

Meng Gao

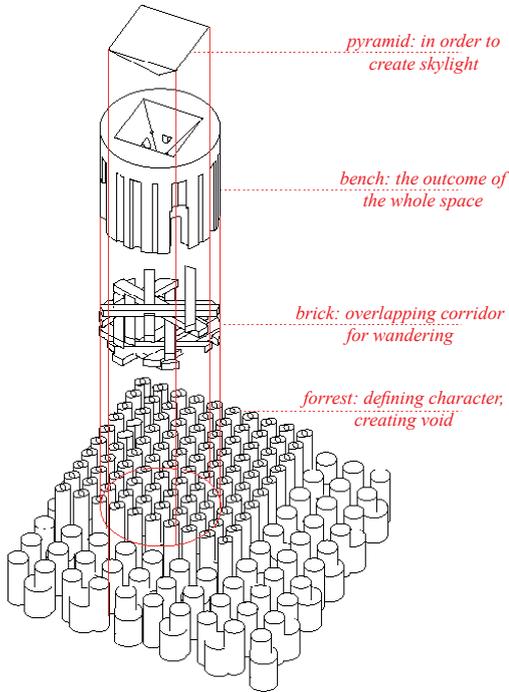
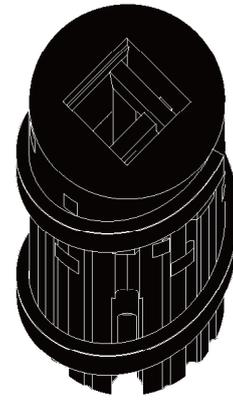
Portfolio



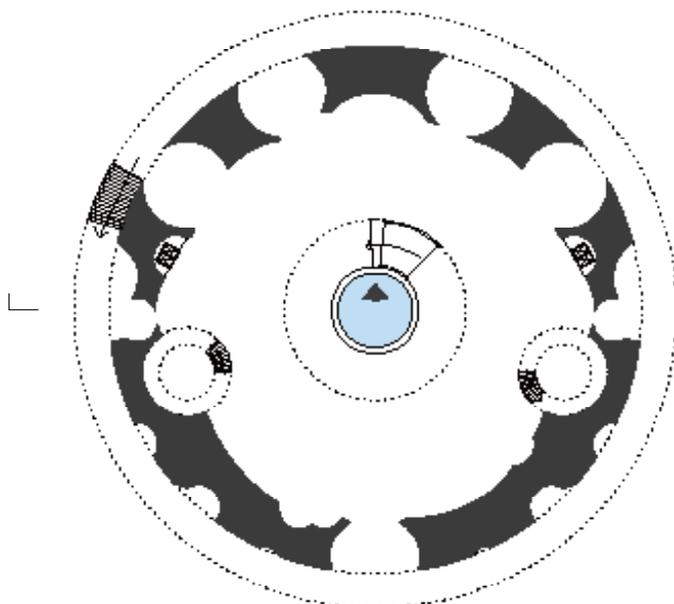
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1. Utopia Museum

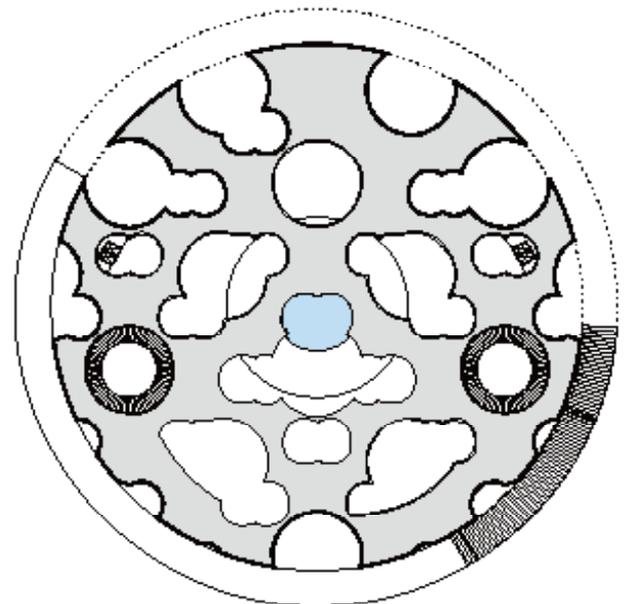
Type: Academic Studio/Individual
Time: 2016
Building Type: Public Architecture
Keywords: Ritual; Form; Time and Space



The basic form is a cylinder subtracted by a series of arrayed cylinders. Then I inserted corridors. The sole material is concrete. It is clean, and easy to understand. I want to create a museum that exhibiting the passing time.



Ground Floor Plan

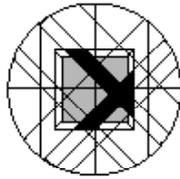
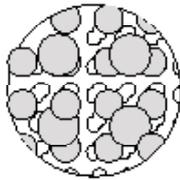
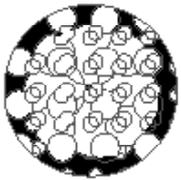


5th Floor Plan



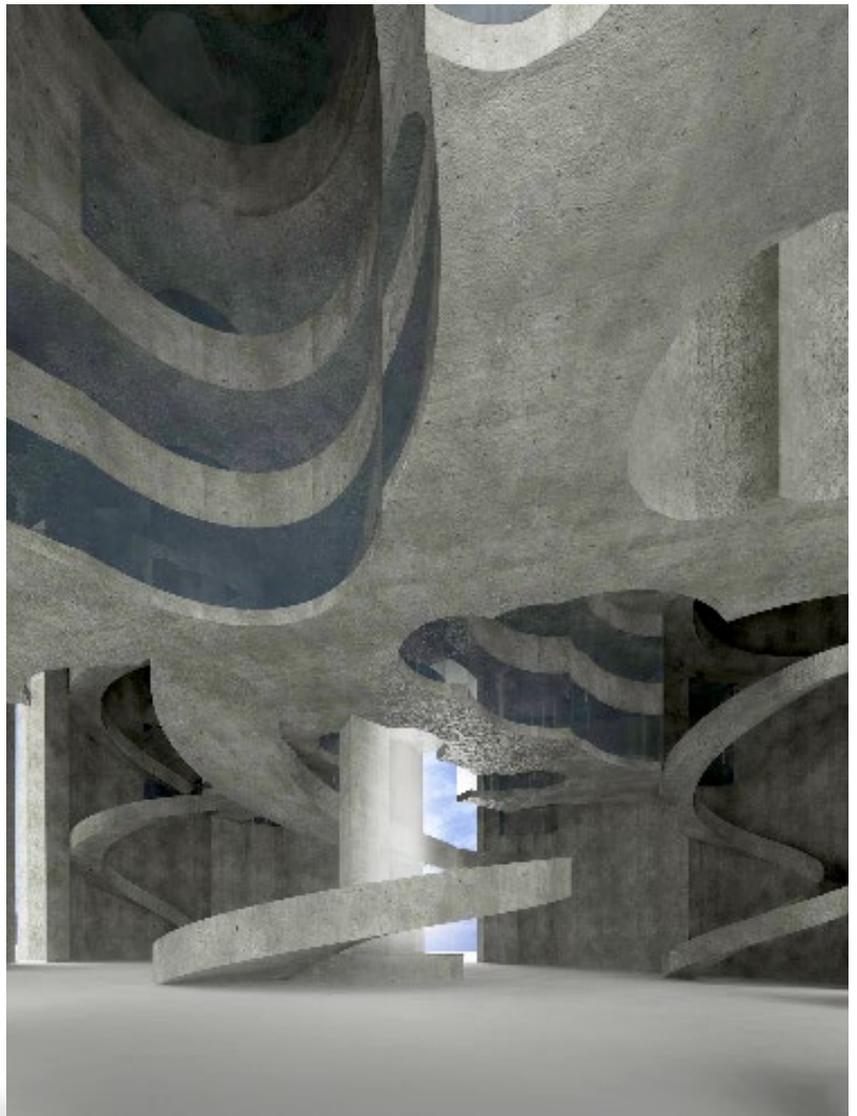
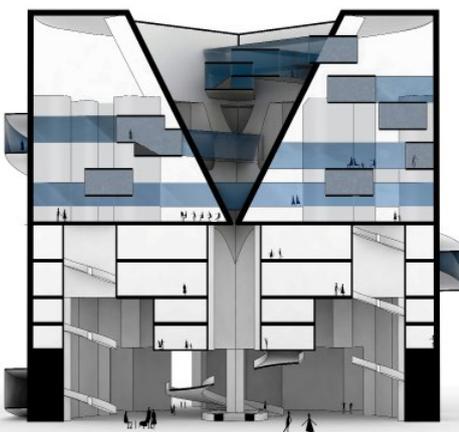
In the museum, every exhibit is hanged in the hall and the holes. People observe the exhibit from the "inside" glass boxes. It is opposite to the traditional museum that exhibits are in the boxes.

The hall is connected to the exterior, making the building like a cave, or a tree that closely connected to nature. Maybe hundreds years later, when the glass decays, the concrete part stay. There will be moss, bushes and trees. Eventually, this museum will become a forest and people can visit the forest from every floor and every angle. After heading to the ceiling, people will feel a sense of escape: back to the open area of nature and light from the dark and damp forests of trees and concrete. It will always bring out our thoughtful insights.



Different plan styles.

Section



2. Leisure Boxes

Type: Academic project

Time: Summer 2017

Role: Team member of a group of 2

Contribution: Concept Design, Form Generation, Diagram



video center
combination: 6



original unit
single



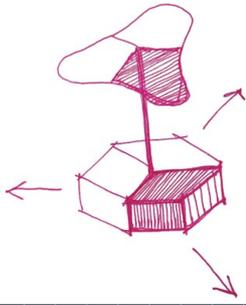
kiosk
combination: 3



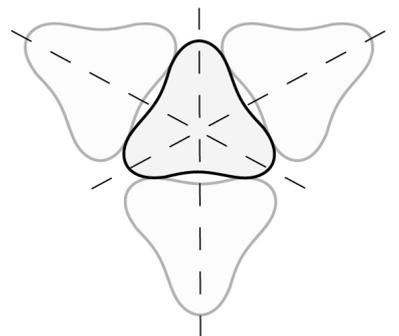
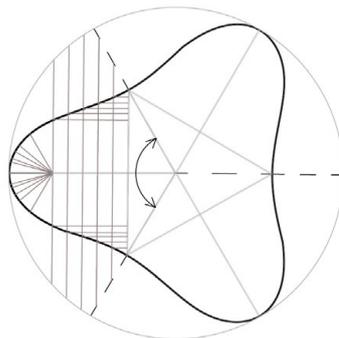
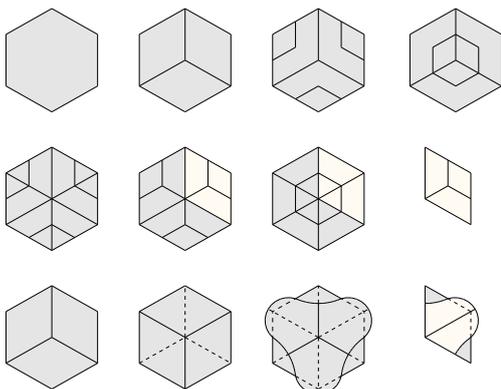
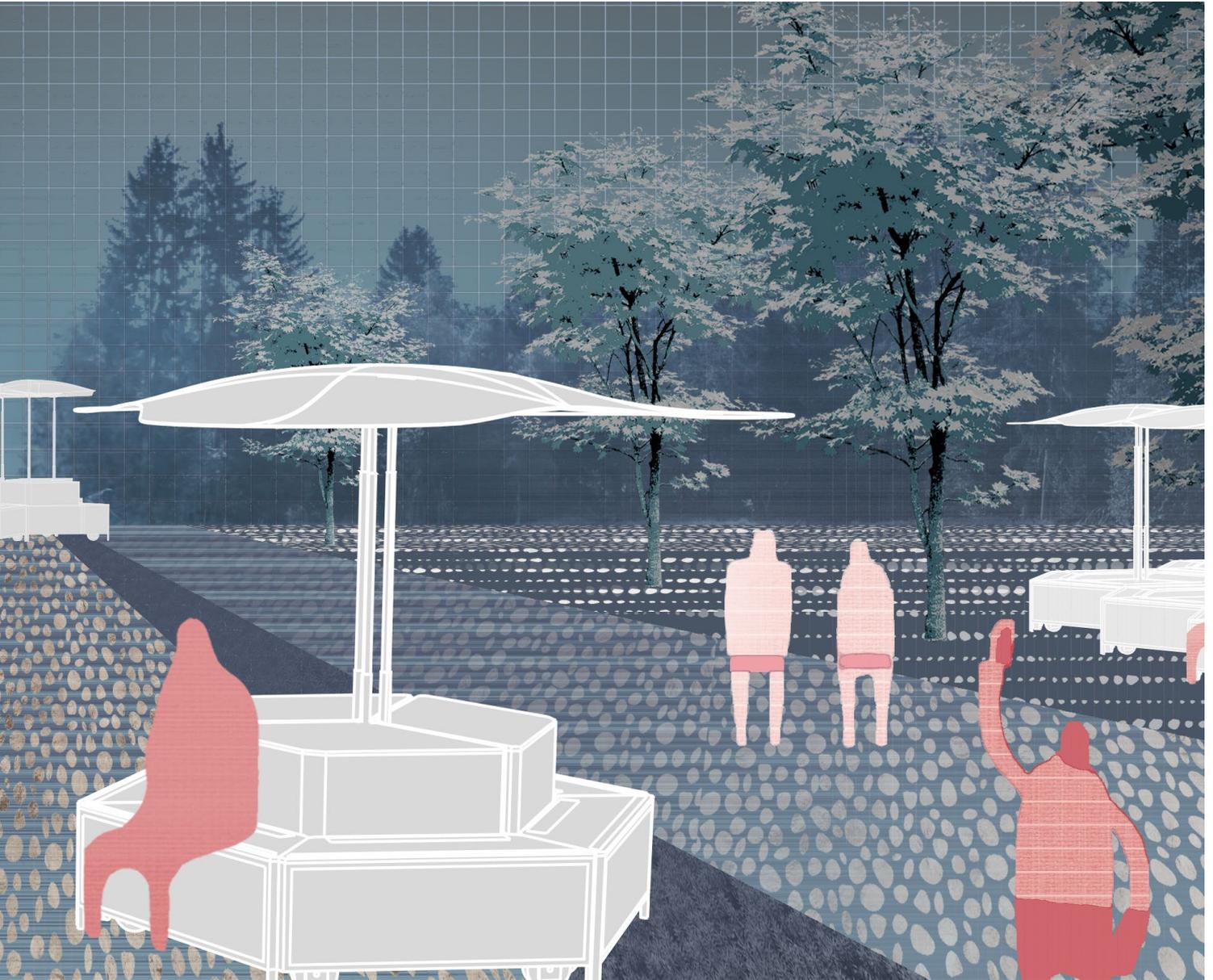
stage
combination: n



Combinations

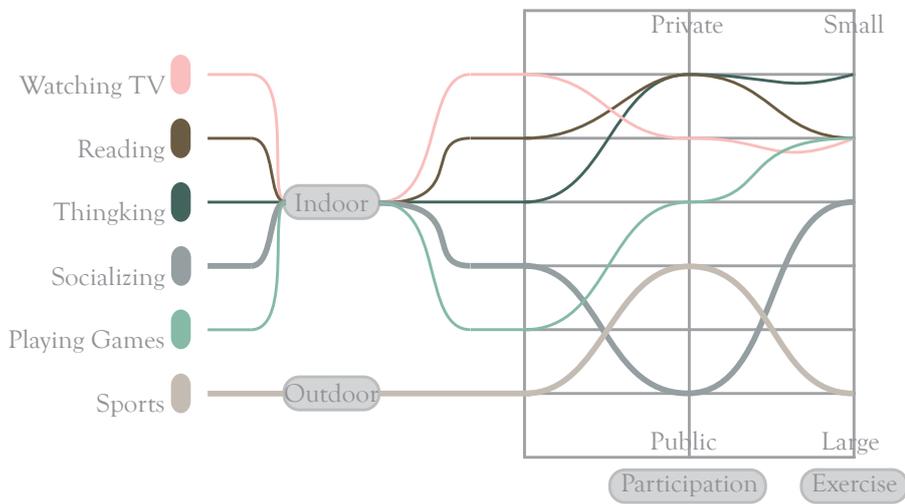
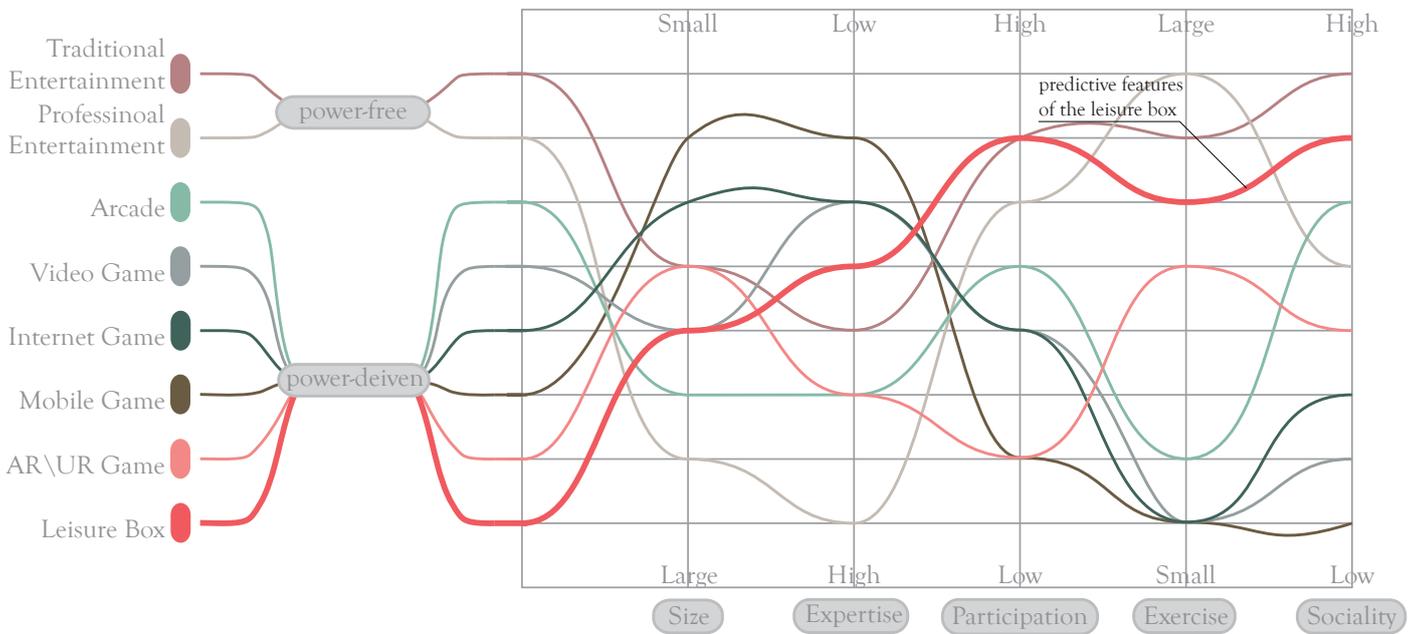


With minimal intervention to the environment to enhance the vitality of the space, this project aims to make the space into a place to attract users to leisure through the different combinations of the leisure units which can be free to join, and, to a certain extent, to change the modern entertainment style which mainly relies on mobile phones. The combination between the variable multifunctional units can form a variable-scale space, and the user can freely combine the leisure units for a variety of purposes.

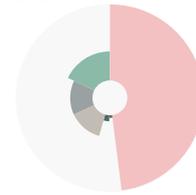


Form Generating

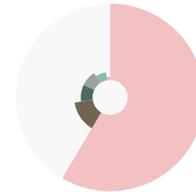
The form of the main body is taken from the hexagon - because of its features of easy stitching, flexibility, and unlimited extension. The form of the roof is also taken from the regular hexagon to obtain a combination of lively form and larger shielding area.



Average hours spent per day in leisure and sports activities, by youngest and oldest populations



The Youngest Populations
Ages 15-19



The Oldest Populations
Ages 75 and over

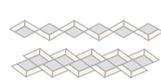
Through the comparison of a variety of entertainment methods, the one with the following characteristics may be comprehensively a better method to choose: equipment in smaller size, less expertise, higher participation, more exercise, and higher sociality.



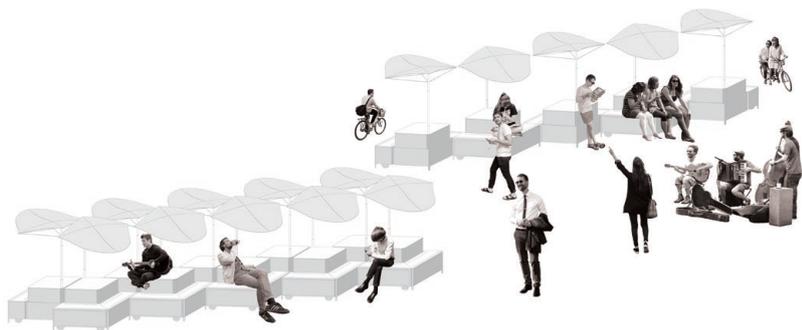
pavilion
combination: 6



bench
combination: 6

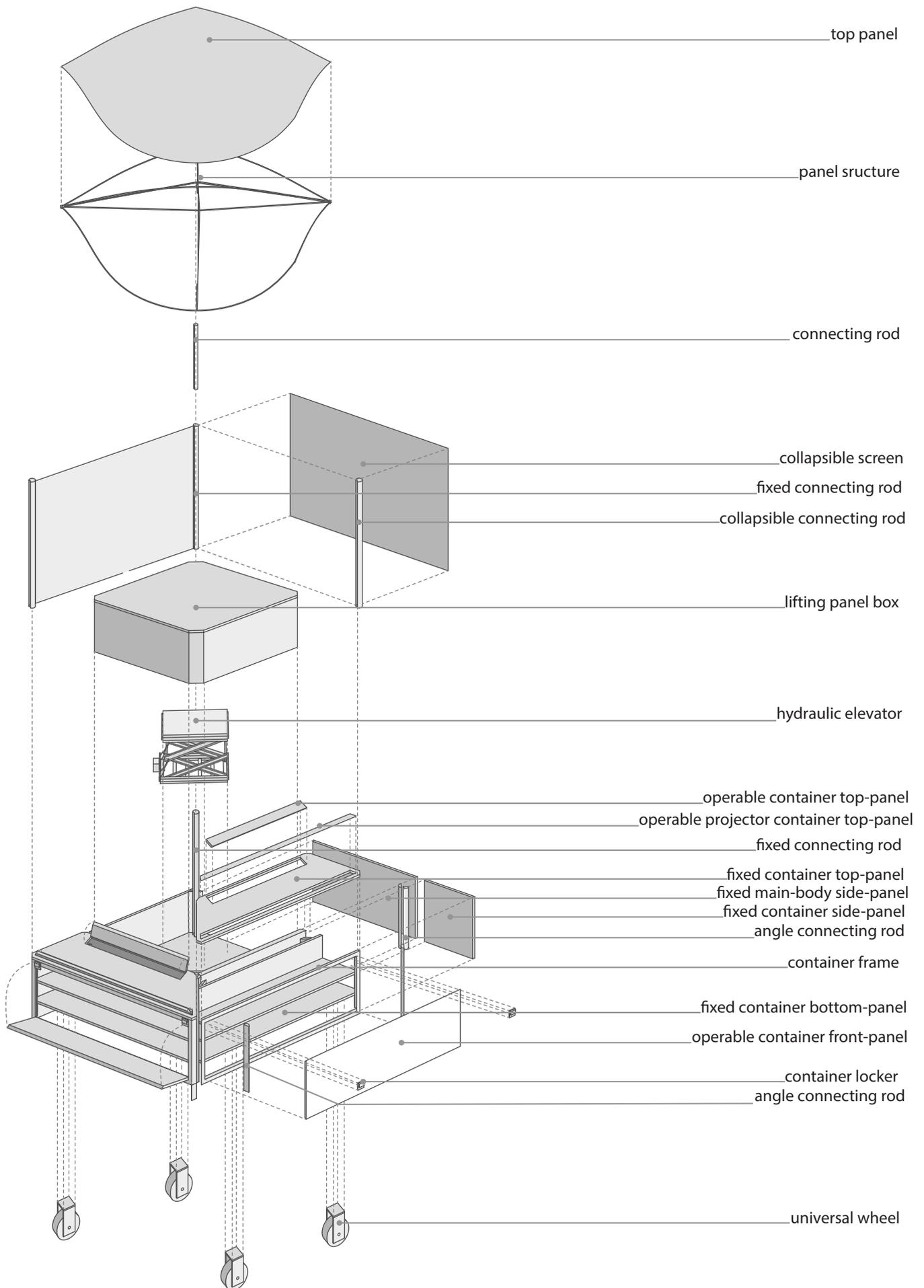


bench
combination: n



Combinations

Explosion Diagram

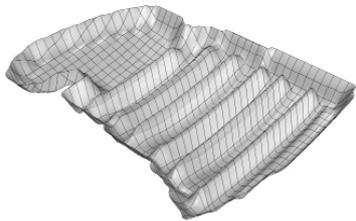
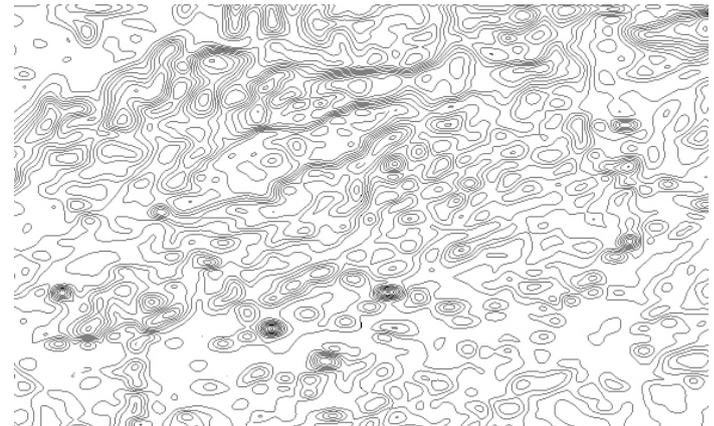
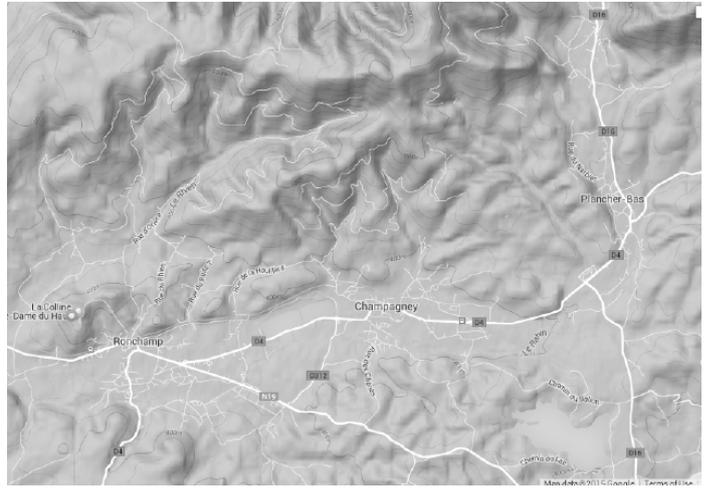


3. Rethink the Ronchamp

Type: Academic project/Individual

Time: Spring 2015

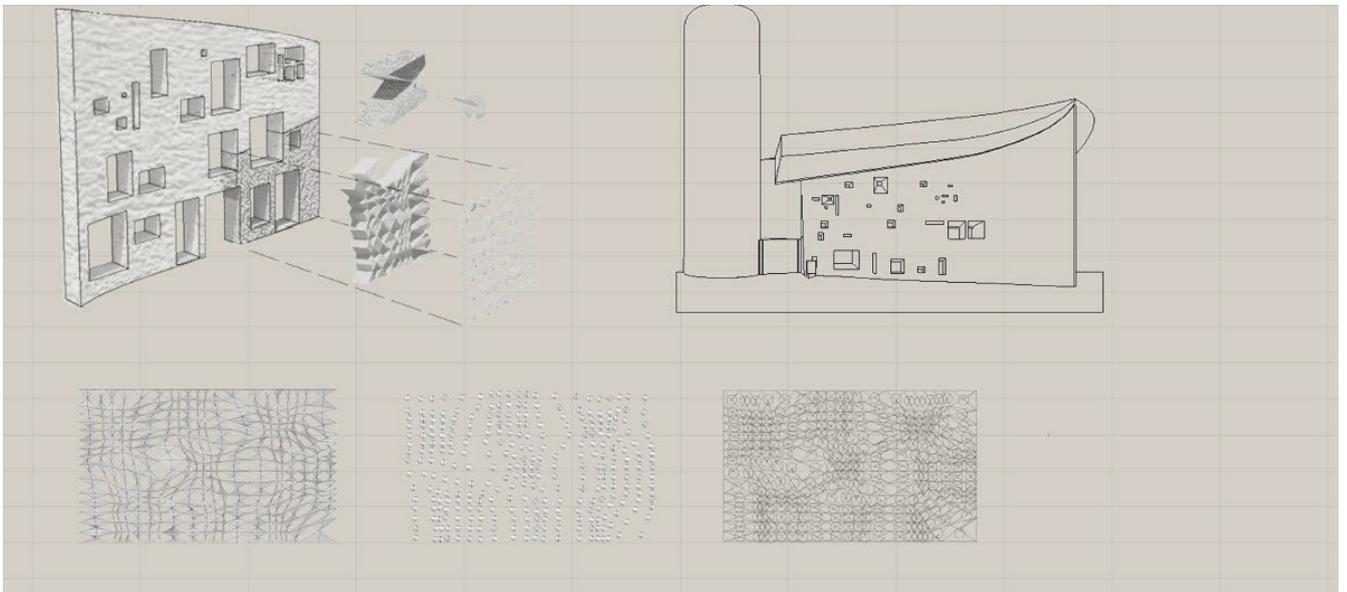
Keywords: Analytical; Parametric; Prototyping



As I combine the image sampler and contour order, I can convert 2D photographs of maps into 3D site surfaces. Then, I can model the site of Ronchamp Chapel and the roof in this way.



Night Render,
New Ronchamp
Chapel



I use the existing windows as the "attractors" and influential factors to create the new south wall. Then, I decorate each centre of the quadrilaterals with glass globes. Then, attaching the new wall on the old wall. Then, we have a contemporary style facade. From the interior render we can see the rainbow light, reflected from the south, through every glass globes.



4. Sanxue Historic District

Traditional residential building refurbishment design in Xi'an.

Individual academic project. 2017



This site locates in downtown Xi'an, a cluster of minority and low income population. The plan is aimed to improve the community and residential environment quality of the district using Chinese traditional architecture forms.

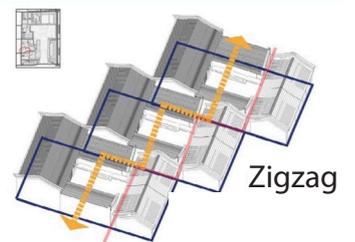
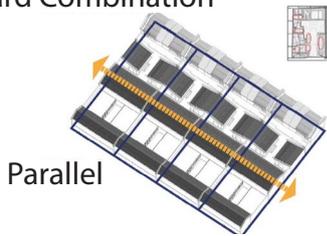


Master Plan

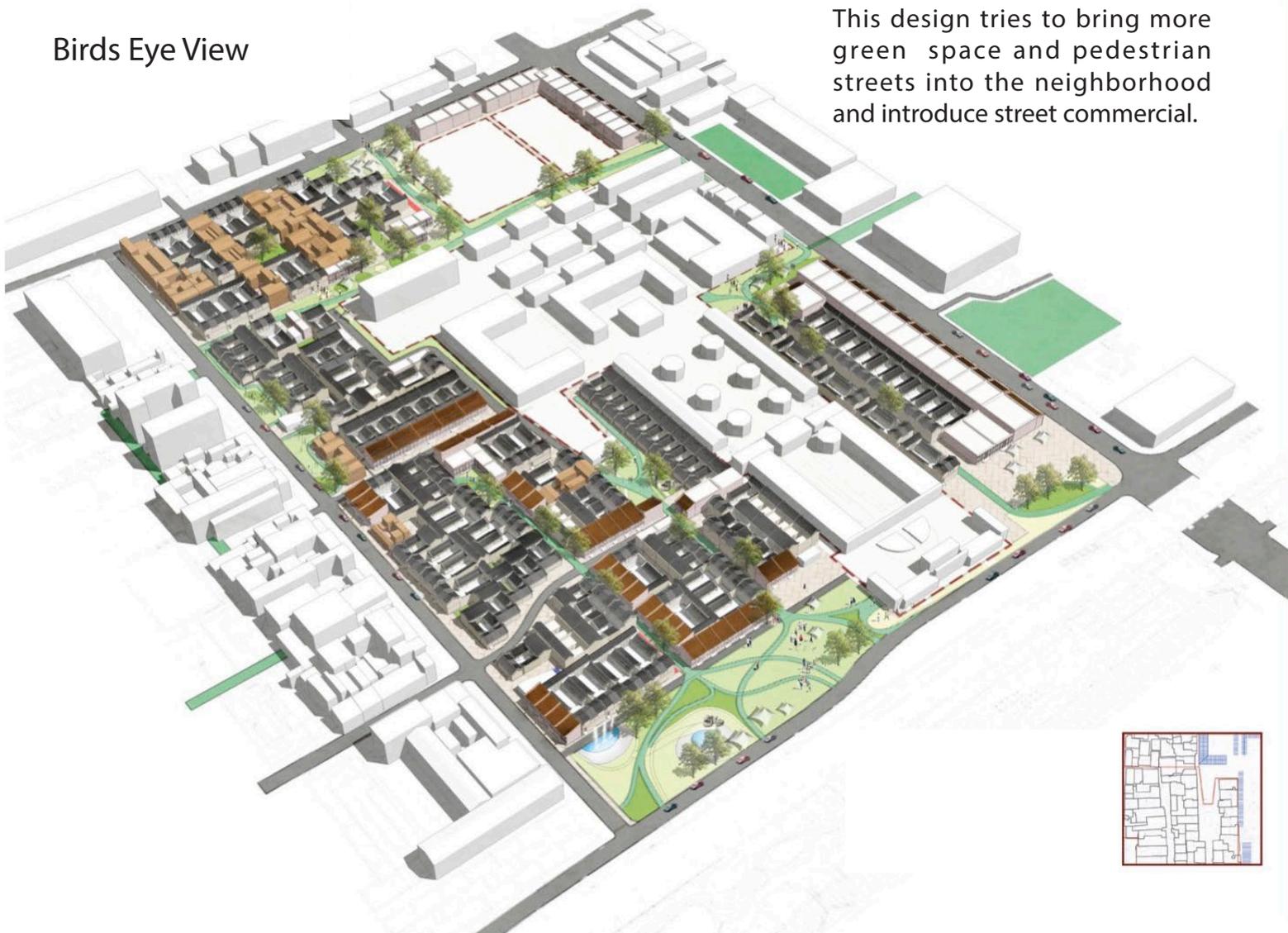
- Commercial
- Protected Area
- Residential



Courtyard Combination

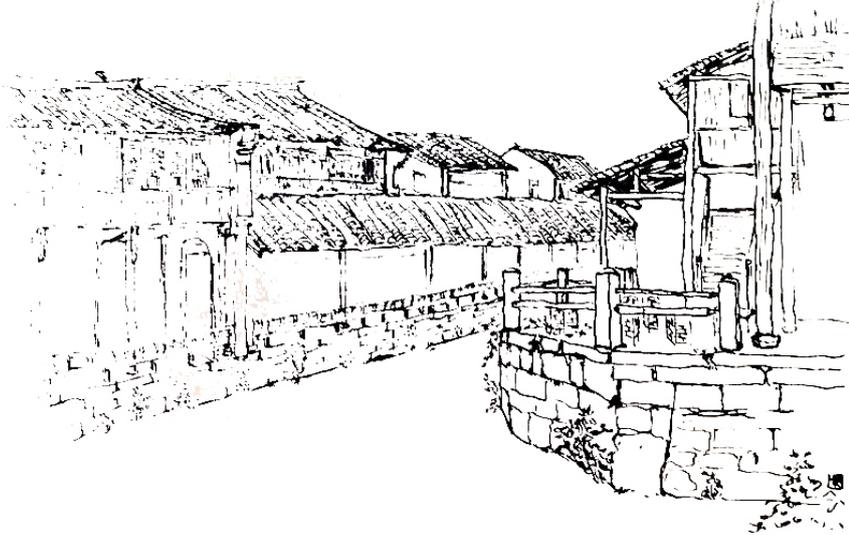


Birds Eye View

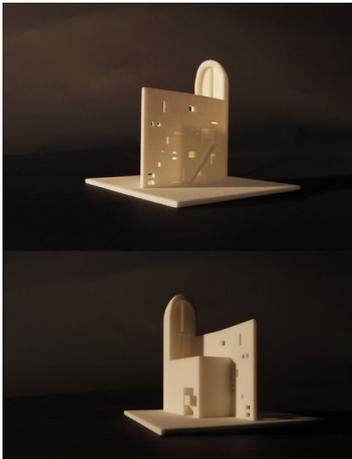


This design tries to bring more green space and pedestrian streets into the neighborhood and introduce street commercial.

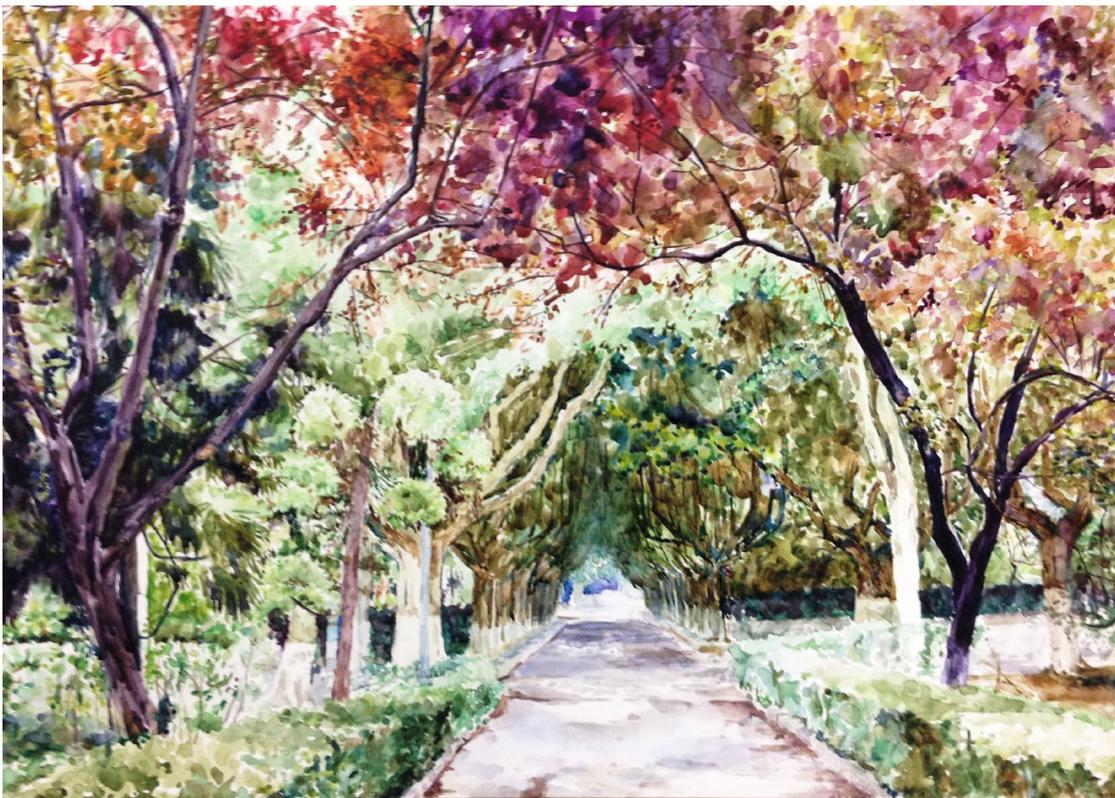
5. Other Works



Left and above:
Sketches drawn in Wuzhen, China



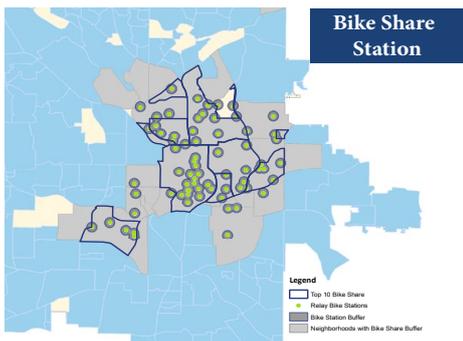
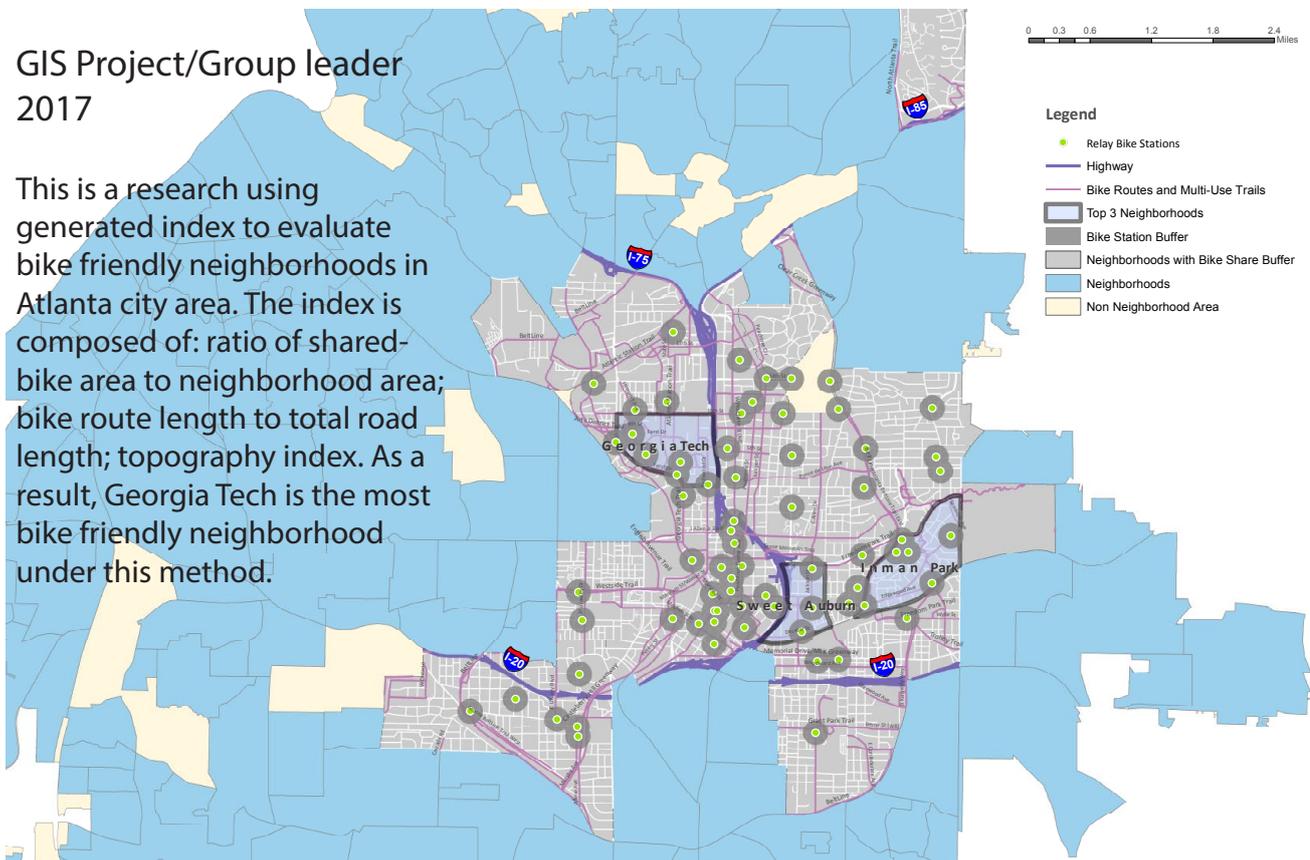
Left:
Prototyping 3D Printing
Base size: 80mm * 80mm
May 2015



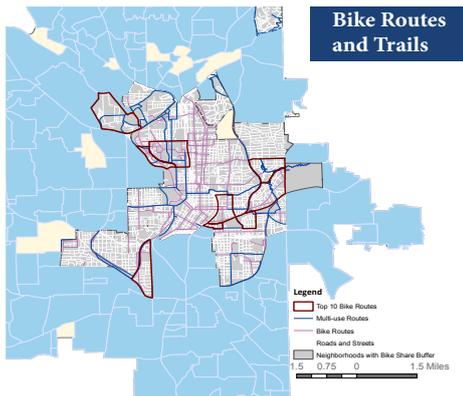
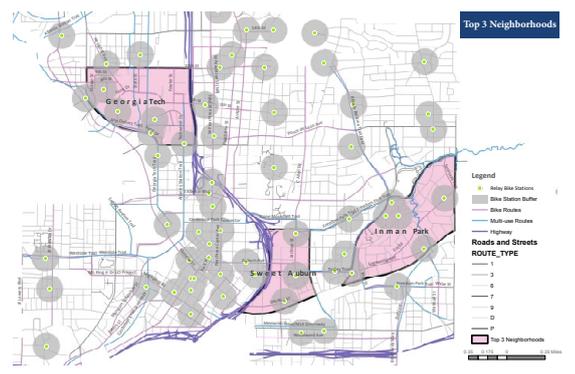
Left and above:
Landscape
watercolor in Xi'an
Jiaotong University
campus

GIS Project/Group leader 2017

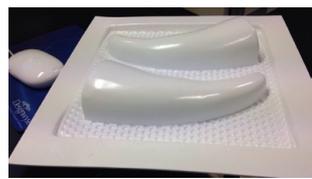
This is a research using generated index to evaluate bike friendly neighborhoods in Atlanta city area. The index is composed of: ratio of shared-bike area to neighborhood area; bike route length to total road length; topography index. As a result, Georgia Tech is the most bike friendly neighborhood under this method.



Top Ten Bike Shares	Ratio
Sweet Auburn	0.389
Georgia Tech	0.375
Downtown	0.374
Atkins Park	0.342
Inman Park	0.302
Marietta Street Artery	0.276
Midtown	0.254
Old Fourth Ward	0.211
Atlantic Station	0.177
West End	0.176



Top Ten Bike Routes	Ratio
Cabbagetown	1.669
Oakland	1.416
Adair Park	1.372
Lenox	1.335
Marietta Street Artery	1.318
Blandtown	1.219
Poncey-Highland	1.108
Sweet Auburn	1.015
Georgia Tech	0.925
Inman Park	0.792



Above and Right: Workshop Practise of Gramophone Style CD Player, applying vacuum forming and other technologies. Workshop Project/Individual, 2015

