

SHARING

The background of the entire page is a grayscale architectural model. It features several overlapping, semi-transparent planes and surfaces that create a complex, layered geometric structure. The lighting is dramatic, casting sharp, dark shadows and bright highlights across the various surfaces, which emphasizes their three-dimensional form and the interplay of light and shadow. The overall composition is abstract and modern, suggesting a focus on architectural design and spatial relationships.

A Synergy of
Natural Resources
Existing Urban Condition
Human Characteristics

Zhen Meng, Master of Architecture, 05.2017

SHARING:
A Synergy of Natural forces, Existing Urban Condition and Human Characteristics

A thesis presented in partial fulfilment of the requirement for the degree Master of Architecture in the Department of Architecture of the Rhode Island of Design, Providence, Rhode Island

by
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“Sharing is a synergy which produce a combine effort greater than their separate efforts. It based on the dependency of independent material(s), object(s) or structure(s), and can generate more possibilities.

There always be one dominant, one compliant; one gives the direction, one follows the order. Sometime the direction is selectional and compliance can be multriple. By following the charactoristic of objects, with the superposition of selected orders, the result can be complex and diverse.

When design compliant to the natural forces and existing urban condition, then meeting different human charactoristics, taking advantage of the restrictions, carefully making small changes that can lead to big differences should lead to the future of architecture.”



1



2



3



4



1



2

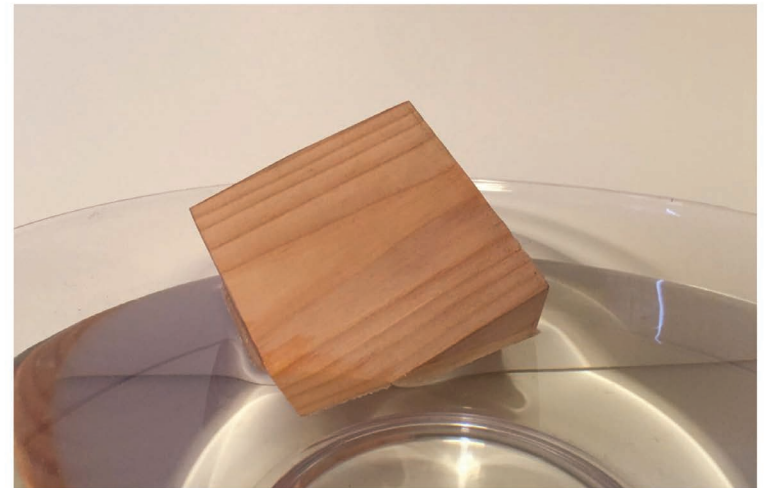


3



4

SELECTIONAL COMPLIANCE



Experiment analysis:

Water is a liquid can flow in narrow spaces without the assistance of, or even in opposition to, external forces.

Wood has thin pipes inside its body.

When water touch the wood, pipes give water direction and water follow its materiality absorbed into the wood.

"Selectional compliance based on the dependency of independent material(s), object(s) or structure(s), and can generate more possibilities. There always be one dominant, one compliant; one gives the direction, one follows the order. Sometime the direction is selectional and compliance can be multiple. By following the characteristic of objects, with the superposition of selected orders, the result can be complex, diverse, and sometime unpredictable."

1. Directional sequence of circles

2. Torsional fractal structure

3. Self-portrait of a compasses

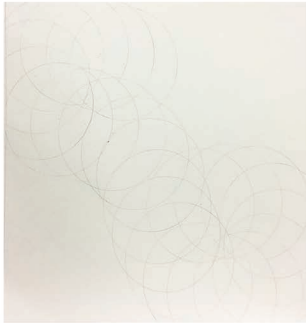
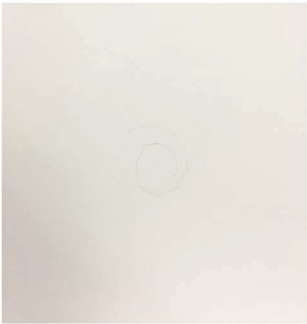
4. Paper folding space

Two objects

One object

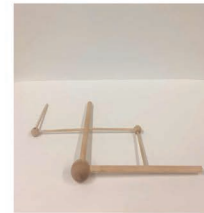
1. Directional sequence of circles

Circle (unchange, compliant)
Line (change, dominant)



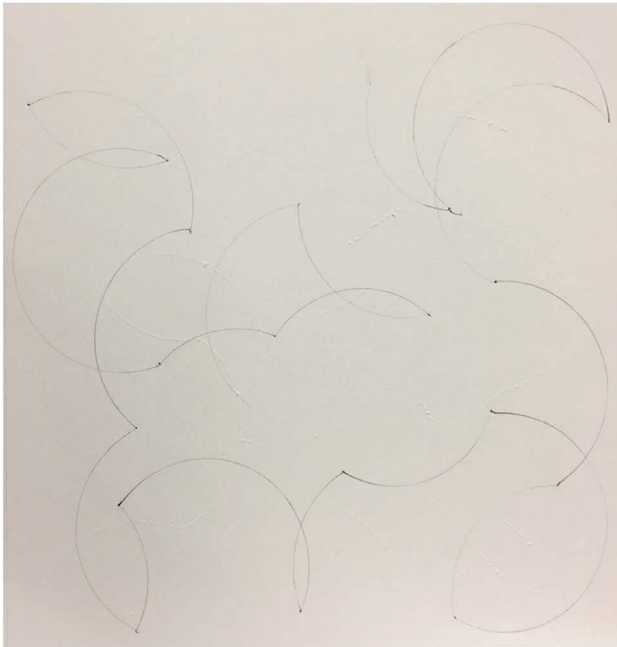
2. Torsional fractal structure

Objects remain, angle changes
Secondary structure comply to main structure.



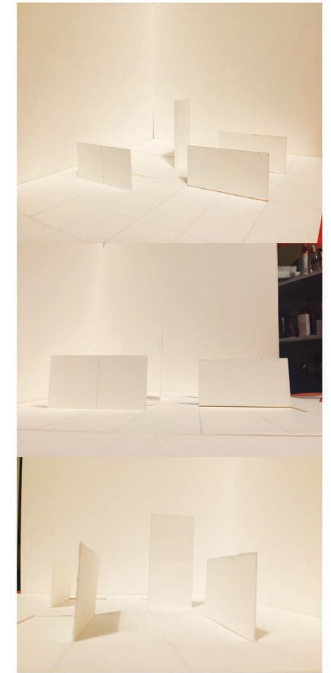
3. Self-portrait of a compass

2 legs alternate to be center of the circle.
Compass comply to itself, radius angle changes.



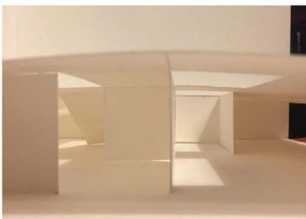
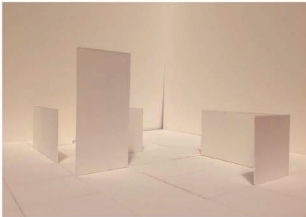
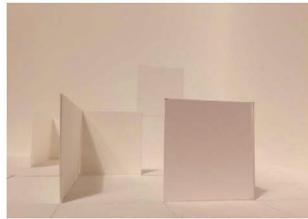
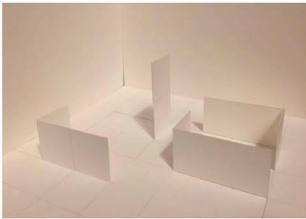
4. Paper folding space

Chose 4 rectangles on a grid paper. Cut through the edge follow the grid. Fold it.
Grid paper is self-compliance. Although the 4 rectangles are the same, different cut and different folding can lead to different space experience.



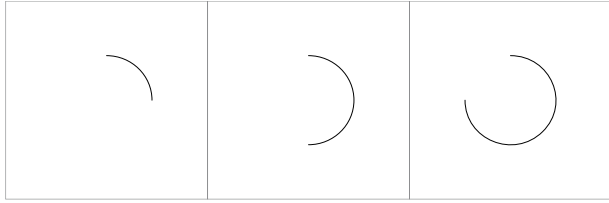
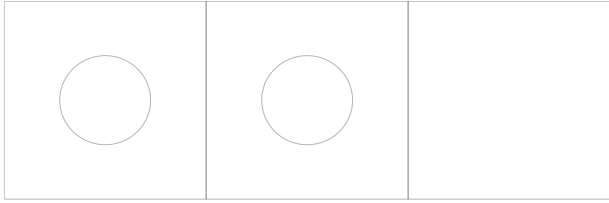
4. Paper folding space

Adding another layer of compliant object follow the edge of the last fold, new space have been created.



What will happen next:

1. Find a way to restrict and define the grid (size, numbers) and the rectangle shape.
2. Create a system.
3. Chose a site, use the system to create a space that shaped by its environment.



Sharing is a synergy which produce combine effort greater than their separete efforts and it is self-enhanced. It based on the **dependency of independent material(s), object(s), or structure(s)** and can generate more possibilities.

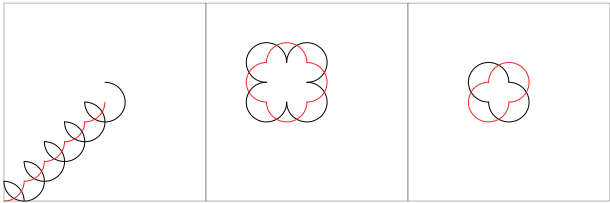
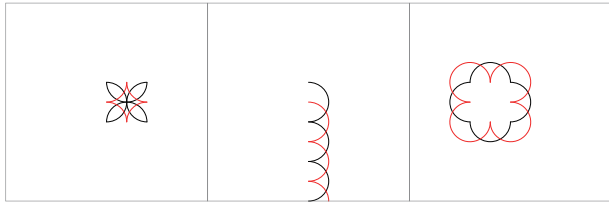
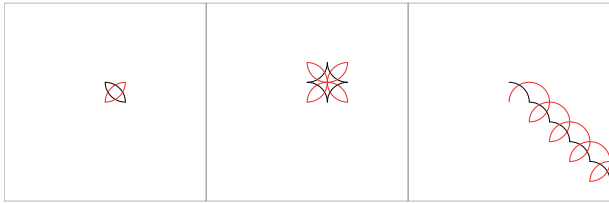
There always be **one dominant, one compliant. one gives the direction, one follows the order.** Sometimes the direction is selectional and complience can be multiple. aby following the characteristic of objects, with the superposition od selected orders, the result can be **complex, diverse, and sometimes unpredictable.**

While finding the balance of dominant and compliant, a new space will be generated.

(1)

(2)

(3)



(1,1)

(1,2)

(1,3)

(2,1)

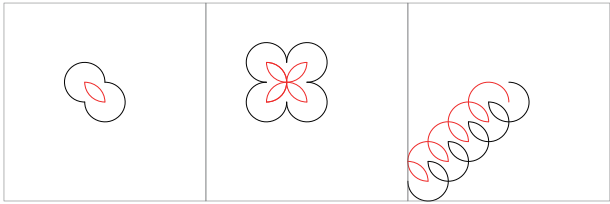
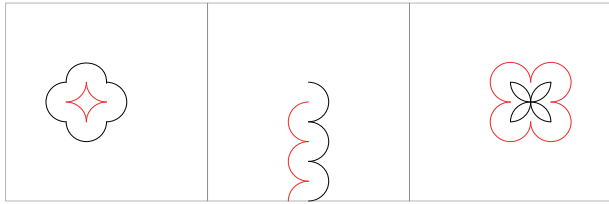
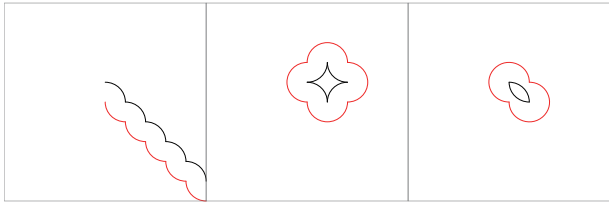
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(2,3)

(3,1)

(3,2)

(3,3)



(1,-1)

(1,-2)

(1,-3)

(2,-1)

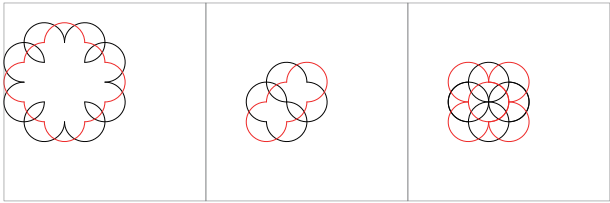
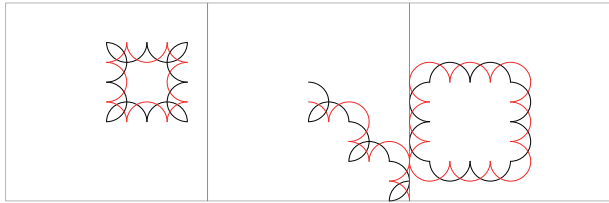
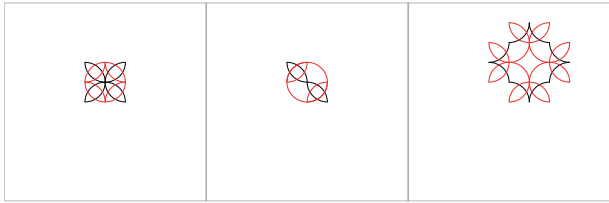
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(2,-3)

(3,-1)

(3,-2)

(3,-3)



(1,1)

(1,1)

(1,2)

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(1,3)

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(2,2)

(2,2)

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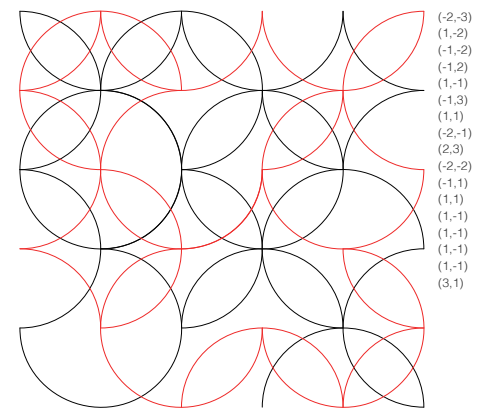
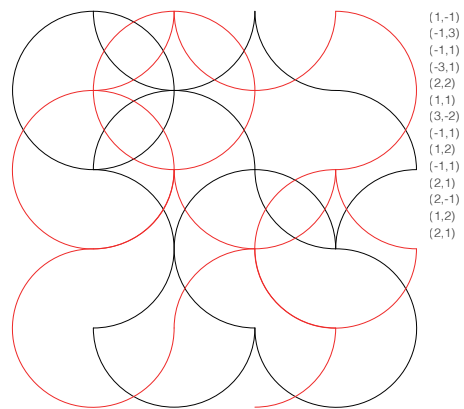
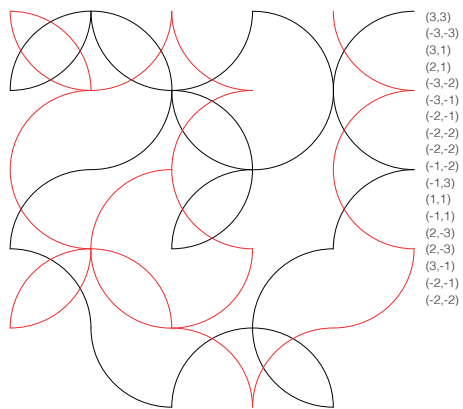
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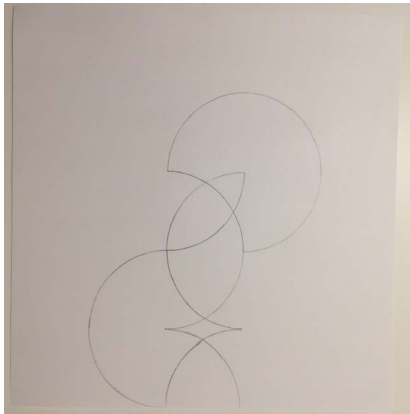
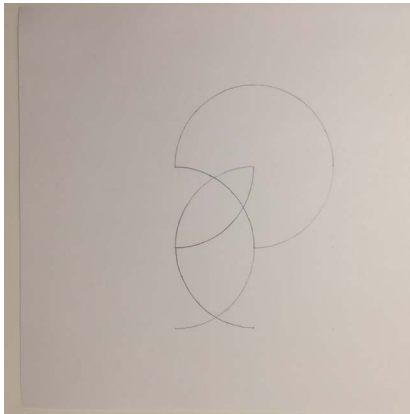
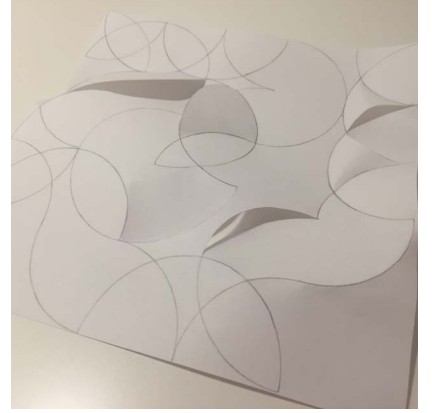
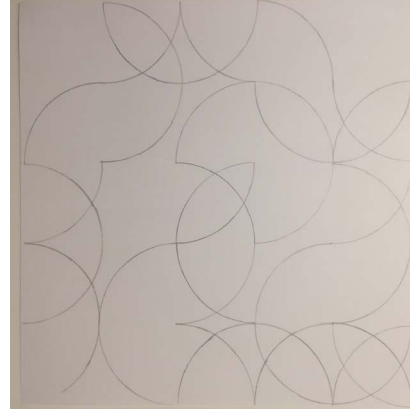
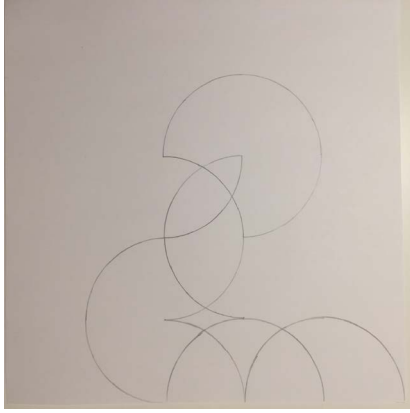
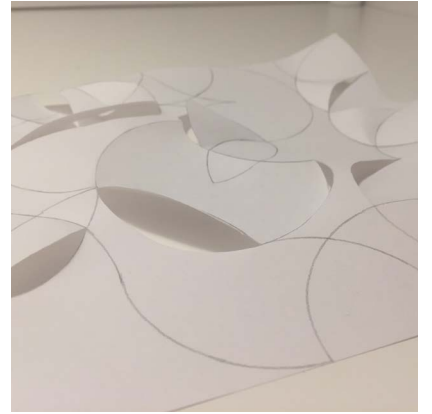
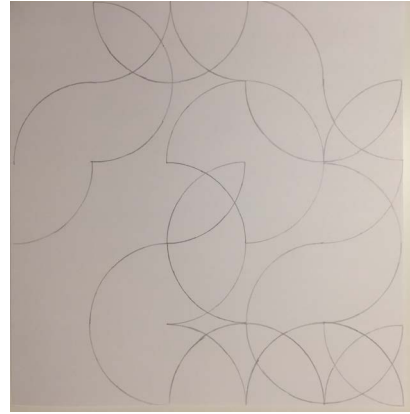
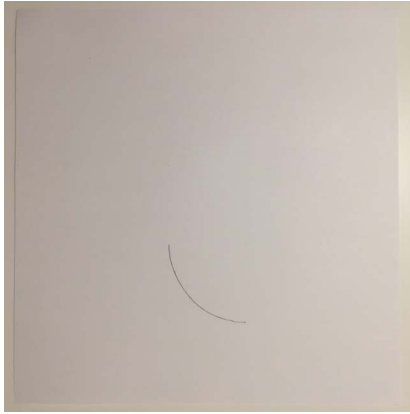
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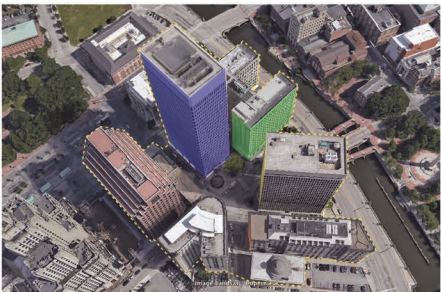
(3,2)

(3,3)

(3,3)





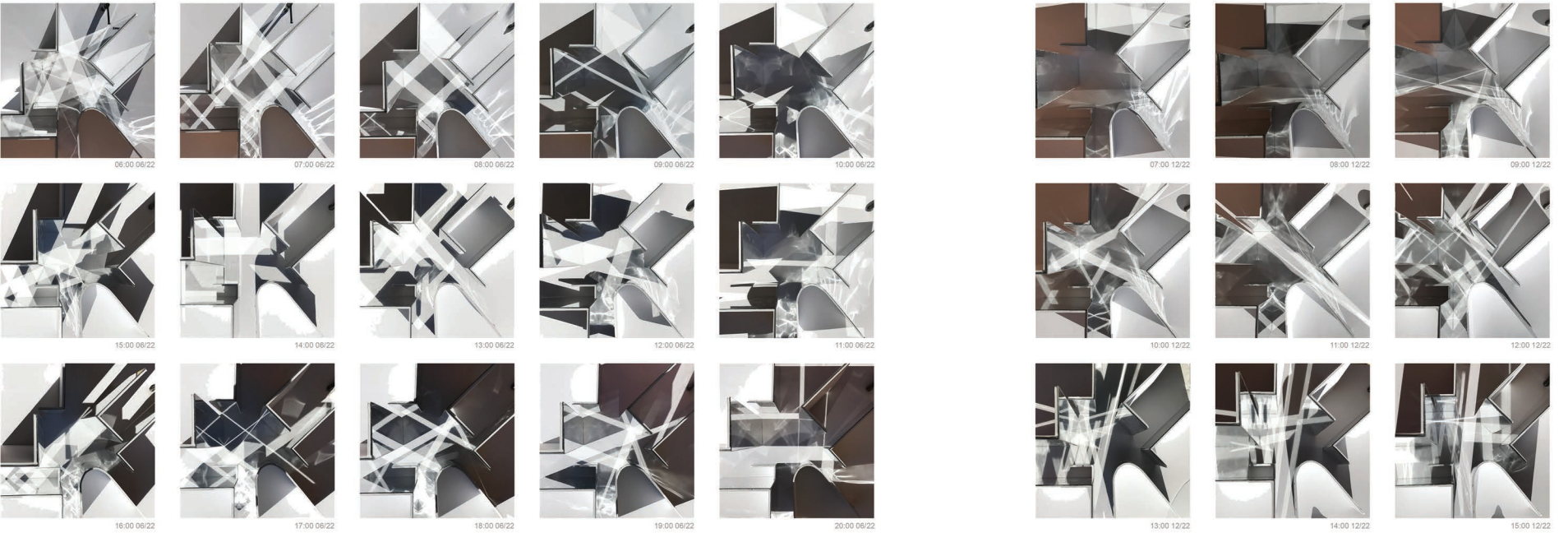


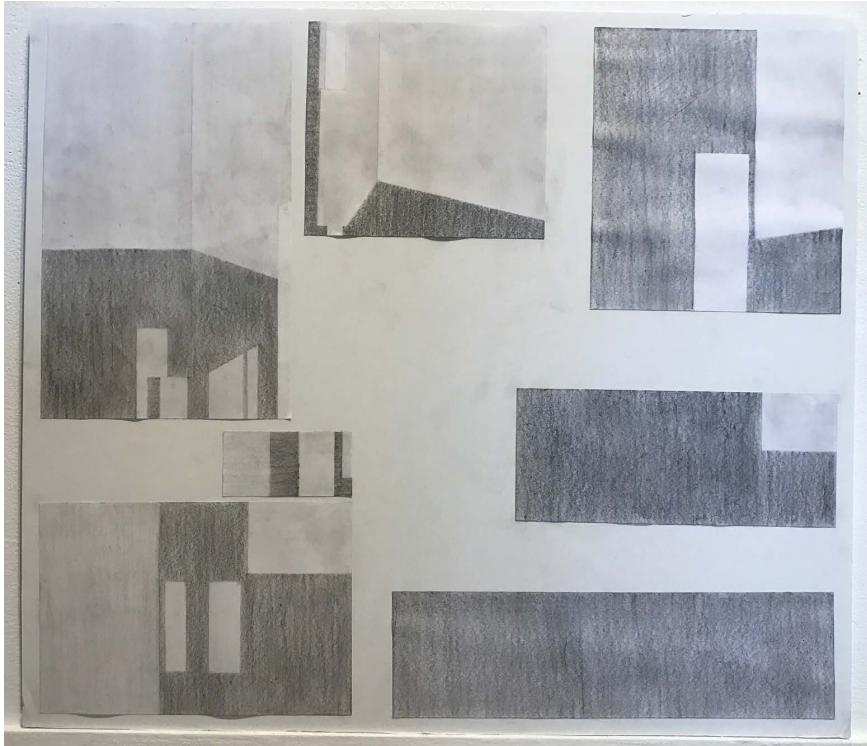
Tools for Light Analysis



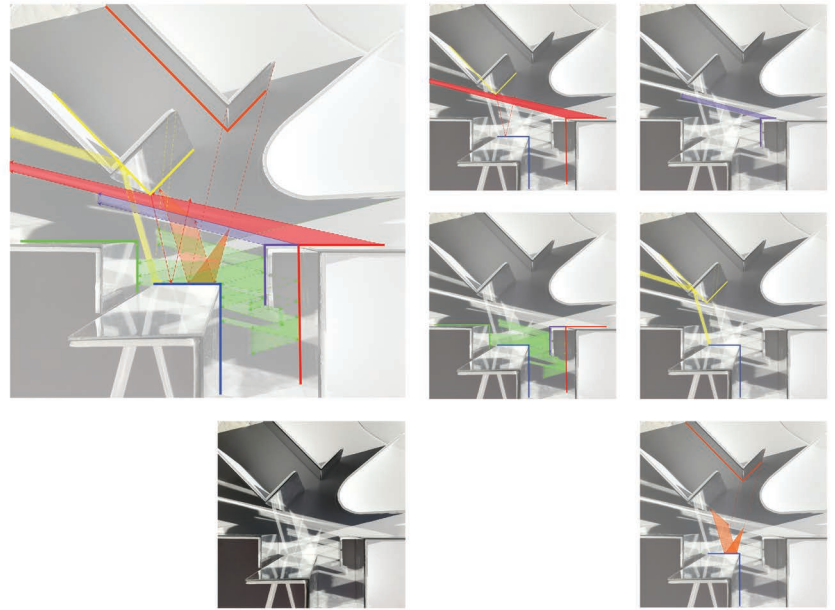
Day

Facade Reflection Surface

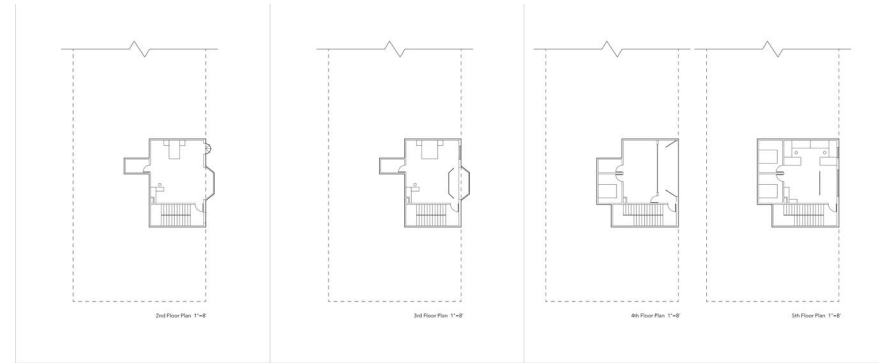
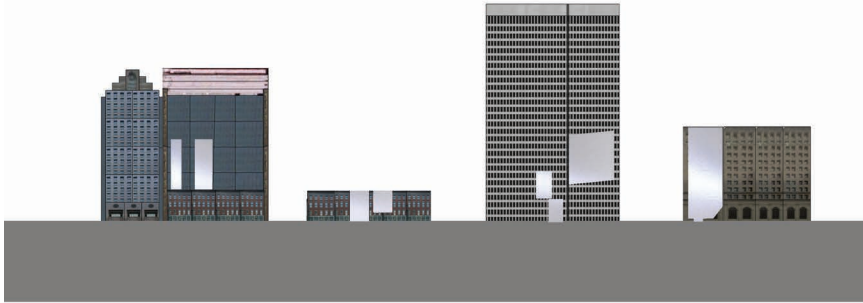




Light Analysis



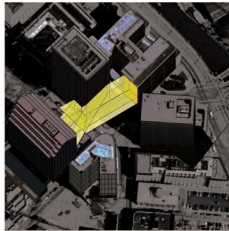
Facade Reflection Surface



Light Box



Day

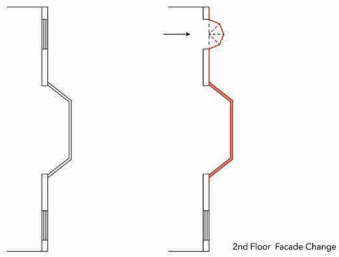


Night

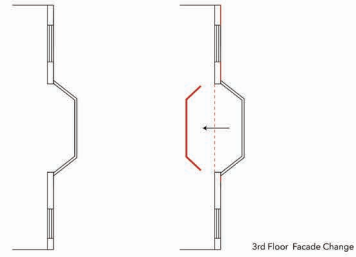
Building Facade



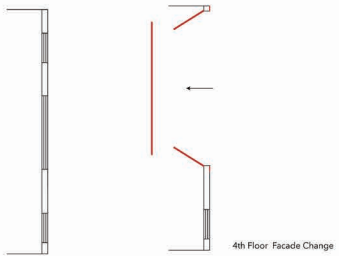
Facade Change



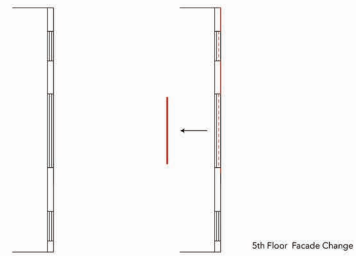
2nd Floor Facade Change



3rd Floor Facade Change



4th Floor Facade Change



5th Floor Facade Change

