GRADUATION PORTFOLIO

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academic works
Ms advanced architectural design

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The venue is located in Oaxaca, surrounded by a small town with a coffee industry to guarantee survival, with a coffee museum, coffee shop, and coffee making center. Although fair trade has trained farmers, it only focuses on coffee planting and production by the farmers themselves. The experience center will develop a standard quality system for specialty coffee and a commercial coffee quality standard system. It will provide Supplier Training on Planting and Production and Quality inspection report, taking production and consumers as the focus of the new system to improve the level of high-quality coffee planting.
Function arrangement

Comply with the terrain

According to the functional requirements of the coffee center, four volumes, including the transportation part, are placed.

Make the building perpendicular to the contour lines to increase its fit to the terrain.

Increase the layer

In the complex areas, increase the number of floors of the building in order to carry more space.

Let the building more compatible with the road, and to add more complete space in the exhibition area.

- Roof
- Truss
- Bridge
- Third Floor Processing Area
- Louver
- Courtyard Planting Area
- Second Floor Quality Center
- Second Floor Exhibition Cafe
- Competition Festival
- First Floor Office Storage
- Column
- Backyard
Based on its long engagement with the Bradhurst community, HCCI has articulated detailed priorities as framework for all of its initiatives. Through a community visioning process HCCI has translated the BOA project into several goals. As the entrance to Harlem, this residential building will combine commercial and community services to provide affordable housing for people and make an attempt to improve the quality of life in Harlem.
Starting from the study of climbing Chinese rose, this design starts with the logic of plant growth and considers the combination of plants and architecture to try to transform Avery Hall. At the beginning of the design, the research and practice of wood structure were carried out. After the structure model is obtained, the structure is used in the facade design of the building, and the function of the building is analyzed and redesigned, which is upgraded on the basis of retaining part of the original building.
step 1: start with the former structure

step 2: increasing area and adding new facade

step 3: introducing a new structure system

step 4: extending public space to the exterior
rendering of second floor
Southwest bird's-eye view
The program of the building is a research includes and it includes offices spaces and a library. Because Los Angeles is located in an earthquake zone, we had to think about exterior and structural materials that would present durable and stable architecture. We also had to consider the climate of Los Angeles, where it gets very hot in the summer and colder at night.

**Project:** A Think Tank  
**Location:** Los Angeles, CA  
**Program:** Research Center for scholars and researchers

When the climate of Los Angeles is taken into consideration, what material use while designing a think tank presents the minimum operational energy? Which material use allows to reduce the work of mechanical environmental control systems? At the same time, which material produces the minimal human and environmental impact to the people occupying the building?

**CONCRETE**

**What is it made of?**
- CEM: Cement
- SA: Sand
- AG: Aggregate
- WA: Water
- ADM: Admixtures
- FA: Fly Ash

**Manufacturing Process:**
1. **Step #1:** Cement + Water + Aggregate + Admixtures + Fly Ash
2. **Step #2:** Mix + Pour + Cure

**Thermal Quality + Structure:**
- Lightweight and sturdy, it's used in structures
- Suitable for hot and humid climates

**Maintenance + Affordability:**
- Cost-effective and durable
- Easy to maintain

**EXAMPLES:**
- Precedents in LA, California:
  - Glendale Childcare Center by Monrad Roddin Architecture, 10,000-25,000 sq ft

**STABILIZED RAMMED EARTH**

**What is it made of?**
- CL: Crushed Limestone
- CEM: Cement
- RCA: Recycled Concrete Aggregates
- FA: Fly Ash
- ELS: Engineered Local Soil
- CCR: Cement Composite Residue

**Manufacturing Process:**
1. **Step #1:** Ramming + Grinding + Mix
2. **Step #2:** Pour + Cure

**Thermal Quality + Structure:**
- Insulating properties
- Durable and sturdy

**Maintenance + Affordability:**
- Cost-effective
- Easy to maintain

**EXAMPLES:**
- Precedents in LA, California:
  - Glendale Childcare Center by Monrad Roddin Architecture, 10,000-25,000 sq ft

**WOOD**

**What is it made of?**
- NP: Natural plants
- 5AROT: Stem and root of trees
- RWB: Recycled wood board
- GFSR: Glue for sticking boards
- AFF: Artificial forest form

**Manufacturing Process:**
1. **Step #1:** Cutting + Drying + Milling
2. **Step #2:** Assembly + Joining

**Thermal Quality + Structure:**
- Insulating properties
- Durable

**Maintenance + Affordability:**
- Cost-effective
- Easy to maintain

**EXAMPLES:**
- Precedents in LA, California:
  - Glendale Childcare Center by Monrad Roddin Architecture, 10,000-25,000 sq ft

**HUMAN HEALTH**
- Indoors, pleasant, no odors or fumes

**INDOOR CLIMATE**
- Year-round thermal comfort, no need for heating or cooling

**ENVIRONMENT - ENERGY**
- Low energy consumption

**ENVIRONMENT - CARBON**
- Carbon-neutral materials

**AFFORDABILITY**
- Cost-effective, durable

**MAINTENANCE**
- Easy to maintain

**DISASSEMBLY / RECYCLING**
- Easy to disassemble and recycle

**THERMAL QUALITY + STRUCTURE**
- Insulating and durable

**MAINTENANCE + AFFORDABILITY**
- Cost-effective, easy to maintain

**EXAMPLES:**
- Precedents in LA, California:
  - Glendale Childcare Center by Monrad Roddin Architecture, 10,000-25,000 sq ft
In the design, the collision between lost modern civilization and warm traditional culture is considered. When the two representative objects appear in a scene at the same time, what kind of contrast will be formed and what kind of artistic sense will be brought? This is the conclusion we want to draw from this rendering mission.
During the 2006 Venice Architecture Biennale, MAD's urban concept "Beijing 2050" made its debut in the solo exhibition MAD IN China IN Venice. Three years later, the hutong bubble, which scattered like water droplets in the old city of Beijing, appeared in a small courtyard at 32 Beibingmaisi Hutong in the old city of Beijing.

With the development of technology and the expansion of cities, people become familiar with the technology-filled lifestyle. Being surrounded by new technology has gradually become a habit, which makes the once traditional houses no longer popular with people. In this way, without the shadow of technology, the old space is gradually abandoned.

As a part of project Beijing 2050, the Hutong Bubbles are coming.
How to change the living space from Technodeterminism to the Techno-social? It needs time, and need to be done in steps. The development of technology has enhanced the information exchange between people, and people have become accustomed to living in a society with transparent information. However, the traditional architecture needs to be changed. It is not necessary to adopt large-scale reconstruction, but to insert some small-scale elements, like magnets, to renew the living conditions and activate the neighborhood. Compatible with other old houses and bring life to each other. At the same time, these elements should have the possibility of reproduction, and on the basis of adapting to various living needs, the recovery of the whole community can be achieved by changing the local situation. Therefore, MAD tries to insert some bubbles created by modern technology into traditional architecture. Through a little bit of technology implantation, it connects the once separated traditional architecture with modern society. Technology is like a bridge, acting as a connecting device in this change, changing the form of the old society, transforming it little by little into a new society.

It just likes what technology does on our life. A new technology appears, and it starts to change the whole lifestyle from a start point. The designer just wanted to transfer this process into this program, which is put some new structures which stand for modern technology, into an old area first, then both the space and lifestyle in this area will change from these start points. In fact, as a case of old street renovation, it does bring great changes to the local area. This change is reflected in the visual first, traditional hutong changed the shabby image of the past, into a new form of modern and traditional combination. When people are attracted to the modern elements of this scattered layout, they will naturally reexamine the forgotten old buildings.
Although some people still criticize it, saying that it is a kind of transformation like a seal, I think it is a way to break the forgotten situation of traditional buildings by throwing a stone into the calm water like this. It is this controversial contrast that is more effective at attracting attention.

On the other hand, the transformation of the old house function has also played a role in attracting people's attention. In the new building, there are more projects conducive to the modern visitor experience, including cultural activities. Instead of experiencing the tradition in books, people nowadays are more willing to come and feel the charm of culture in hutong No. 218.
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