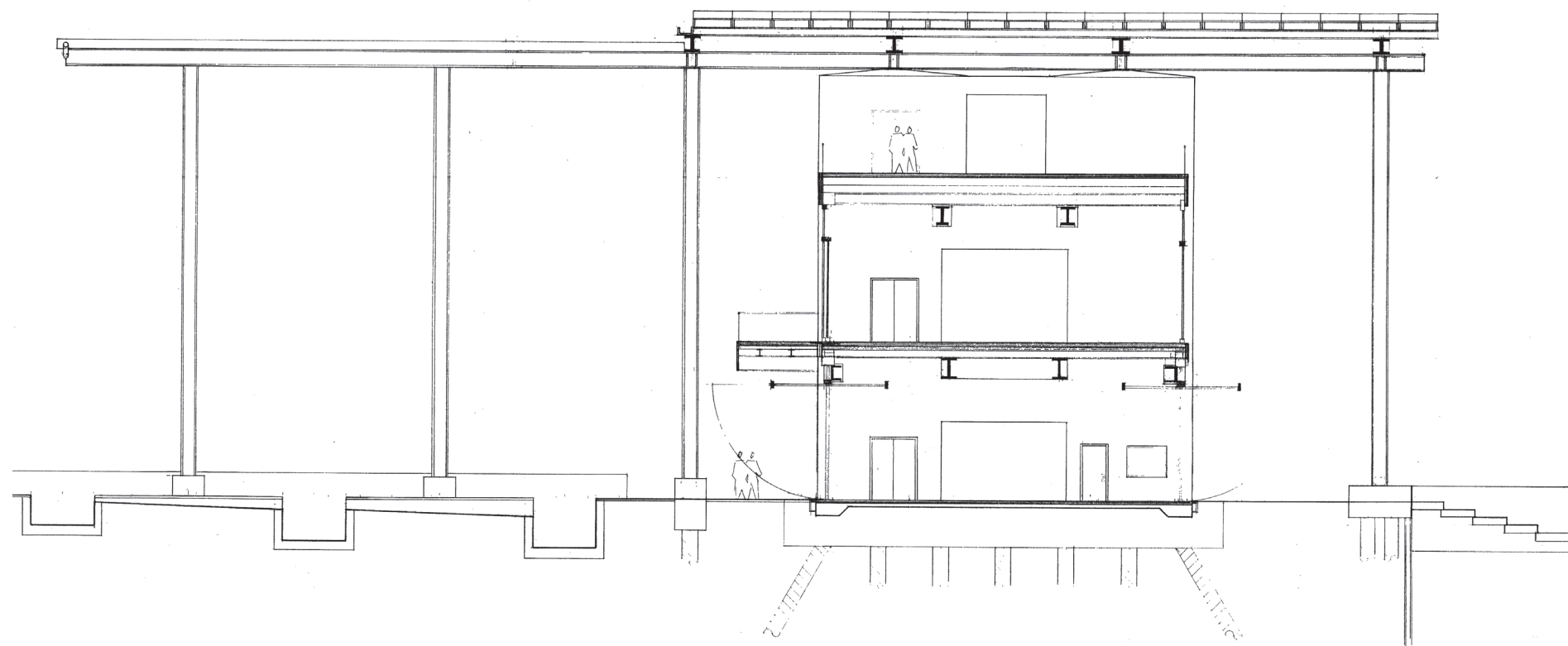


east elevation, drafting

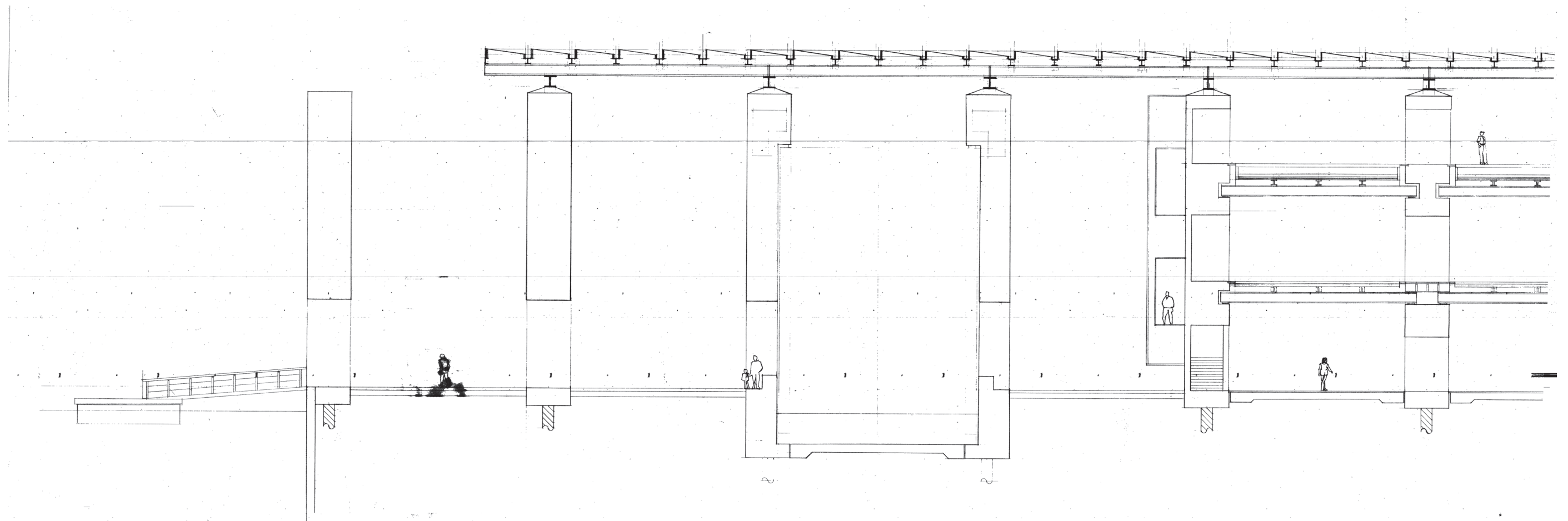


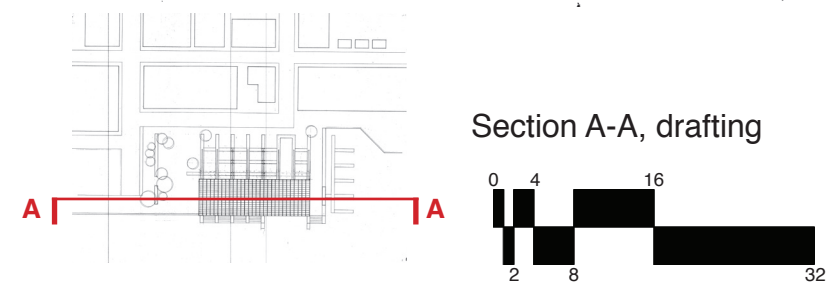
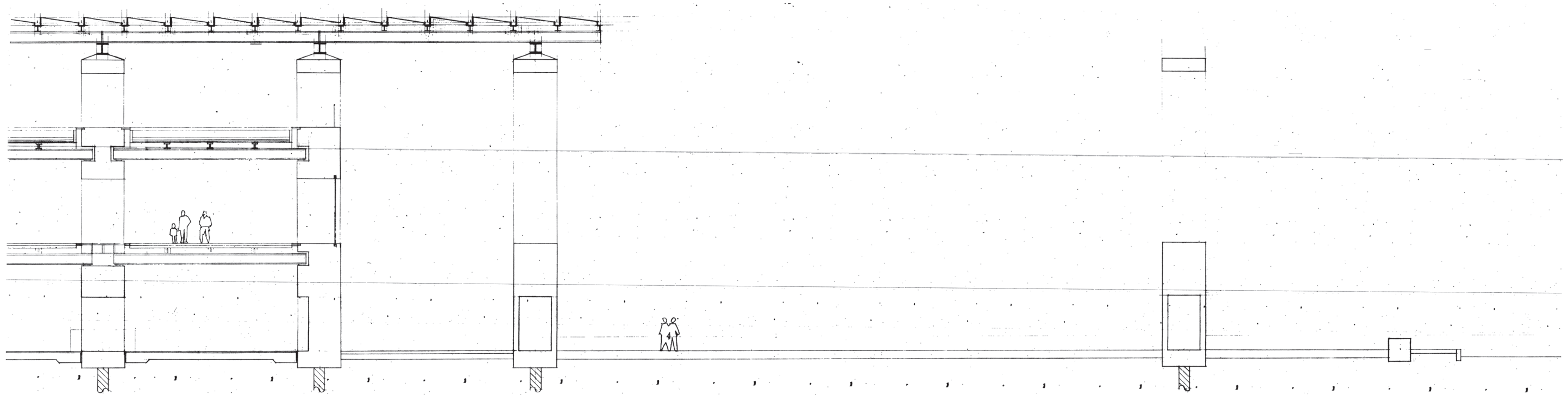
west elevation, drafting

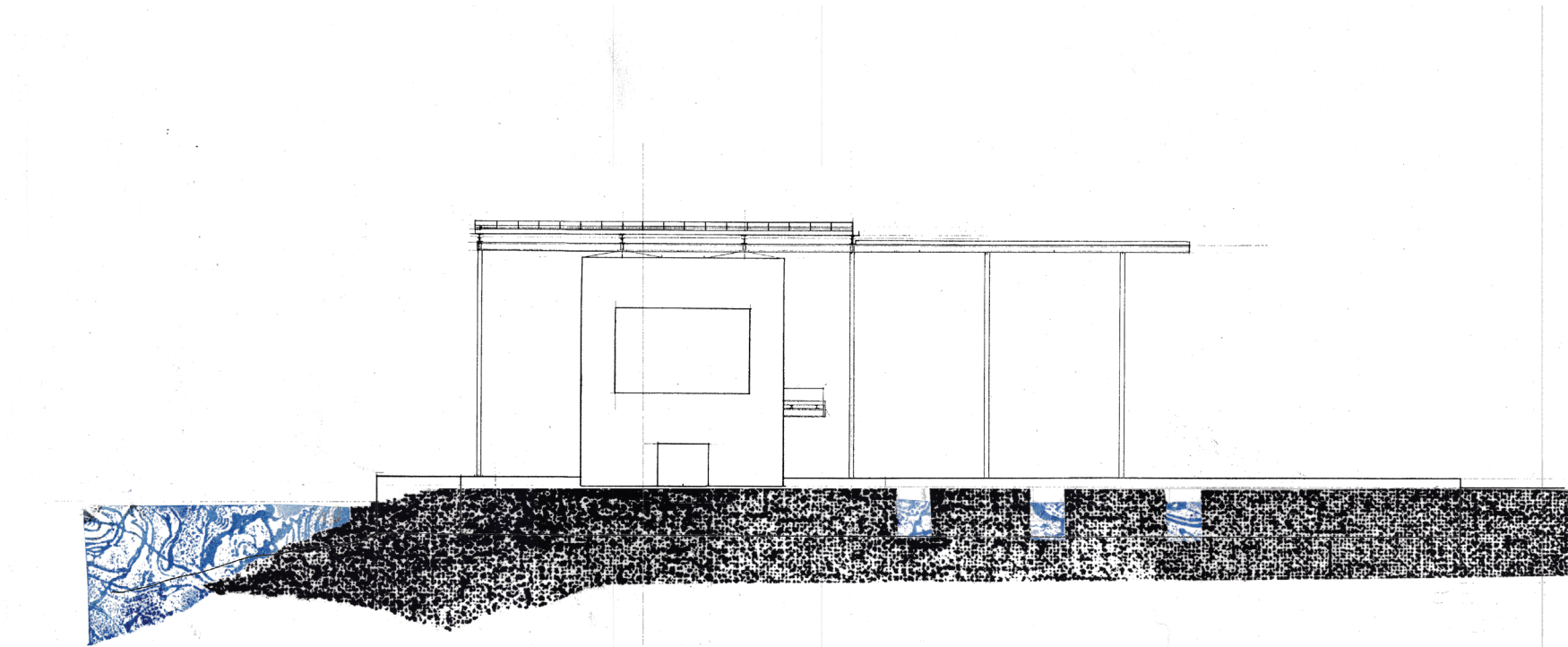
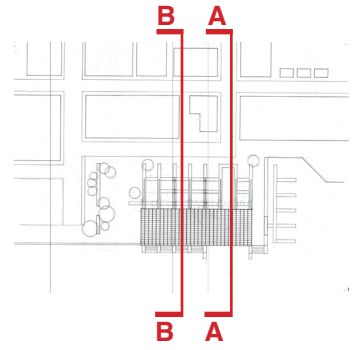




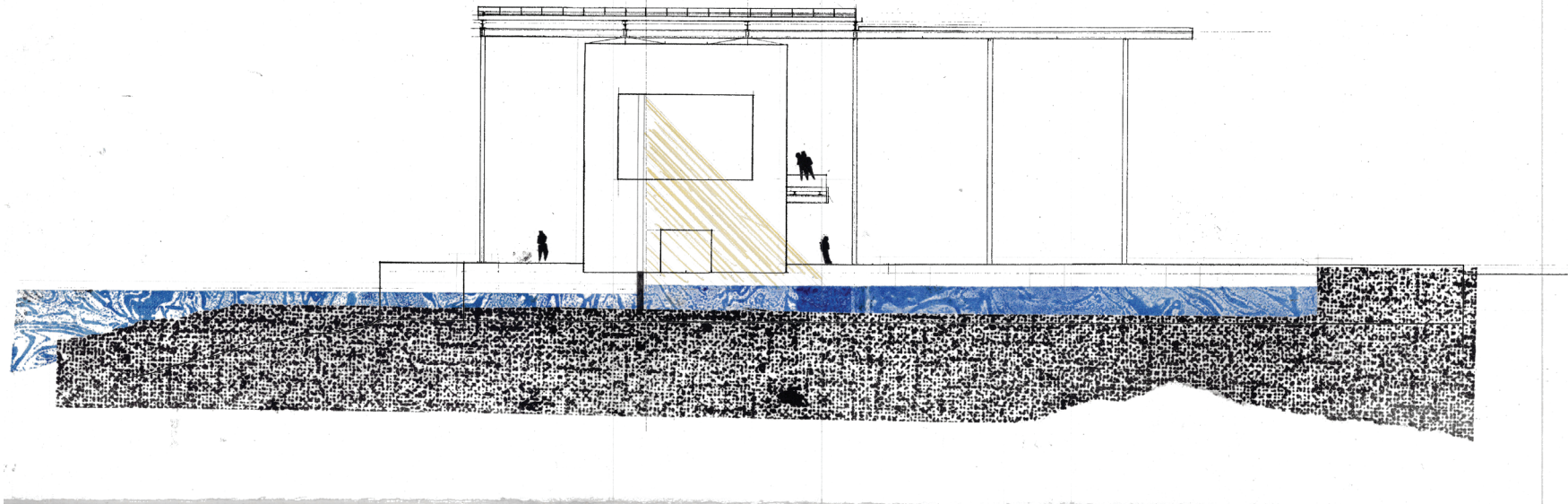
Section A-A, drafting



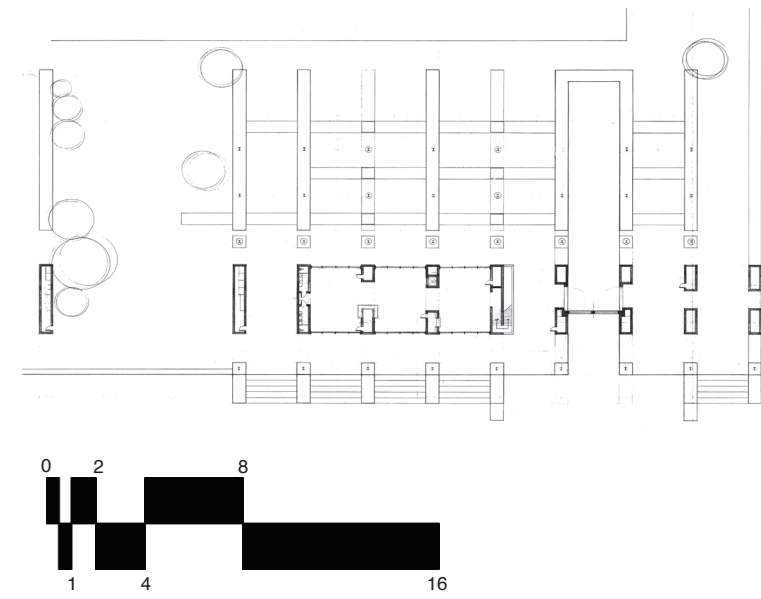
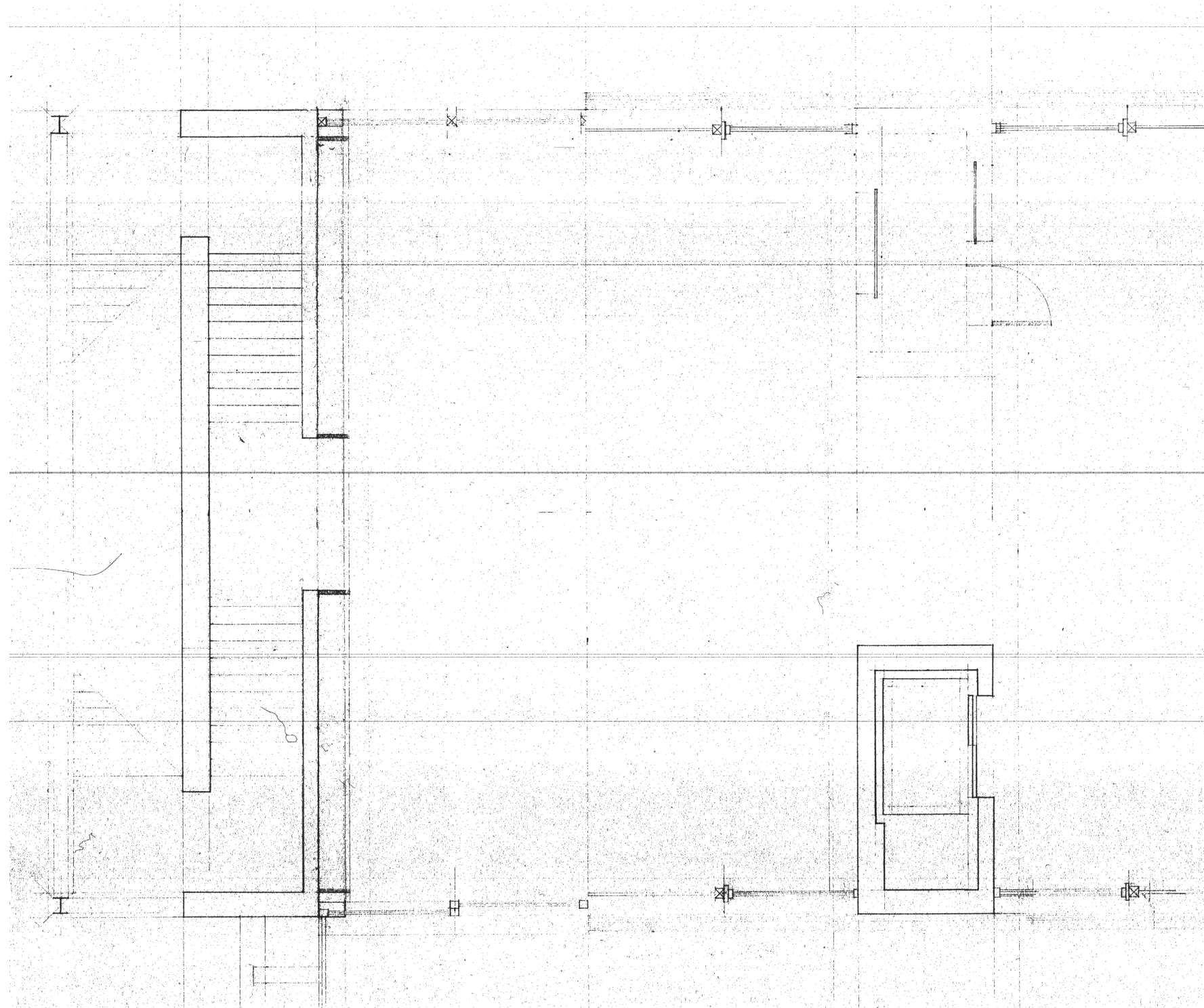




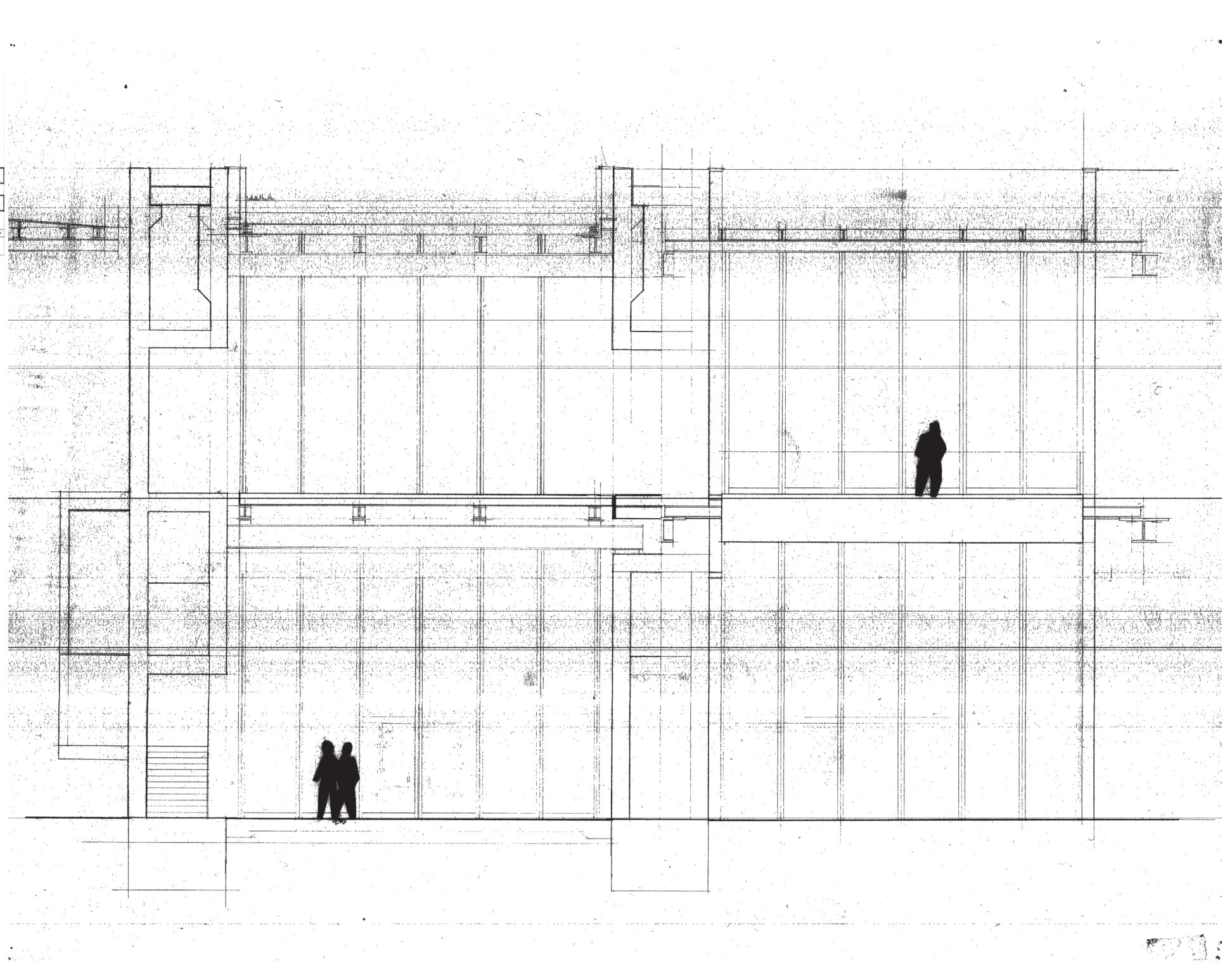
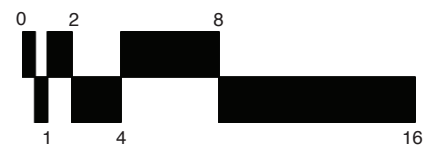
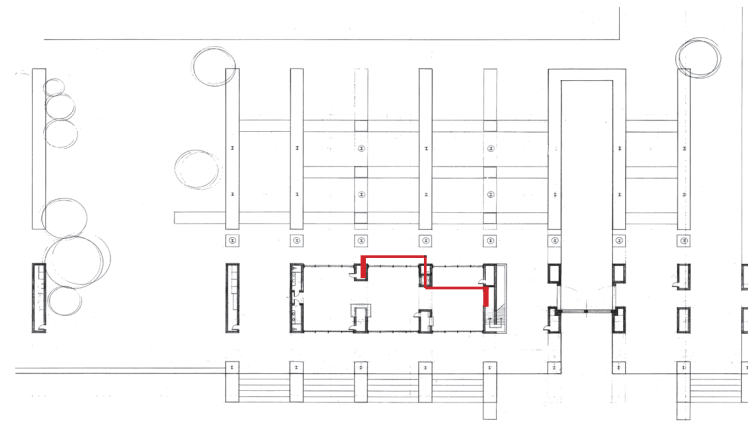
Section B-B, drafting + monotype print



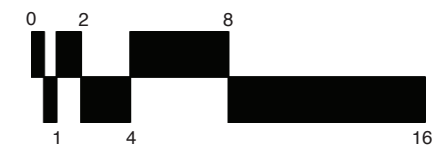
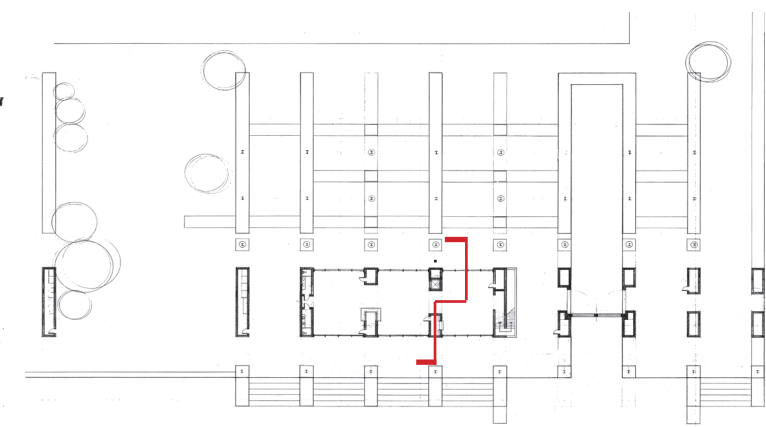
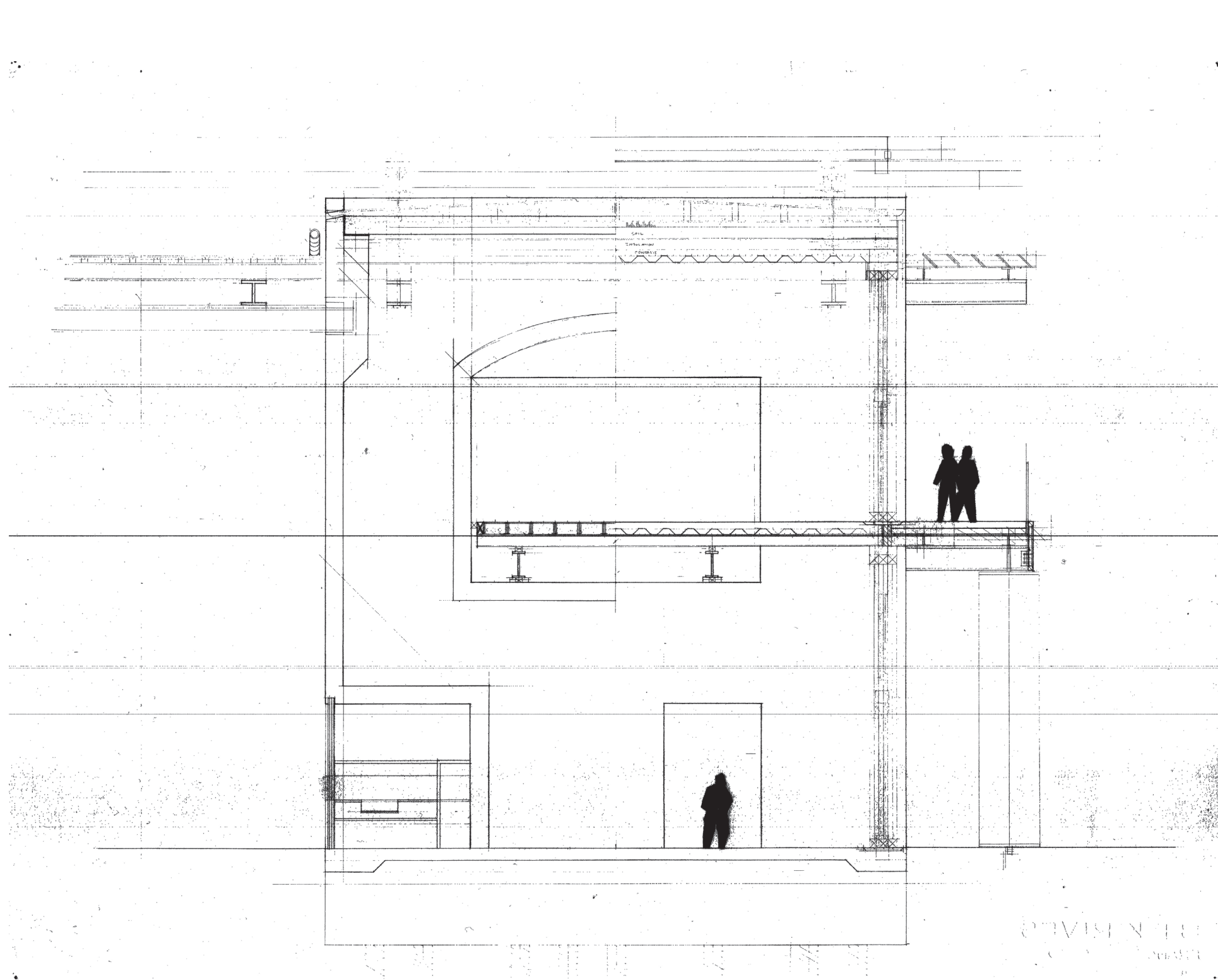
Section A-A, drafting + monotype print



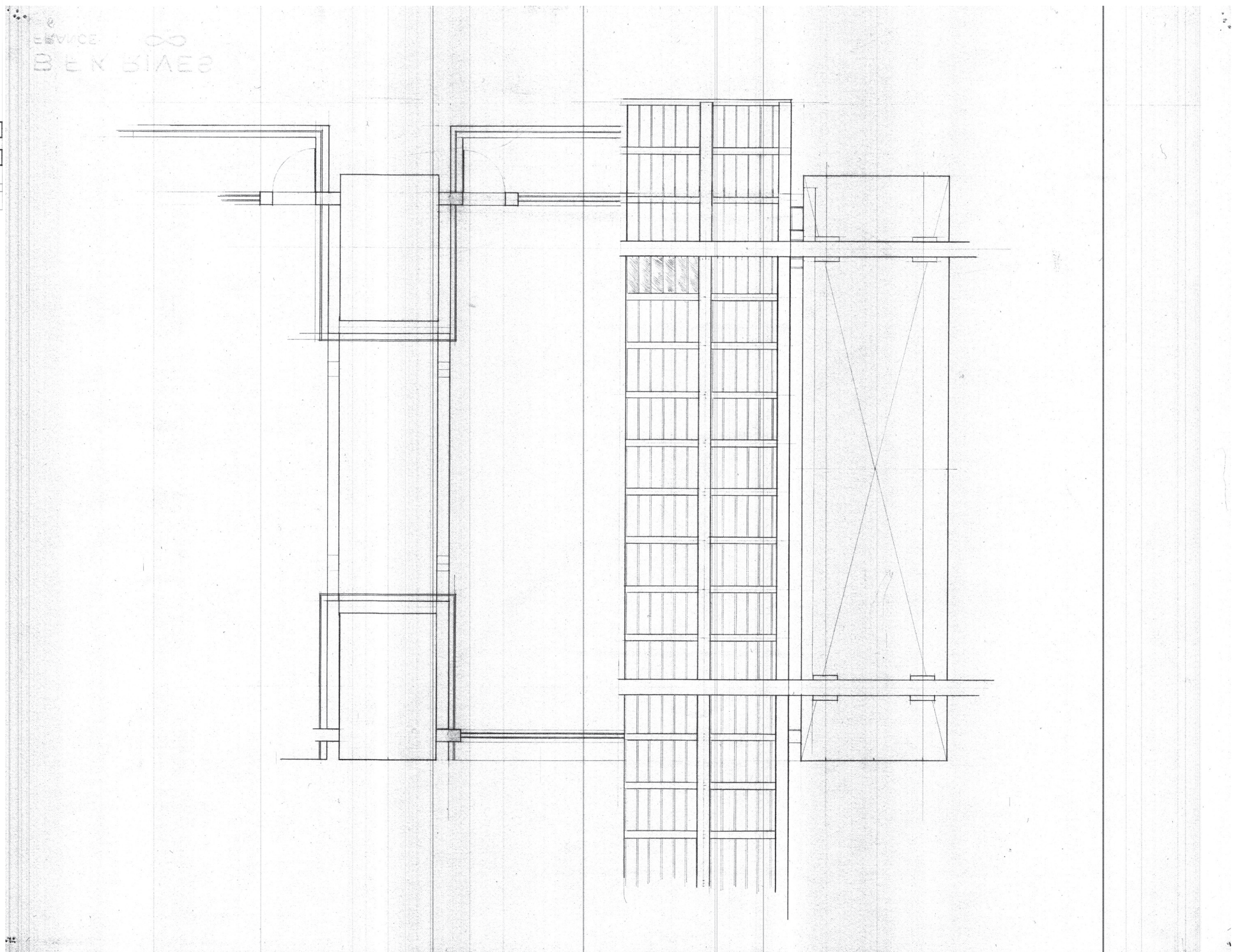
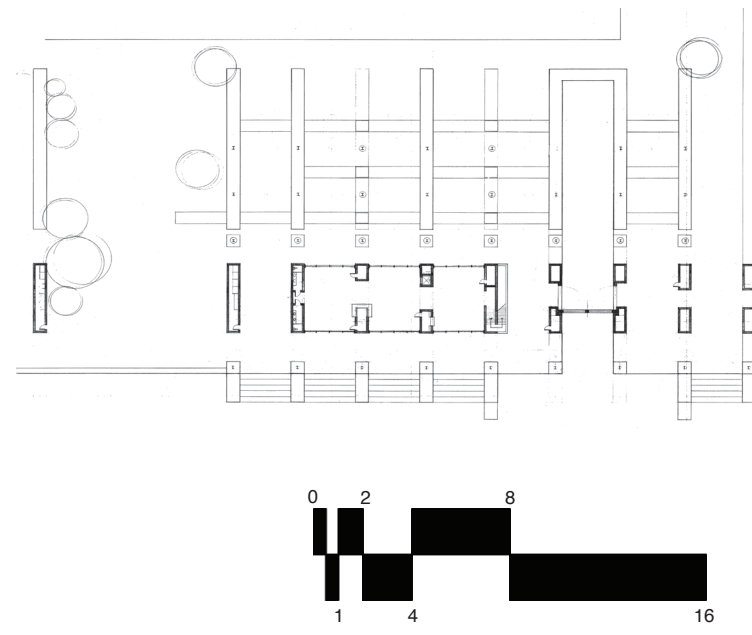
bay plan (typical), drafting



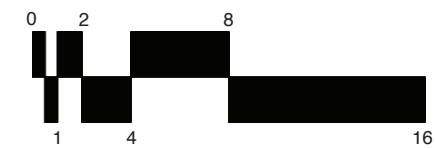
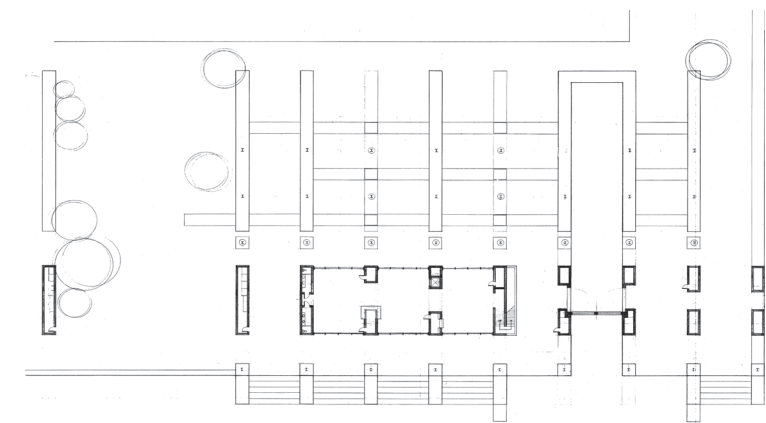
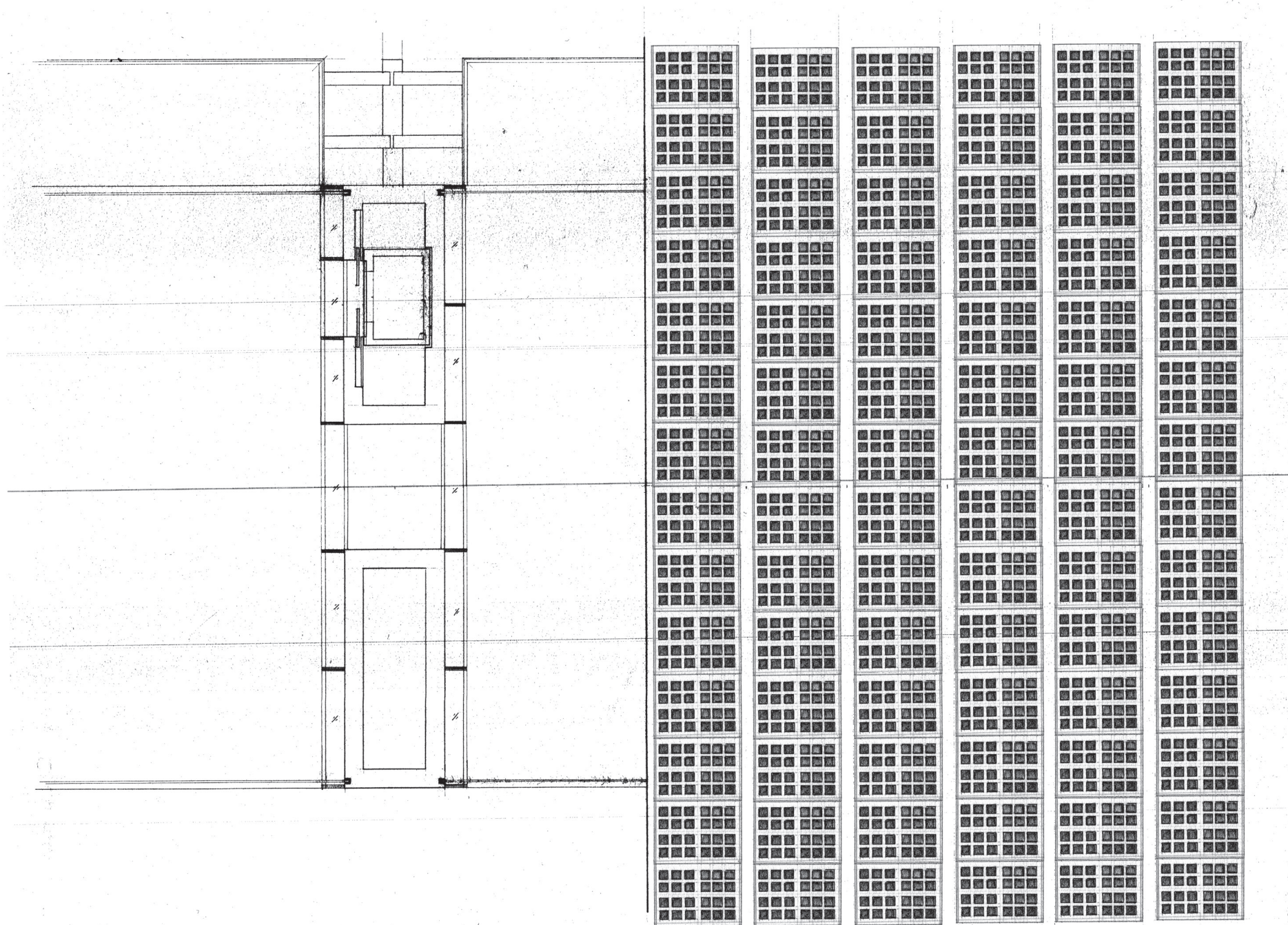
bay section (typical), drafting



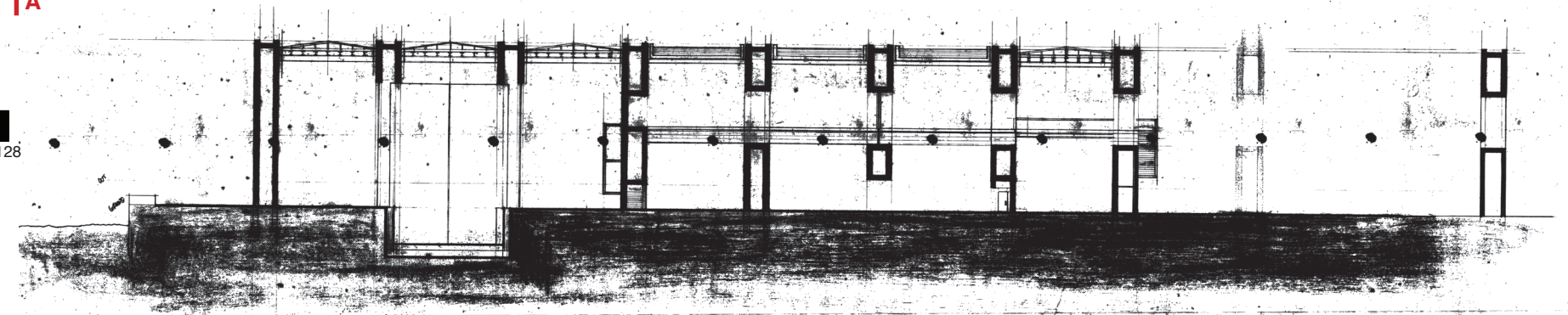
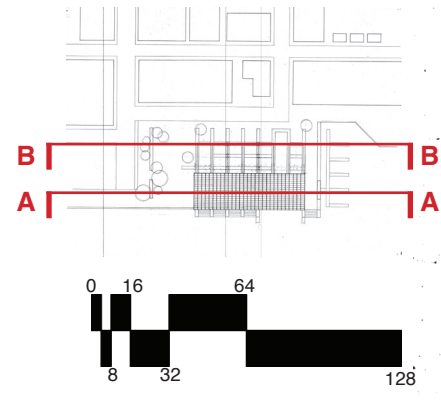
bay section (typical), drafting



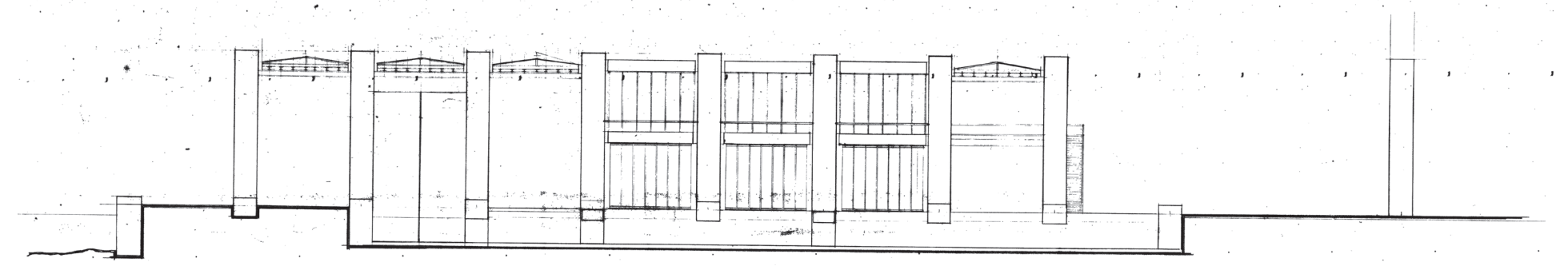
roof plan (option a), sketch



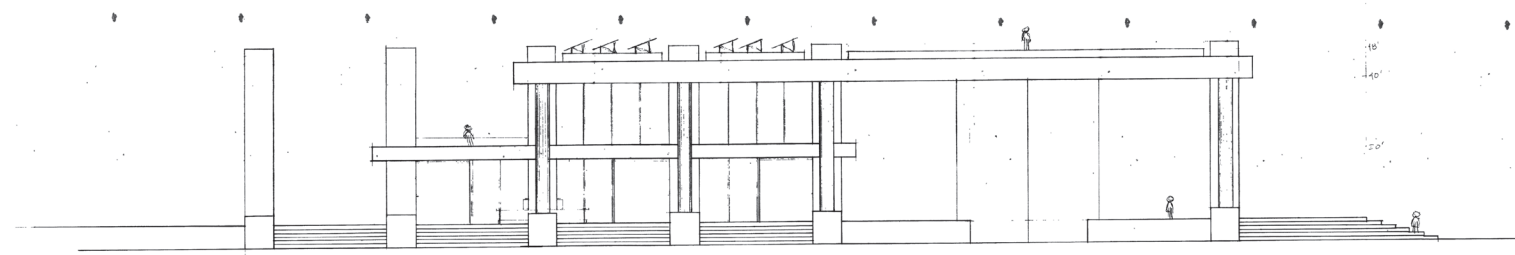
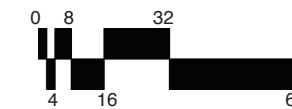
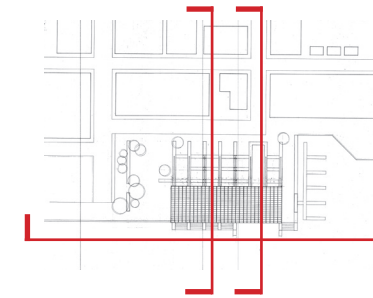
roof plan (final option), sketch



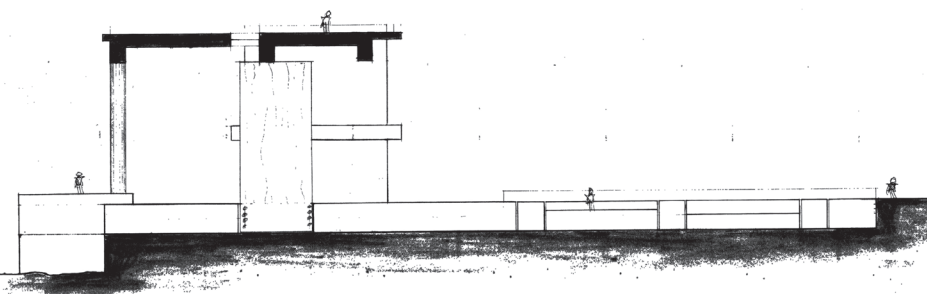
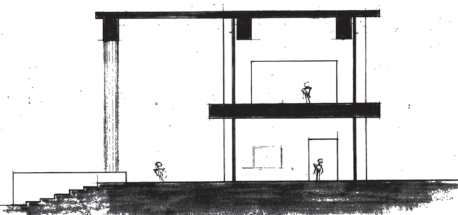
Section A-A, sketch



Section B-B, sketch

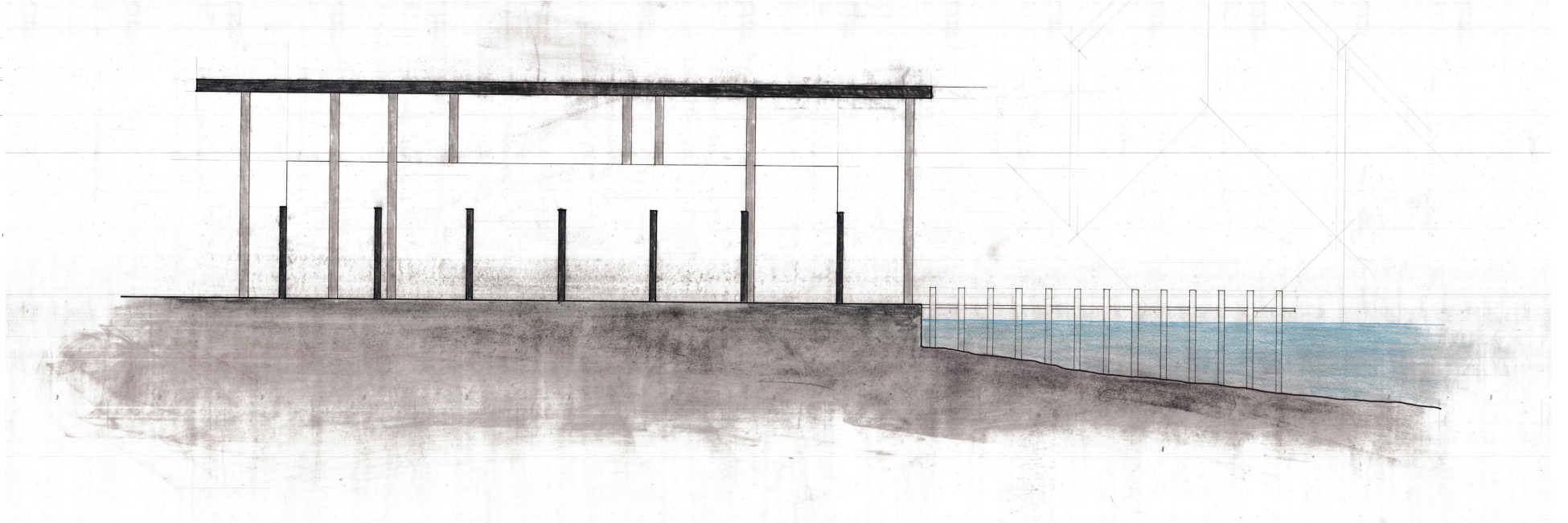
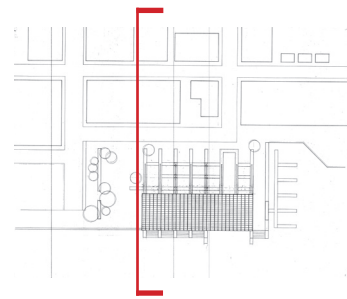


EAST ELEVATION 1/4"=1'-0"

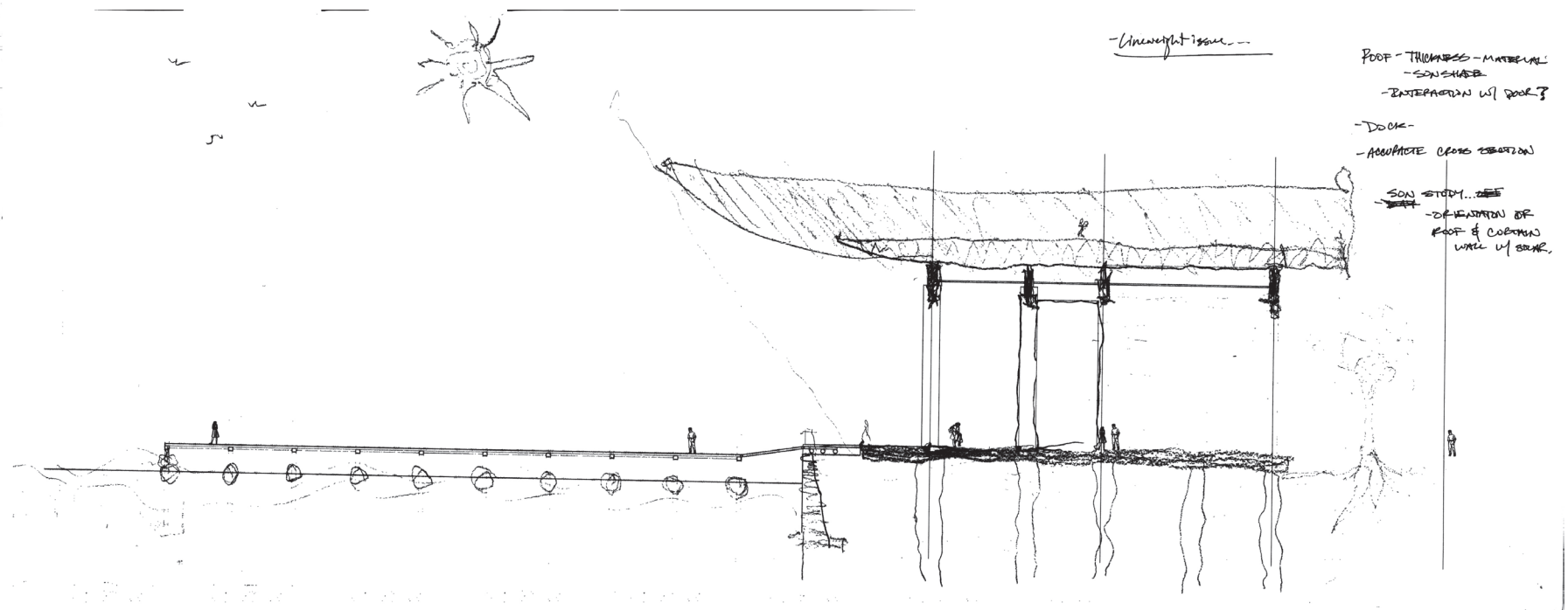
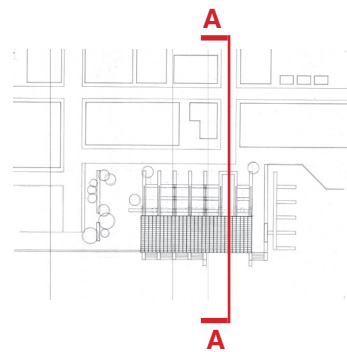


SECTION 1/4"=1'-0"

elevation & sections, sketch-



south elevation, sketch

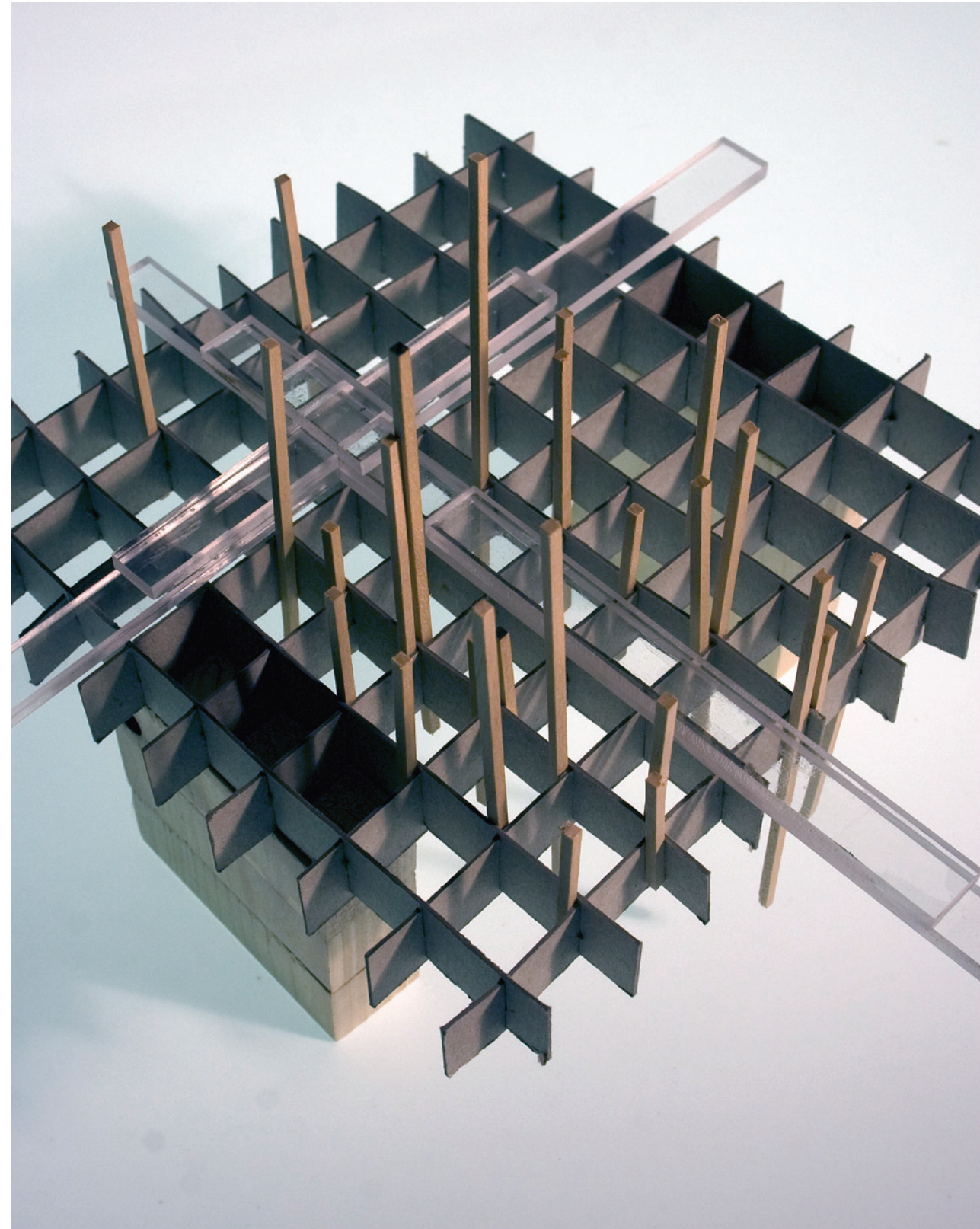


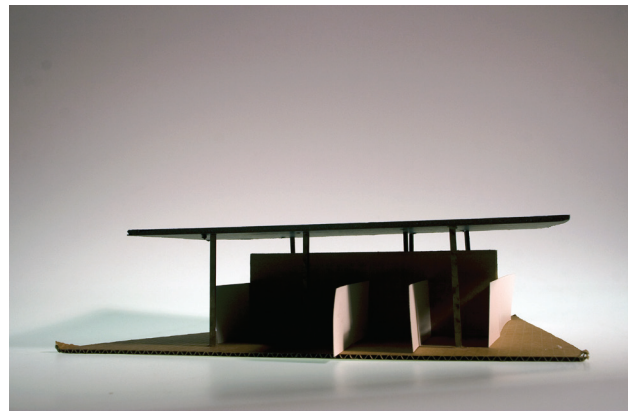
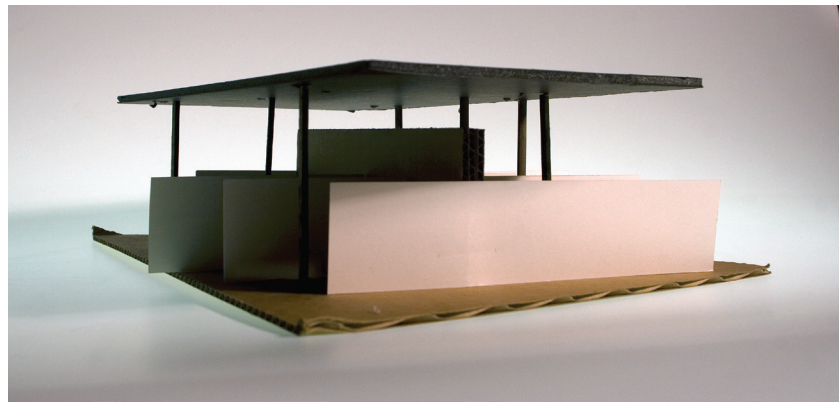
section A-A, sketch





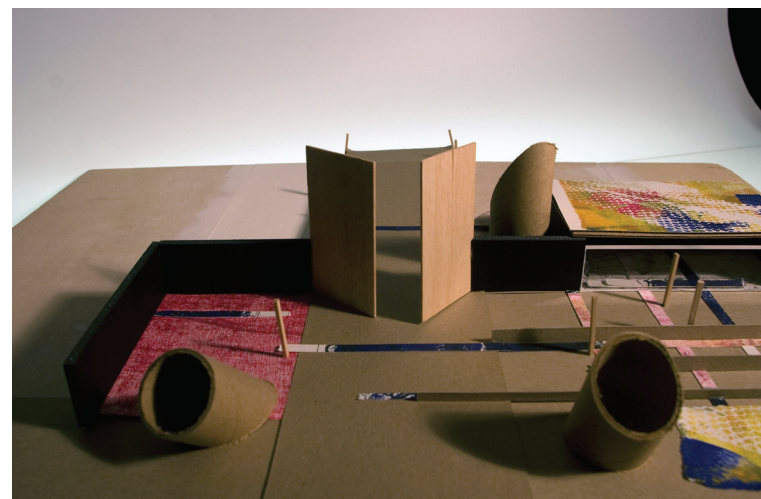
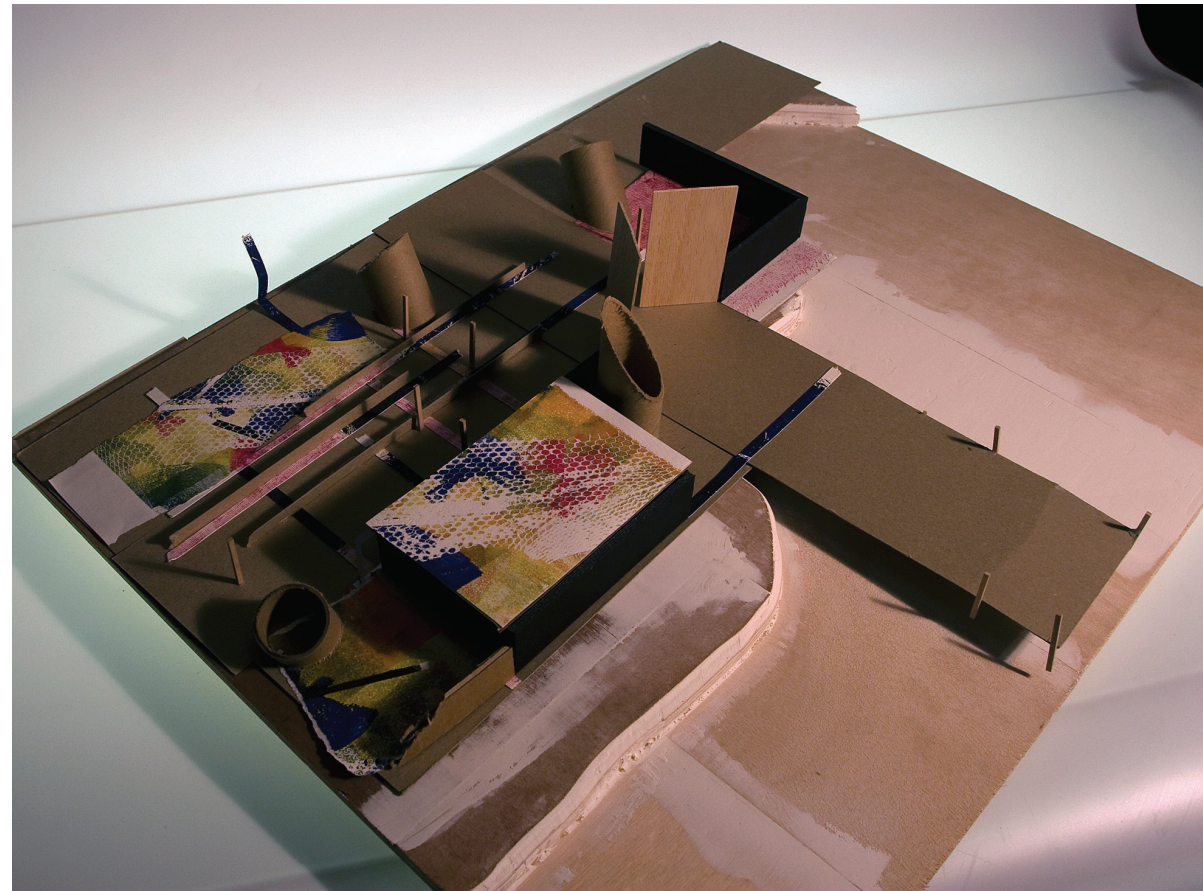
models





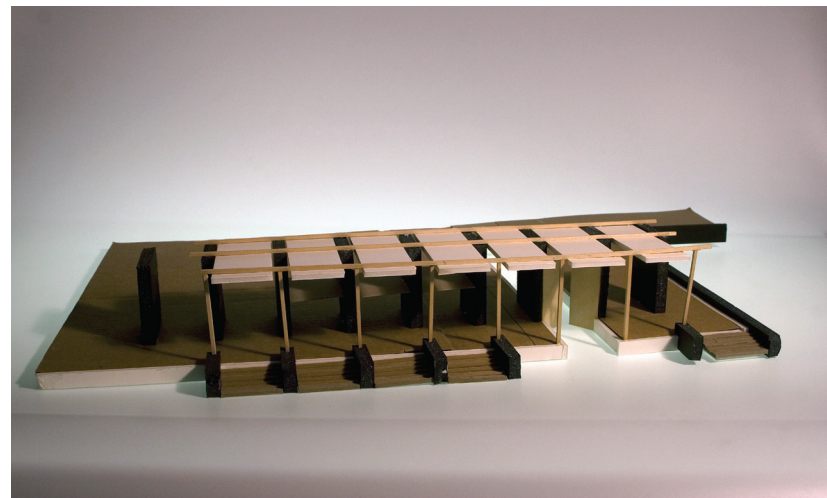
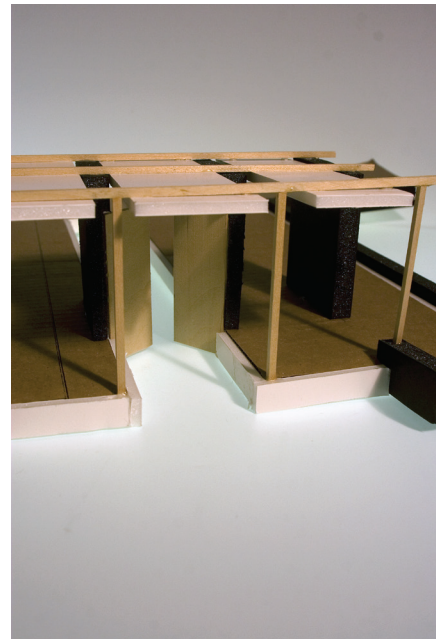
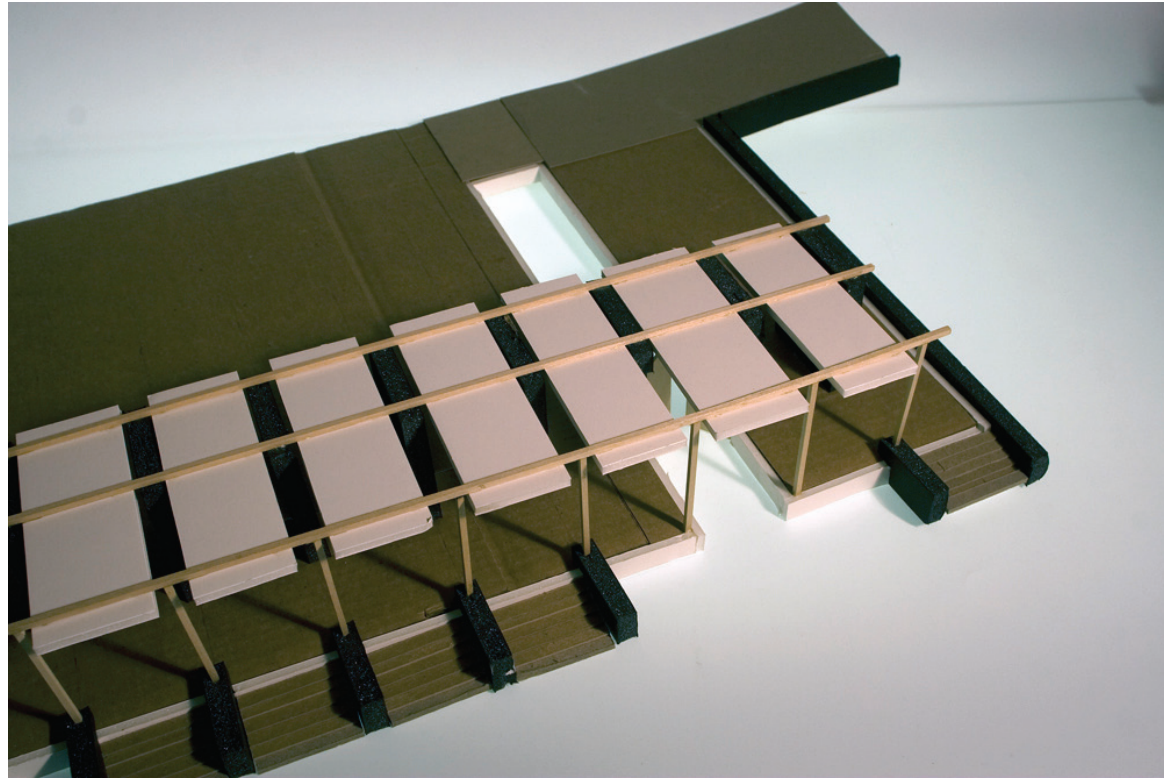
assemblage

pavilion, study model



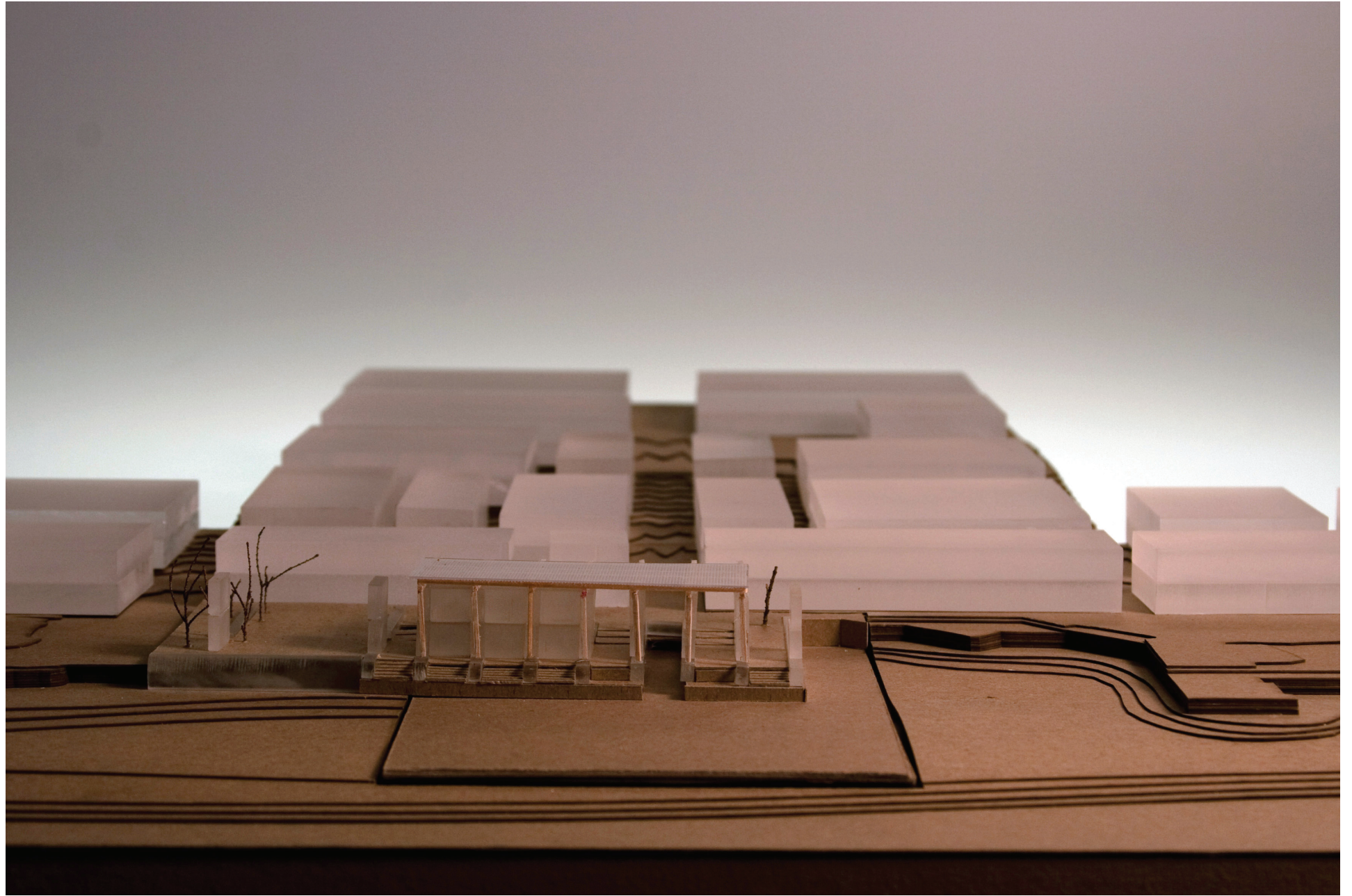
development model

assemblage

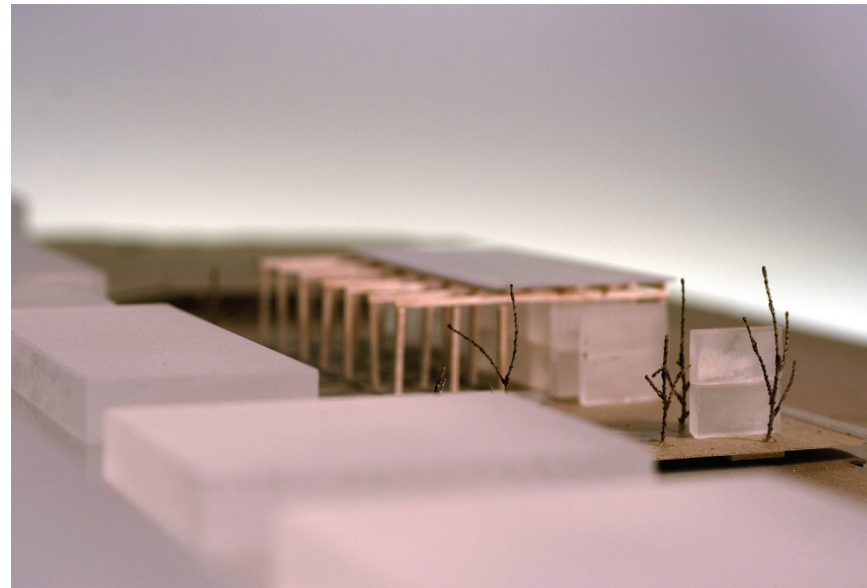
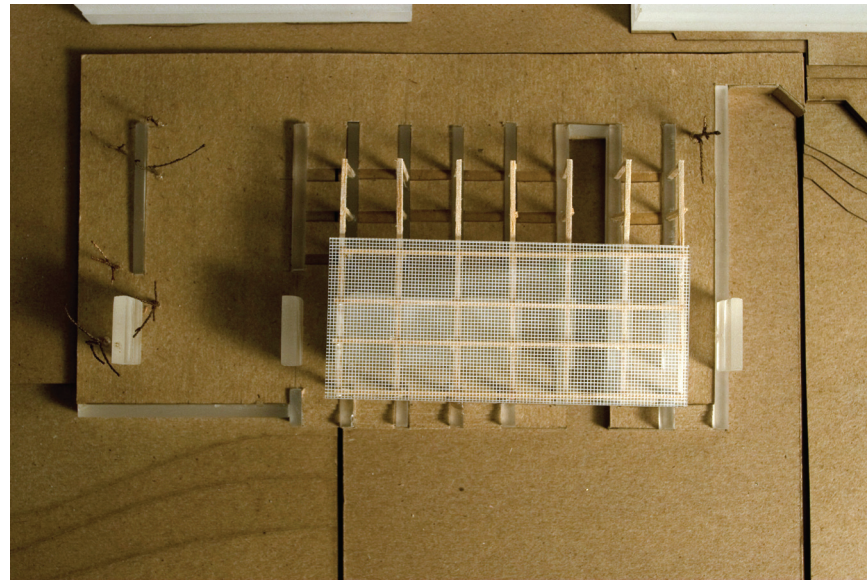
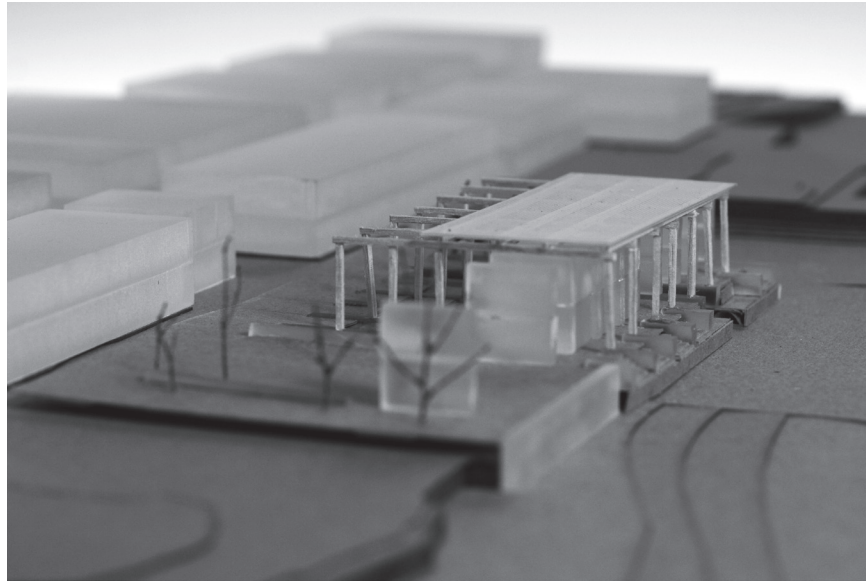


assemblage

development model

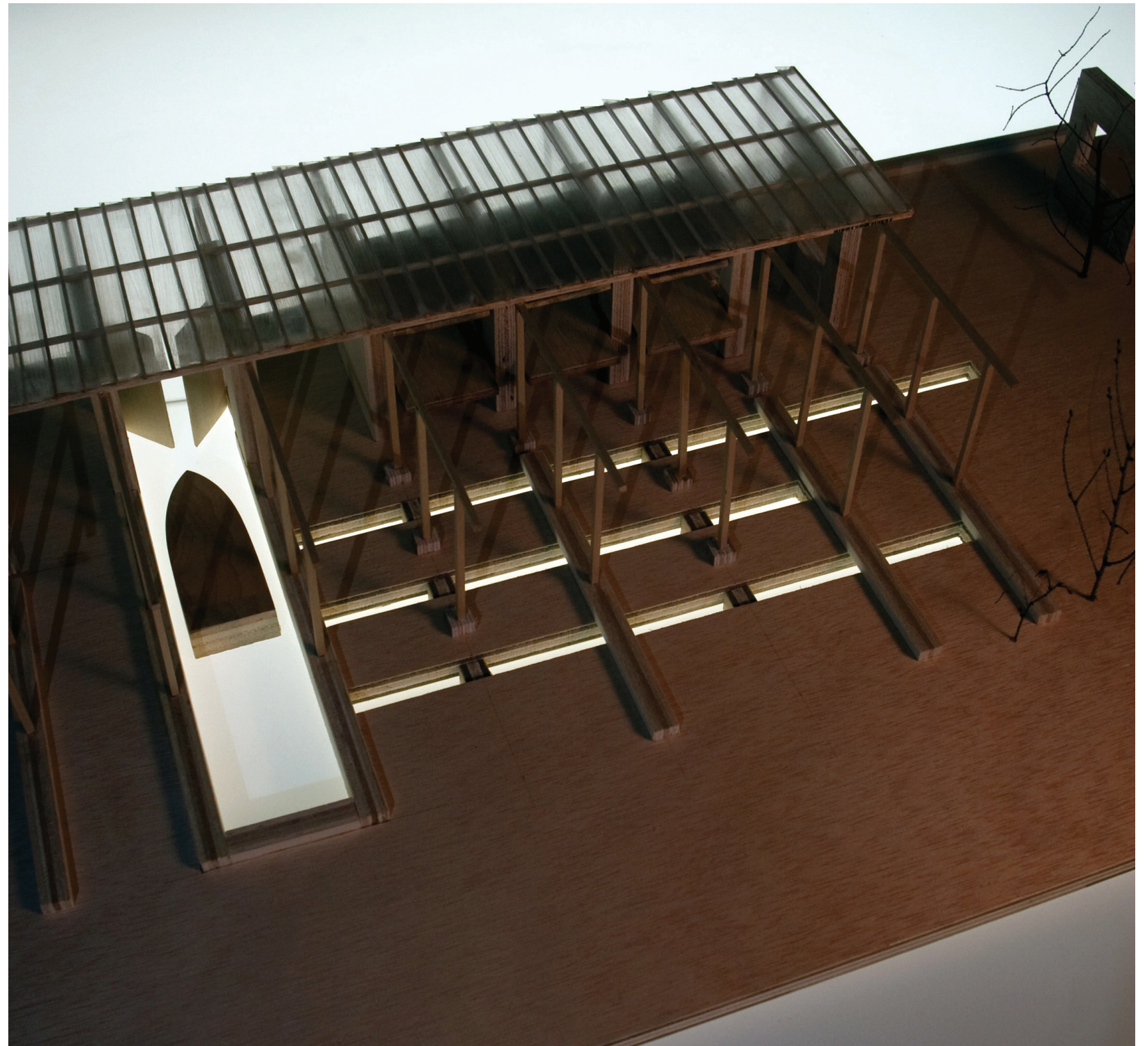


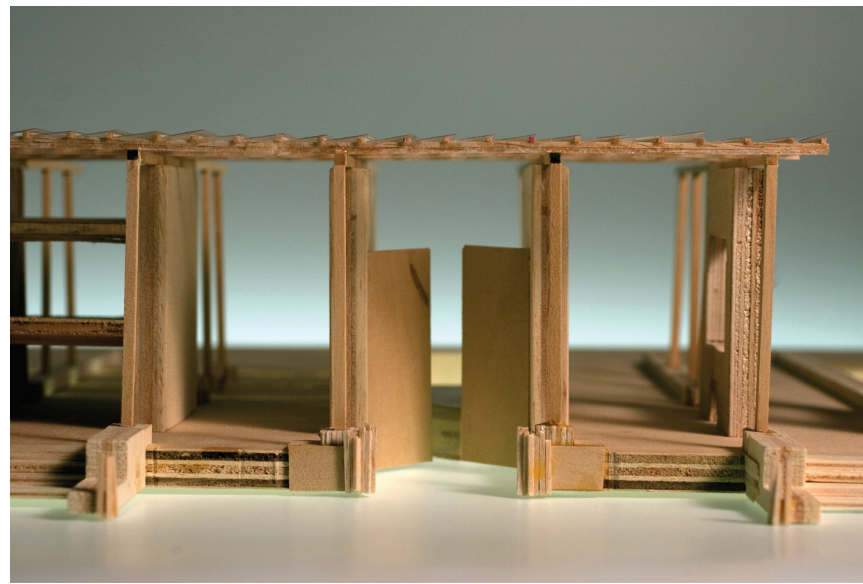
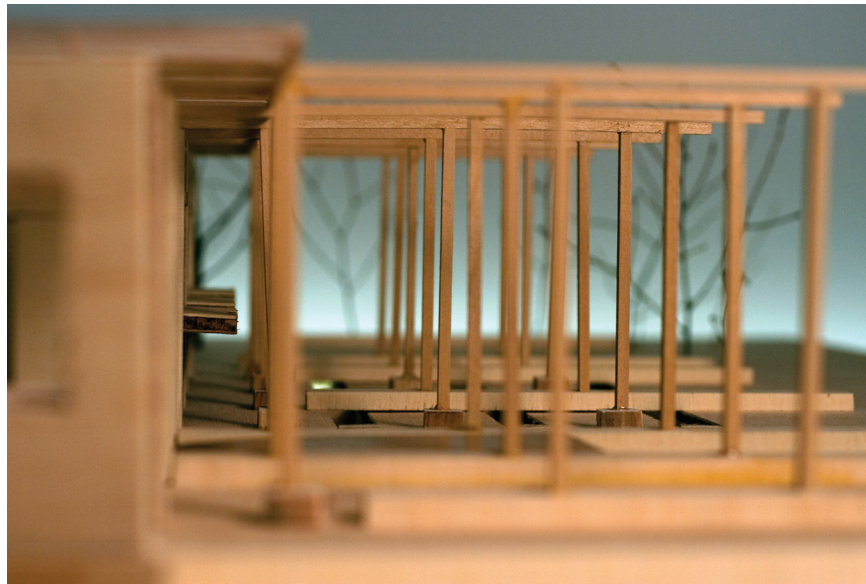
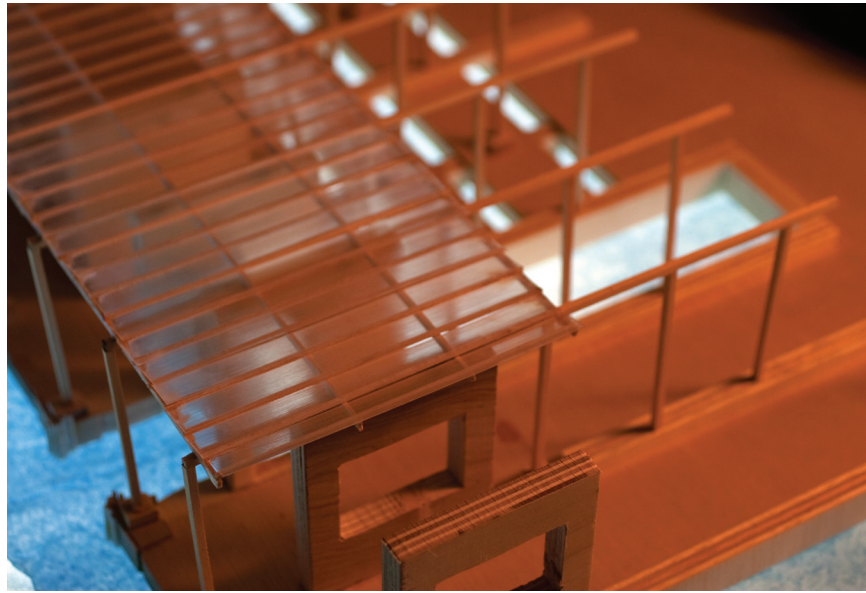
city model, 1"= 60'-0"



assemblage

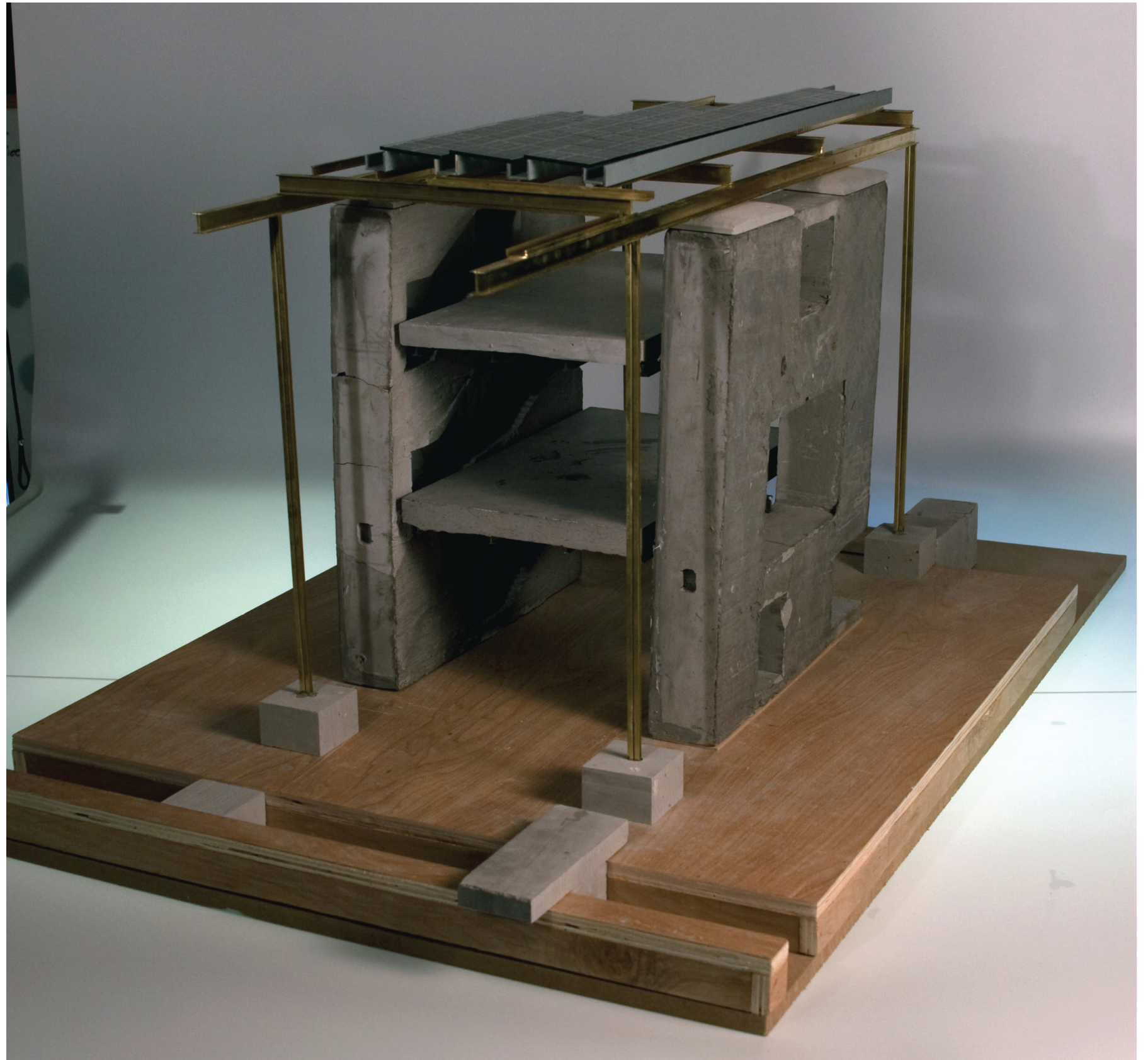
city model, 1"= 60'-0"

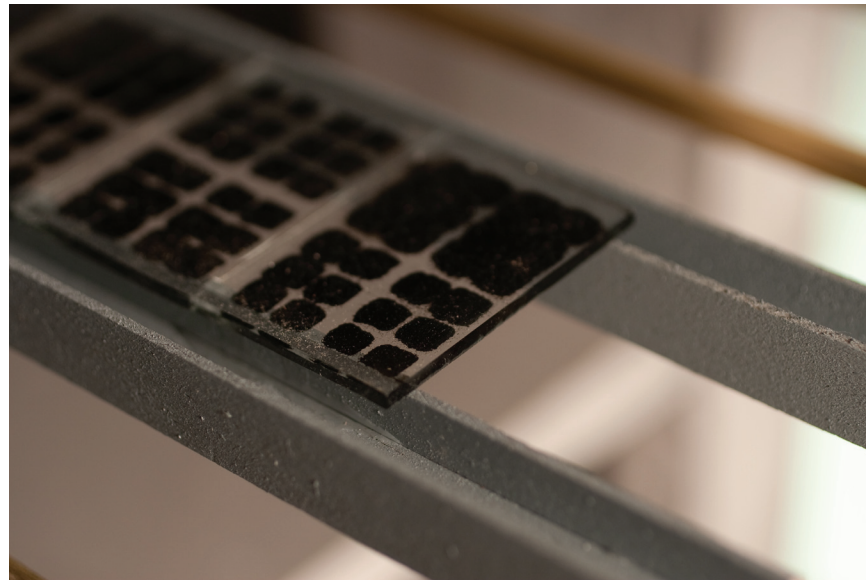
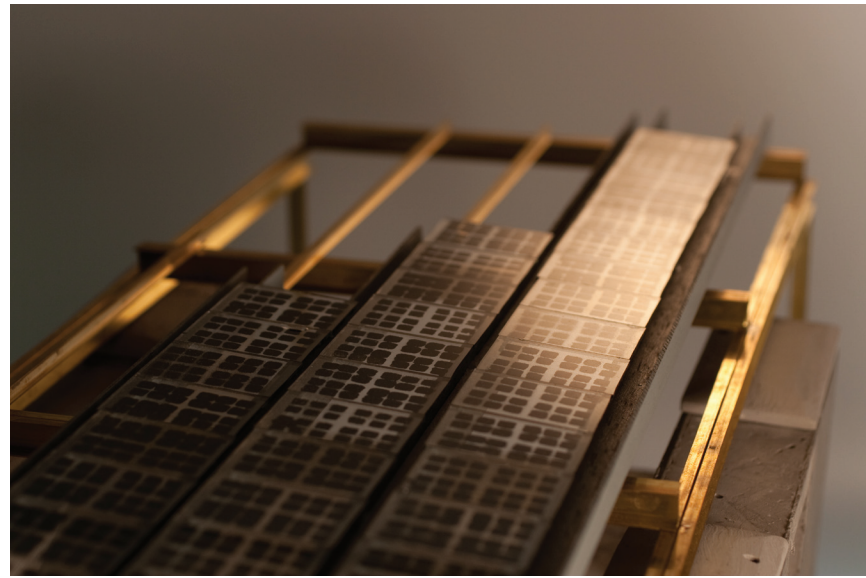




assemblage

site model, 1"= 16'-0"





assemblage

bay model, 1"= 4'-0"



book III - the rest

## the end

in the end, the project is not defined by any one media or drawing. the models, prints, drawings all work together. the project is not fully seen through any one type, but reveals itself when assembled together.

*“What is to be sought in designs for the display of information is the clear portrayal of complexity. Not the complication of the simple; rather the task of the designer is to give visually access to the subtle and the difficult – that is, the revelation of the complex.” - Edward Tufte*



*“symbol”*, monotype print

## selected readings

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Lydon, Donlyn and Moore, Charles W. "Chambers for a Memory Place"  
(Cambridge, Massachusetts: MIT Press, 1994.)

Ackerman, James and Wolfgang, Jung. "Conventions of Architectural Drawing:  
Representation and Misrepresentation." (Boston, Massachusetts: Harvard Press, 2000)

Frasconi, Marco. "From Models to Drawings." (New York: Routledge, 2007)

Perez-Gomez, Alberto. From Models to Drawings. (New York: Routledge, 2007)

Evans, Robin. "Translation from Drawing to Building." (London: Craft Print, 1997)

Serlio, Sebastiano. "On Architecture, Books I-V" (New Haven: Yale Press, 1996)

Leong, Sze Tsung. "Conventions of Architectural Drawing: Representation and  
Misrepresentation." (Boston, Massachusetts: Harvard Press, 2000)

Wieland, Schmed. "[Un]Built." (Slovenia: Springer-Verlag/Wien, 1996).

Perez-Gomez, Alberto. Architectural Representation and the Perspective Hinge.  
(Cambridge, Massachusetts: MIT Press, 1997.)

Le Corbusier "Towards an Architecture" (New York: Dover, 1986)