

A Leap

Huizhong Sun
Providence, 2017



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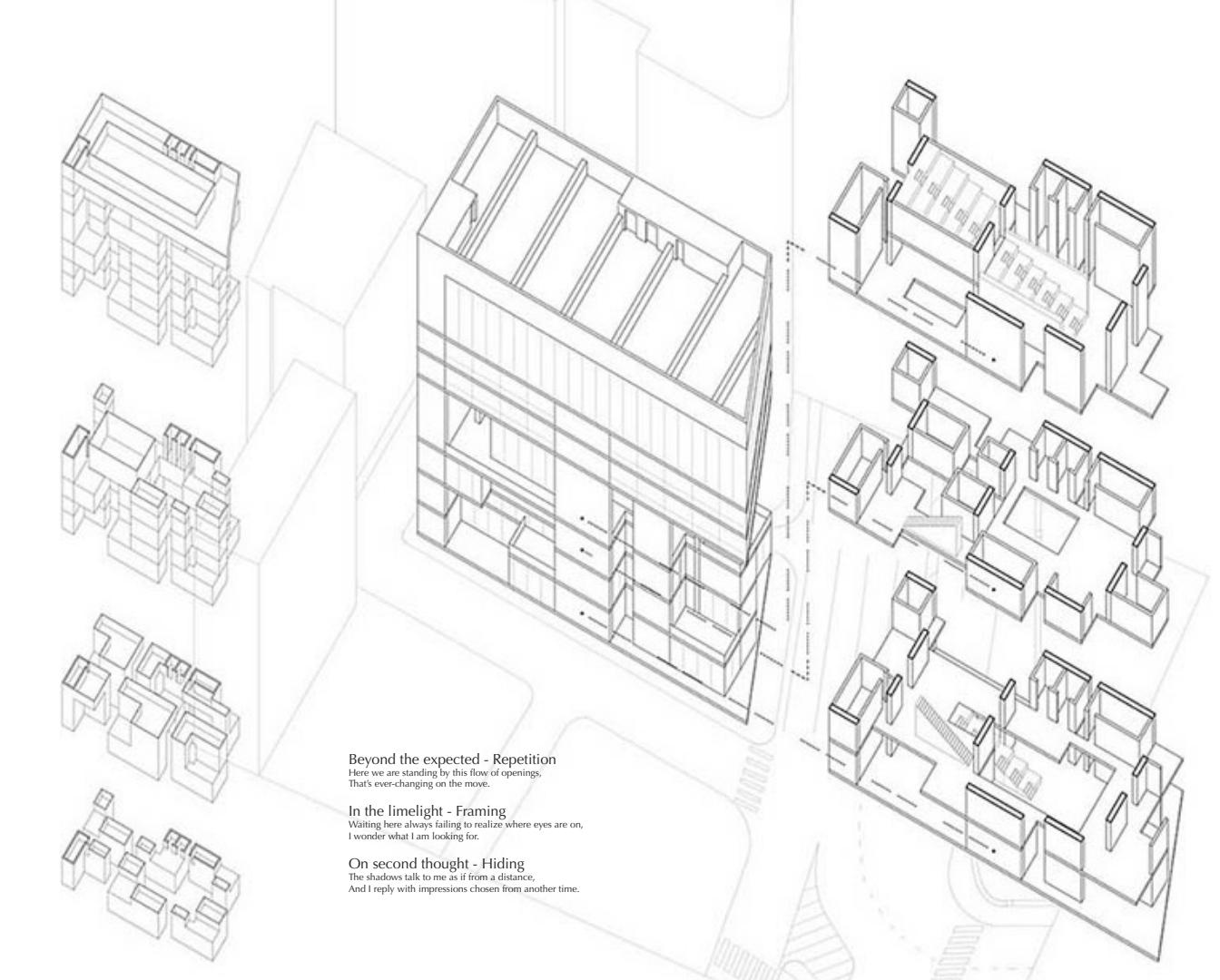
Recovery Program for Hailongtun Relics



On the move

Architecture in limited volumes can introduce infinite spaces. Ordinary elements can generate new anticipations within changing events. Wandering back and forth in dramatically changing volumes can provide a different view to see others and oneself. Not being able to see the whole always leaves a space for imagination. The thesis aims to trigger a curiosity to move and change.

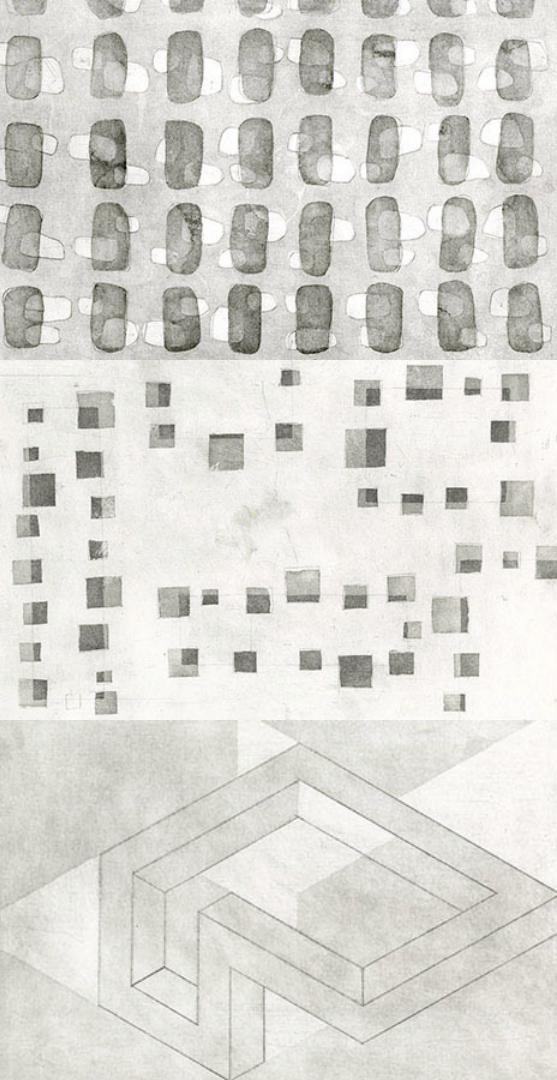
Fall 2016 @ RISD

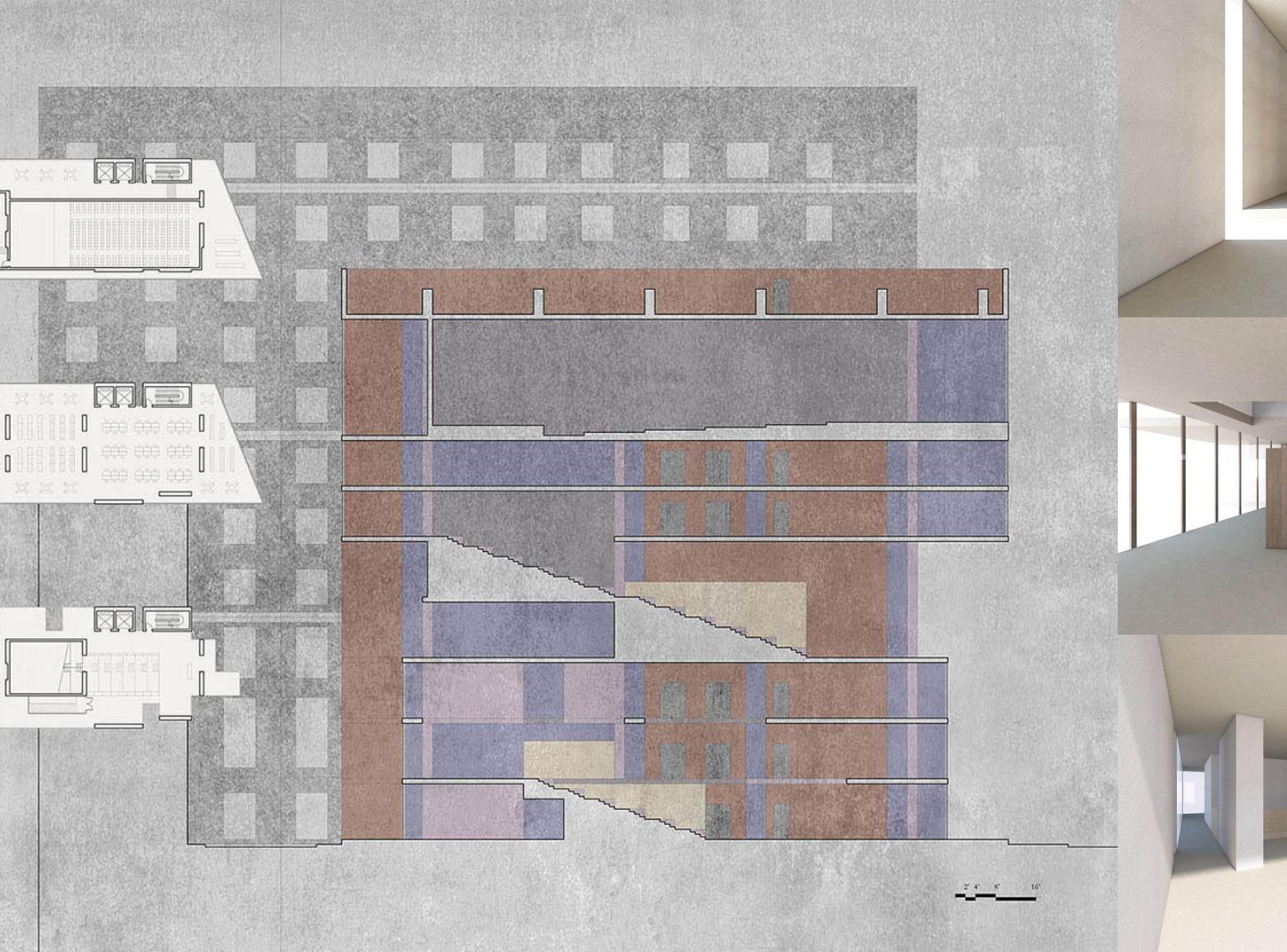
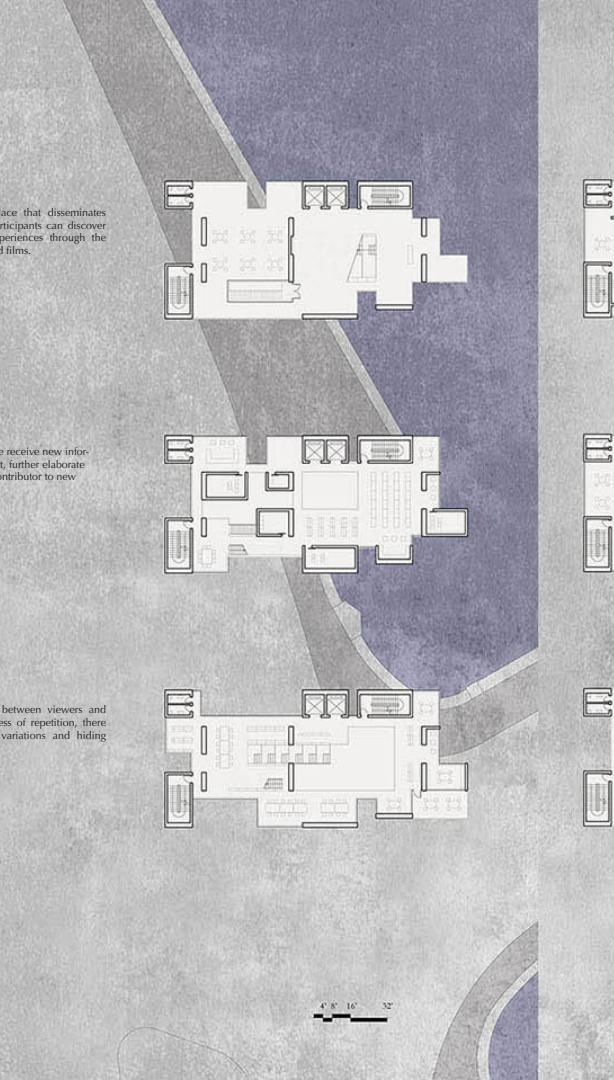
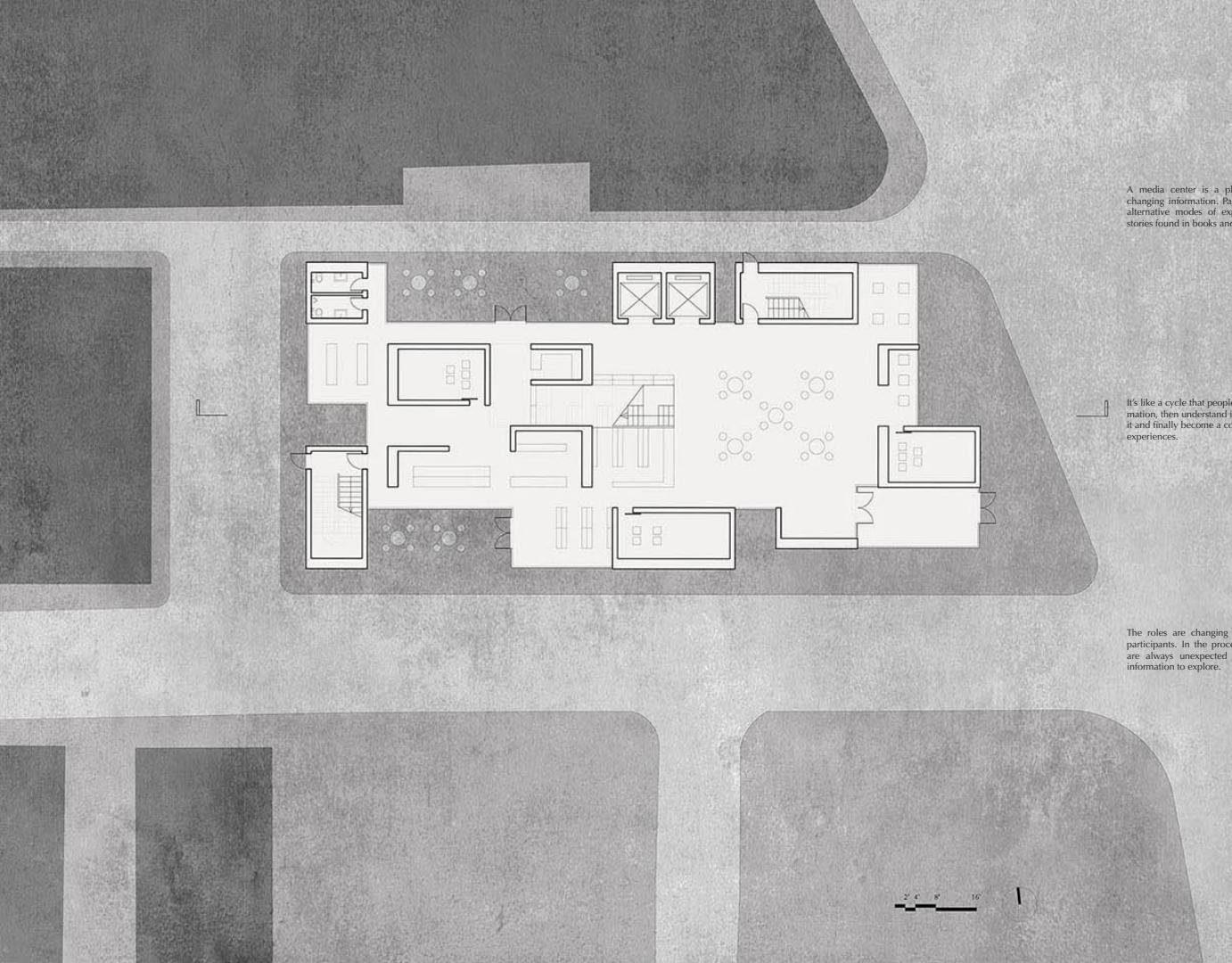


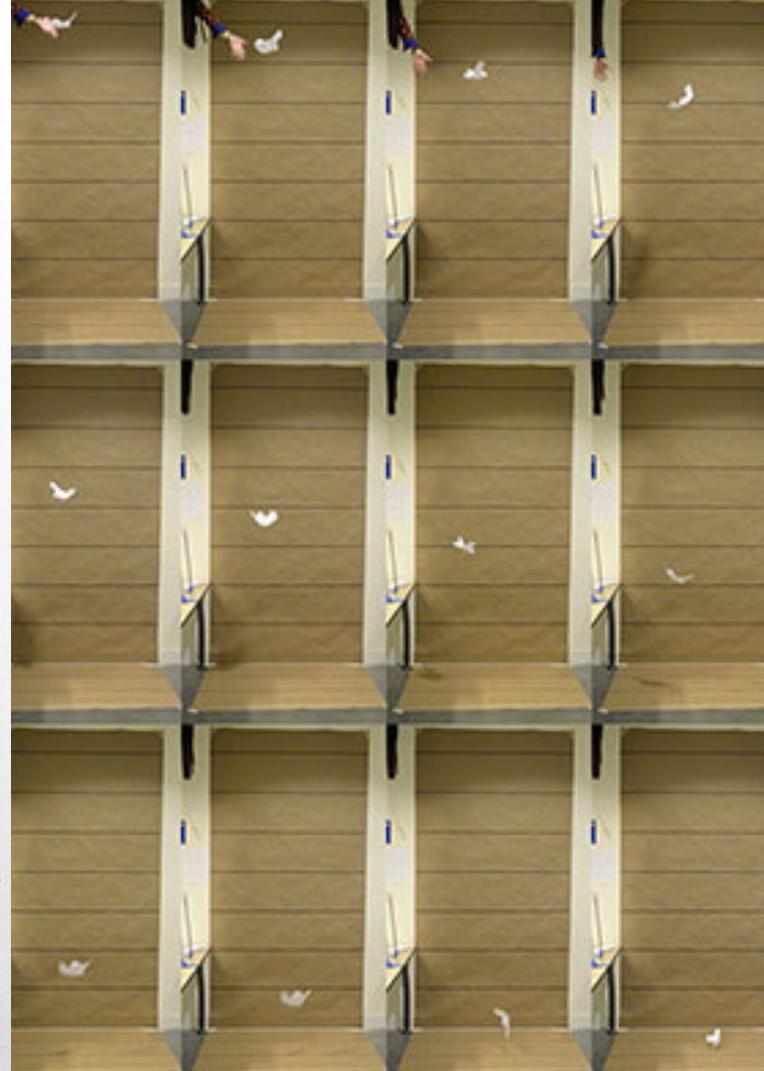
Beyond the expected - Repetition
Here we are standing by this flow of openings,
That's ever-changing on the move.

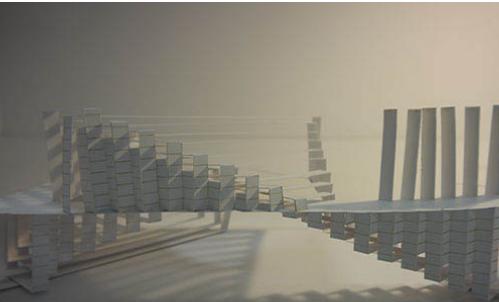
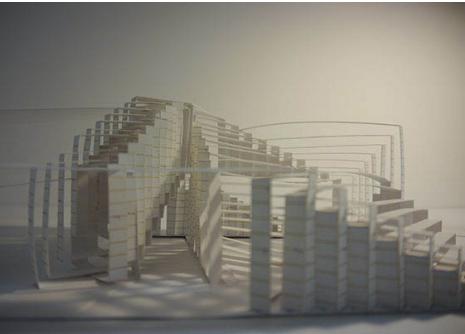
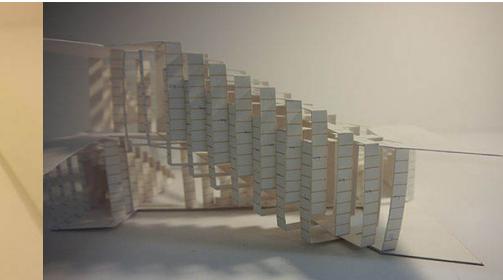
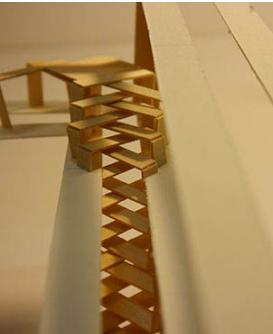
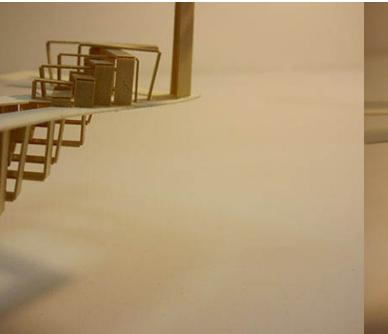
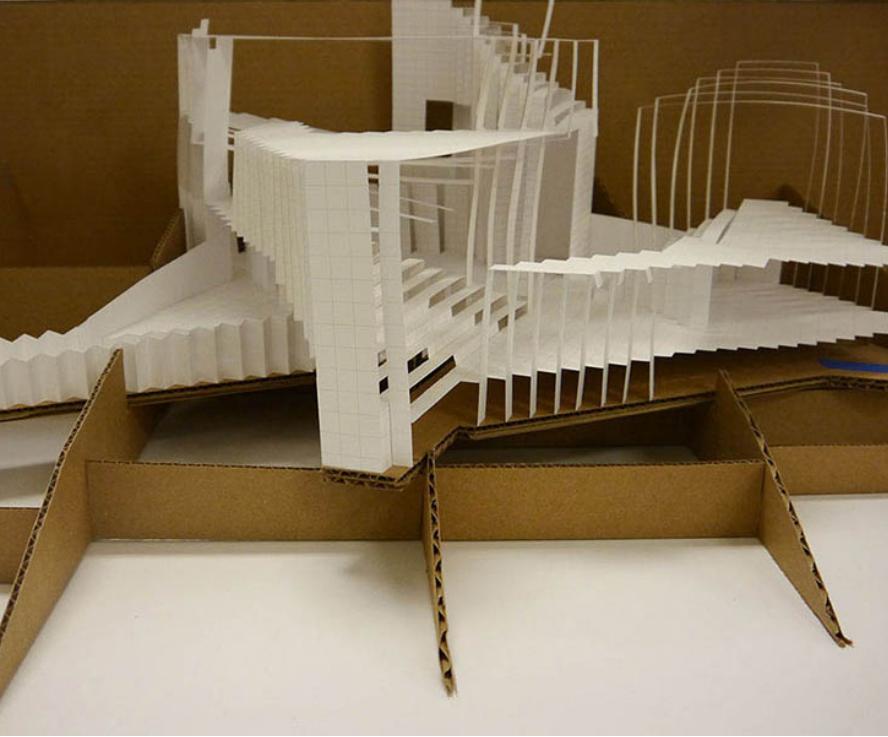
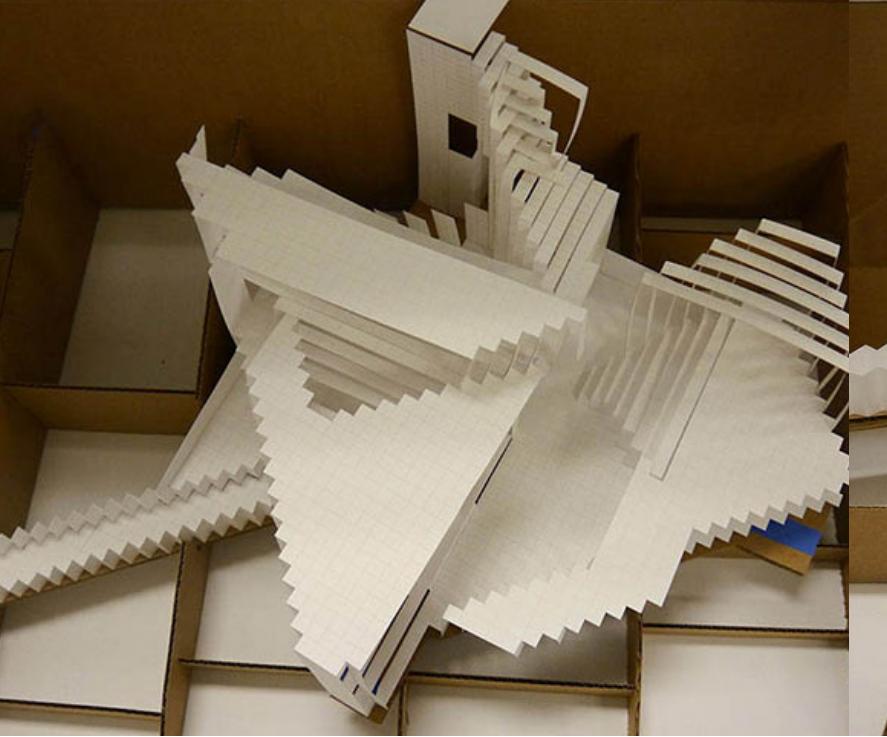
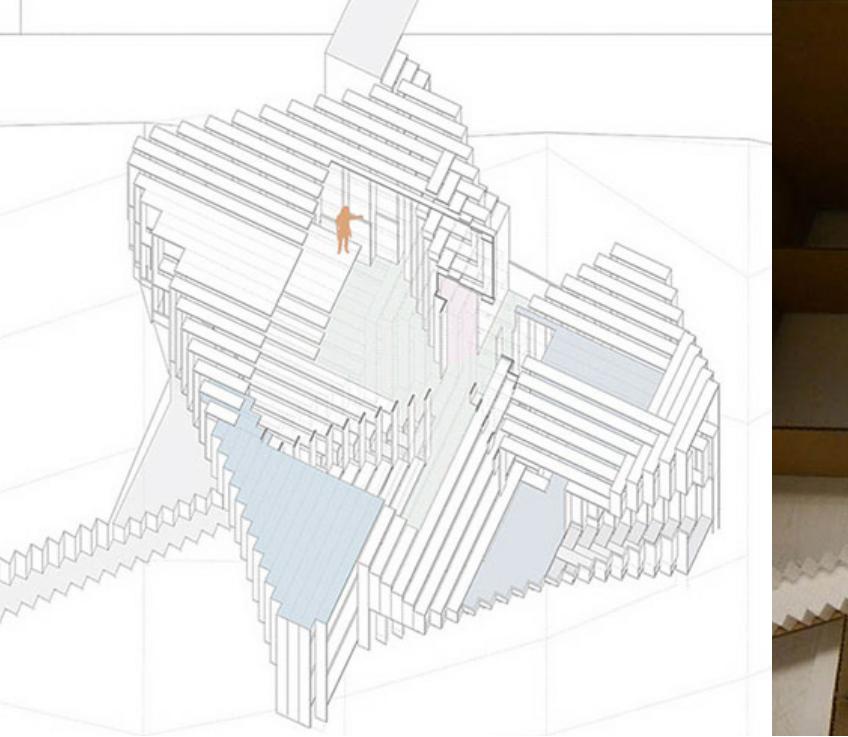
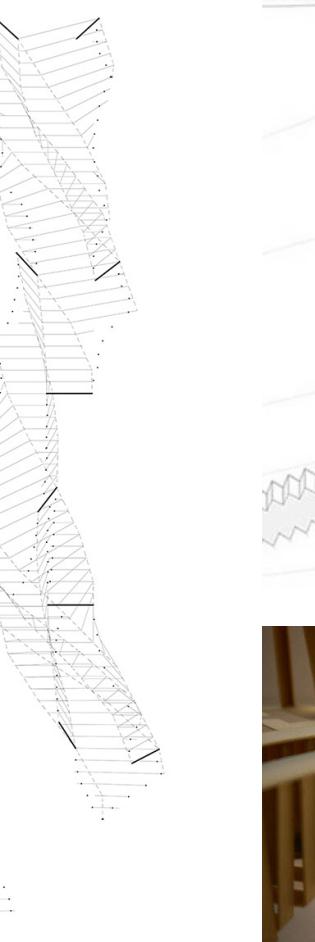
In the limelight - Framing
Waiting here always failing to realize where eyes are on,
I wonder what I am looking for.

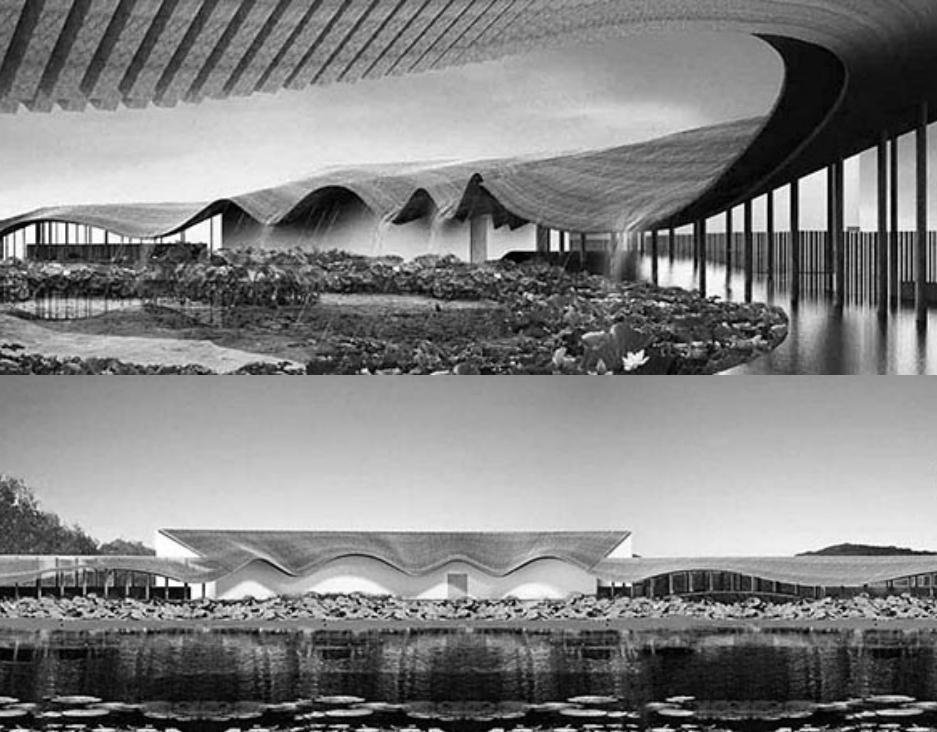
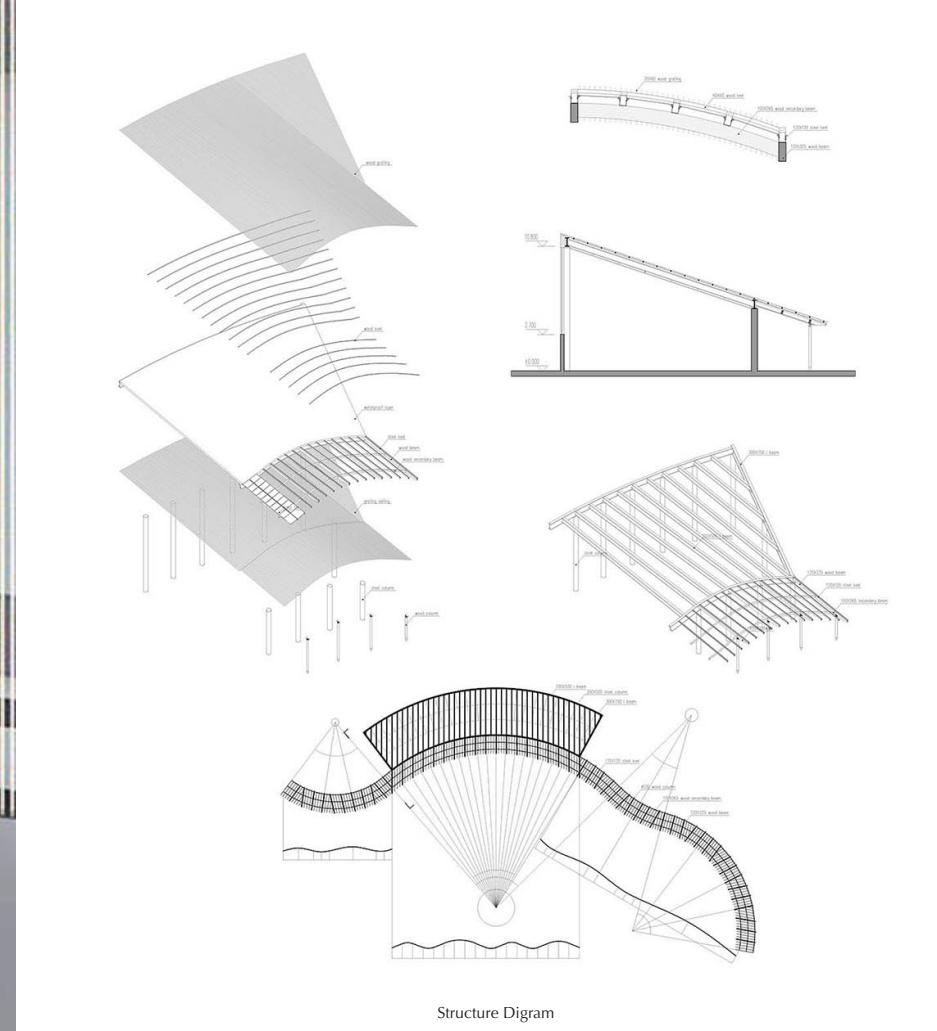
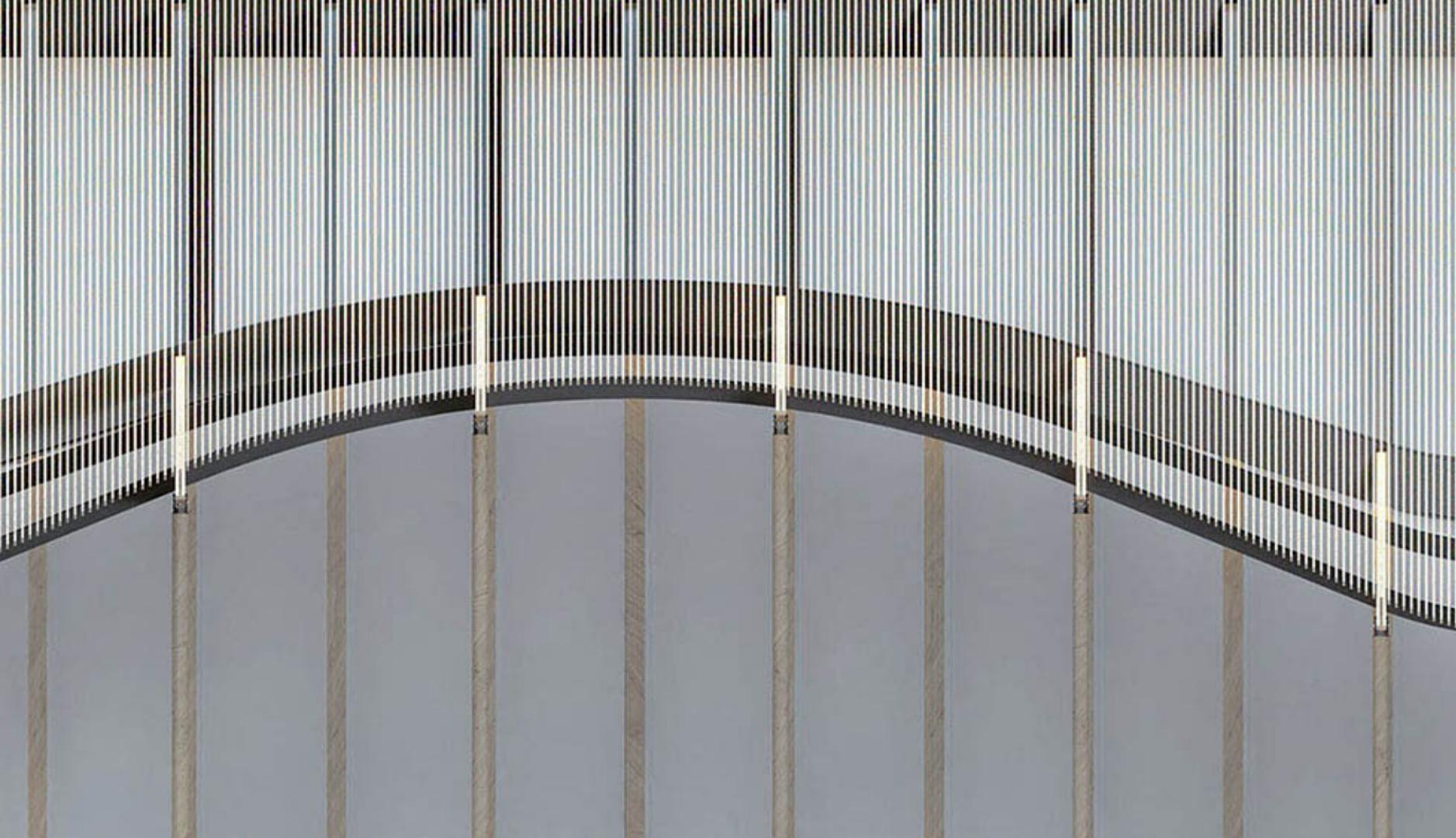
On second thought - Hiding
The shadows talk to me as if from a distance.
And I reply with impressions chosen from another time.







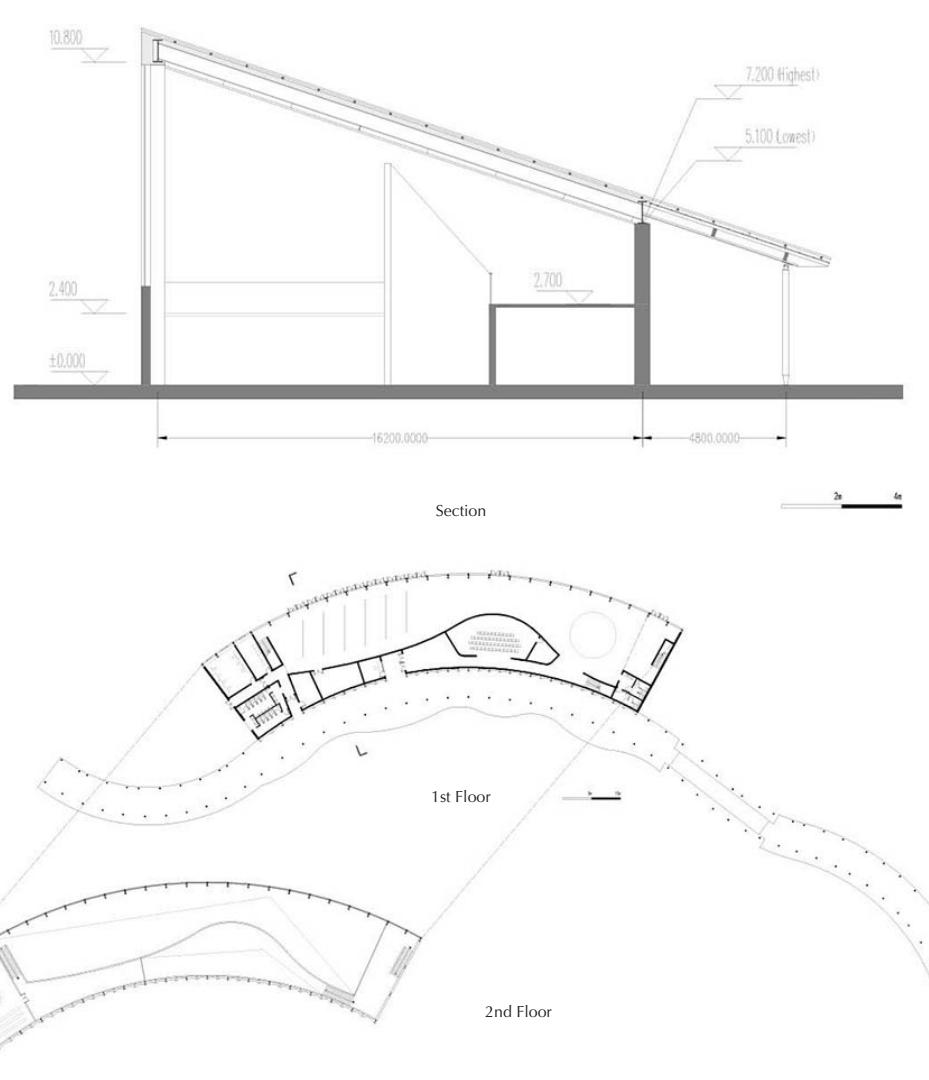




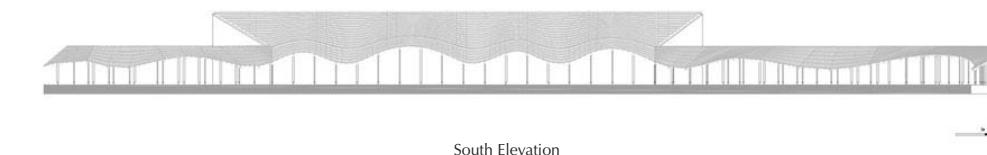
Finding the Place

It is an exhibition center called LOTUS. As the name implies, it is supposed to be connected with the image of a lotus for the local fame of a lotus pond. A picture capturing a lotus leaf in a rainy day leaves us a hunting ground for ideas. Thus the curve becomes the bridge between a literal resemblance to a physical reality and a phenomenal recall to a soft and dynamic feeling. The building finds its place in the natural context and turns into the essential part of a whole new world.

Fall 2014 @ Neo Design



The main exhibition hall is filled with diffuse light though high-light windows in the north.

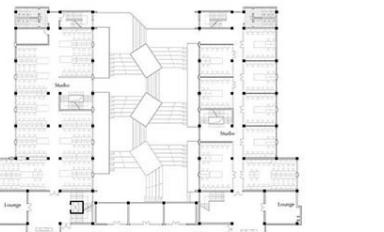
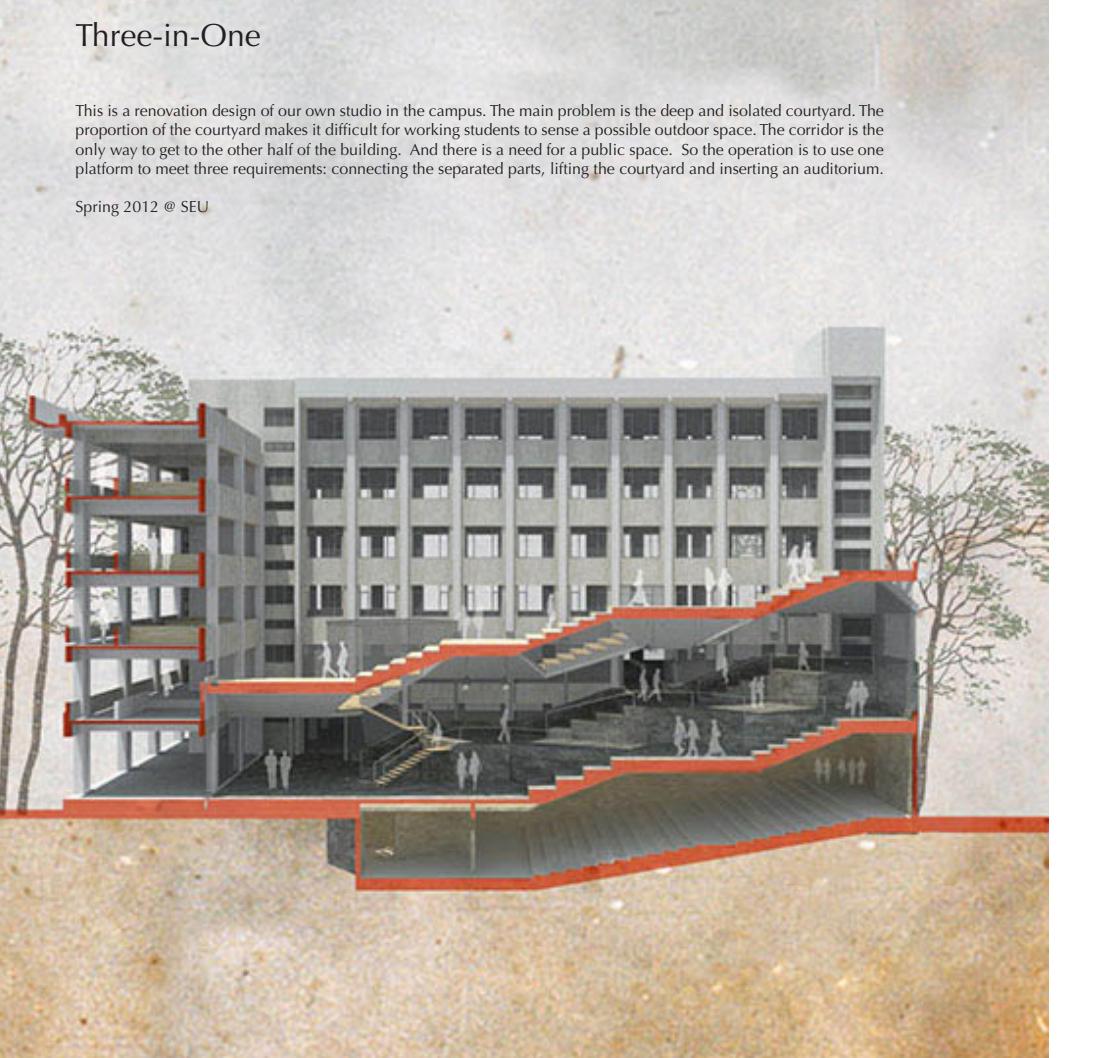




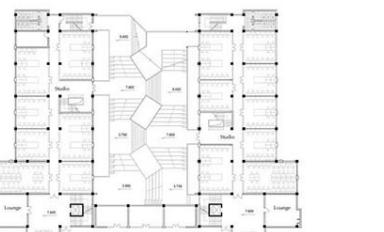
Three-in-One

This is a renovation design of our own studio in the campus. The main problem is the deep and isolated courtyard. The proportion of the courtyard makes it difficult for working students to sense a possible outdoor space. The corridor is the only way to get to the other half of the building. And there is a need for a public space. So the operation is to use one platform to meet three requirements: connecting the separated parts, lifting the courtyard and inserting an auditorium.

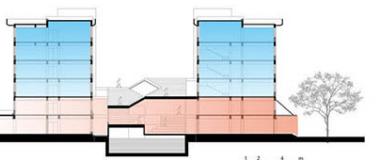
Spring 2012 @ SEU



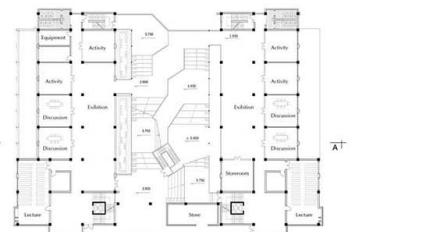
4th Floor



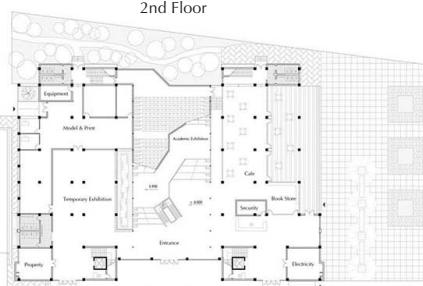
3rd Floor



A-A Section



2nd Floor

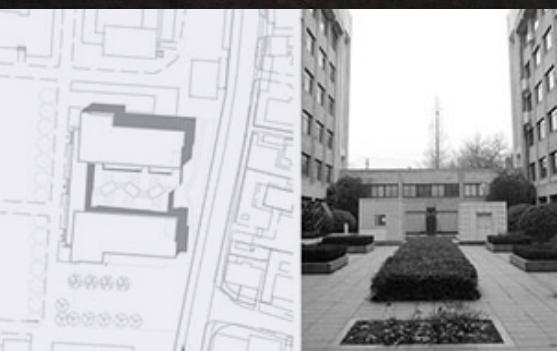
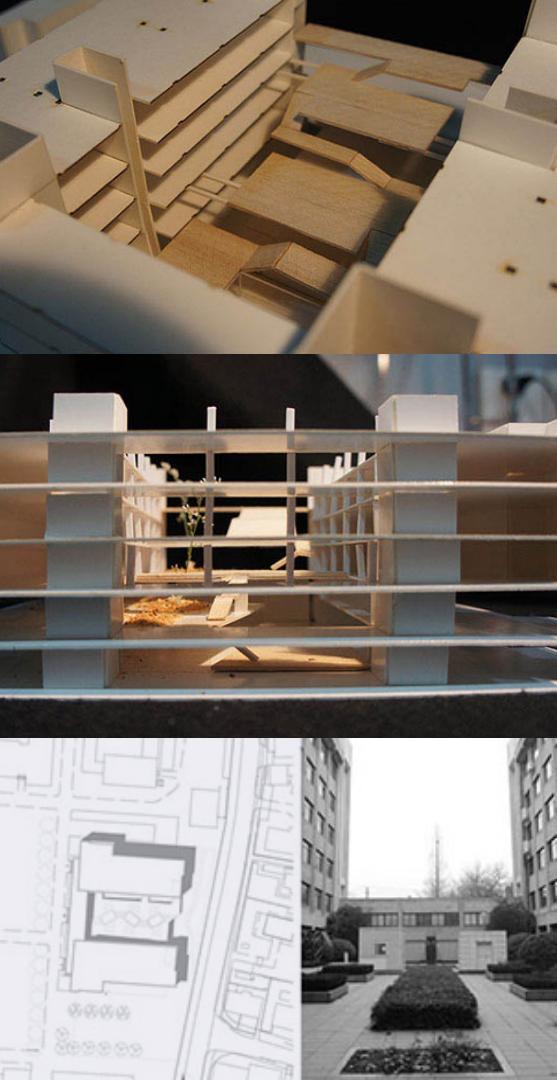


1st Floor

The original yard has been divided into two parts: one indoor main hall and one platform in the open air with a beautiful view of the tall trees in the campus.



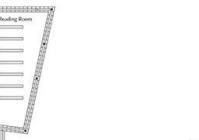
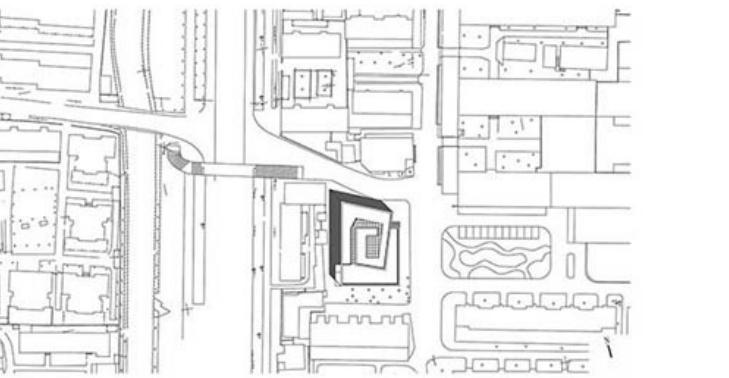
The main hall with platforms has a welcoming position to both students and guests and also serves as a window for the school on the street facade.



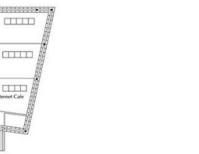
Rising Spiral

It has a beautiful and mixed surrounding. There is a small garden to its east; a college dormitory is to its north while to its south lays the residential area. As it is a community library, the main users could cover a long age span from the young to the elderly.

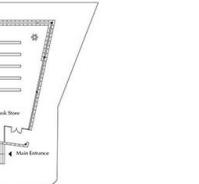
Spring 2011 @ SEU



7.25 Plan



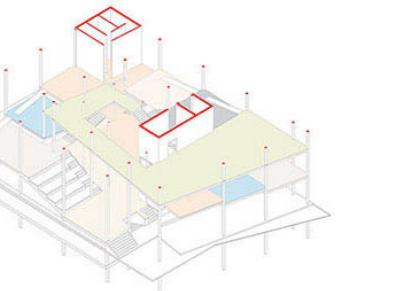
4.25 Plan



±0.00 Plan



-3.600 Plan



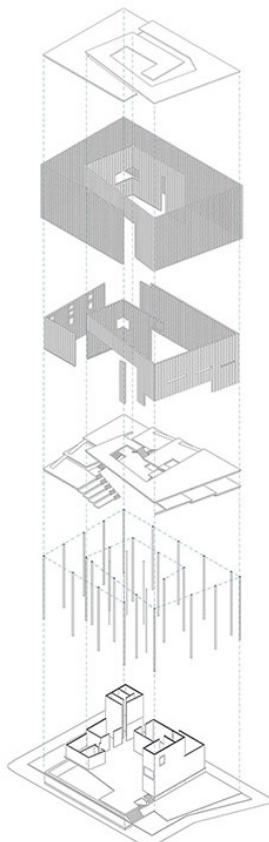
On the rising terrace are reading rooms of varied size in need of different privacy. Under the terraces are the administration offices with an independent entrance and a bookstore facing the street. The study rooms are arranged underground and share the same entrance with the main hall.



Stairs close to the inner spiral bookcases are designed as the main route with several openings to each terrace for readers to pass through. When the readers need to go directly for a book after an inquiry at the information desk, they may use the elevator and staircase in the core.

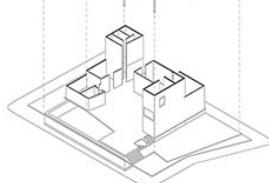


The terraces make it a problem to move books. So some slopes are arranged close to the bookcases for the convenience of the librarians.



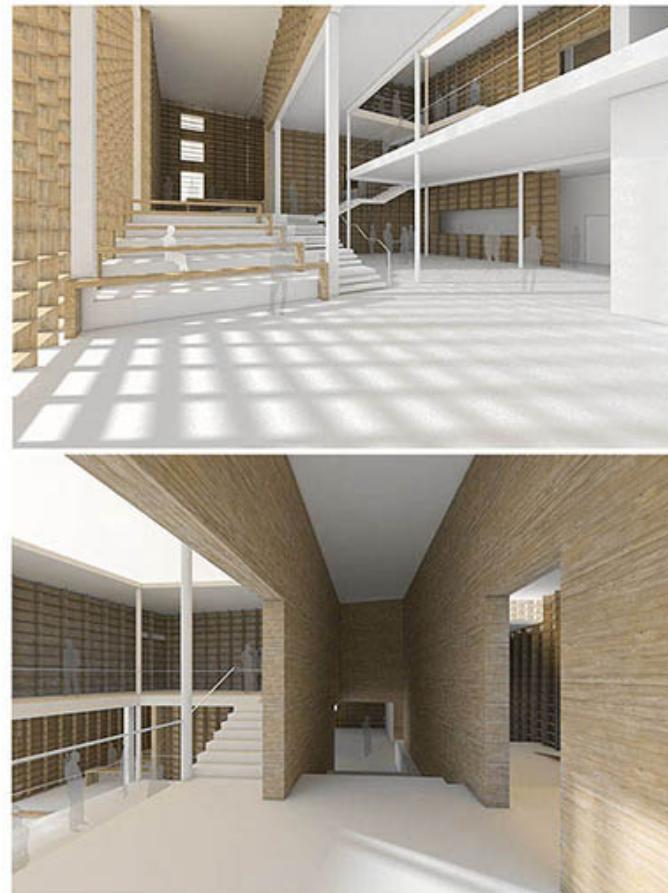
01

A library wanderer may not go directly for a specific book. Here is another choice: meandering through bookcases and to encounter with your book. That's where the spiral idea came from.



02

Also, a staircase and an elevator are provided in addition to the spiral ramp as shortcuts to the main reading platforms.



Logic in Chaos

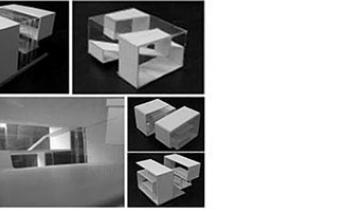
The site is in chaos, so the building needs an inner logic.
Its surroundings get overcrowded so it needs breathing.

Spring 2010 @ SEU



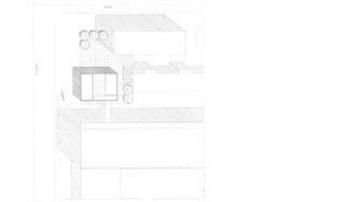
Operation of Slabs

The folding operation creates a vertical continuity and also an in-between breath.



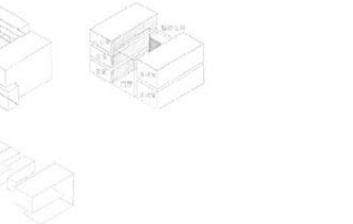
Proper Volume

The compact volume is derived from the limited site situation, again asking for an inner exploration.

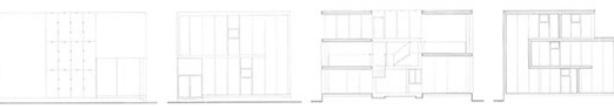


Functional Module

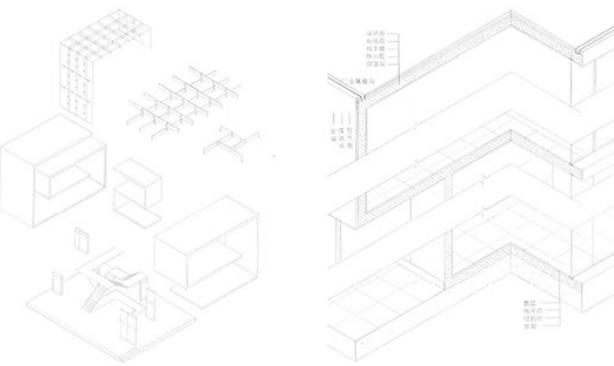
Mainly there are three parts: one main hall and two working sections, one of which is divided into three stories to have a higher capacity in a limited plan. The sharing stairs connect two sections with a half-story difference in height.



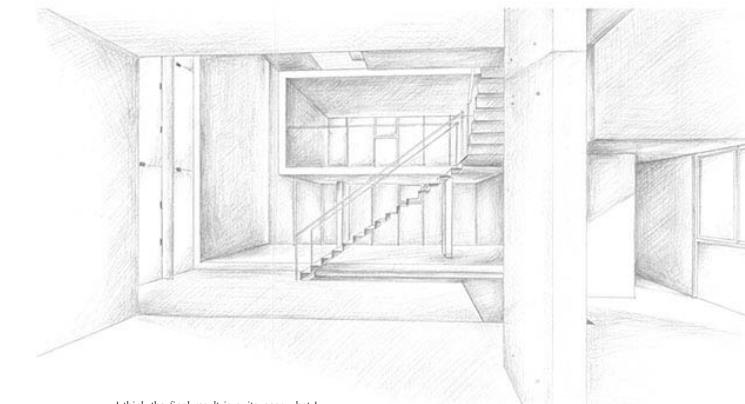
Plans



Elevations and Sections

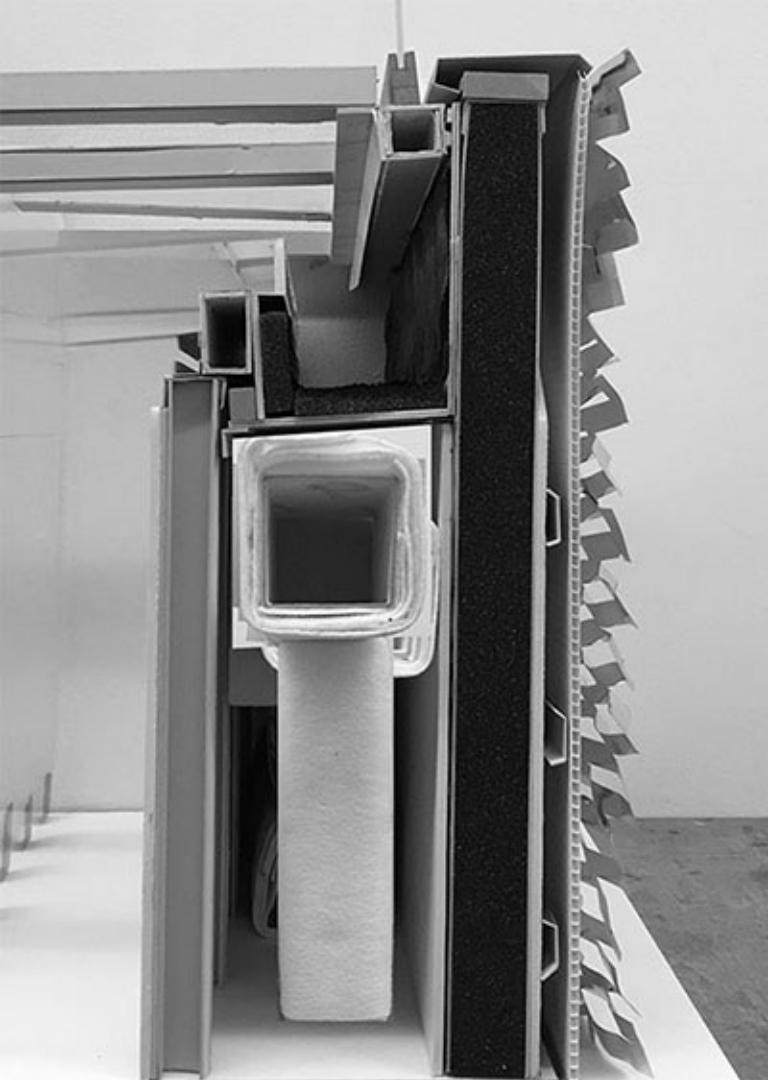


Construction Method



I think the final result is quite near what I proposed at the beginning, a small, bright, vivid activity center breathing in chaos.

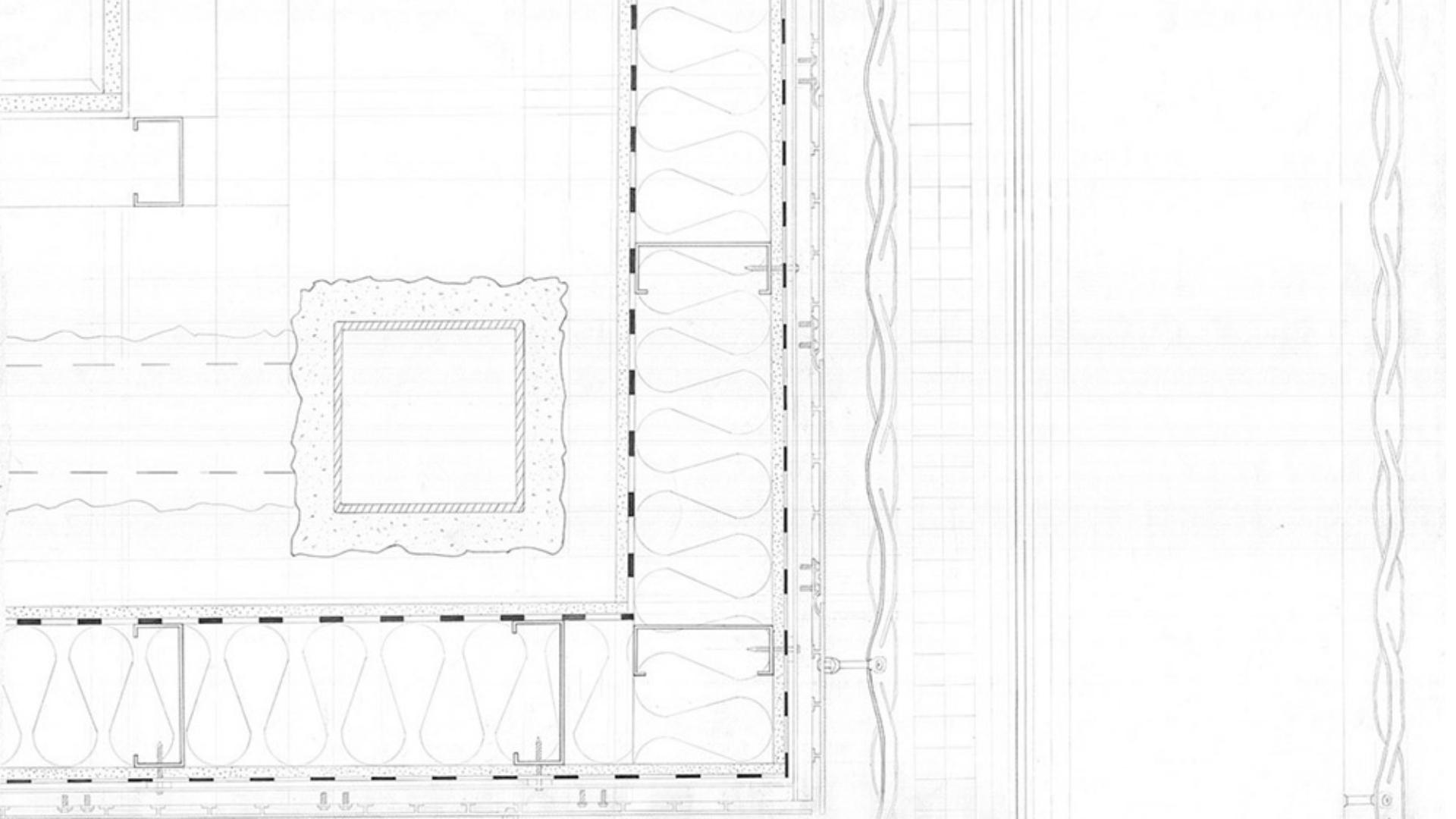




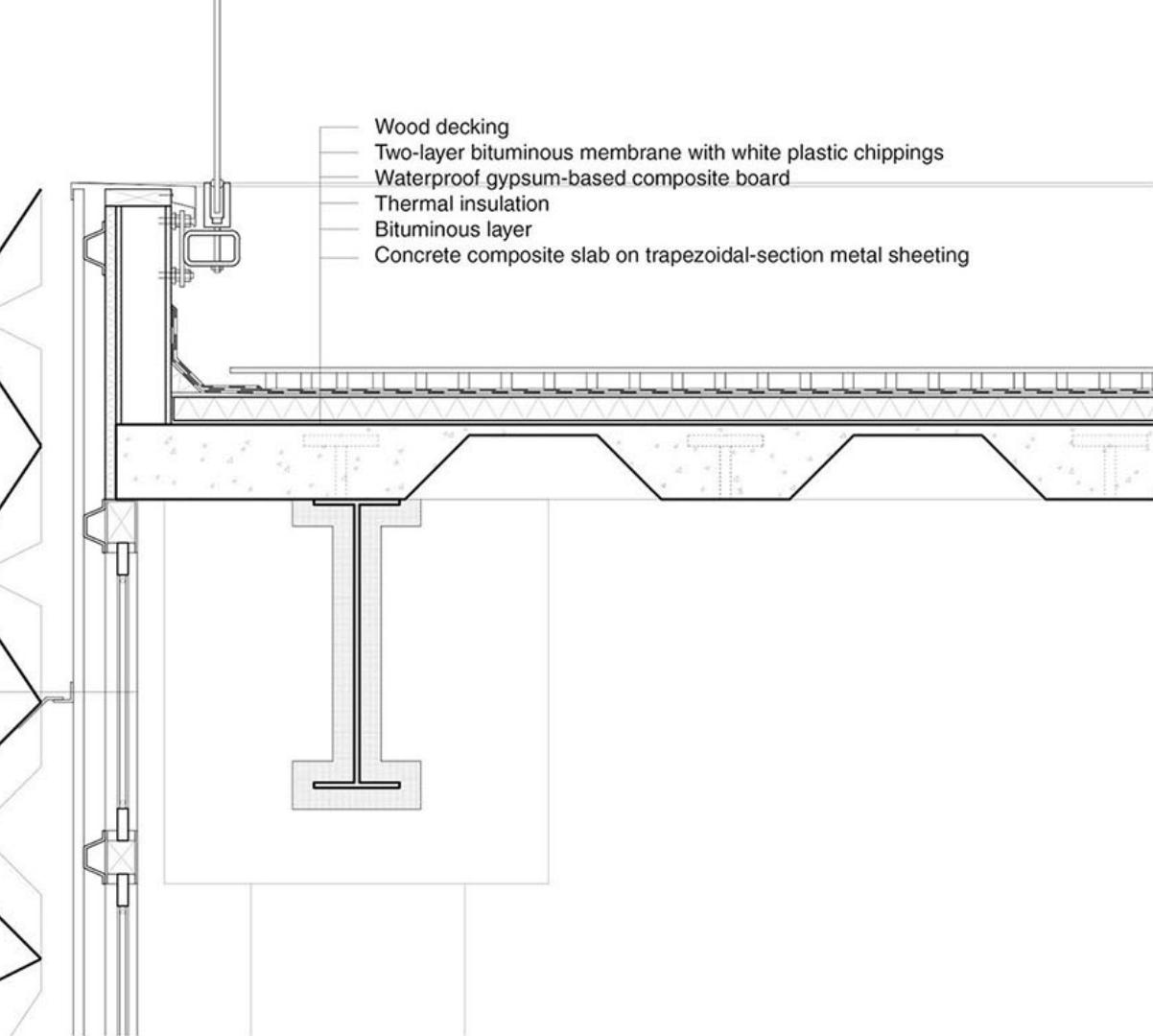
A Study of the Enclosure

Architecture is enriched when the resolution of the detail reinforces and propels the larger idea. A study of the systems enclosure is part of a group study of the sequence to integrate disparate elements of architectural production into a comprehensive whole. It begins with a case study of the New Museum in New York City by drawing an exterior wall section including where it meets the roof, floor and ground. The next is to develop our own sectional drawings to show layering and relation between materials. Here is my part in the group work.

Fall 2016 @ RISD



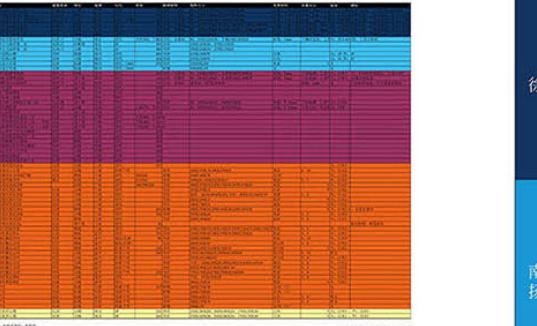
Metal mesh
Stainless-steel clips
Aluminium sheeting
Framed metal supporting structure



Wood decking
Two-layer bituminous membrane with white plastic chippings
Waterproof gypsum-based composite board
Thermal insulation
Bituminous layer
Concrete composite slab on trapezoidal-section metal sheeting



Research on the Manufacturing Art of Bricks

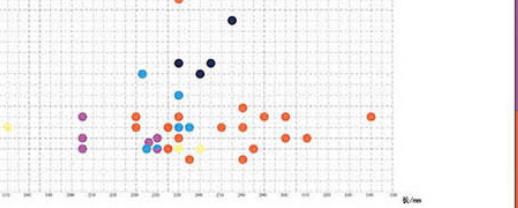


This is part of a research on ancient Chinese building materials, a project carried by National Natural Science Foundation of China. My partner Xingyu Shan and I are responsible for the research on bricks.

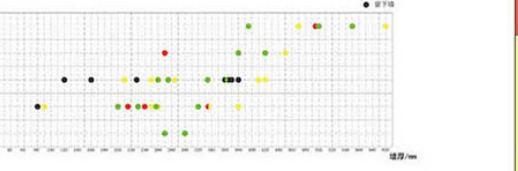
Traditional architectural manufacturing art mostly depends on individual makers - craftsmen, thus different districts maintain distinctive types in detail carried forward through word-of-mouth communication. Also, natural forces have a lasting impact on buildings so that various vernacular buildings emerge under different weather conditions. After a layering of the language zone and the climate zone, we divided the target research area into five zones - namely culture zone in order to do comparative studies on bricks as the key components of traditional masonry.

We further carried a three-month on-site investigation in different culture zones and recorded the findings in formatted axometric drawings. The dimension of bricks varies in different zones. As the thickness of walls increases from south to north, the method of construction changes accordingly.

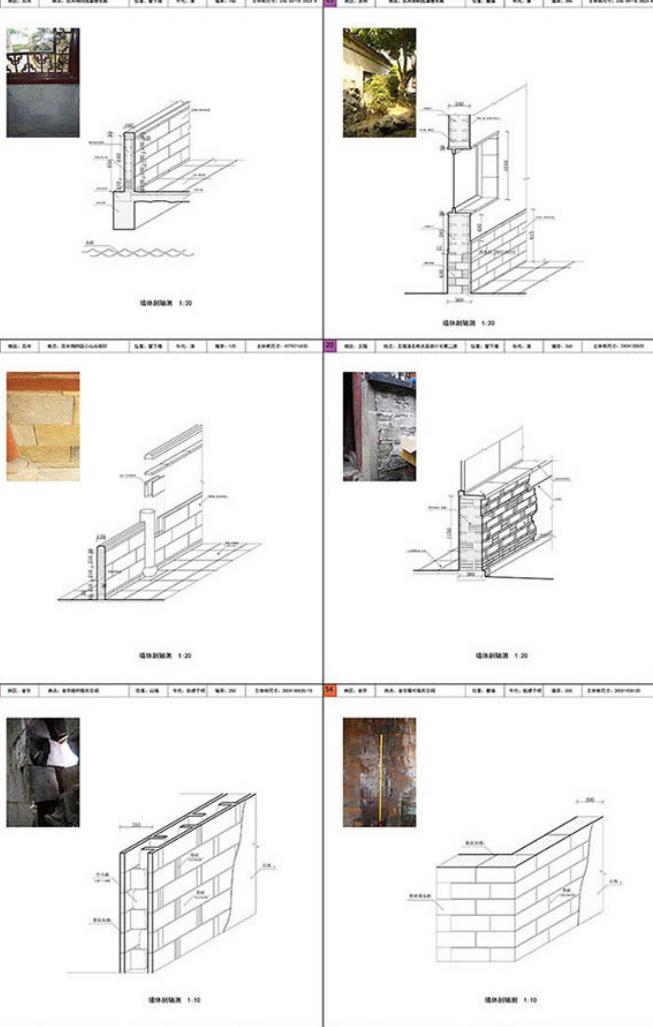
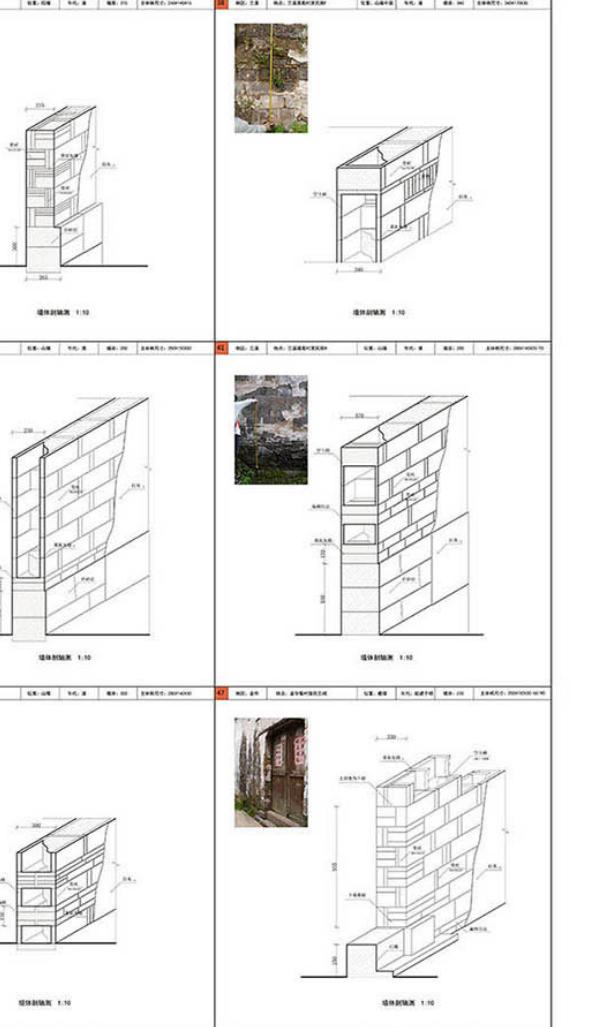
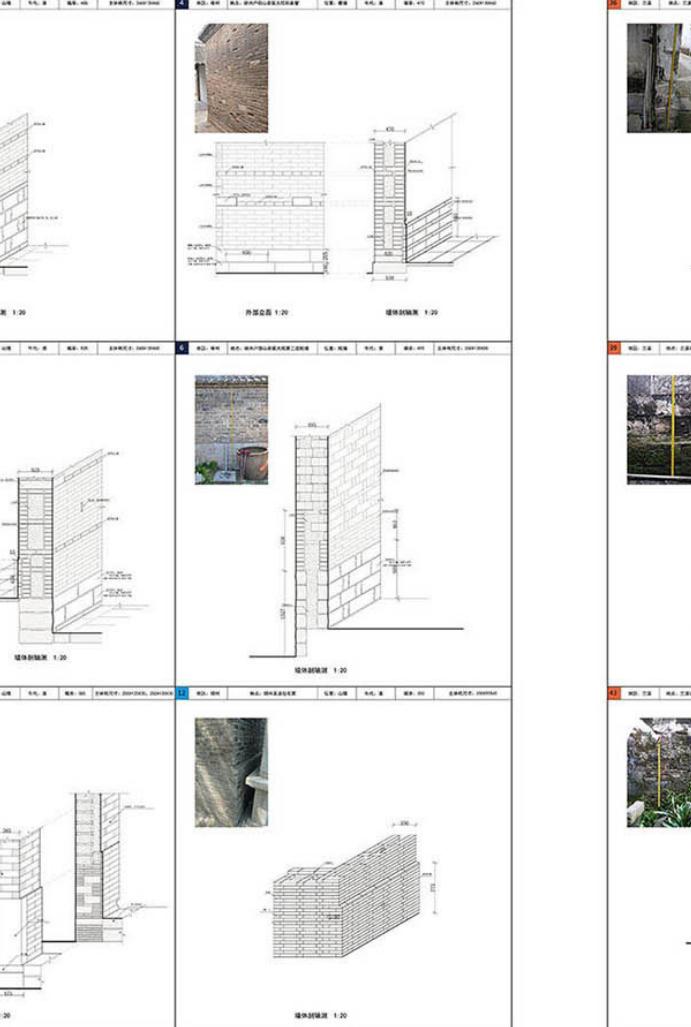
Relations between Brick Dimensions and Cultural Zones



Relations between Wall Thickness and Cultural Zones

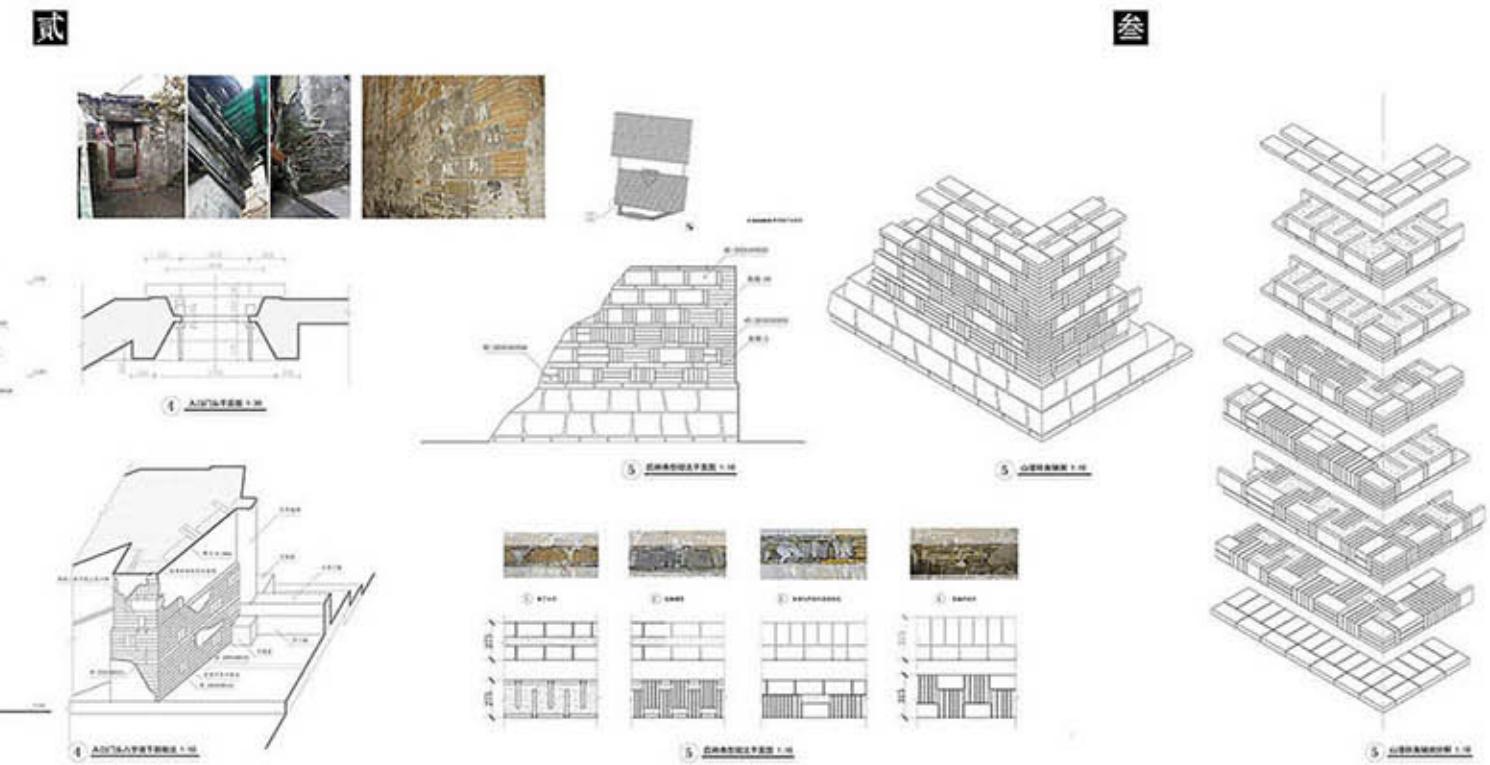
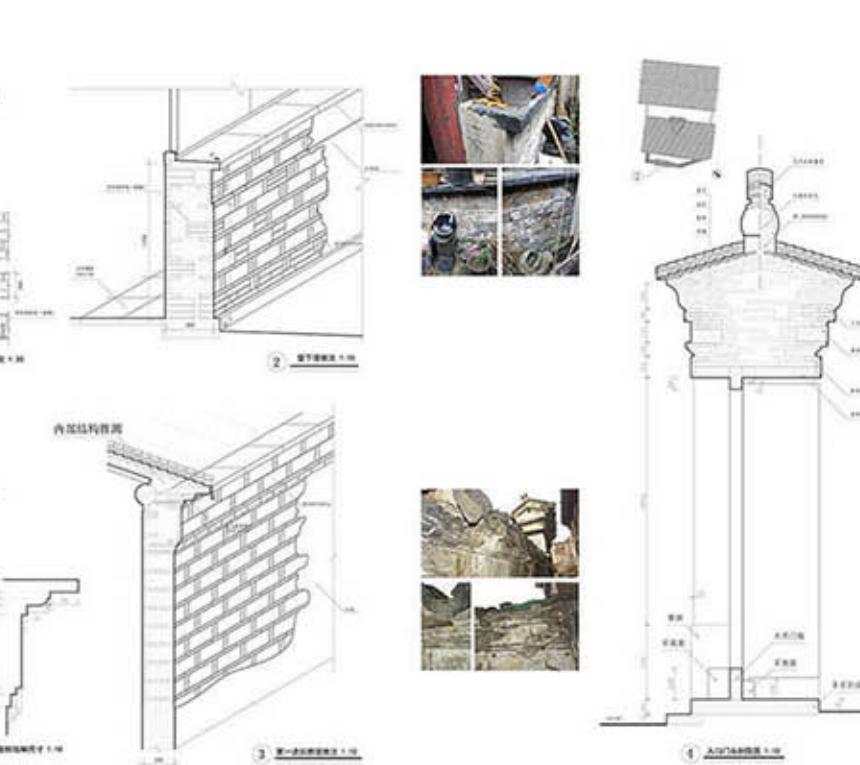
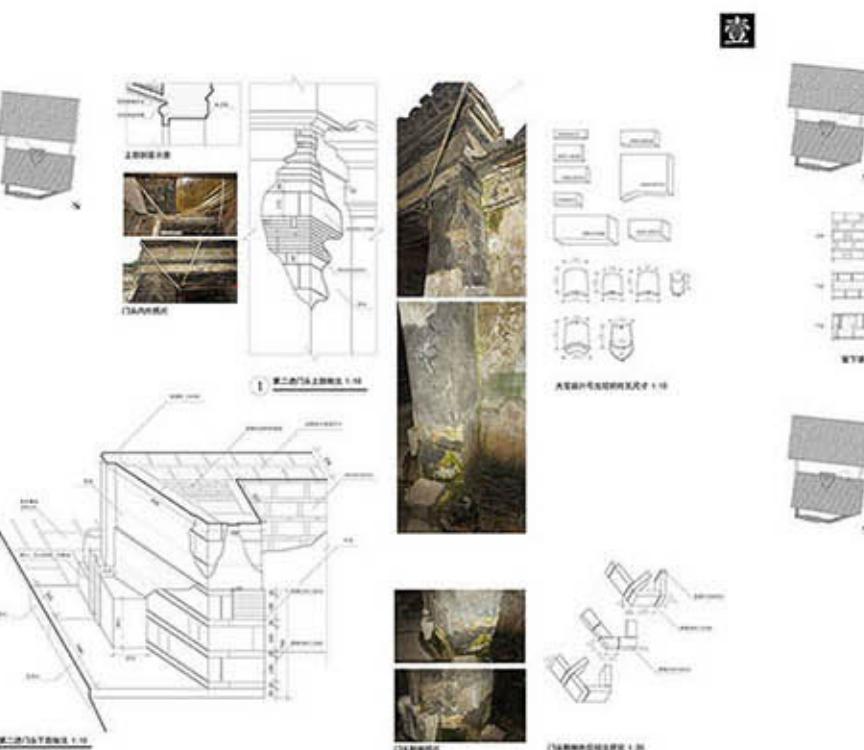


Zone	Construction Methods		
	Foundation	Main Body	Corner
徐州		 基础构造图 1:20	
南京 扬州			
苏州 无锡 江阴			
金华 兰溪 东阳			
瑞安			

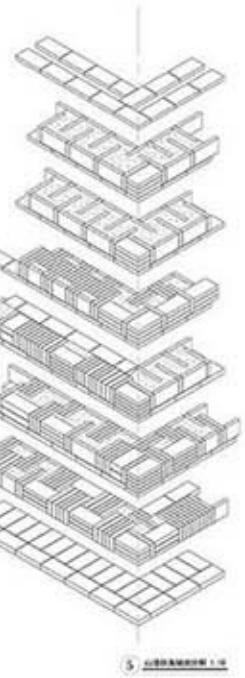


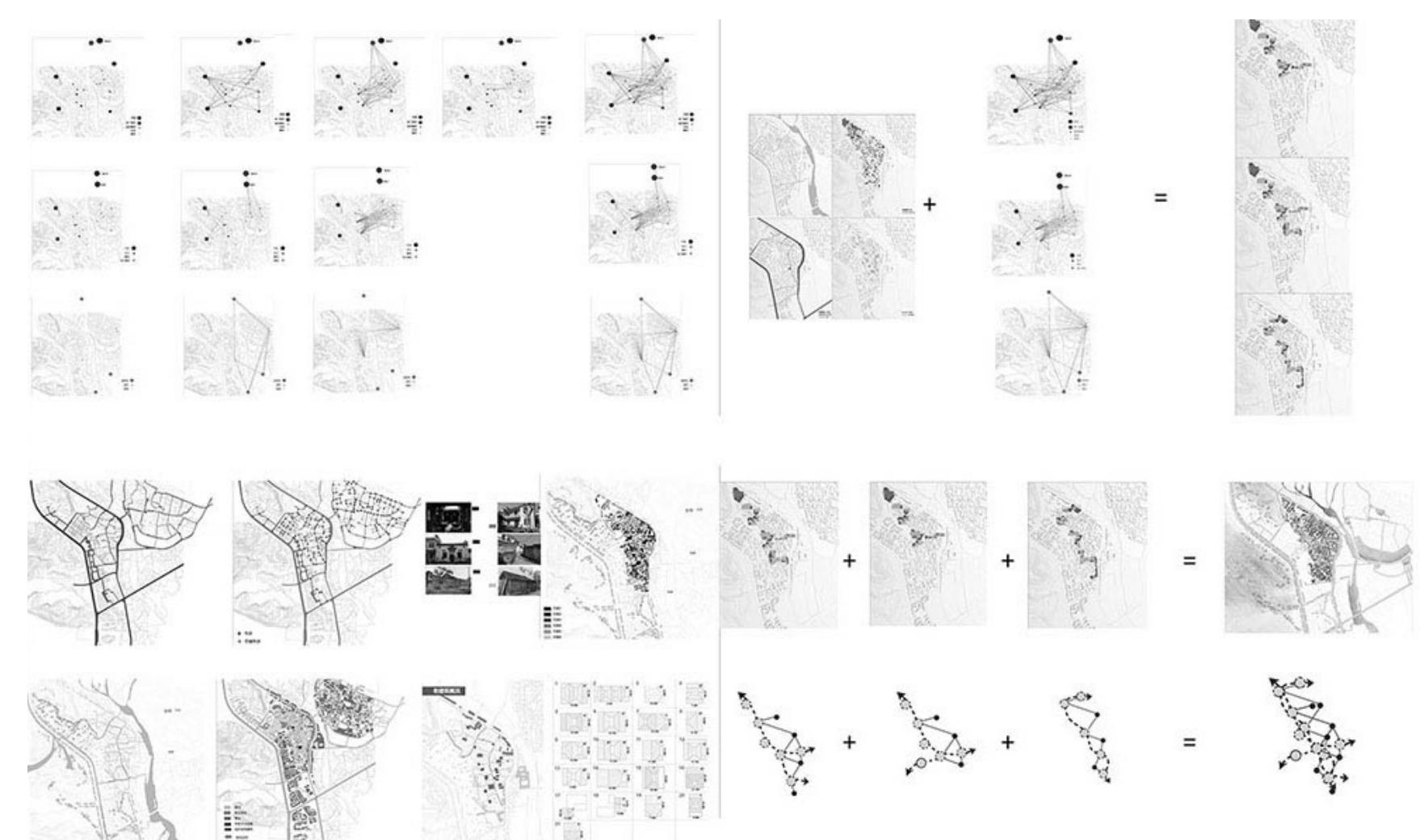
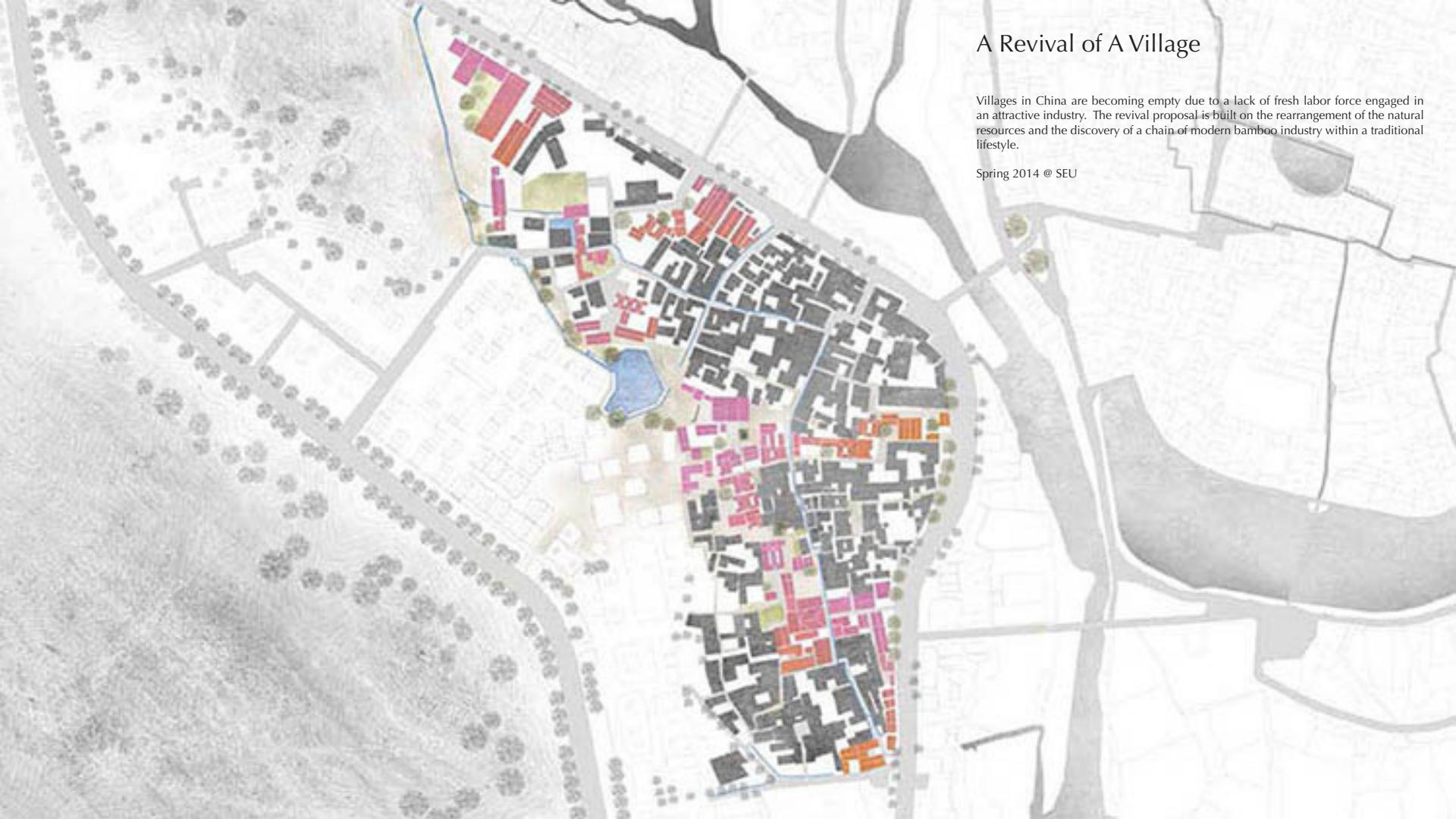
This is a detailed study on the construction method of a specific area in one of the cultural zone. There are a group of old residential buildings using bricks from nearby brick kilns. The study shows a typical vernacular brick tectonics in a brick producing area.

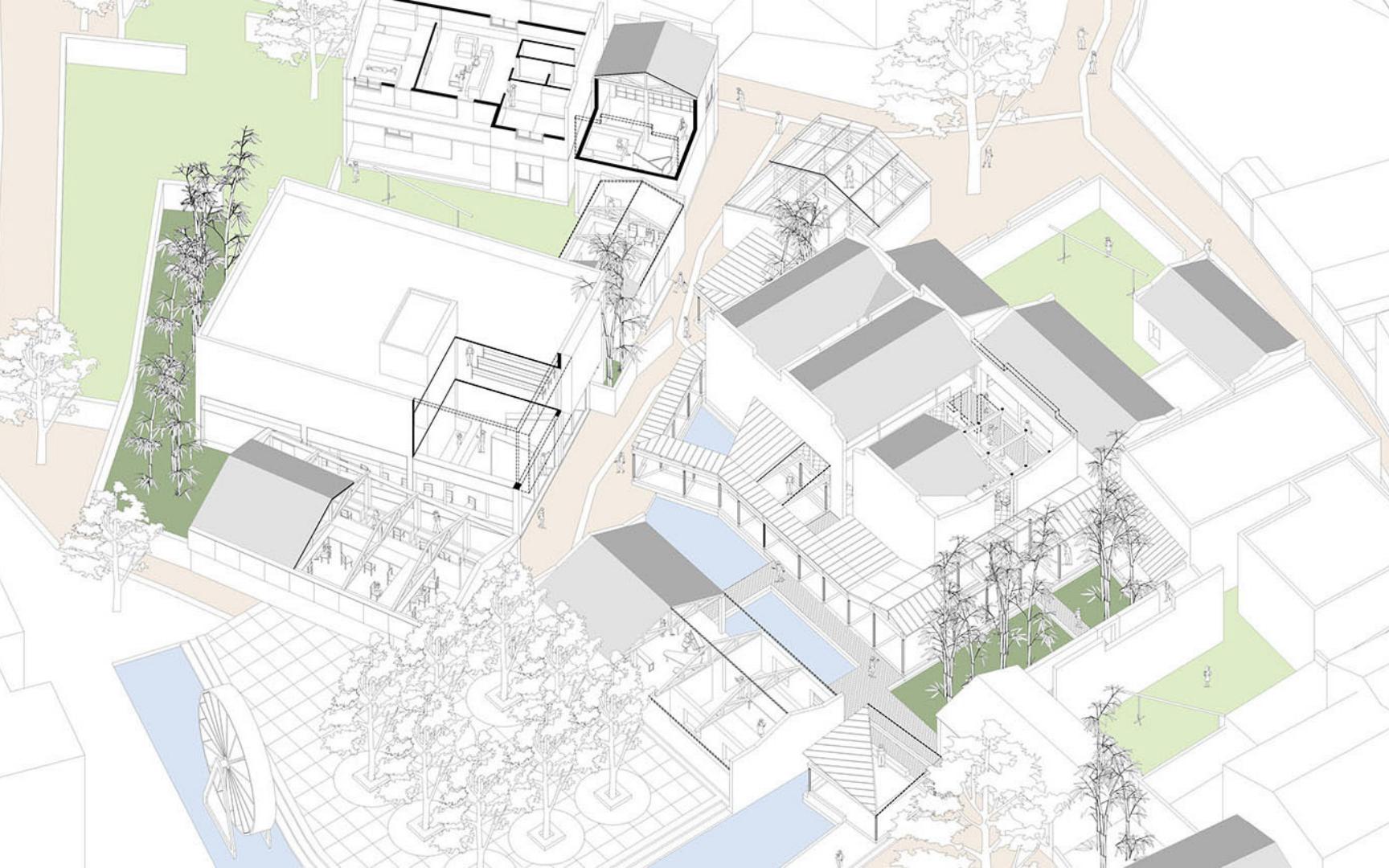
Spring 2013 @ SEU

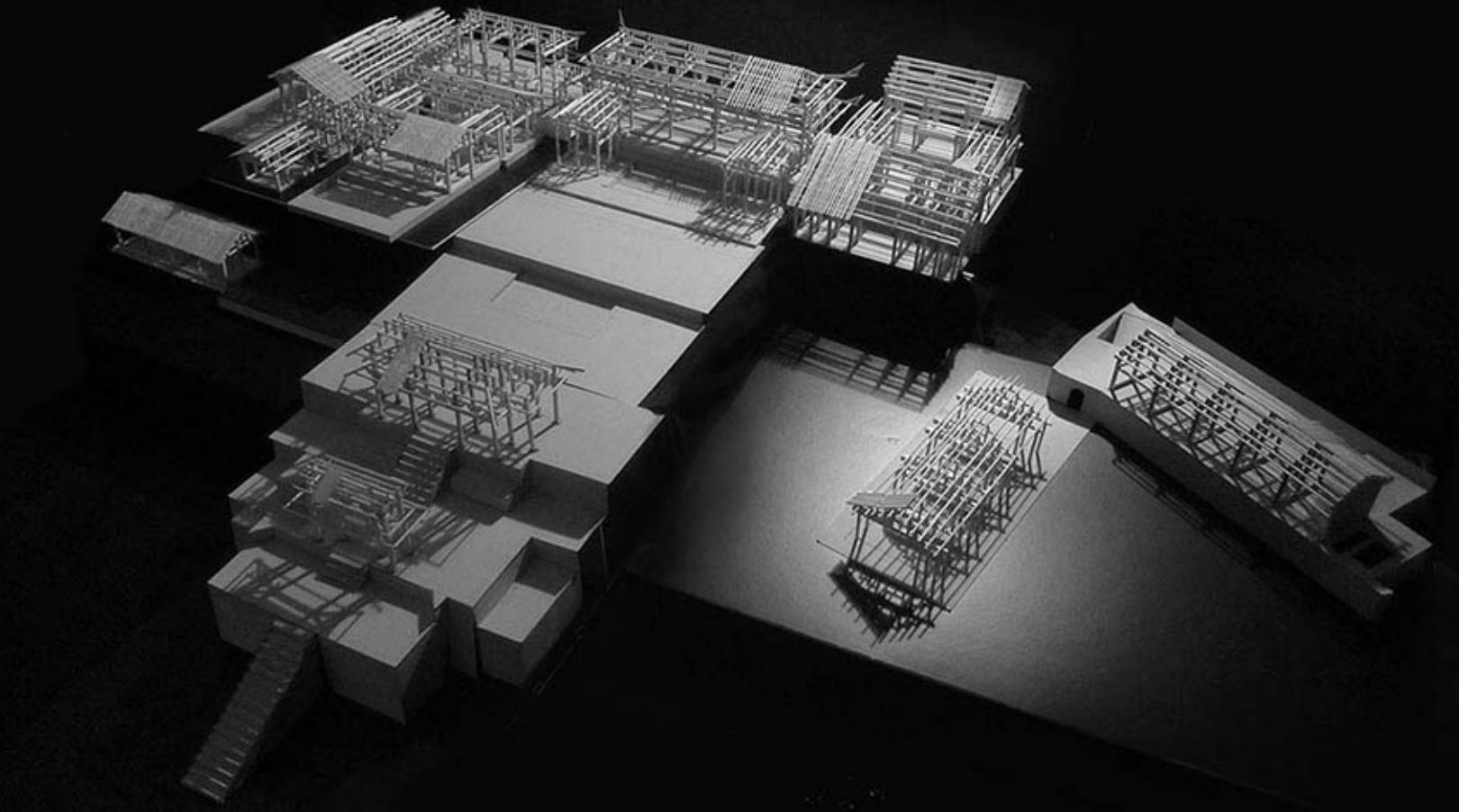


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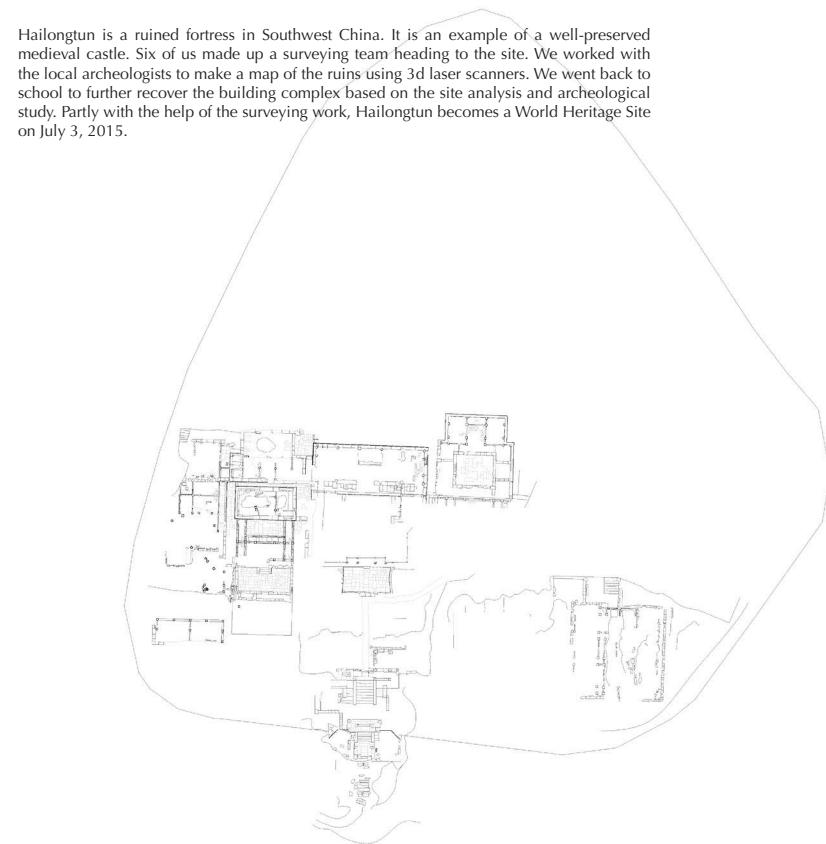


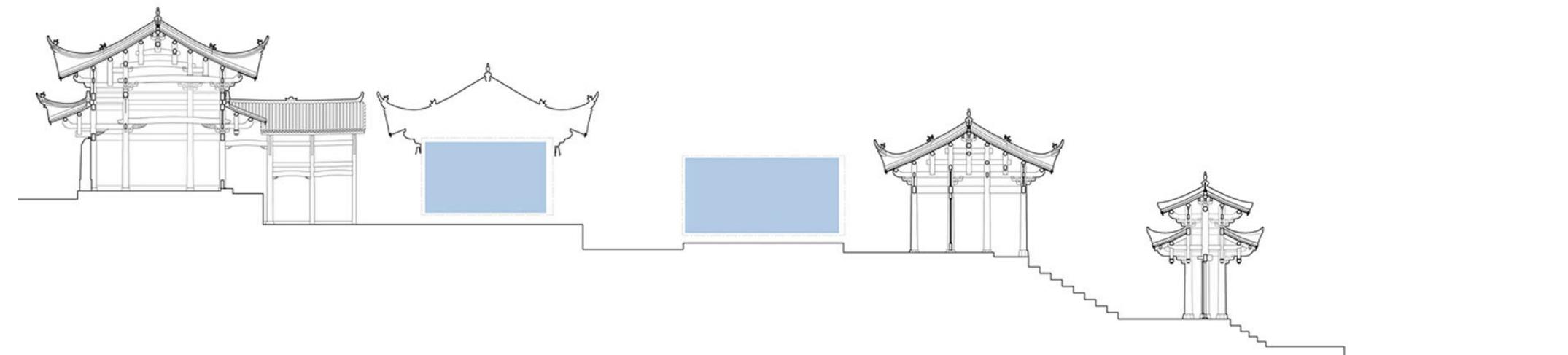




Recovery Program for Hailongtun Relics

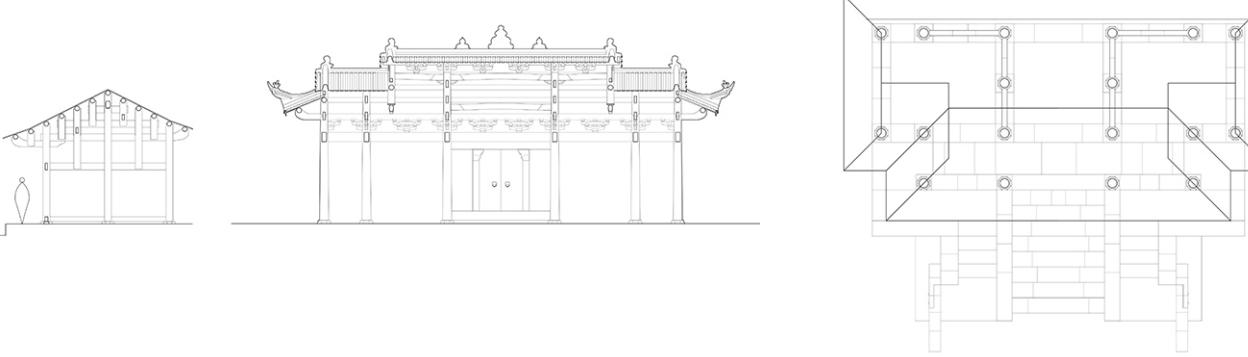
Hailongtun is a ruined fortress in Southwest China. It is an example of a well-preserved medieval castle. Six of us made up a surveying team heading to the site. We worked with the local archeologists to make a map of the ruins using 3d laser scanners. We went back to school to further recover the building complex based on the site analysis and archeological study. Partly with the help of the surveying work, Hailongtun becomes a World Heritage Site on July 3, 2015.





In the recovery program, my part is to redesign the axial gateway towards the main palace. The only known part is the foundation. The main body needs to be conceived according to the site conditions and local tectonic records.

Fall 2012 @ SEU



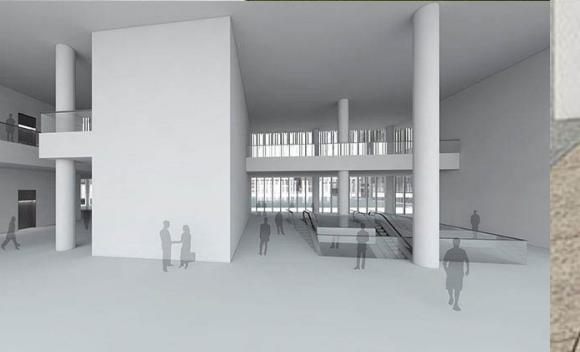
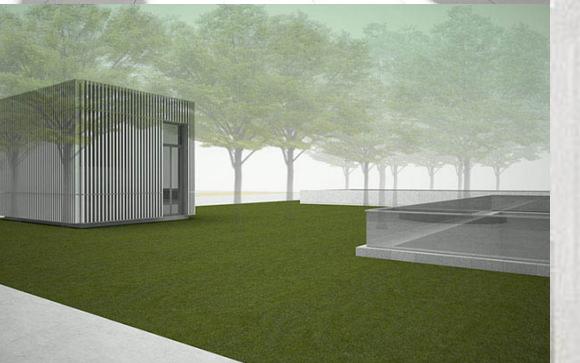


Visualization

These are selected works of rendering for projects in work, including a swimming pool, an exhibition center, a winery and a civic center.

2013-2014 @ gmp & Neo Design







Artistic Approach

These works are the results of some elective courses in an art school - RISD, including painting and printmaking. I'm trying to explore the potential of each medium and to make it manifest itself in the process.

2016-2017 @ RISD

