

JING GAO | PORTFOLIO



## NO.5 WARE HOUSE RENOVATION PROJECT

### Memory Storage

First Prize, China Design Festival and the International Design Fair  
"No. 15 warehouse-wake up the power of design" Competition (2008)

"Reinforce the old, and introduce the new." The old building freezes memories of the past, and tells the history it experienced. The new addition is simplistic and pure in form. It packages the old house in its glass surface. It creates a dialogue between the old and the new, but neither part compromises.



## NO. 5 WARE HOUSE RENOVATION PROJECT | Memory Storage

Collaborators: Yantao Ren, Bin Zhu

Advisor: Yuhang Kong

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How do we incorporate our vision of the future in this renovation? These were the main directions in this renovation project. Creativity industry park, located on the south bank of Dalian port, is extolled as a famous spot that one cannot neglect in a tour to Dalian. Treated as the most popular creativity industry park, No. 15 warehouse charms the world not only by its history, but also its distinct architecture. This building is reformed from an existing warehouse which has stood near Dalian Port since 1929. This grand conversion from former warehouse has bar construction and the steel frames inside marking its former identity. In this era of rapid technological growth, it has become simple to create a virtual city in the digital world.



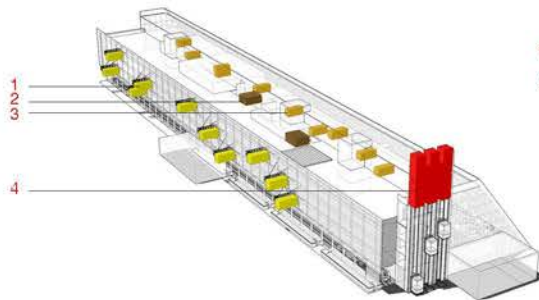
## Images of the existing building

### Historical Background

The construction area of the No.5 warehouse is 26,000 square meters. It was once the Asia's largest and most advanced warehouse in history. It is famous for its unique construction of 4-layer reinforced concrete structure without beam floor system.

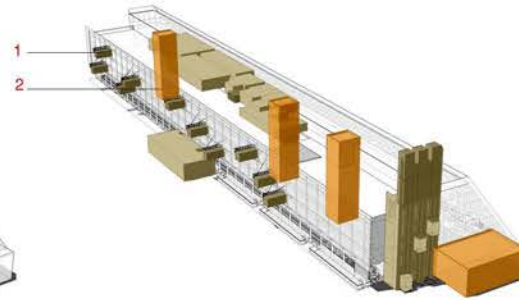
### Strategy

Demolishment is the common method that the Chinese deal with old buildings. I think that 'demolishment' is not correct at all. Returning to the origin of urban construction- why houses should be built in the city? The meaning they impose upon us should not be simple 'novelty', but be the 'thickness' of the city. All this can become a kind of memory condensed into this city.



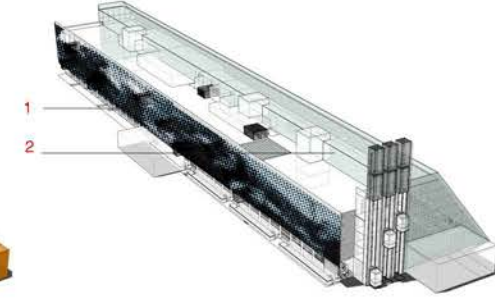
#### Recycling Containers

1 Displace 2 Rest Room 3 Mobile Cabinets 4 Logo & Decoration



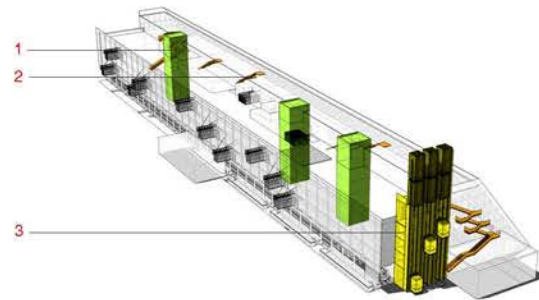
#### Extension and Reconstruction

1 Extension 2 Reconstruction



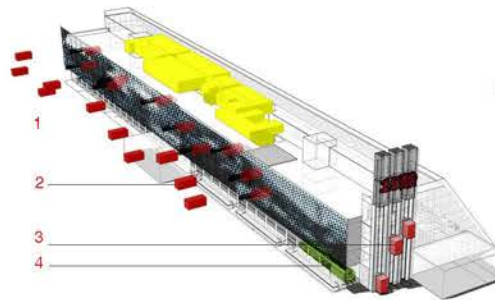
#### Breathing Skin

1 Parametric Skin 2 Breathing Skin



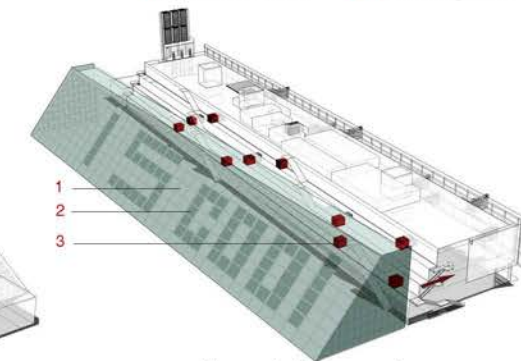
#### Traffic Analysis

1 Traffic Core 2 Landscape stairs  
3 Landscape Elevators



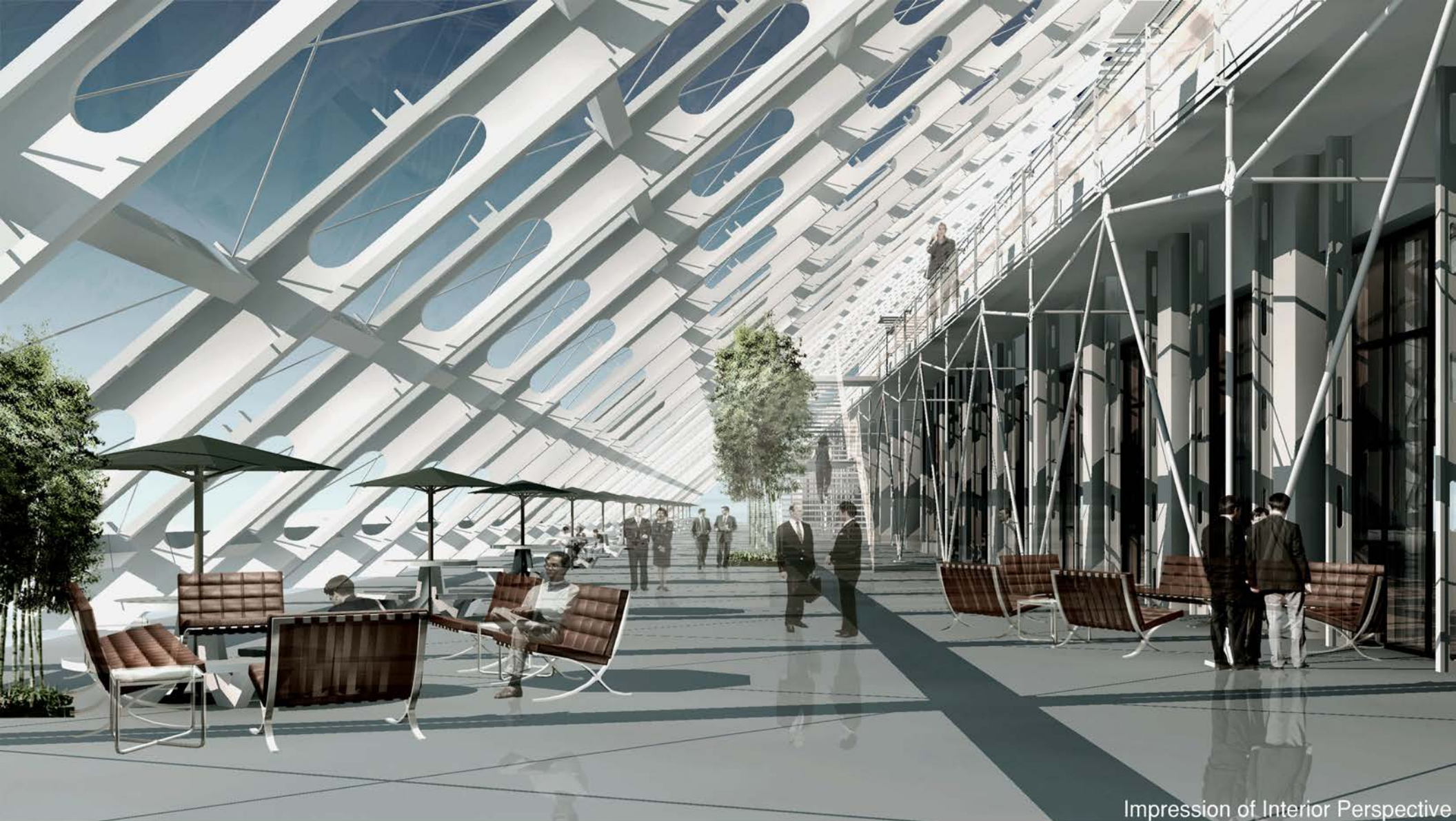
#### Mobility

1 Roof offices 2 Mobile Advertising  
3 Landscape Elevators 4 Mobile Pavilion

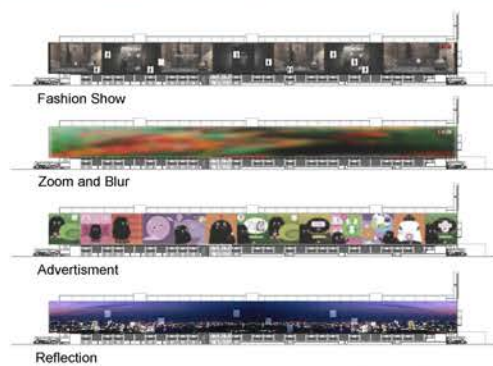


#### Facade Proposal

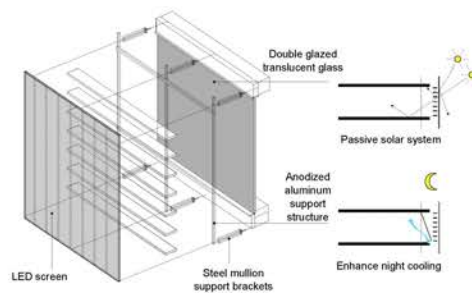
1 Fixed Part 2 Openable parts  
3 Pavilions



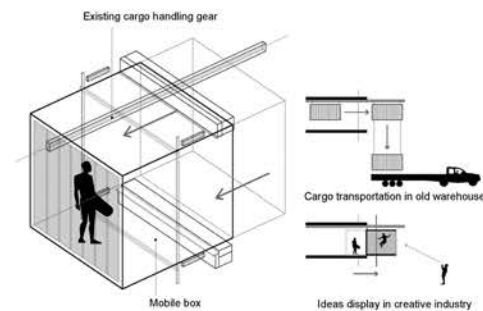
Impression of Interior Perspective



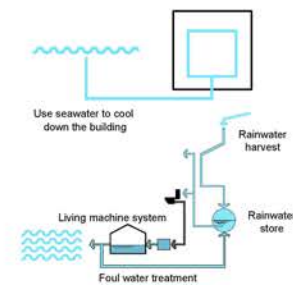
PROTEAN SKIN



PASSIVE SOLAR CONSIDERATION



MODERN TRANSLATION OF TRANSPORTATION



HYDROLOGIC CIRCULATION



## SANATORIUM RECEPTION CENTER

### Fractal Dimension and Fractal

In this project, I cooperated with other members to accomplish the conceptual design analysis and architecture design. Moreover, I complete the interior conceptual design and construction documents design.



## SANATORIUM RECEPTION CENTER | Fractal Dimension and Fractal

Professional work



Interior Perspective 1



Outside Perspective 1



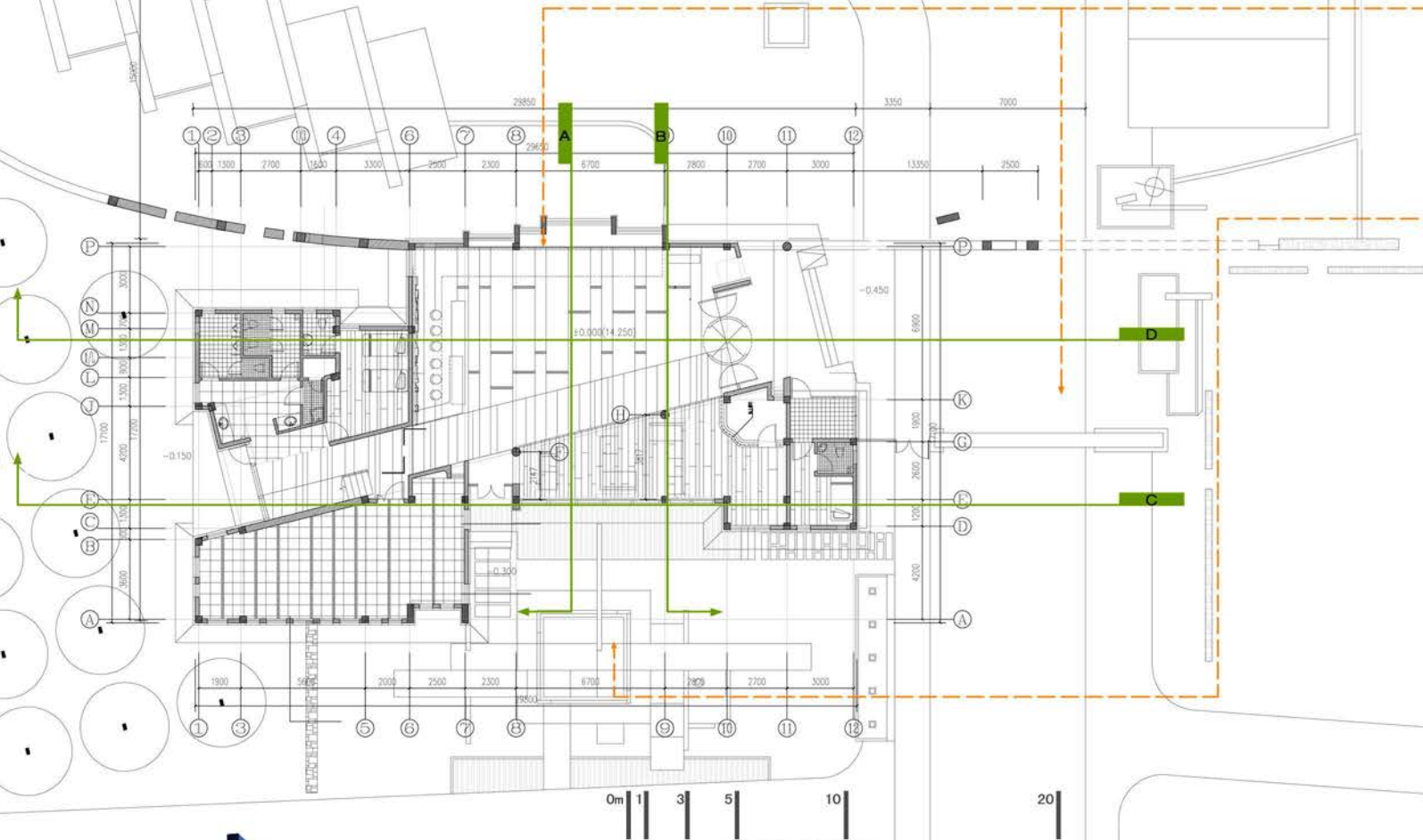
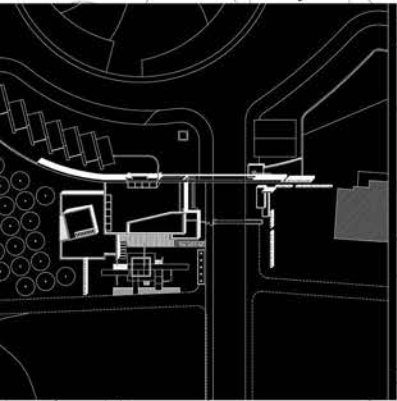
Outside Perspective 2

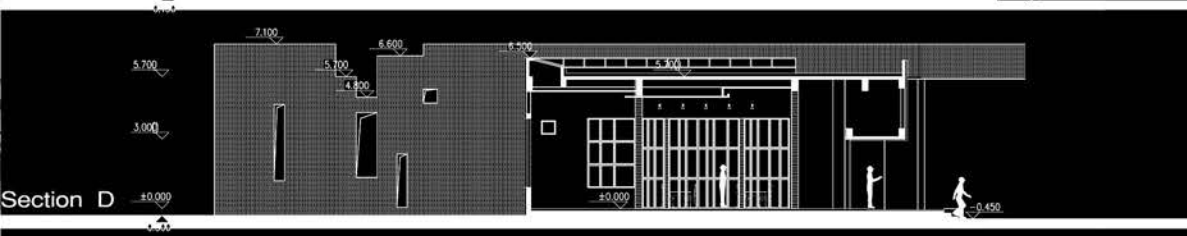
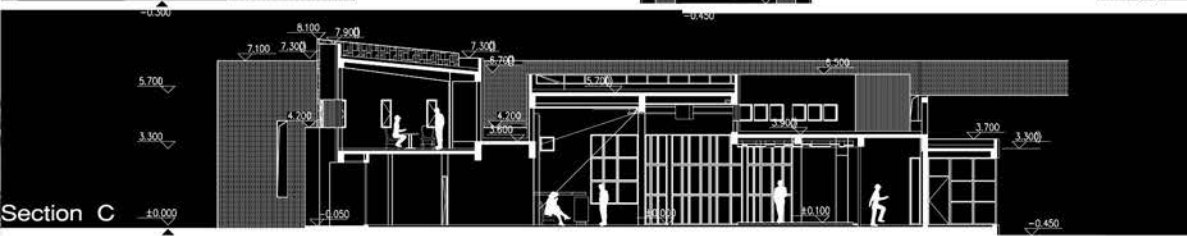
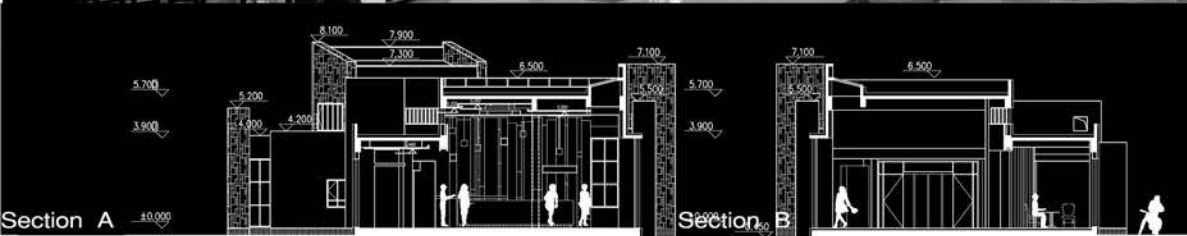


Interior Perspective 2

## First floor plan

- 1 Lounge area
- 2 Office area
- 3 Storage room
- 4 Guard room
- 5 Janitor room

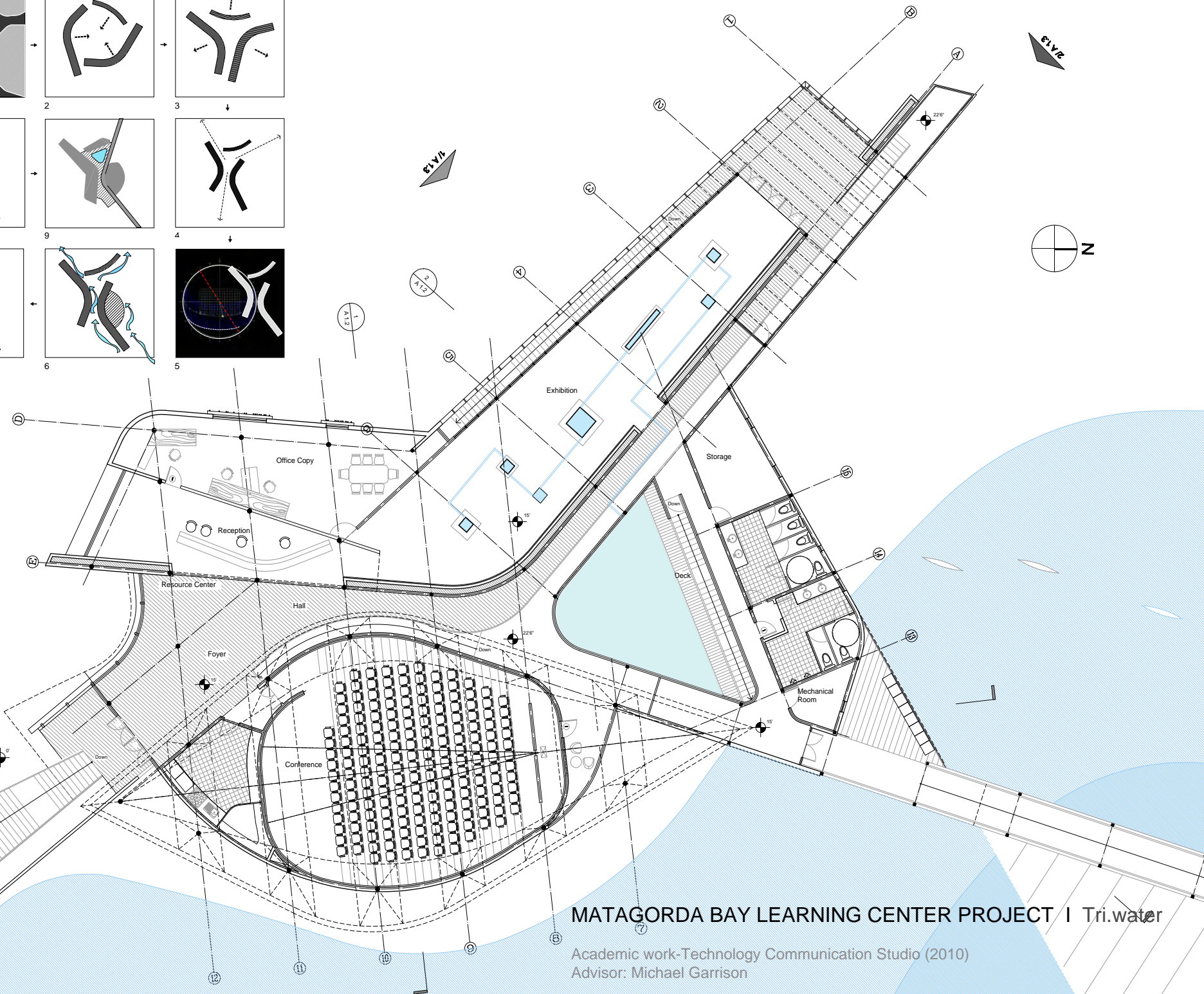
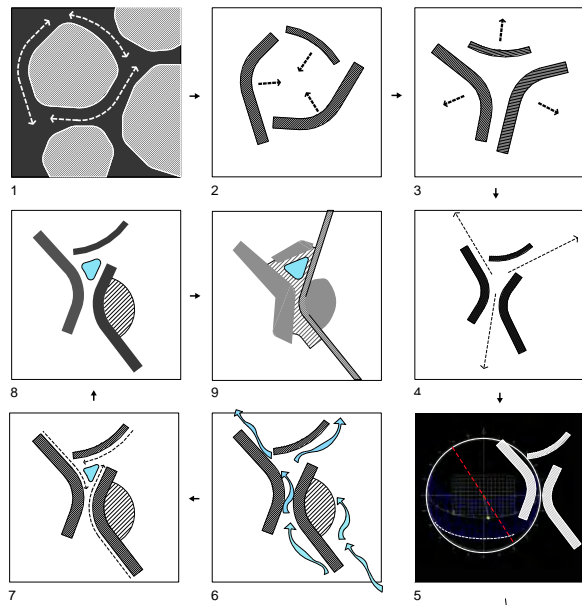






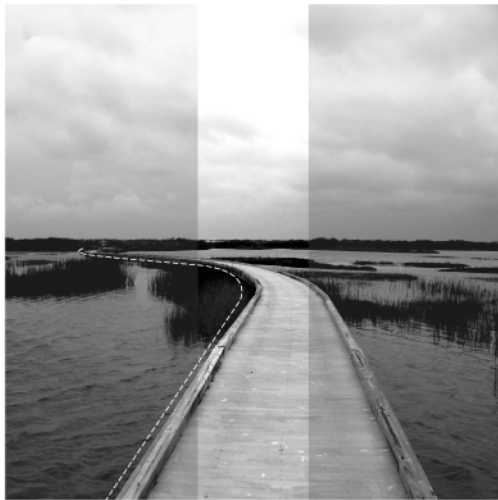
MATAGORDA BAY LEARNING CENTER PROJECT  
Tri water

I was totally captivated by the power of the wave, the soft shape of lagoon and the relationship of "liquid" and "solid" in between the water and the rocks. This project was inspired by these emotional expression of Matagorda Bay. The dynamic space, organic form and sustainable strategies serve to talk to the natural site environmental friendly and establish the poetic connection between lagoon, ocean and river at the same time.



# MATAGORDA BAY LEARNING CENTER PROJECT | Tri.water

Academic work-Technology Communication Studio (2010)  
 Advisor: Michael Garrison



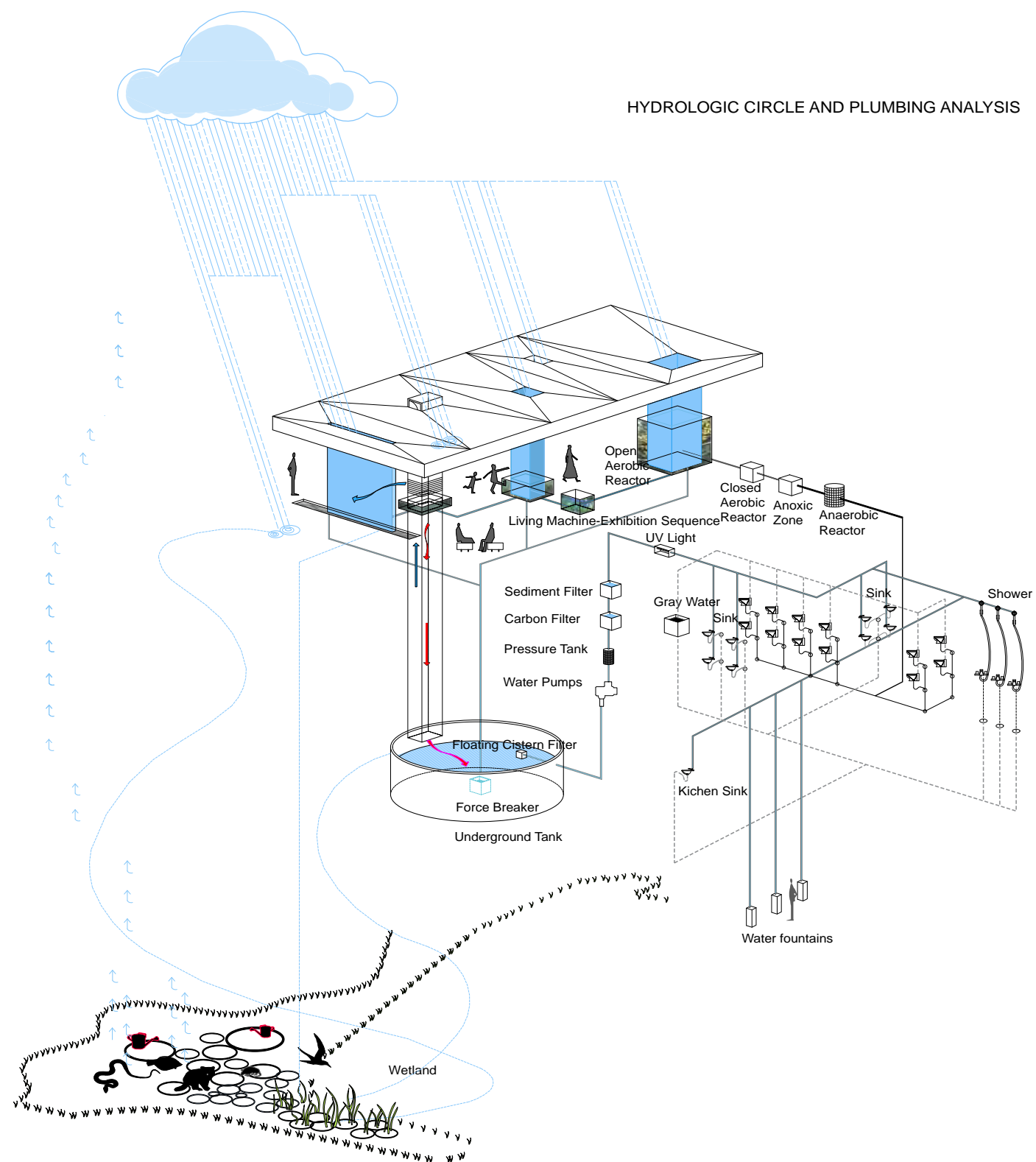
Beautiful curve



Soft boundary



Poetic anchoring





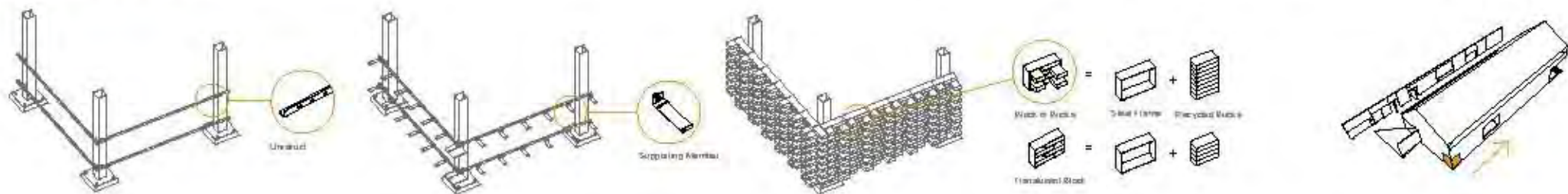
The sewage treatment - Living Machine inside exhibition area which are not only break down waste biologically, but also provides an education tool and a surprisingly attractive display as well.

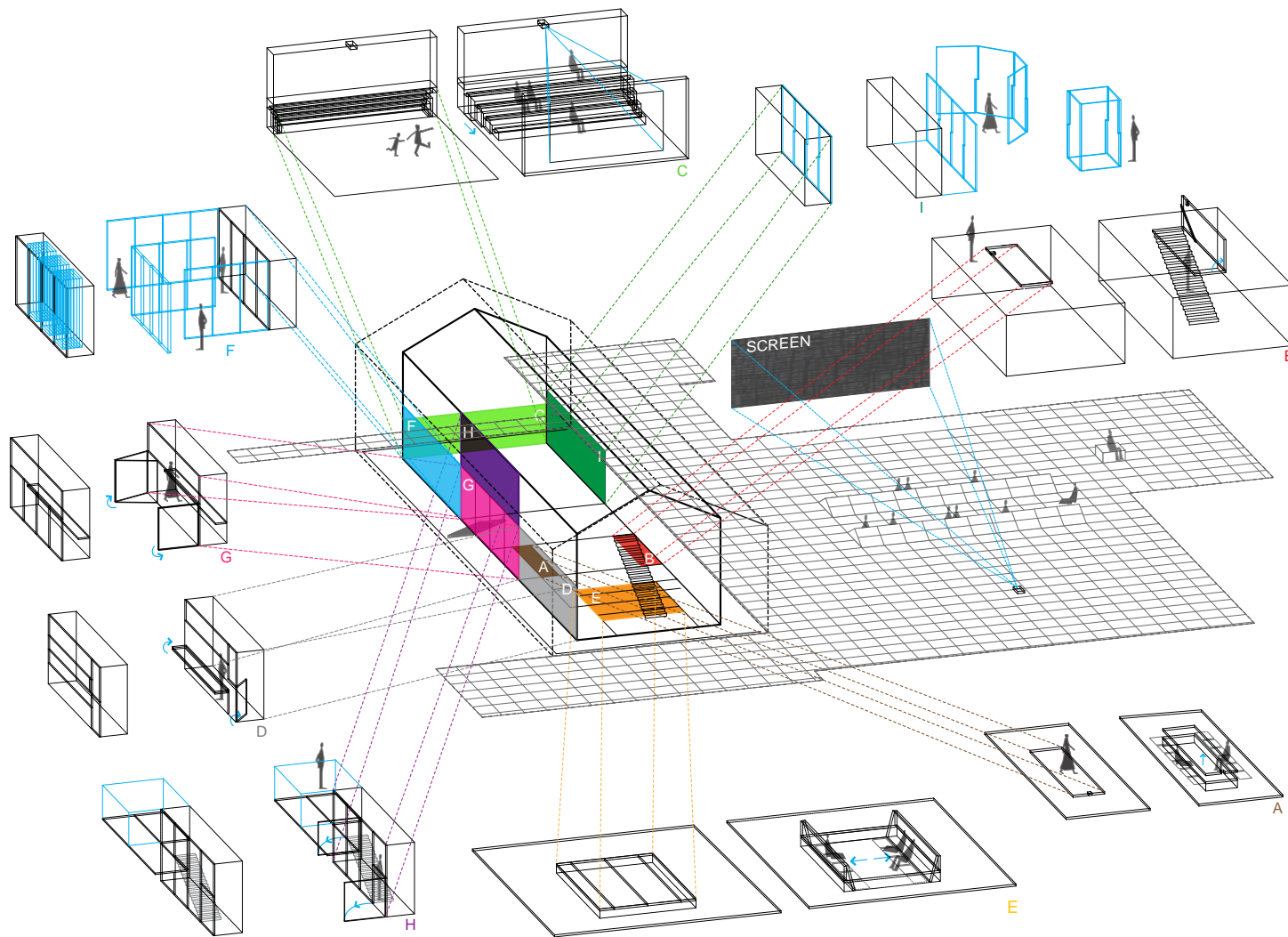


## X | Design for Deconstruction

Academic Graduate Project  
 Advisors: Michael Garfson, Adam Pyrek

This project proposes an exterior cladding system for a mix-use facility using recycled materials which also could be easily deconstructed for future reuse and recycle in Beijing, China. The exterior use of recycled material not only brings ecological beauty, but it also contributes to the sense of place and cultural sustainability.

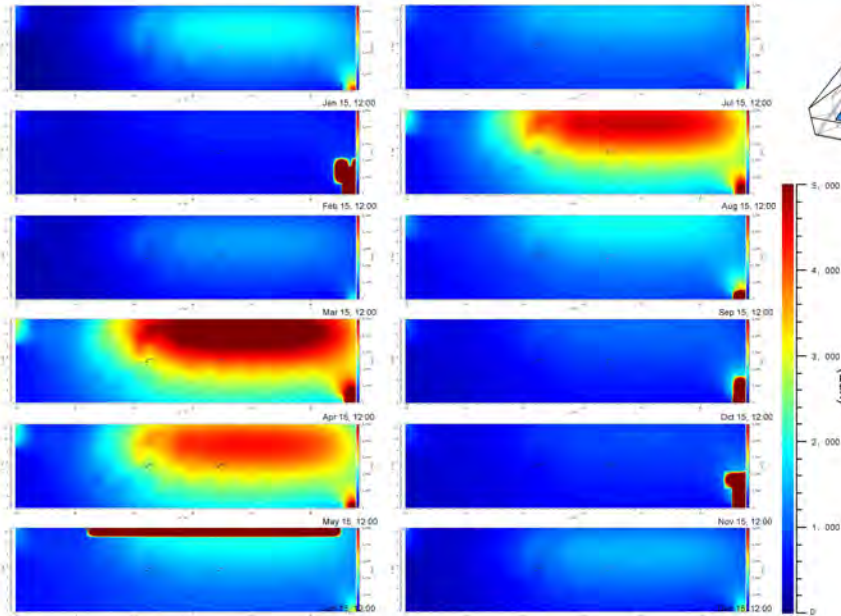




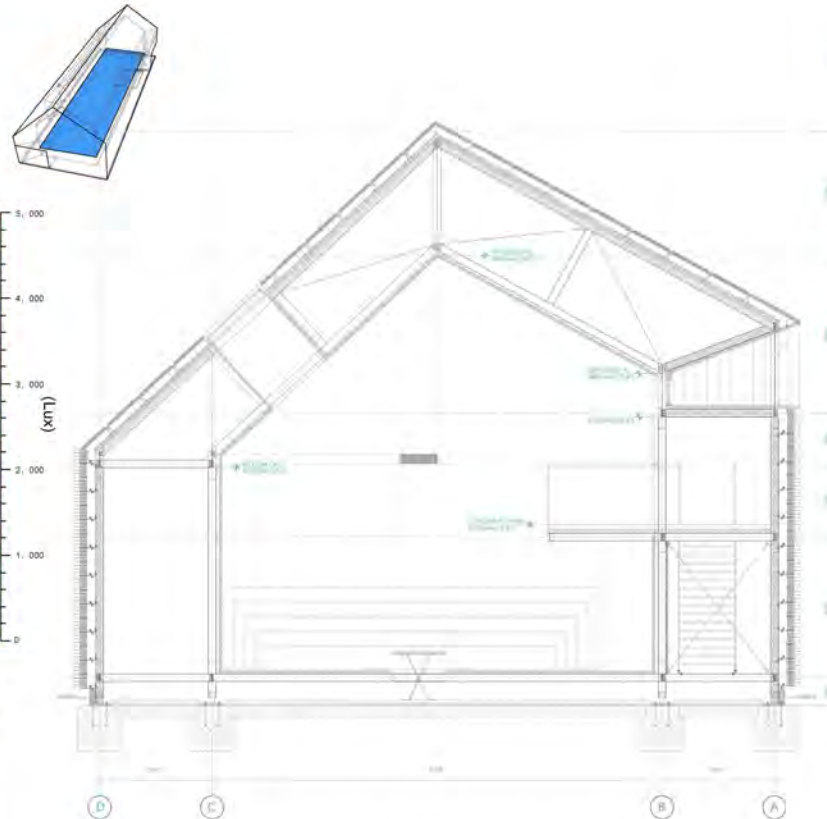
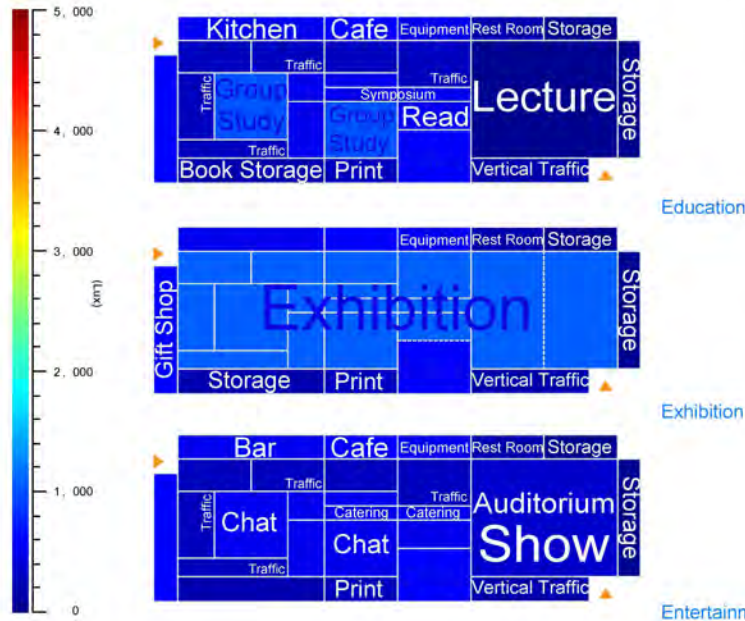
### BETWEEN FOLDING AND UNFOLDING

The “servant space” is in effect manifested by the structure and skin through the use of embedded furnitures, intelligent joints and mobile devices incorporated within these elements. The physical and psychological space are maximized between folding and unfolding.

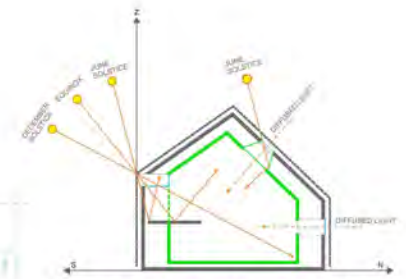
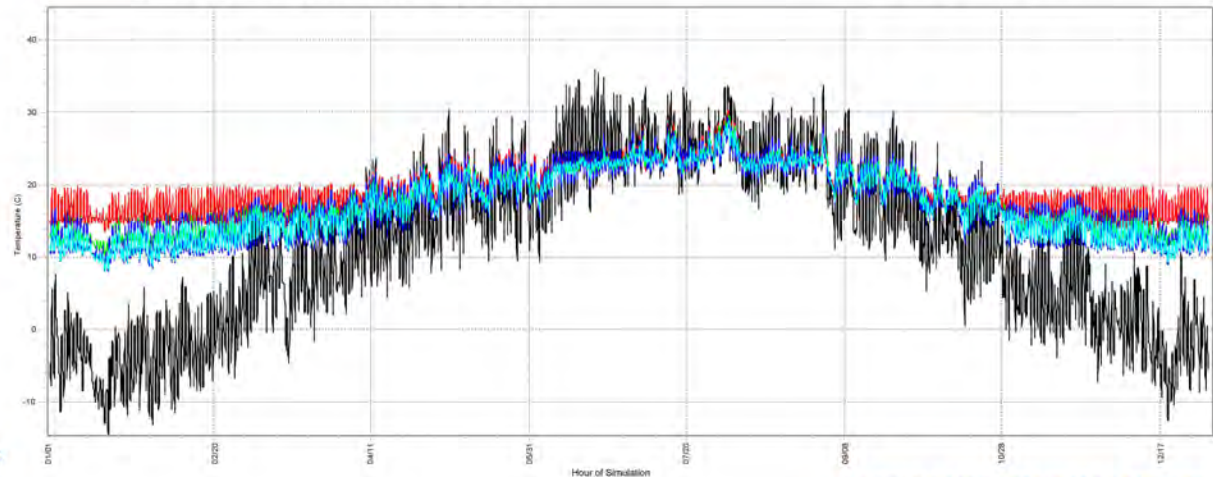
## ILLUMINATION MAP AT SOLAR NOON IN A SPECIFIC DAY PER MONTH



The E+ was introduced to reevaluate the performance of the louvers, number and size of openings based on the simulation output. Combining with the consideration of various activities and functions shown below, the openings are re-organized by different illuminance requirements.



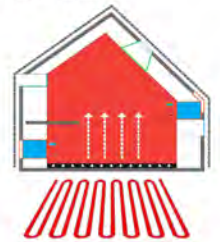
- Outdoor Dry Bulb, Environment
- Zone Mean Radiant Temperature, Main Zone
- Zone Mean Radiant Temperature, Buffer Zone
- Zone Air Temperature, Main Zone
- Zone Air Temperature, Buffer Zone



Only diffused light is allowed to penetrate the space behind based on the illuminance requirement.



With the aid of the buffer space surrounding, the interior cooling load and heating load will be greatly decreased.



Radiant heating and cooling system hidden underfloor with energy recovery ventilation in winter is employed.