



**EMBODY**

**PHENOMENAL TRANSPARENCY**

**THE EXPANDED APPLICATION OF  
“PHENOMENAL TRANSPARENCY”  
IN  
LANDSCAPE ARCHITECTURE**

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A thesis submitted in partial fulfillment of the requirements for the Master of Landscape Architecture Degree in the Department of Landscape Architecture of the Rhode Island School of Design, Providence, Rhode Island.

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*The key task of environmental design is "interpreting the world as a meaningful order in which the individual can find his or her place in the midst of nature and community."*

*-Dwelling, Seeing, and designing-towards a phenomenological ecology, Edited by David Seamon*

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# ABSTRACT

Phenomenal Transparency was first identified from cubism painting and applied to architectural analysis by Colin Rowe and Slutzky in 1963. In terms of the discussion of form, this spatial quality synthesizes and demonstrates complex orders and organizations in a structural way which could be comprehend through experience. From the perspective of modern physics considering the traditional space as time-space continuum, the intentionally ambiguous space creates simultaneous perception and actively mutual relationship between human and time-space which is the essential forum of Phenomenology in current context.

The thesis bridges the theory of "Phenomenal Transparency", the theory of "Phenomenology" in aspect of embody experience and the design application in "Landscape Architecture", aiming at translating, representing and expanding this theory from the scope of landscape architecture and eventually achieving "the making of place".

# OVERVIEW

## **PHASE 1 - INVESTIGATE PHENOMENAL TRANSPARENCY**

Phase 1 is an investigation on spatial operations that create the quality of "phenomenal transparency" through literature review and case study. The focus for this thesis is narrowed from whole theory and terms of spatial operations are identified.

## **PHASE 2 - EMBODY PHENOMENAL TRANSPARENCY**

Phase 2 departs from architectural theory into landscape field; shifts from geometrically formal space to perceptual space-time, aiming for figuring out the relation between two. It focuses on interpretation of specific operations identified from phase 1, such as interpenetrate, stratify, superimpose..... They are interpreted in landscape architecture and are tested by succession of landscape phenomenon and succession of human's experience from time-space perspective.

The purpose of phase 2 is to figure out how geometrical space of phenomenal transparency actively interacts with succession of human experience, and how succession of landscape phenomenon add another perceptual /ephemeral reading to geometrical space through embodied experience.

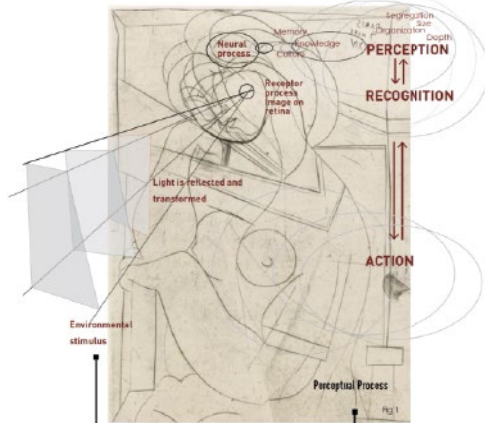
## **PHASE 3 - WORKING ON SITE**

Phase 3 integrates the operations from previous phases and contextualizes them through a design project, connecting conceptual organization, articulation of space and perceptual experience which expands the application of phenomenal transparency through the language of landscape architecture. The design project starts from recognizing the possible conditions on site, defining elements to work with, and is developed through physical model being tested on site. It rebuilds and enhances the relation between site and city through orientation and view. It creates the real condition that spatializes the landscape phenomenon of light and water.

# OVERVIEW

## PHASE 1

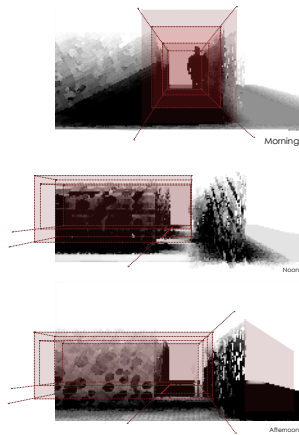
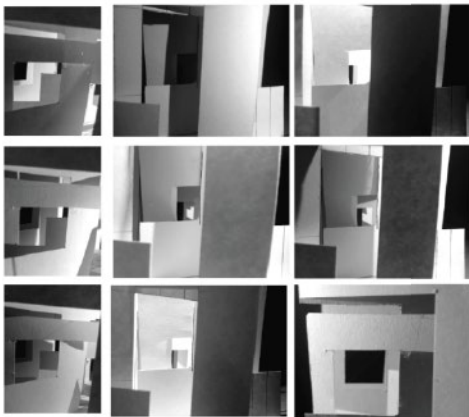
### INVESTIGATE PHENOMENAL TRANSPARENCY



left: The-portuguese, Braque; right: Picasso, Cubism figure, Sketch

## PHASE 2

### EMBODY PHENOMENAL TRANSPARENCY



## PHASE 3

### WORKING ON SITE



#### What's Phenomenal Transparency?

Identified by Colin Rowe and Slutzky from Cubism painting to Architectural space.

What construct the perceptual outcomes? What principles form the clearly ambiguity instead of chaos?

What's the most important quality for this thesis in Phenomenal transparency?

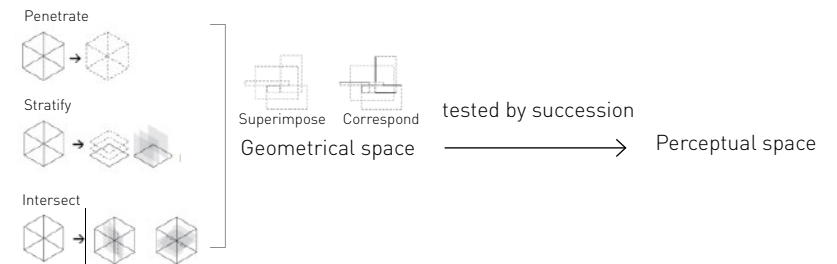
**CLEARLY AMBIGUOUS** :An articulated state that belongs to two or various references.

What's the process of human perceiving the space of phenomenal transparency?

What spatial operation create the "transparency" quality?

How does formal operation of phenomenal transparency influence our experience of time-space?

What's the typology of operation that makes time more active and reveals the unseparated relation between body, time and space in experience?



What are the register? In what ways it affects? What's the parameter of the register?

How to use phenomenon transparency as formal tools to create place that generates multiple readings where various possible space-time function relative to each movement or event?



# PHASE ONE

INVESTIGATE PHENOMENAL TRANSPARENCY

# ABSTRACT

## INVESTIGATE PHENOMENAL TRANSPARENCY

Phenomenon Transparency was first identified from cubism painting and applied in architectural analysis by Colin Rowe and Slutzky .

Phase 1 is an investigation on spatial operations that create this quality of "phenomenal transparency".

# INTRODUCTION & METHOD

## INVESTIGATE PHENOMENAL TRANSPARENCY

Phase 1 is focused on these questions:

What's Phenomenal Transparency?

What construct the perceptual outcomes? What principles form the clearly ambiguity instead of chaos?

What's the most important quality for this thesis in Phenomenal transparency?

What spatial operations create the quality of "phenomenal transparency"?

Phase one is a synthesis of theoretical research, from which Colin Rowe & Slutzky's phenomenal transparency and related theories on perception are dissected and a better understanding of this spatial quality and how human perceive it is formed.

Phase one is also an analytical process of spatial operations from certain cases study. Through making of interpreting specific aspects of cases, the terms of operations are identified and defined. These are fundamental devices that construct phenomenal transparency, which are applied by architecture or architectural language more broadly than landscape architecture.

**Literature Review**

**Case Study**

**Analytical Model**

# RESEARCH STRUCTURE

## INVESTIGATE PHENOMENAL TRANSPARENCY

### What's Phenomenal Transparency?

Identified by Colin Rowe and Slutzky from Cubism Painting to Architectural Space.

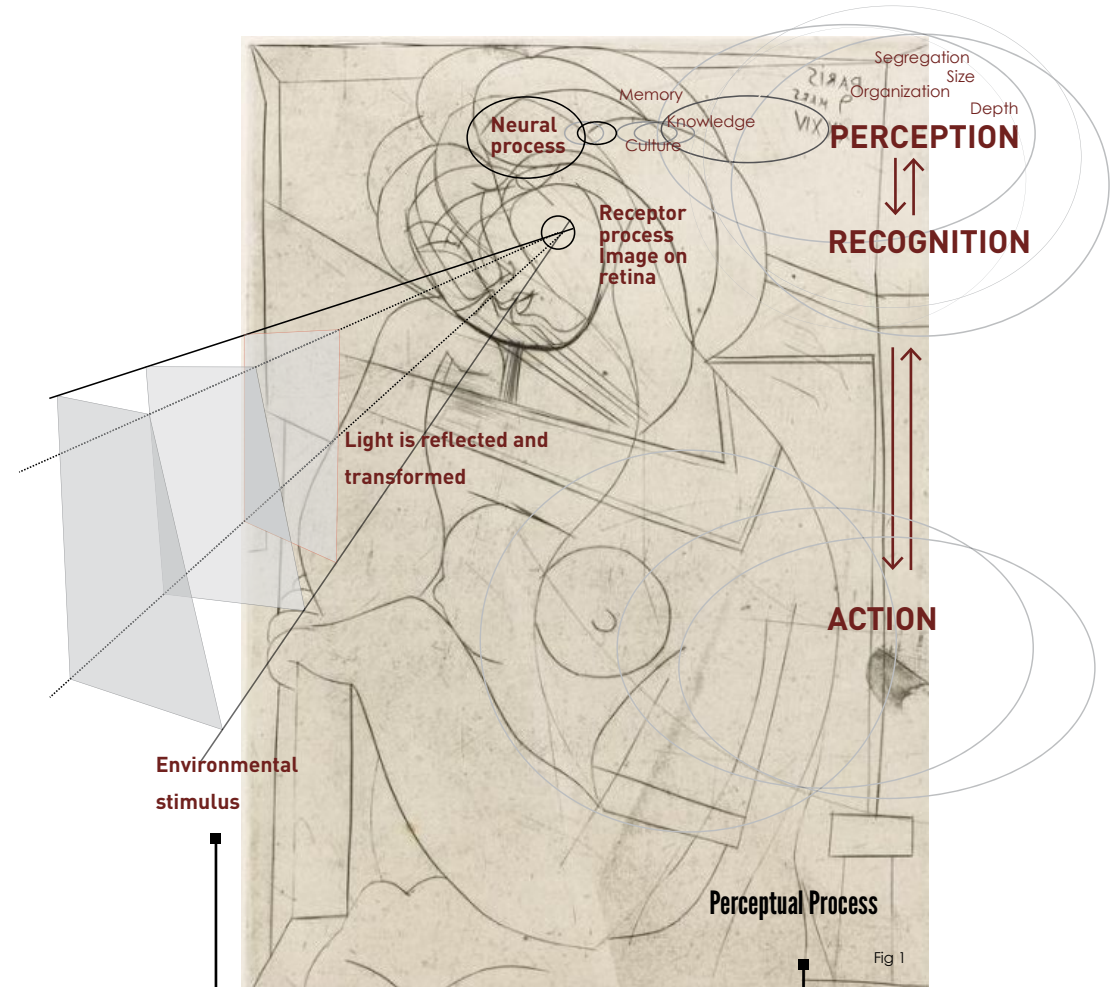
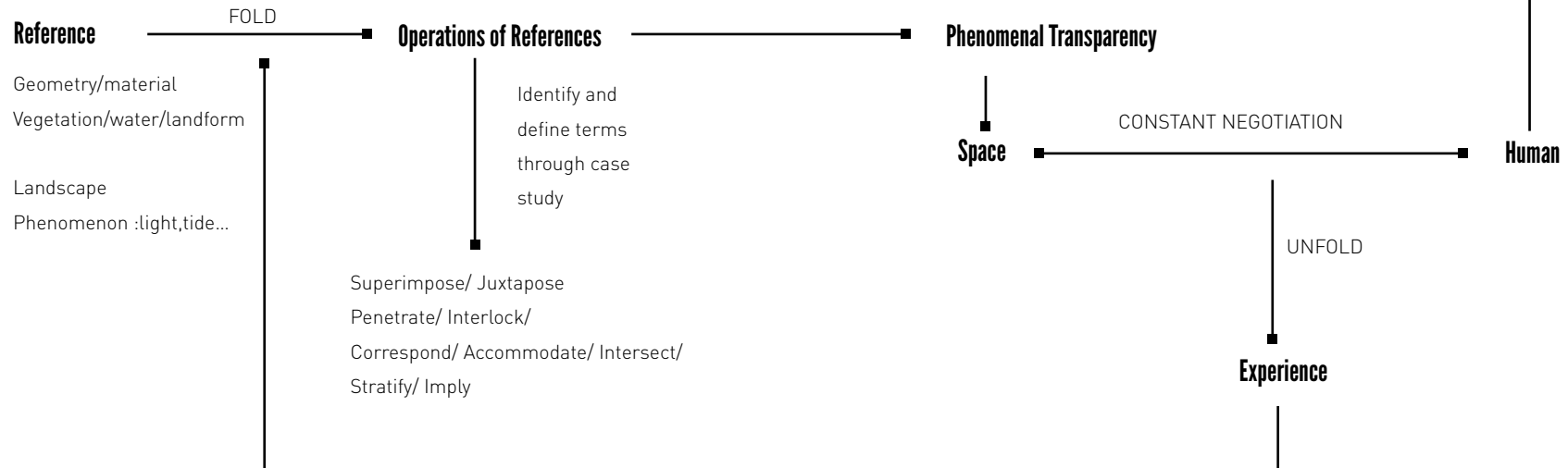
### What construct the perceptual outcomes? What principles form the clearly ambiguity instead of chaos?

Gestalt psychology and spatial perception explain how we read the multiple layers in cubic painting and how we perceive implied space.

### What's the most important quality for this thesis in Phenomenal transparency?

**CLEARLY AMBIGUOUS** :An articulated state that belongs to two or various references.

### What's the process of human perceiving the space of phenomenal transparency?



UNFOLD: To open the folds of: spread or straighten out, unwrap; To develop, evolve (story); To open to the view or understanding, reveal; to make clear by gradual disclosure and often by recital.

Fig1: Picasso, Cubism figure, Sketch

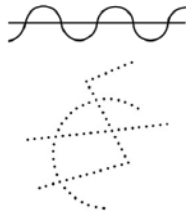
# VISUAL PERCEPTION

## GESTALT PSYCHOLOGY - GROUPING

### 1. Good continuation:

Points when connected result in straight or smoothly curving lines are seen as belonging together, and the lines tend to be seen in such a way as to follow the smoothest path.

Objects that are partially covered by other objects are seen as continuing behind the covering objects.



### 2. Good figure or simplicity

Every stimulus pattern is seen in such a way that the resulting structure is as simple as possible.



### 3. Similarity

Similar (shape, size, color, orientation...) things appear to be grouped together.



### 4. Proximity

Things are near each other appear to be grouped together.



### 5. Common Region

Elements that are within the same region of space appear to be grouped together.



### 6. Uniform Connectedness

A connected region of the same visual properties, such as lightness, color, texture, or motion, is perceived as a single unit.



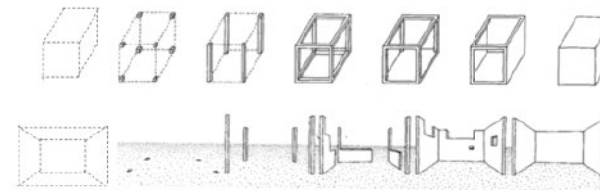
## GESTALT PSYCHOLOGY - SEGREGATION

Figure- Ground relationship. Shifting of border ownership.

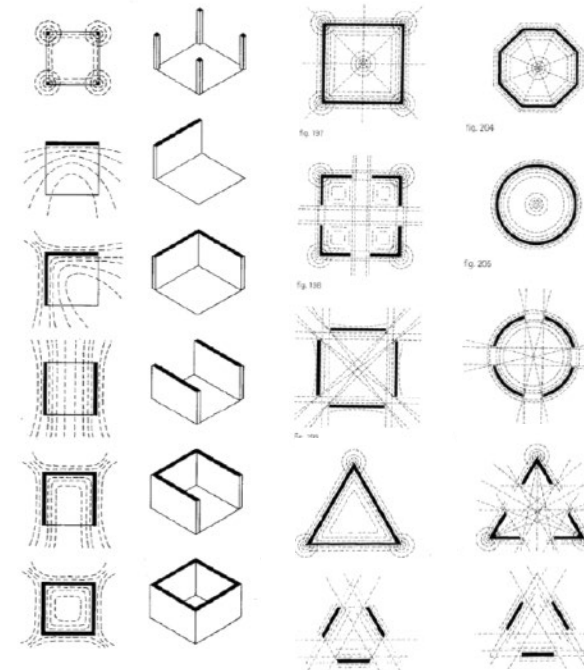


## SPATIAL PERCEPTION

From implicit to explicit space.



Perceptual radiance.



Reference:  
Goldstein, Perception and Sensation, 9th edition.

Fig:  
Gestalt Psychology diagram

Pierre von Meiss,  
Elements of architecture-  
from form to place  
and tectonics



# PHENOMENAL TRANSPARENCY

DEFINITION BY COLIN ROWE & ROBERT SLUTZKY



Fig 1

"If one sees two or more figures overlapping one another and each of them claims for itself the common overlapped part... They are able to interpenetrate without an optical destruction of each other, then one is confronted with a contradiction of spatial dimensions.

Transparency however implies more than an optical characteristic, it implies a broader spatial order. Transparency means a simultaneous perception of different spatial locations. Space not only recedes but fluctuates in a continuous activity. The position of the transparency figures has equivocal meaning as one see each figure now as the closer now as the future one. " [1]

Reference:

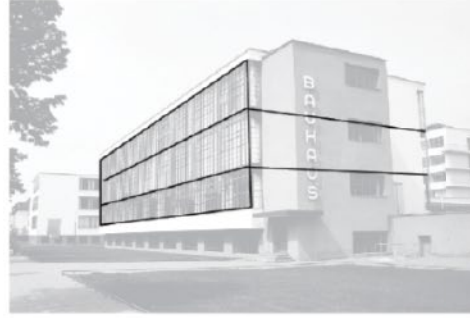
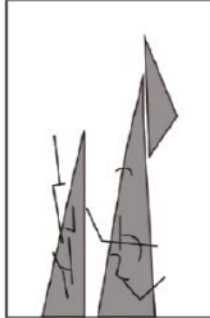
1. Colin Rowe, Robert Slutzky, Transparency: literal and phenomenal

Fig:

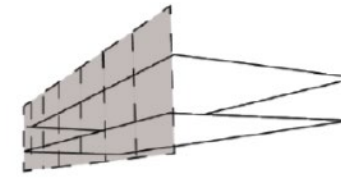
1. The-portuguese, Braque

# LITERAL & PHENOMENAL

## Literal



Bauhaus, Walter Gropius

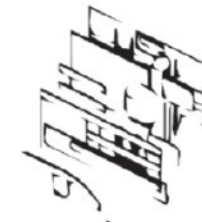


Not a material state or condition of allowing passage, transmission, diaphaneity, amongst others.

## Phenomenal



Villa Stein, Le Corbusier



The notion of transparent planes overlapping each over can suggest further interpretations.



From analysis based on Colin Rowe and Slutzky's writing, Phenomenal Transparency is not a transparent state of material, but a spatial and organizational quality.

- Reference:
- Colin Rowe, Robert Slutzky, Transparency: literal and phenomenal Fig:
  - 1. Pablo Picasso, The clarinet player, 1911
  - 2. The-portuguese, Braque
  - 3. Paul Cézanne, Victoire seen from Bellevue is a landscape painting, 1885

# APPLICATION IN SPACE

COLIN ROWE & ROBERT SLUTZKY

Through literature review, some critical applications related to the thesis are identified.

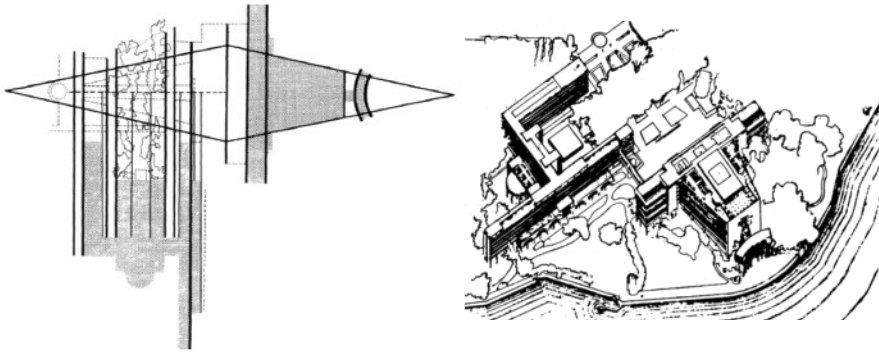


Fig 1

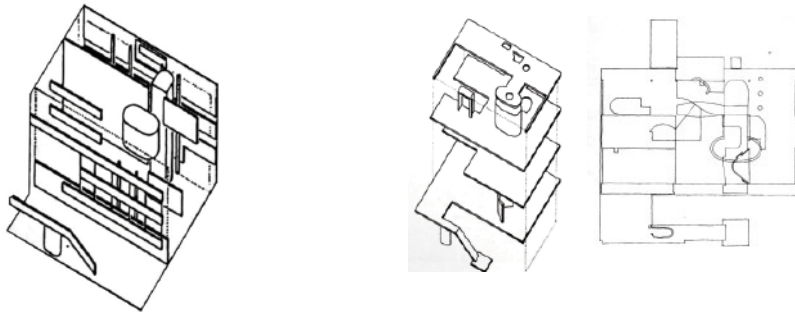


Fig 2

## OPERATION

### SPATIAL SLICE:

"If we could attribute to space the qualities of water, then his building is like a dam by means of which space is contained, embanked, tunneled, sluiced, and finally spilled into the informal gardens alongside the lake." [1] How the author comments on The Palace of The League of Nations by Corbusier.

### STRATIFICATION:

"In Corbu's building Garches, the elevation is deconstructed, offset, re-organized in order to achieve the depth of space. Corbusier's planes are like knives for the apportionate slicing of space." [2]

"These stratifications, devices by means of which space becomes constructed, substantial, and articulate, are the essence of that phenomenal transparency which has been noticed as characteristic of the central post-cubist tradition" [3]

#### Reference:

1, 2, 3: Colin Rowe, Robert Slutzky, Transparency: literal and phenomenal Fig:

1. The Palace of The League of Nations, Le Corbusier

2. Villa at Garches , Le Corbusier

# APPLICATION IN SPACE

COLIN ROWE & ROBERT SLUTZKY

## OPERATION

MEANING of organization & order :

"The transparent organization is complete: old and new, public and private areas, collective and individual use, are inseparably interwoven in a many faceted, rich, texture...how transparency form-organization can be used to unify and differentiate within a complex yet clear organization, how meaning is present in terms of space." [1]

Collage city :

"Phenomenal transparency is a means of form-organization that permits to incorporate the heterogeneous elements in a complex architectural or urban tissue, to treat them as essential part of collective memory and not as embarrassment" [2]

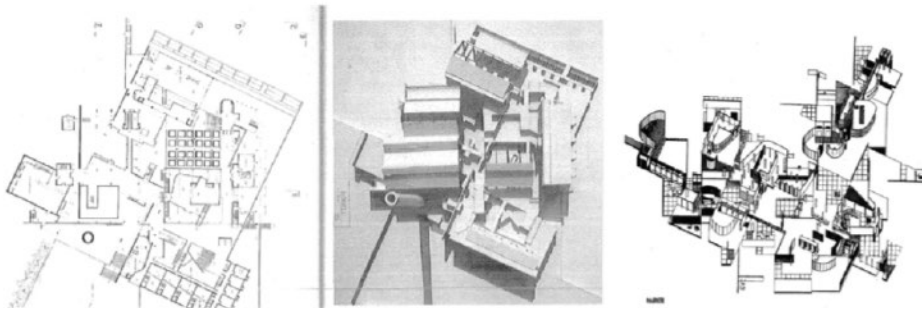


Fig 1

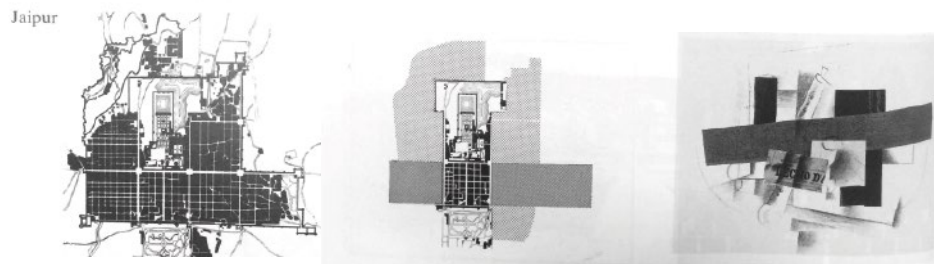


Fig 2

Fig 3

Reference:

- 1, 2, 3: Colin Rowe, Robert Slutzky, Transparency: literal and phenomenal
- Fig:
1. Student's diploma project at Coper Union school of architecture
2. Colin Rowe, Collage city

3. Braque



# SPATIAL OPERATIONS

## CASE STUDY & LITERATURE REVIEW

Through analytical models and drawings of selected cases, a series of spatial operations that create the phenomenal transparency are identified and defined.

SUPERIMPOSE

JUXTAPOSE

PENETRATE

INTERSECT

INTERLOCK

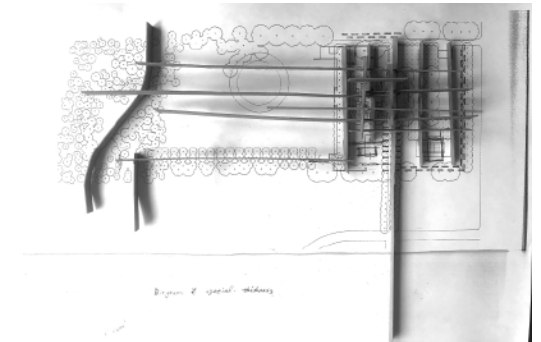
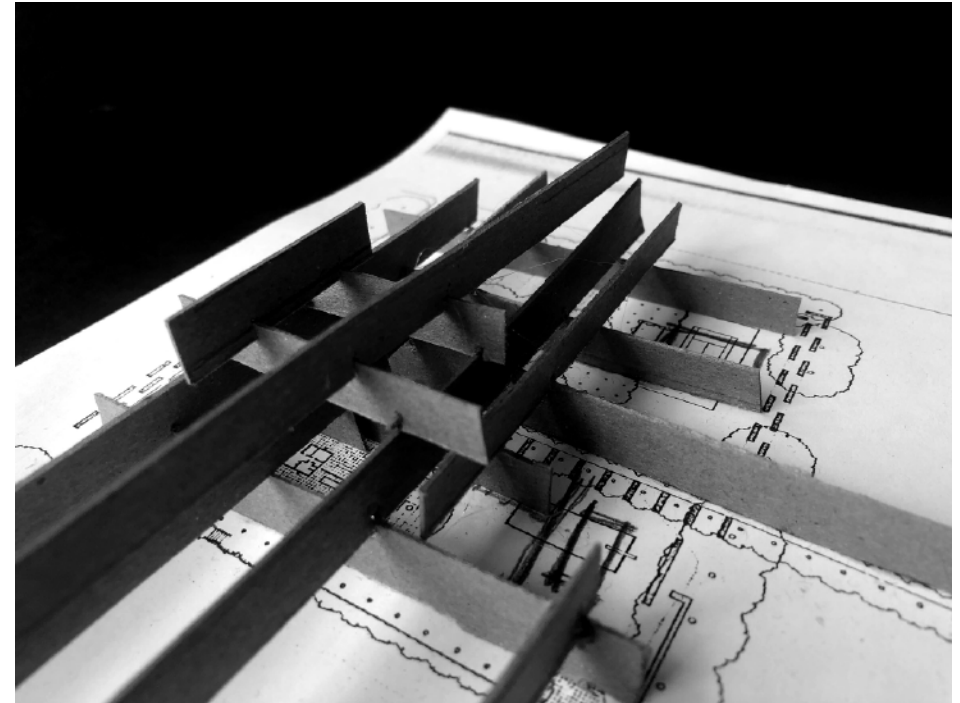
CORRESPOND

STRATIFY

IMPLY

# PENETRATE

## DAN KILEY, MILLER GARDEN

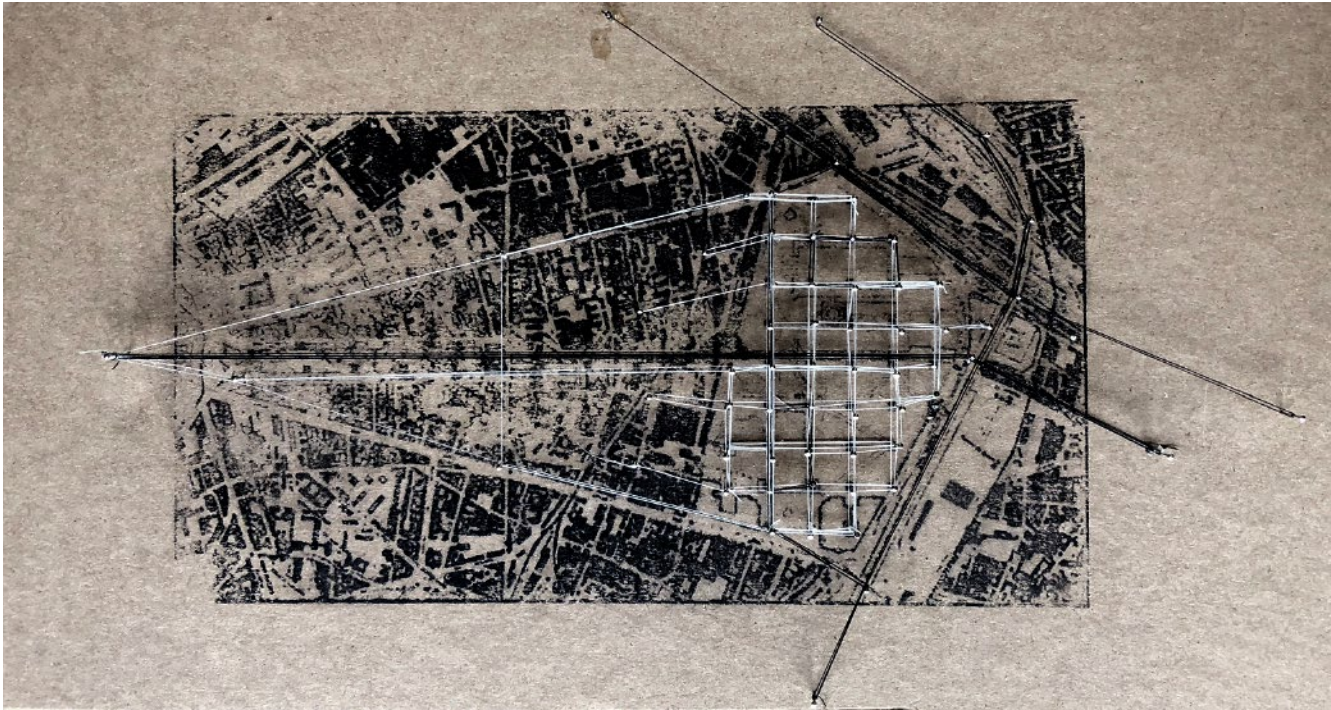


Reference type: Architecture + Vegetation; Longitude space + Transverse space

Space is flowing between the exterior and interior. Ambiguous spaces at the intersections are thick, which can be unfolded through changes of orientation and movement in space.

# PENETRATE

BERNARD TSCHUMI, PARC DE LA VILLETTE

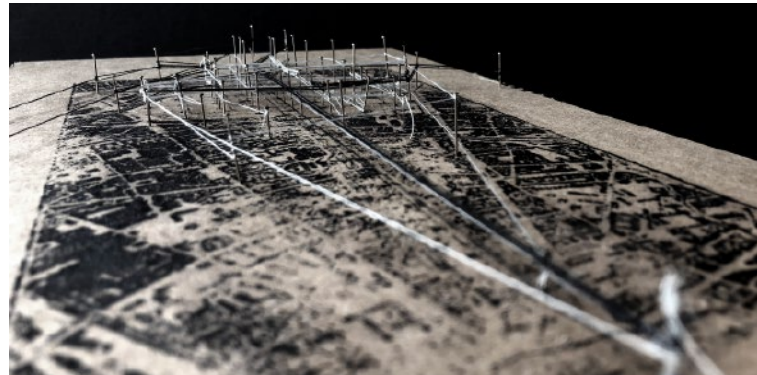
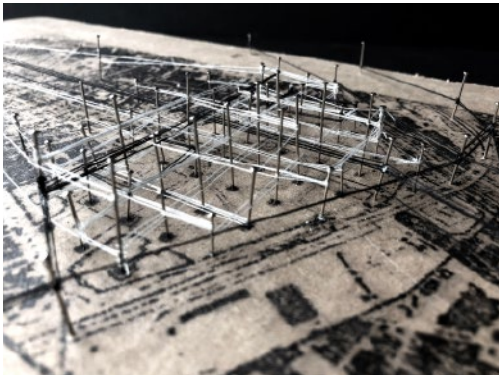


Reference type: City fabric + Space of park

The grid carried the similar scale of blocks in context and the bridges crossed over canal, which allows the city space flow into the park creating penetration.

"The follies extend out from the city as a repetitive and potentially unending succession of building. The canal suggests a coordinator/orthogonal grid, continuing the city fabric in a discontinuous way" [1]

"This is not a park that I was trying to recreate nature, but rather a piece of the city." [2]



[1]: Supercrit #4, Parc de la Villette, Bernard Tschumi, Samatha Hardingham and Kester Rattenbury, p60 pic36

[2]: Supercrit #4, Parc de la Villette, Bernard Tschumi, Samatha Hardingham and Kester Rattenbury, p57



# CORRESPOND

## BERNARD TSCHUMI, PARC DE LA VILLETTE

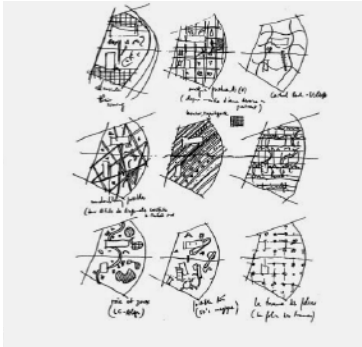


Fig 1

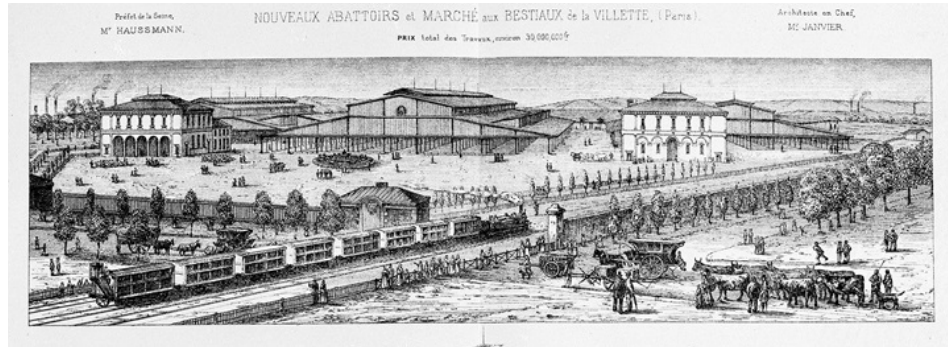
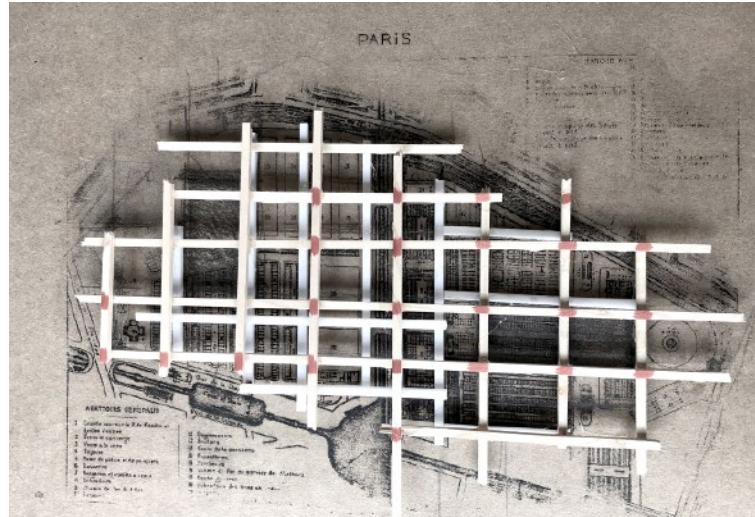
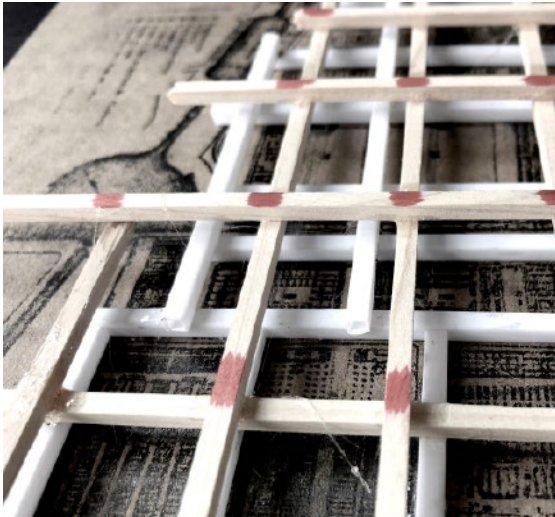


Fig 2



Reference type: History+ Existing condition + Proposed design

The grid system carries the previous order of both historic buildings and existing buildings, which represents collective memory of past.

“Different areas of the Parc in relation to all other planned and existing architectural and urban features on the site. 19th century Paris abattoir and meat market.” It was very much a site of industrial residues, of industrial archaeology. It still had abandoned slaughterhouses, but most of the buildings had been torn down. The grand Halle or market place was still there-there had been a rolling stones concert in it not long before- and there was a large building that was intended to become a huge slaughterhouse that was being rehabilitated as the future Museum of Science.” [1]

[1]: Supercrit #4, Parc de la Villette, Bernard Tschumi, Samatha Hardingham and Kester Rattenbury, p53

Fig 1: Bernard Tschumi's concept sketch

Fig 2: La villette used to be slaughterhouses and meat market in 1876.



# SUPERIMPOSE

## BERNARD TSCHUMI, PARC DE LA VILLETTE

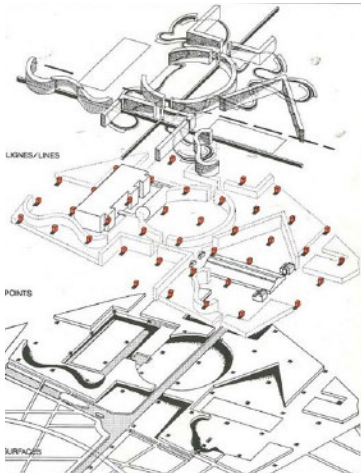


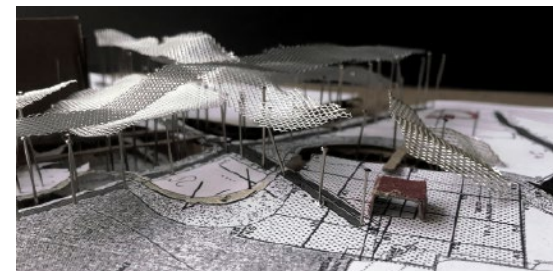
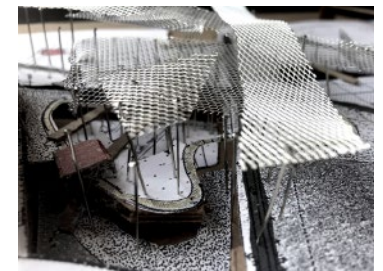
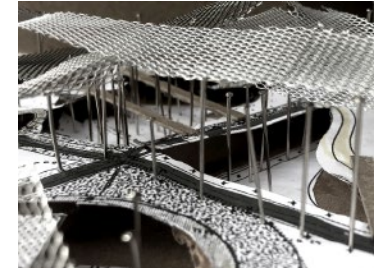
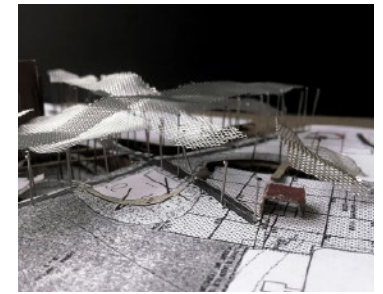
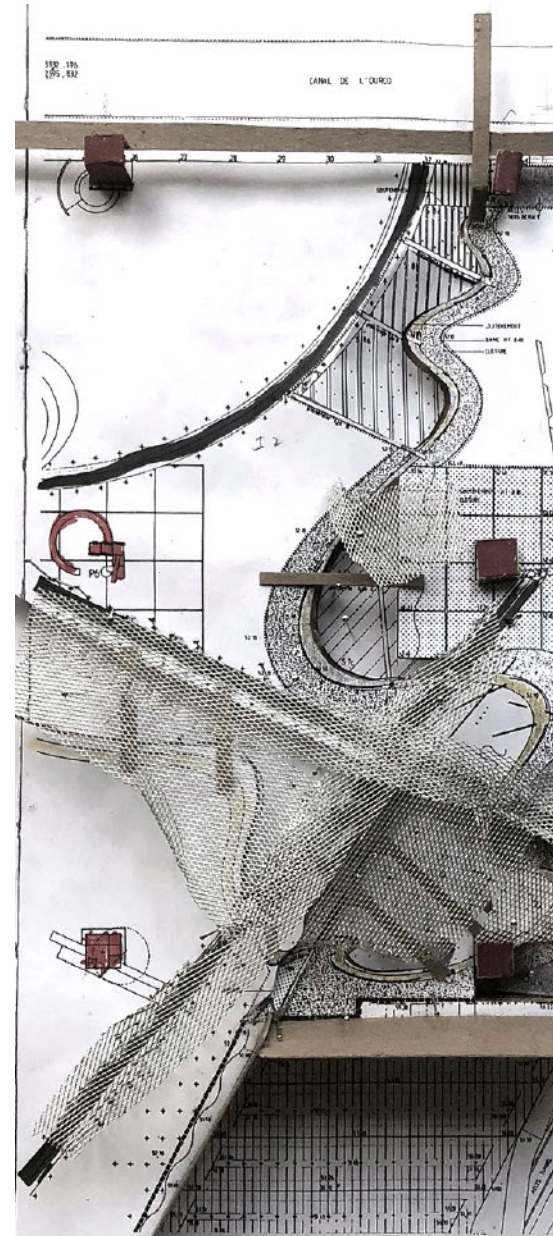
Fig 1

Reference type: Point (Folly) + Line (The Cinematic Promenade & tree alley) + Surface (open space)

"It was important that the three systems could be superimposed onto one another, while maintaining their internal logic. That was new. Throughout architectural history, I don't think there were many people who had accepted that the logic of movement or the logic of space and activity- in other words, three autonomous, independent logics with nothing to do with one another- could be brought together as heterogeneous systems, rather than trying to coordinate, reconcile, or harmonize the different constraints of a building. The superimposition brought about extraordinary tension." [1]

[1]: Supercrit #4, Parc de la Villette, Bernard Tschumi, Samatha Hardingham and Kester Rattenbury, p59

Fig 1: Bernard Tschumi's diagram: tree systems.





# INTERSECT

BERNARD TSCHUMI, PARC DE LA VILLETTE,  
BAMBOO GARDEN

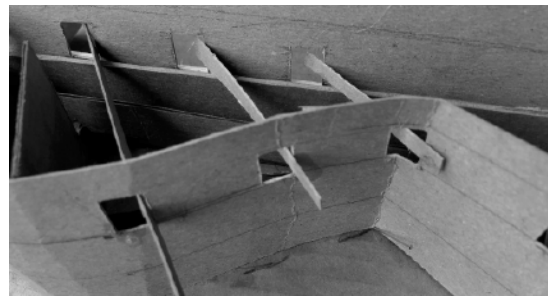
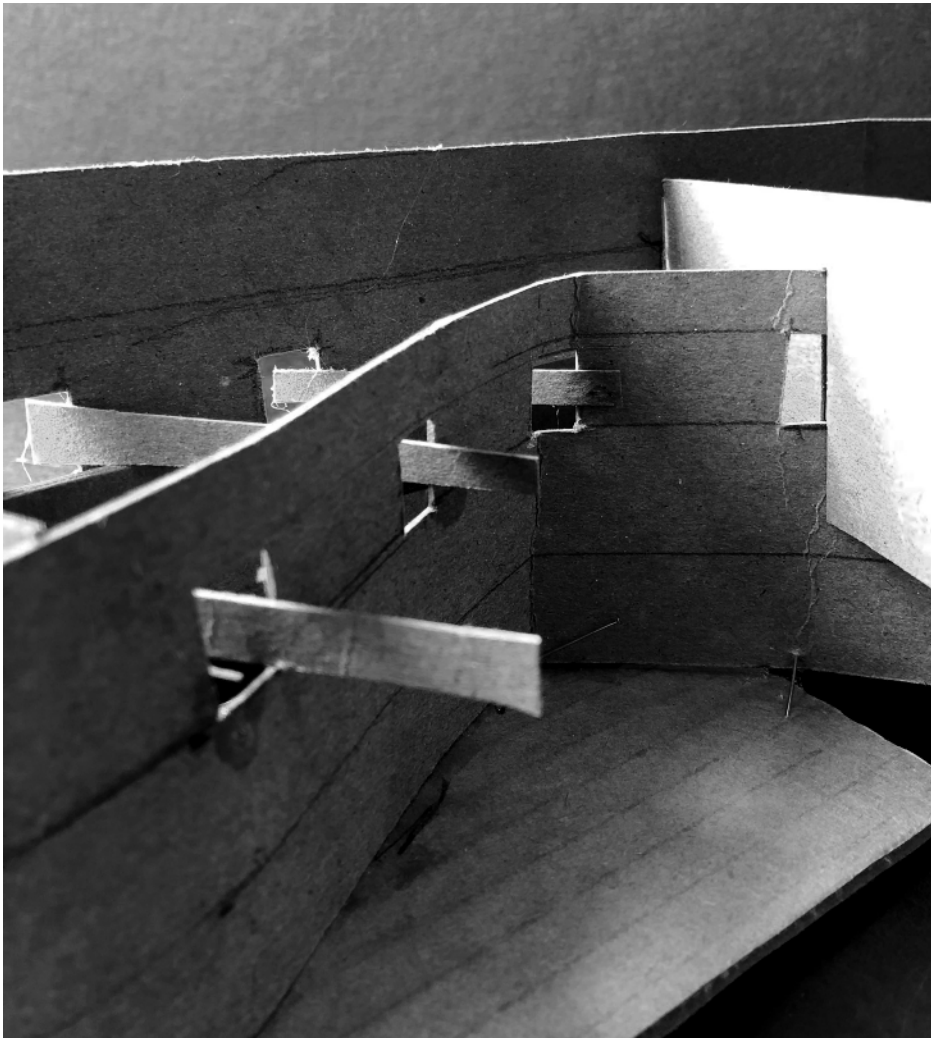


Fig 1

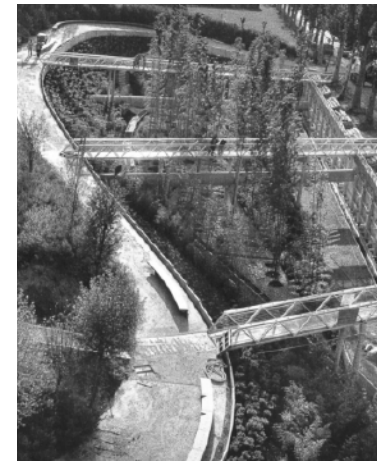


Fig 2

Reference type: Logic of space + Movement vector;

“You can see some of these different logics at work in the buildings, the follies, which are always based on an identical frame- a red 12x12 m cube- that is subjected to permutations and combinations and intersected by the different movement vectors.

Diagonal ramps and vertical elevators or stairs cross through the building and intersect outside with the logic of movement, as expressed in bridges, covered walkways, paths, jogging track, and so on, that articulates the motion of visitors through Parc. You can see that here, where the folly is intersected by an elevated walkway, or the curved garden promenade has a bridge. The logic of movement is thus always separate from, but intersecting with, the logic of space.”

[1]: Supercrit #4, Parc de la Villette, Bernard Tschumi, Samatha Hardingham and Kester Rattenbury, p59

Fig 1: <http://4bp.blogspot.com/>

Fig 2: Google map

# INTERLOCK

BERNARD TSCHUMI, PARC DE LA VILLETTE,  
BAMBOO GARDEN

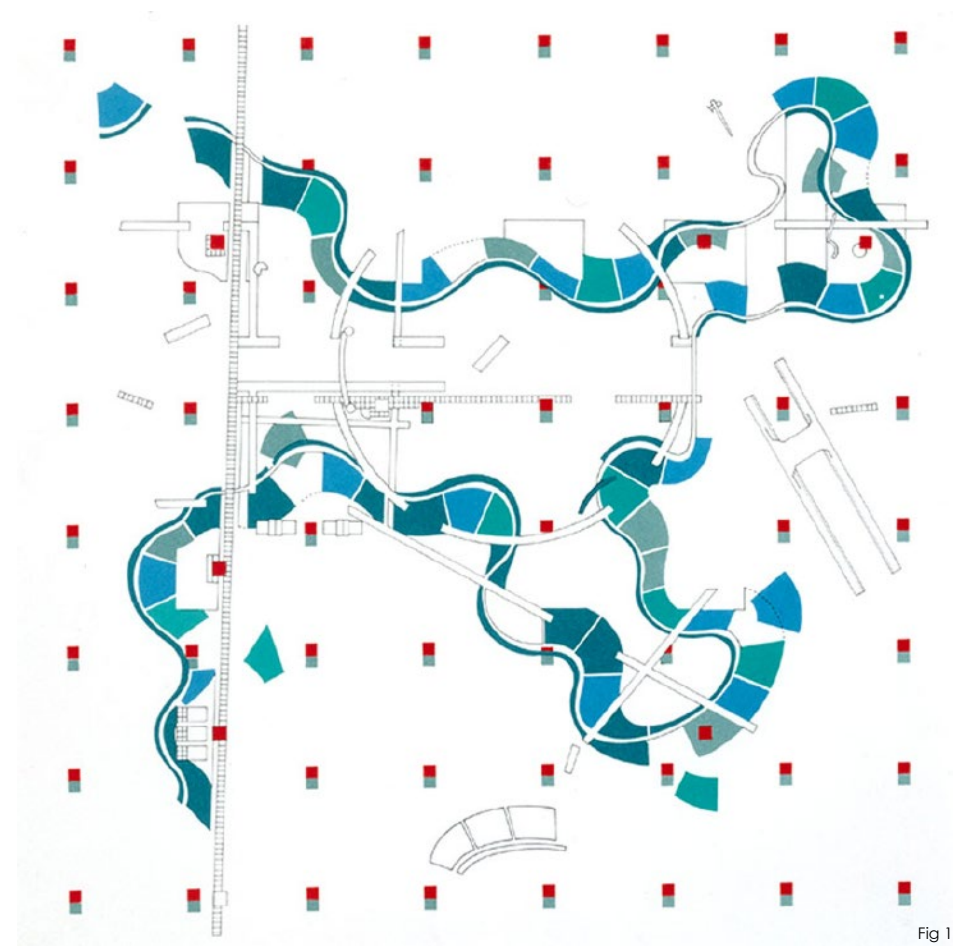
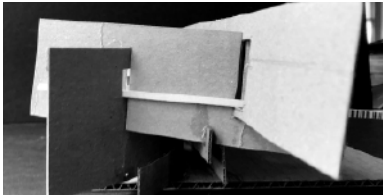


Fig 1

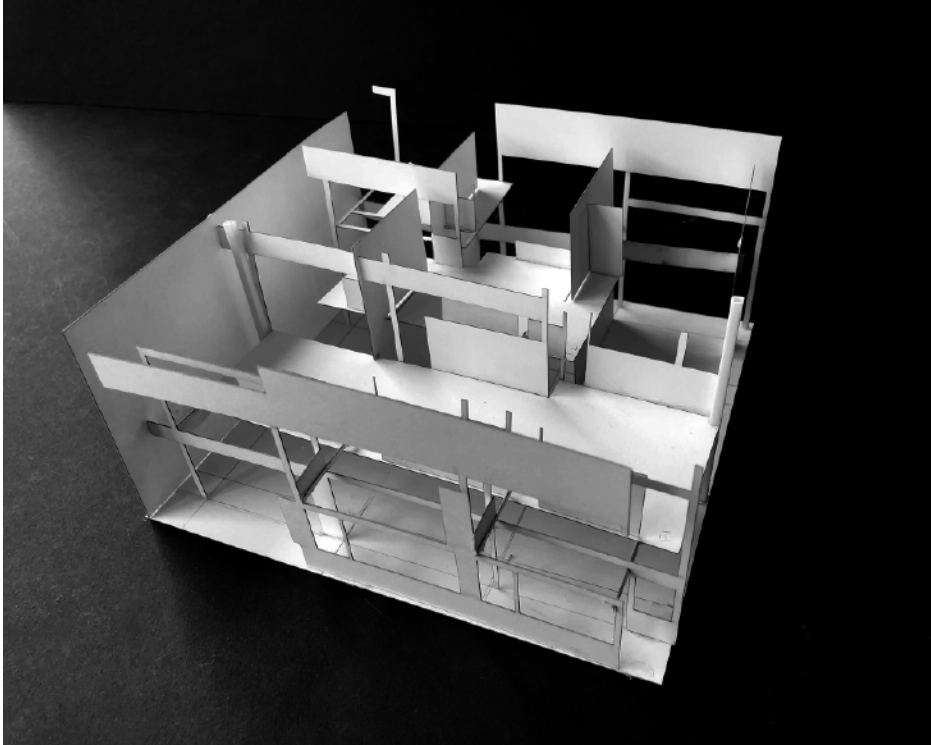
Reference type: Undulating line + Straight line

The movement vectors intersect with each other, which forms the tension and thickness of cohesive space like how the sewing forms fabric.

Fig 1: Bernard Tschumi's diagram of cinematic promenade

# CORRESPOND

PETER EISENMAN, HOUSE 2



Corresponding of opening or edge creates spatial depth.  
Interchange of opening and enclosure creates fluctuation  
between figure and ground.



# STRATIFY

PETER EISENMAN, HOUSE 2

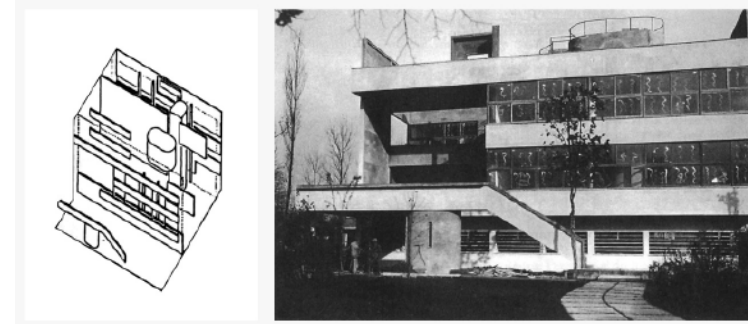
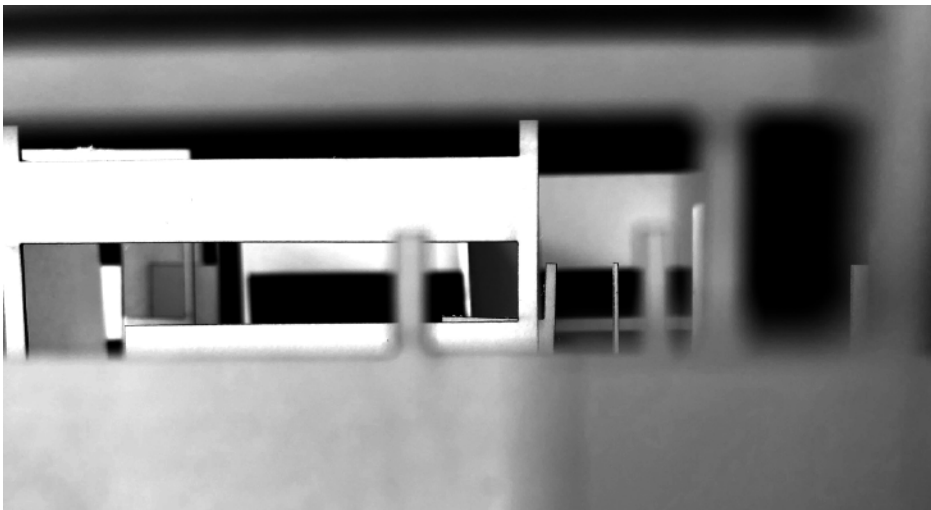
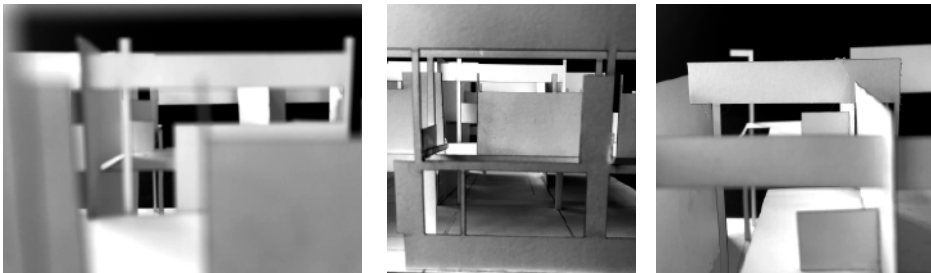
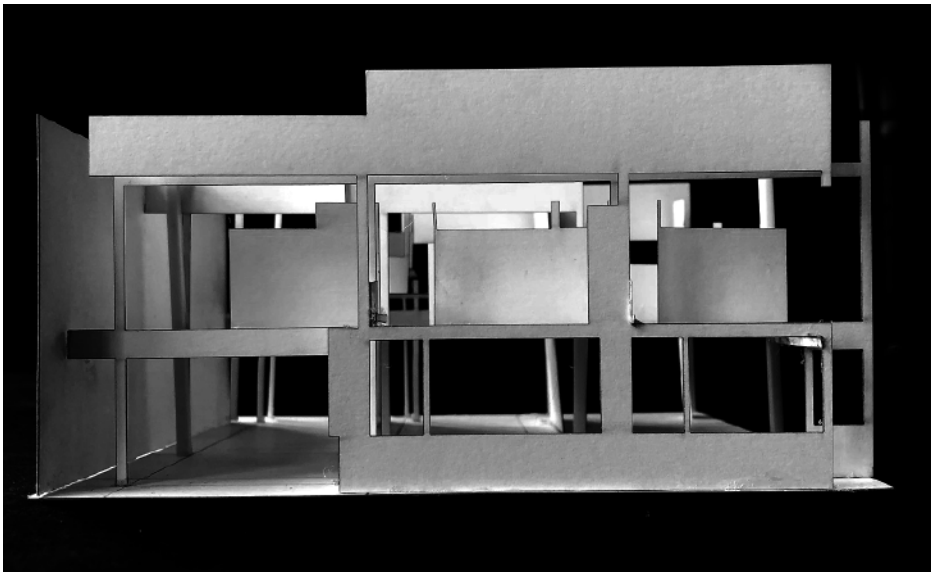


Fig:1

The space of house 2 is constructed by corresponding layers in both plans and sections, which create continuity of space in vertical and horizontal.

Fig 1.: Le Corbusier's Villa Stein at Garches 1927/28  
S. Giedion, Building in France, building in ferroconcrete (Santa Monica, CA: Getty Center for the History of Art and the Humanities, 1995), P182

# IMPLY

## PETER EISENMAN, HOUSE 2



Fig 1

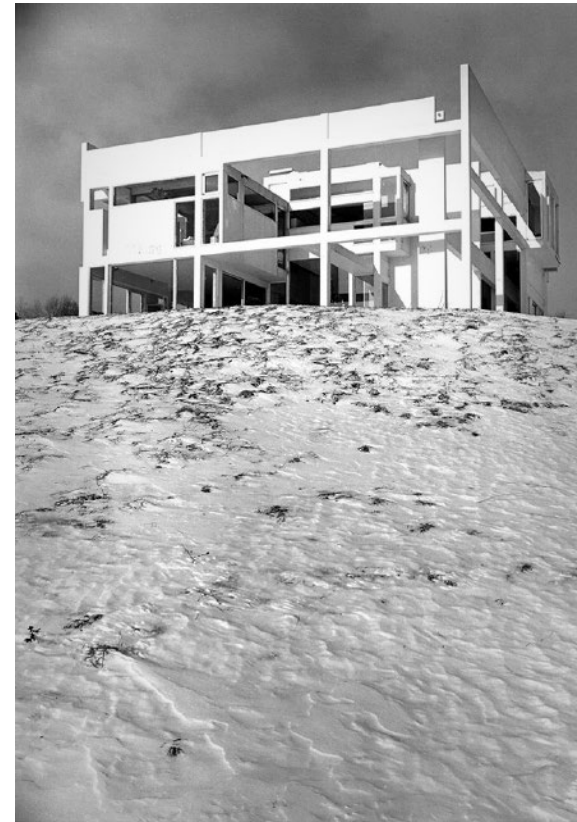


Fig 2

The implications are formed from correspondence and stratification. The corresponding between the edges, the openings and limits create abundant ambiguous spaces in experience. The stratification create misunderstanding through frontal view which allows the reader to wonder, deny and be surprised from reposition in space.

Fig 1, Fig 2 : Peter Eisenman /// House II (Falk House) /// Harwick, Vermont, USA

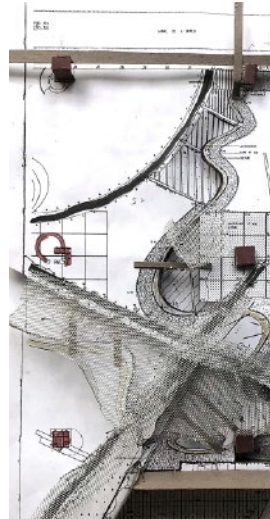
# SPATIAL OPERATIONS

## DEFINITION OF TERMS

Focus on space where the references are placed together without the interaction from each other.

**Superimpose:** to lay independent things one over the other to create heterogeneous systems.

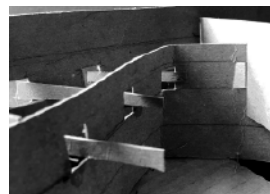
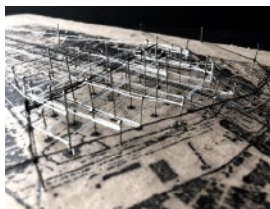
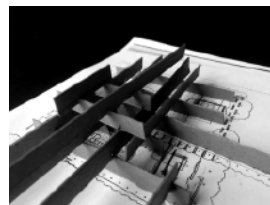
**Juxtapose:** to place different things adjacent to each other to create contrast or comparison.



Focus on the space where one active reference influences the passive one.

**Penetrate:** to diffuse or dissolve through or into

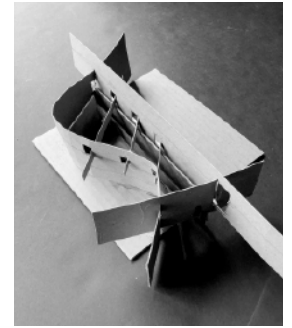
**Intersect:** to cross, pass through



Focus on the interaction between all references:

**Interlock:** to become engaged or intermeshed with one another which create the tension of constraint

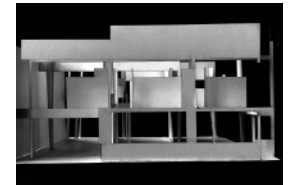
**Correspond:** to exchange characters between references in order to be consistent



Focus on the space de-constructed by different references from wholeness:

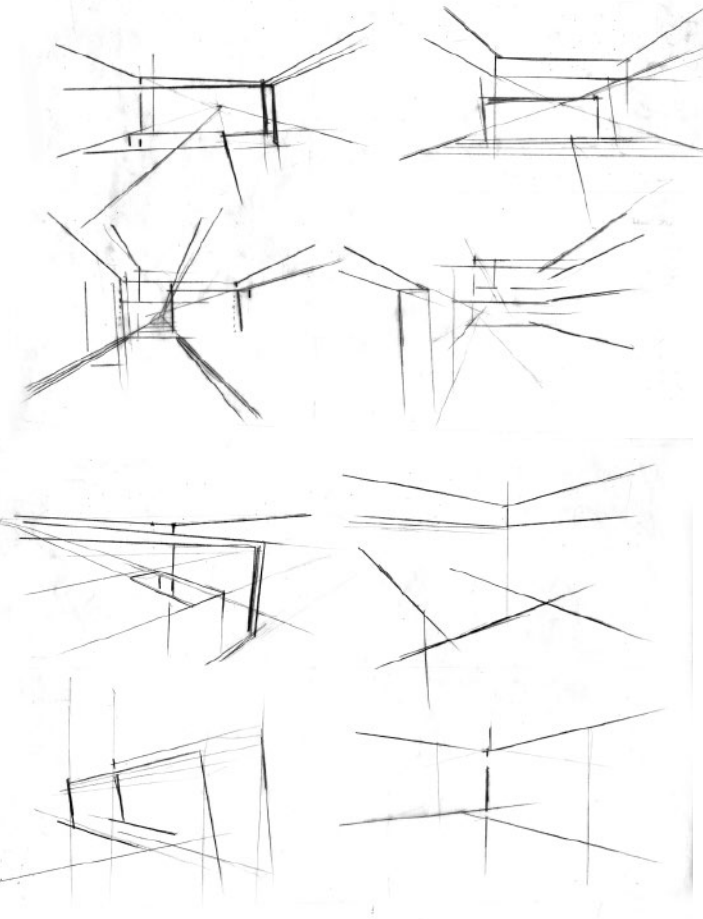
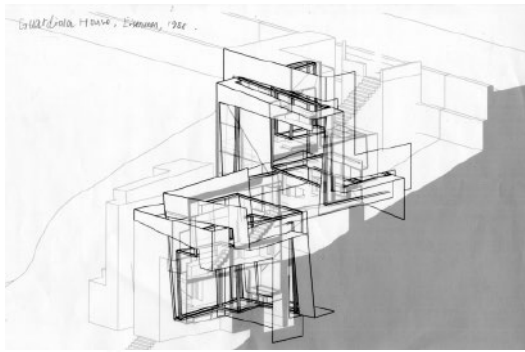
**Stratify:** to slice an integrated space into corresponding layers or to de-construct a flatten layer into several layers in depth, where the meaning is informed by layers through intertextuality.

**Imply:** to identify perceptual space through defining the limit but allows multiple readings; to pose a question on the meaning embedded in reference.



# UNFOLD

## PETER EISENMAN, GUARDIOLA HOUSE



Fluctuation of figure and ground.

# UNFOLD

## LE CORBUSIER, CARPENTER ART CENTER

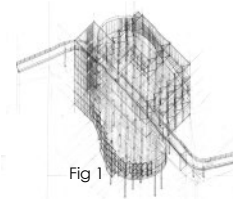
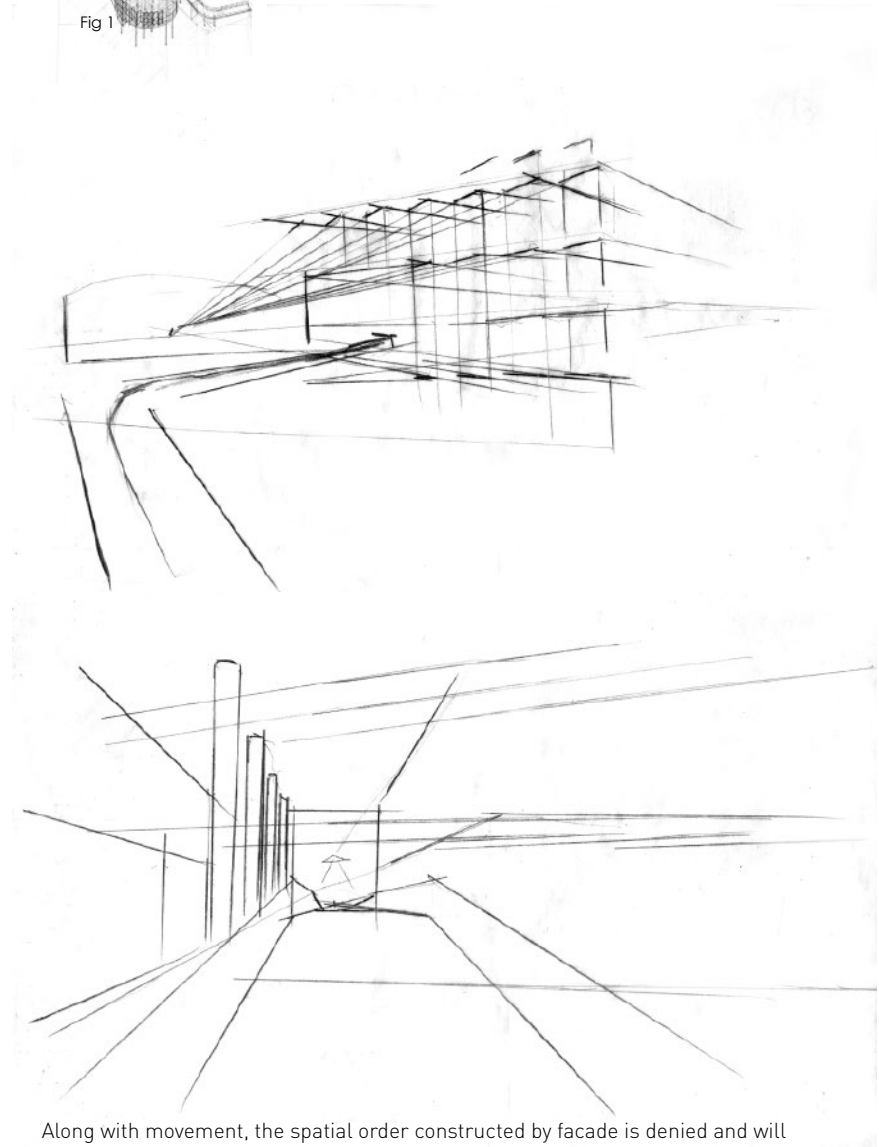


Fig 1: Matt Osborn,  
RISD Architectural  
Analysis



Along with movement, the spatial order constructed by facade is denied and will be re-ensured after entering the building.



# CRITIQUE NOTES

## PHASE ONE REVIEW

“ What was being explored at the time these paintings were made? Check out writings and thoughts on the forth dimension in both art and physics. For example, the painting ‘Nude Descending a Staircase’ by Marcel Duchamp, which collapse time into a single flat image

”

“ Colin Rowe’s and related theories has been dissected, but how to utilize these as tools for projective design? What that means for shaping space, what is learned from this theory that was previously used more by architects. What specific aspects will be carried into next phase? A much clearer direction showing where the thesis will be end up with is demanded.

”

“ Eye is constantly tricked, brain is looking for order, unfolding of conditions. It sounds like there is a privileged way of ordering the space but linear narrative might be problematic. There could be multiple approaches. Shift from singular to multiple narrative is possible. Start at single story line first.

”

“ Use specific landscape material instead of architectural language.

”

“ It seems this thesis is trying to propose a new approach for design, that we might use to capture experiential parts of being in a space, observing multiple layers of being in a landscape. Where and how does this spatial quality meet the human body? Rowe seems to be imposing grids and systems instead of thinking people’s experience. The thesis focus on method that is not from top to down, but about sequential ordering of space.

”

“ There interest stems from eastern perspective of space. How to bring this back in compassion with western view?

”

“ Some case studies are not allowing you to get into the space. Try to analyze experience from perspective. Experience the world in person: Where is eye focus at any one time? What happens when body moves in space? Go to a space and analyze your own movement through the landscape and decode it.

”

“ Articulate why the space of phenomenal transparency is important for thesis. Why order and organization are important? Why this thesis emphasize on meaning? Some place there is no meaning, there is just phenomena. The issue of phenomenal transparency can be employed on lot of things, what is most important aspect? To create this spatial quality of ambiguity is still overly broad.

”

“ Is it about trying to let people get over the ambiguity, drive them beyond the ambiguity? For people to perceive the sense of place, there are design strategy to eliminate the ambiguity in space. not from narrative aspect of sense of place, but from spatial experience of phenomenal transparency. If so, define space and place.

”

“ The phenomenon will be discovered when you start making things, but thesis is to understand something or answer a specific question instead of creating lot of phenomenon.

”

These notes are re-organized and refined from conversations during review according to author’s own interpretation and Patricia Noto’s kind notes of review.

Conversations include Faculty Advisors:  
Scheri Fullineer, Emily Vogler, Elizabeth Dean Hermann, Nick DePace, Kathryn Foley, Colgate Searle



# ASSESSMENT & RELECTION

## PRE-RESEARCH & PHASE ONE

Pre-research and phase one involves large amount of literature review, theoretical thinking and writing, which are in-depth but not effective. Moving into next phase, the author will confront more decision-making point, which is she tried to avoid during phase one. The scope of question need to be narrowed down quickly and grounded in specific design. So, phase 2 should be more physical instead of metaphysical.

In order to figure out where it is heading to, the author have to answer the questions about why phenomenal transparency is important and why she brought out "meaning". Tracking back to the beginning, the whole research started from the research of "place". In definition of phenomenal transparency: "An articulated state that belongs to two or various references", there is "articulation" which point to certain organization in specific context, and there is "ambiguity" point to "various references". As for landscape architecture, we see some traces of phenomenal transparency, while it hasn't been articulated as an approach for place-making.

The key task of environmental design is 'interpreting the world as a meaningful order in which the individual can find his or her place in the midst of nature and community'. [1] The space and time are infinite, landscape is able to bring them into human measurement and understanding. It's important for us to know, where we are (both in time and space), what's the relationship between us and built-environment (the events).

A new perspective of 4D space-time formed from both art and physics in that particular period of 1900s. In relativity by Einstein, time is not absolute and depends on where we are viewing it. In physics, the basic unit of world is 'event (space, time)'. In Marcel Duchamp's painting, he is describing an event 'Nude Descending a Staircase' through both space and time. In terms of this perspective, can landscape design describe event (collective or personal memory) through space and time instead of from objects?

For more specific design in next phase, the author needs to decide which references that construct phenomenal transparency are emphasized. Given thought primarily research interest on cubism painting and sense of place, the spatial operation should be tested by time (succession). For long interval, it's history, collective memory and future. For short interval, it's the immediate relationship between human and space, which could be movement, orientation or succession of landscape phenomenon.



Reference:  
Fig :Nude Descending  
a Staircase, Marcel  
Duchamp

# PHASE TWO

EMBODY PHENOMENAL TRANSPARENCY

# ABSTRACT

## EMBODY PHENOMENAL TRANSPARENCY

*The world of actually experiencing intuition, belongs the form of space-time together with all the bodily shapes incorporated in it; it is in this world that we ourselves live, in accord with our bodily, personal way of being”*

*-Edmund Husserl*

Phase 2 departs from architectural theory into landscape field; shifts from geometrically formal space to perceptual space-time, aiming for figuring out the relation between two.

# INTRODUCTION & METHOD

## EMBODY PHENOMENAL TRANSPARENCY

Phase 2 focus on the following questions:

How does formal operation of Phenomenal transparency influence our experience of time-space?

-What's the typology of operation that makes time more active and reveals the unseparated relation between body, time and space in experience?

-In terms of there operations, what's the parameter that affect perception? In what ways these parameter affect?

-The purpose of phase 2 is to figure out **how geometrical space of phenomenal transparency actively interacts with succession of human experience, and how succession of landscape phenomenal add another perceptual /ephemeral reading to geometrical space through embodied experience.**

To link the scale shift between top-down geometrical layout of phenomenal transparency space and bottom-up embodied experience of space-time, the phase 2 can be divided into 3 steps:

1. Simplifies and identifies generic typology of spatial operations from phase 1 that both forms the phenomenal transparency and actively interacts with landscape material and phenomenon.
2. The author's own interpretation and composition for the application of the identified typologies in landscape architecture.
3. The test of interpretive models (space) under the frame of "successions" (time) : a. the succession of landscape phenomenon (light, wind, tide, rain, snow... ) ; b. the succession of interval (view, orientation, movement...)

Literature Review  
Case Study  
Diagram

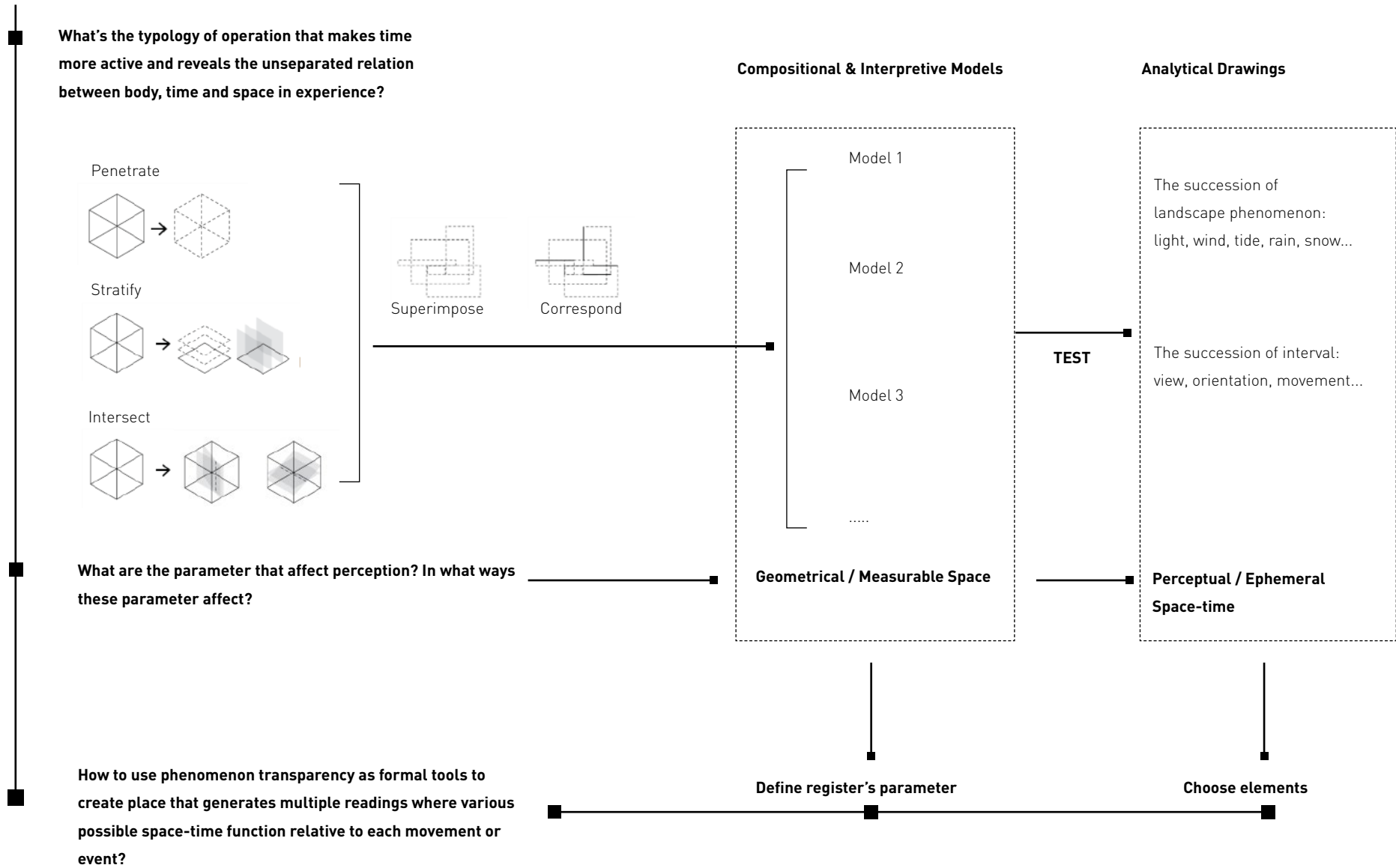
Compositional & Interpretive  
Model

Landscape phenomenon Mapping  
Analytical drawings  
Digital Rendering  
Photography

# RESEARCH STRUCTURE

## EMBODY PHENOMENAL TRANSPARENCY

How does formal operation of phenomenal transparency influence our experience of time-space?



# DEFINITION OF TERMS

These terms constructed and guided the whole journey of phase 2.

## TIME

The order of succession. [1]

## SPACE

Architectural space is born of the relationship between objects or between boundaries and planes which do not themselves have the character of object, but which define limits. [2]

## TIME-SPACE

A system of one temporal and three spatial coordinates by which any physical object or event can be located — called also space-time continuum. [3]

In a real movement and a real event, it is impossible to separate time and space. [4]

## PLACE

Originally it's the dwelling of another, characterized by natural elements of light, wind, and water that characterize the place. Place does not represent an homogeneous ideal of empty space, but instead is full of fear and surprise, a reflection of the pre-existing flow of natural elements. [5]

A place as an emblem of past, present, and future time. [6]

## SUCCESSION

A following of one thing after another in time [7]

## EXPERIENCE

The world of actually experiencing intuition, belongs the form of space-time together with all the bodily shapes incorporated in it; it is in this world that we ourselves live, in accord with our bodily, personal way of being. [8]

## PERCEPTION

Through the encounter of the subject and a thing in the world as environment, the space generates itself in the process of the event. It is not in the space that the encounter happens, but through the perceptive event as the unique encounter through which the space is shaped.

The place where a subject and his environment encounter is the matrix of diverse forms of space. [9]

## WONDER

The real 'depth of experience' comes as perception and imagination intertwine, producing thicket of meaning from which we can never extricate ourselves and which we can never truly order. Instead of imagination being a pale imitation of perception, perception itself collapses without the enriching participation of imagination. [10]

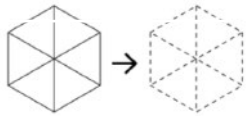
### Reference:

1. Leibniz
2. Pierre von Meiss, Elements of architecture- from form to place and tectonics, space, p130
3. Merriam-webster
4. From the things themselves, edited by Benoit Jacquet, Vincent Giraud ,p218
5. Relph,1976
6. What time is this place, Kevin Lynch
7. Merriam-webster
8. Edmund Husserl
9. From the things themselves, p224
10. Ibid, Mazis, p250

# FORMAL OPERATIONS

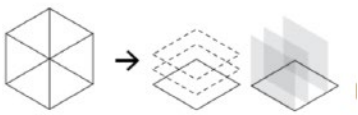
## GENERIC FORM

### A. PENETRATE



Fundamental operation:  
to diffuse/dissolve through/into

### B. STRATIFY



to slice an integrated space into horizontal/vertical layers

### C. INTERSECT



to cross/pass through

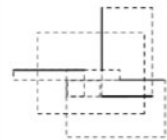
## D

### SUPERIMPOSE



to lay things one over/adjacent to  
the other to create heterogeneous  
systems

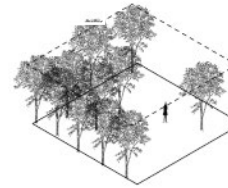
### CORRESPOND



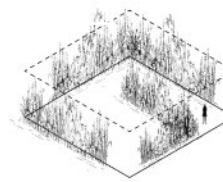
to exchange characters between  
references (edge, opening..) in  
order to be consistent

## SPECIFIC FORM

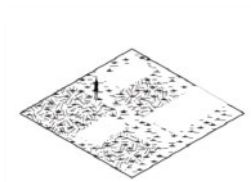
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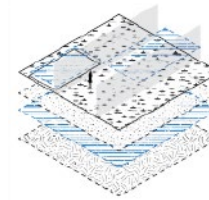
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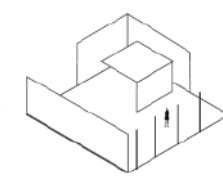
A & D



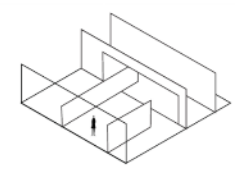
B & D



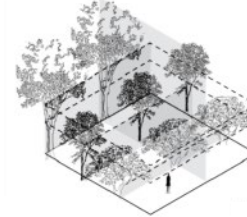
A & B & D



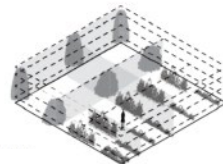
A & B & D



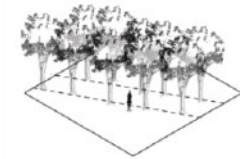
A & B & D



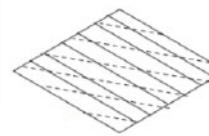
A & B & D



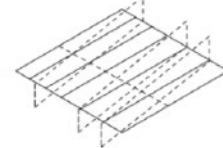
A & C & D



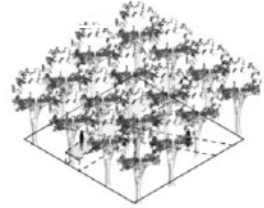
C



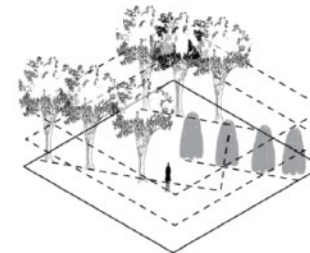
C & D



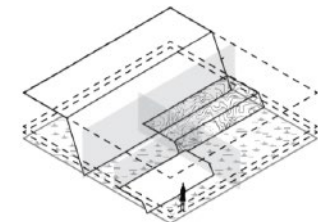
A & C & D



A & B & C & D



A & B & C & D



# FORMAL OPERATIONS

## COMPOSITIONAL MODELS

These models are interventions through landscape language that create spatial quality of phenomenal transparency (multiple readings of formal space).

Some of them are **tested** in next step by :

a. The succession of landscape phenomenon:  
light, wind, tide, rain, snow...

b. The succession of human experience:  
view, orientation, movement...

The purpose is to figure out how geometrical space of phenomenal transparency actively interacts with succession of human experience, and how succession of landscape phenomenal add another perceptual /ephemeral reading to geometrical space through embodied experience.

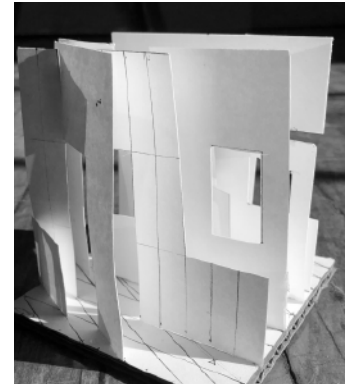


Fig 1



Fig 2

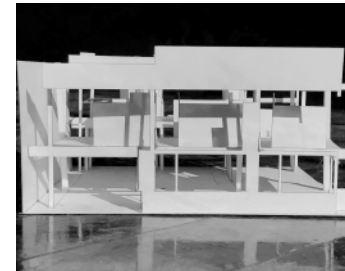


Fig 3



Fig 4



Fig 5

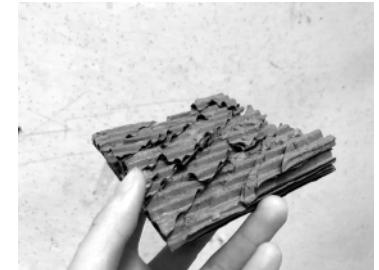


Fig 6

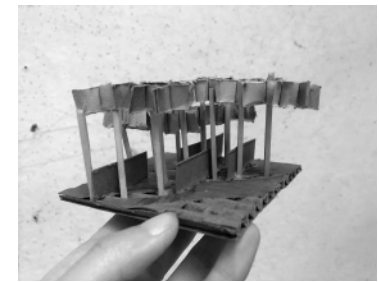


Fig 7

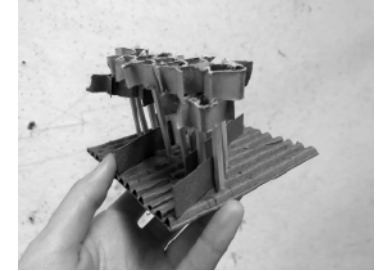


Fig 8

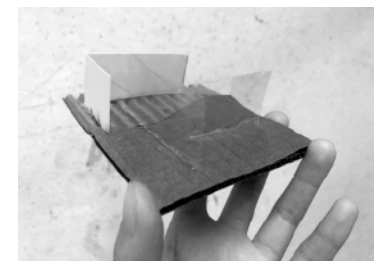


Fig 9

Fig 1: Stratification and intersection.

Fig 2: Stratification of canopy.

Fig 3,4 : Interpretive stratification of Eisenman's house 2.

Fig 5: Penetration.

Fig 6: Stratification and intersection of ground.

Fig 7,8 : Intersection and stratification of artifice and trees.

Fig 9: Penetration of walls and stratification of ground.



# MODEL 1 - PENETRATE

Model 1 is geometrically defined by shrubs with spatial penetration. The corresponding edges imply multiple readings of space. It's simply a geometrical composition of 'phenomenal transparency'.

When it is experienced in the frame of time-space. The succession of light and experience open up a boundless depth, pointing to the hidden masses of implications, which comes into configurations through embodiment.

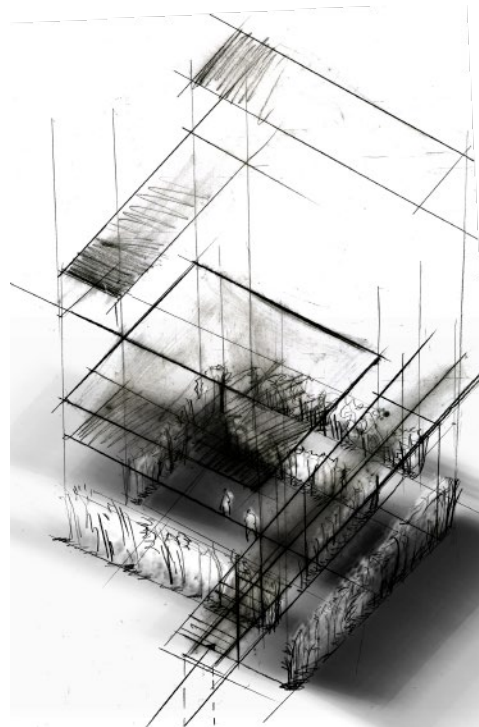
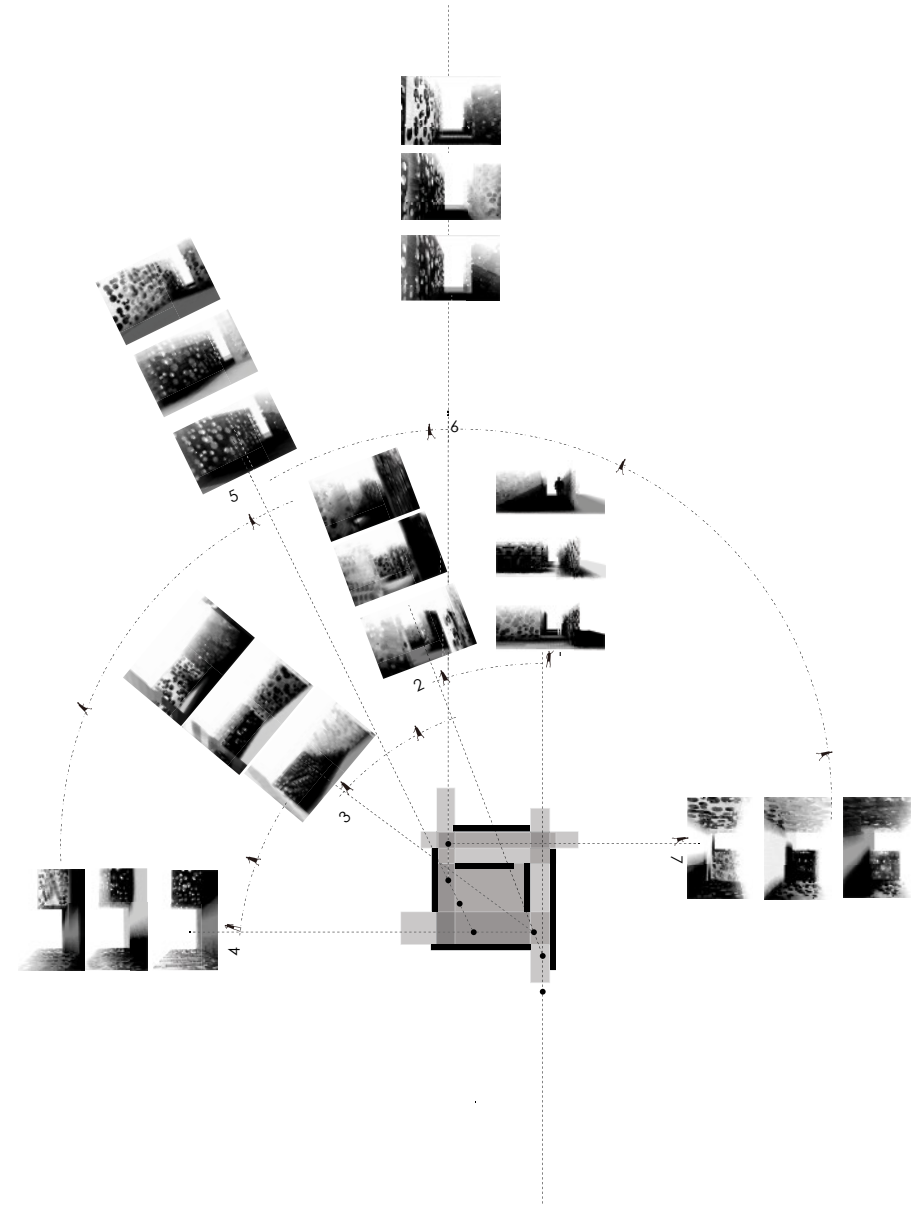


Fig 1



N



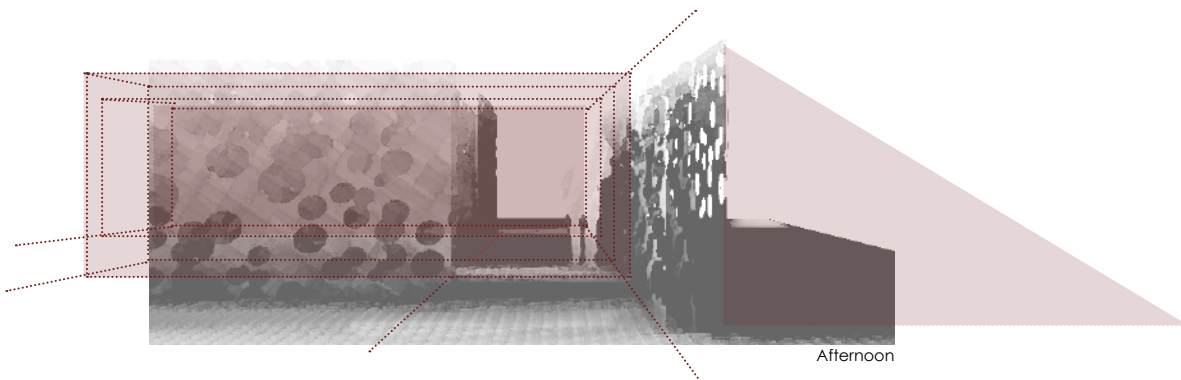
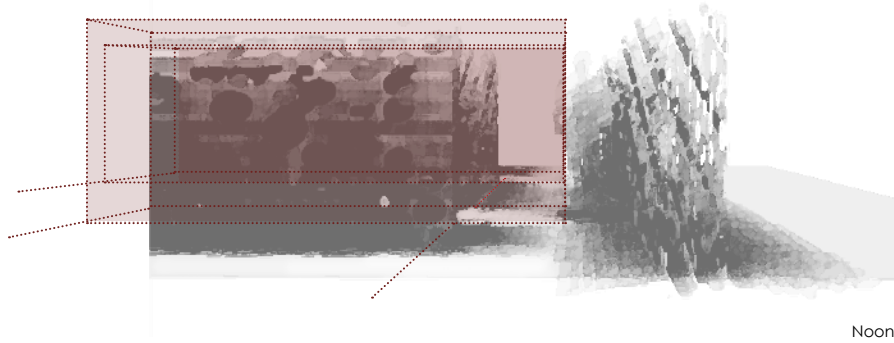
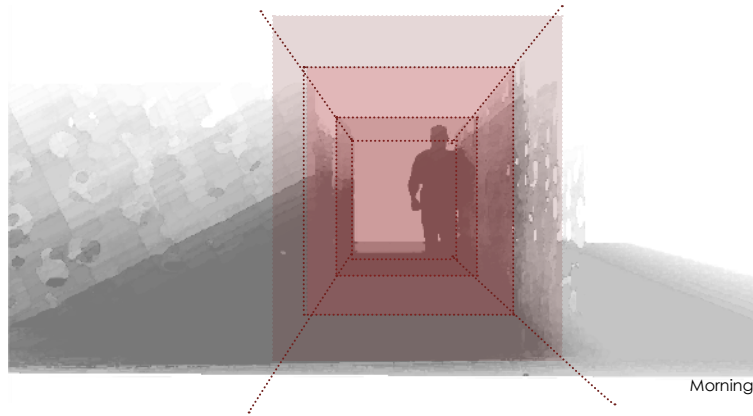
Fig 2

Fig 1: The unfolding of time-space

Fig 2: Intervals tested by succession of light and experience.

# MODEL 1-PENETRATE

## INTERVAL 1 TESTED BY LIGHT



Interval 1 is formed by superimposition of **Geometrical space A, B, C.**

In the morning, the interval is completely defined by the perceptual space of light and geometrical space A.

At noon, the beholder can perceive the superimposition of space A and transverse space existing in the presence of future experience of B, C.

In the afternoon, both traverse and longitudinal spaces are emphasized by light and shadow. Geometrical space A is collapsed by perceptual space. New perceptual space out of the frame is created as well.

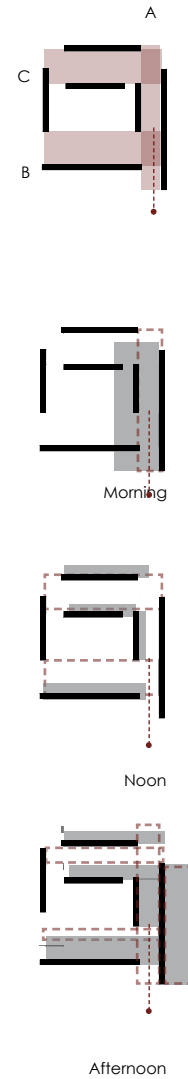
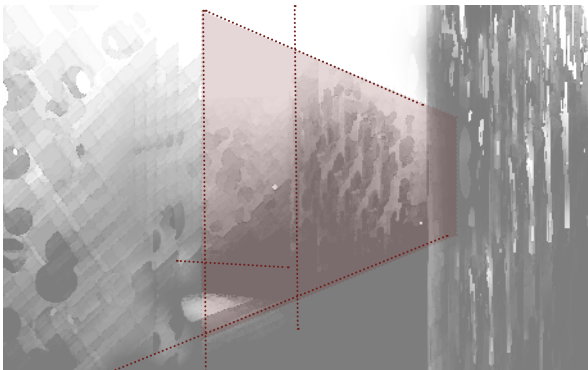


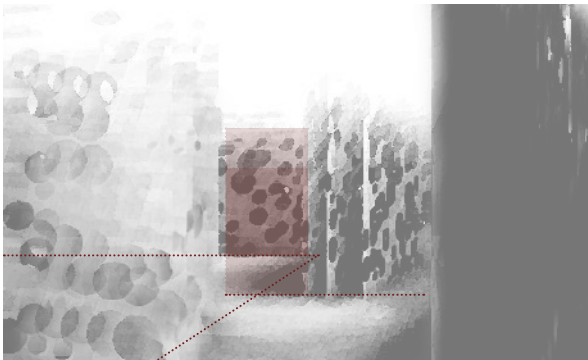
Fig : Diagrams represent how perceptual space of light influences our perception of geometrical space.

# MODEL 1-PENETRATE

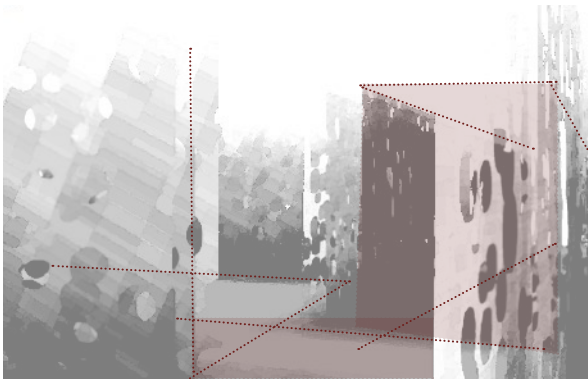
## INTERVAL 2 TESTED BY LIGHT



Morning



Noon



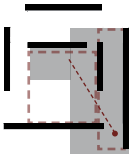
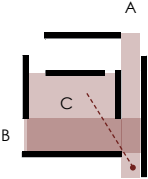
Afternoon

Interval 2 is formed by superimposition of **Geometrical space A, B, C.**

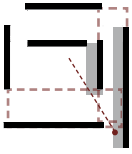
In the morning, the interval is completely defined by the perceptual space of light and geometrical space A,C.

At noon, the beholder can perceive the superimposition of space A and transverse space existing in the presence of future experience of B.

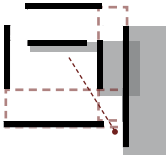
In the afternoon, both transverse and longitudinal spaces are emphasized by light and shadow.



Morning



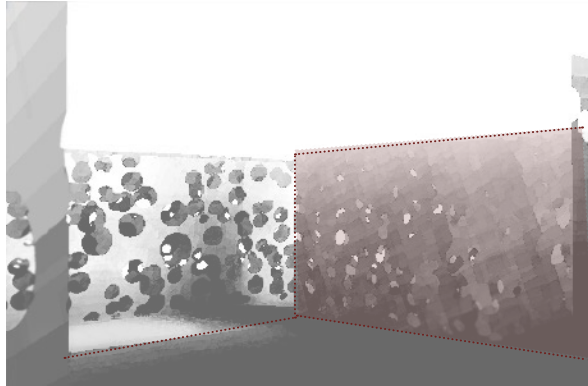
Noon



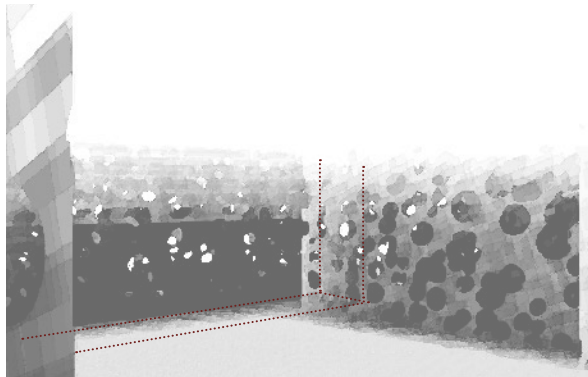
Afternoon

# MODEL 1-PENETRATE

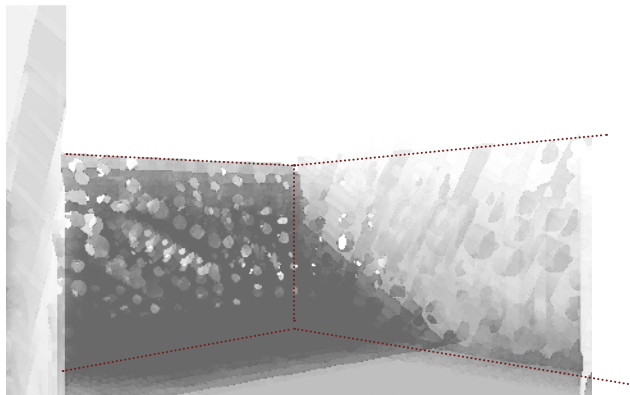
## INTERVAL 3 TESTED BY LIGHT



Morning



Noon



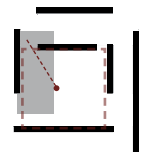
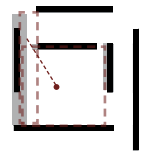
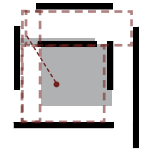
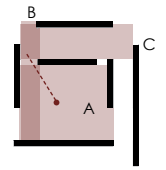
Afternoon

Interval 3 is formed by superimposition of **Geometrical space A, B, C.**

In the morning, the beholder can perceive the superimposition of space A and perceptual space existing in the presence of future experience of B, C.

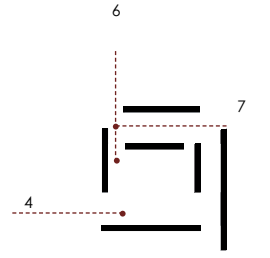
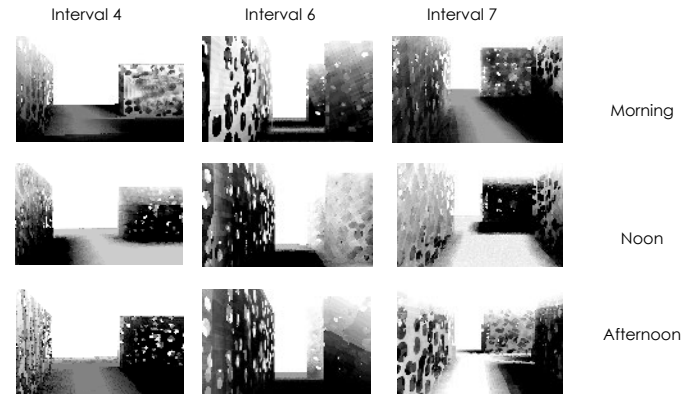
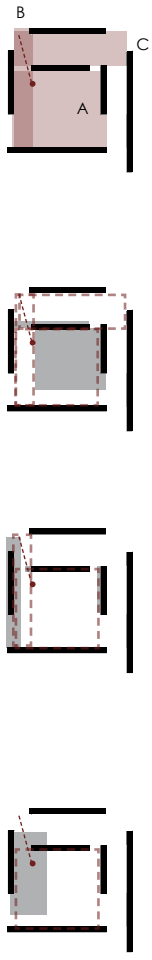
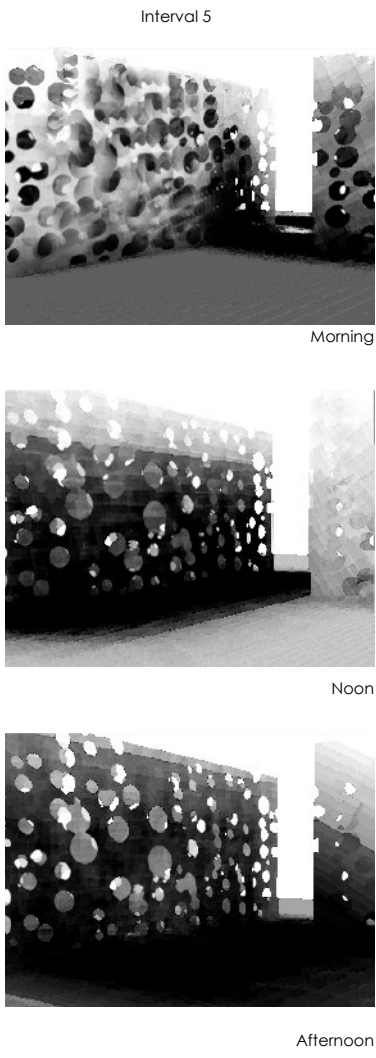
At noon, the interval is defined by the perceptual space of light and geometrical space A,B.

In the afternoon, the corner is enclosed by shadow, which emphasizes the geometrical space A and diminishes the perception of transverse space.



# MODEL 1-PENETRATE

## INTERVAL 4 - 7 TESTED BY LIGHT



As analyzed before, the comparison between different light conditions represent that the geometrical space which is intentionally left ambiguous can be shaped and redefined by light. It leaves the canvas blank in certain aspect for the articulation of time.

For the largest influence, the shadow range should cover the distance between wall planes, and the light condition varies most when traverse space(W-E) intersects into longitudinal (N-S).

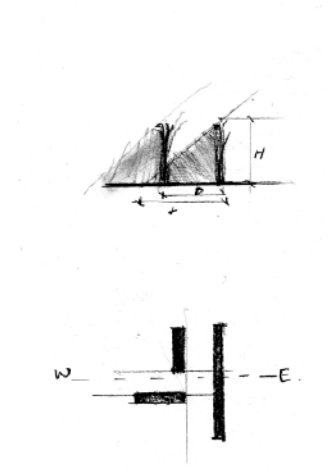
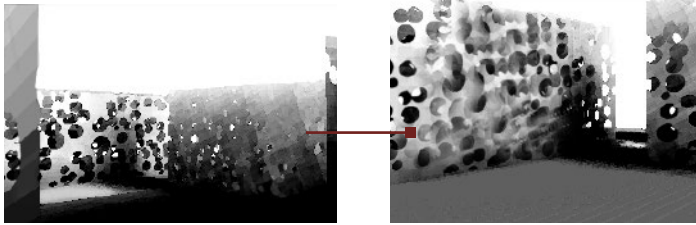


Fig 1

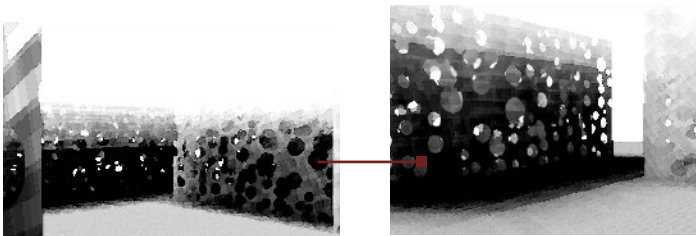
# MODEL 1-PENETRATE

## TESTED BY SUCCESSION OF EXPERIENCE

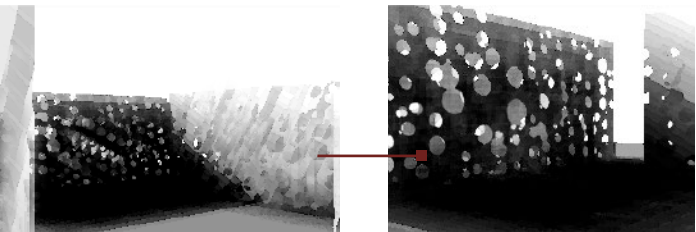
Interval 3 ————— Interval 5



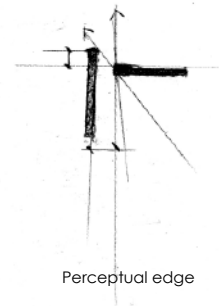
Morning



Noon



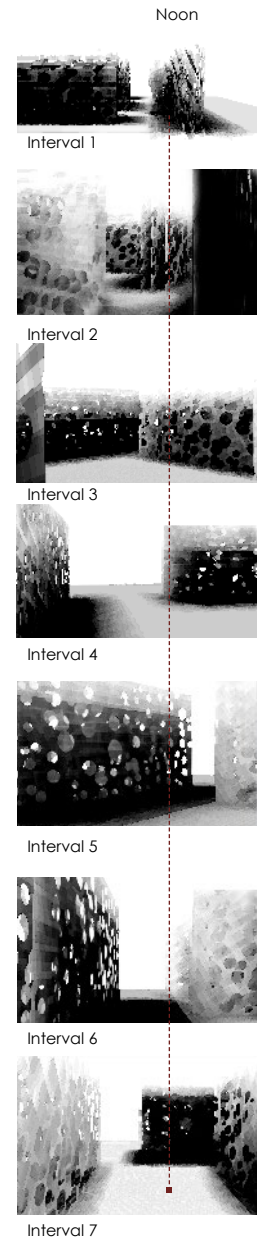
Afternoon



This type of interval create perceptual edge, which address the importance of relative time-space: It is our relation/ orientation with the edge and the light condition of the edge that matter, not the form itself.

From the interval 1 to 7, superimposition of different space is perceived and it changes with succession. Interval 1 suggests longitudinal organization and is denied through the encounter with interval 2 and be reconfirmed by interval 7.

With the shifting of location, orientation and views, under the changing condition of light, the constant negotiation happens between mind, body and space, the perceptual space "appears and vanished, takes a form and disband it into a new configuration, or newly takes part in it again".[1]



[1] From the things themselves, edited by Benoît Jacquet, Vincent Giraud ,p218



# MODEL 2 - STRATIFY - CANOPY

## TESTED BY LIGHT

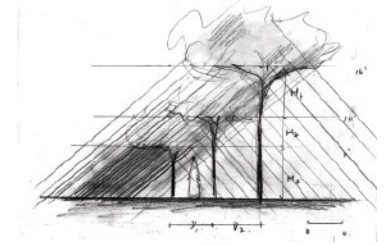
Lightness



Heaviness

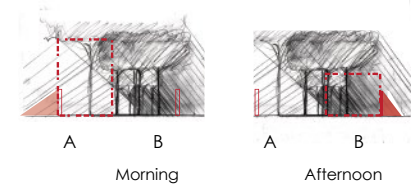


Model 2 is focused on how the **horizontal stratification of filter re-distributes light.**



In the pictures, the space is defined by canopy and re-defined by different light conditions. Succession of light create different density of shadows, changing the weight of space.

If superimpose the stratified filter with wall element in model 1, **the dynamic perceptual time-space can enhance or dissolves geometrical space**, which adds another layer of diversity to experience.



For example, in the morning, space A is better defined than B while in the afternoon is reversed. The changing range of space A can never be explicit as space B in perception. The **alignment (W-E)** creates largest difference.

Additionally, the tree as a living material changes its density towards seasons, which add another layer of changes through time.

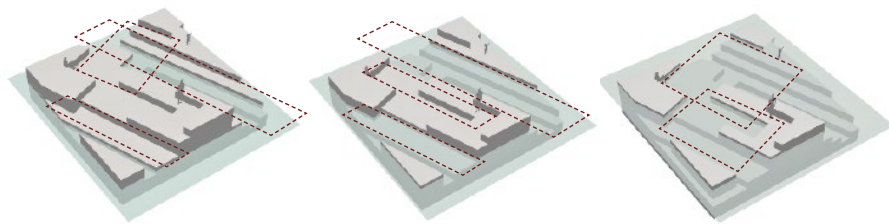
# MODEL 3 - STRATIFY - GROUND

TESTED BY SUCCESSION OF TIDE/LIGHT



The material of ground plane influences the perception as well. Reflective material such as water can work with succession of light.

The formal layout of water can be implicit if light is not directly reflected by surface. But under the specific condition of light, with a relative to location of viewer, the water becomes dominated.



Model 3 is focused on how the land form that changed by tide influences the perceptual space and defines movement, relative to the **form and organization of each stratified layer.**

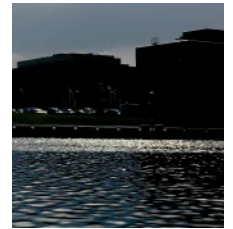


Fig 1

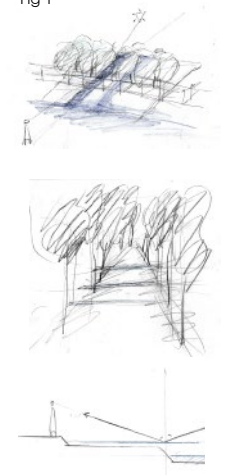


Fig 2

[1] Photo taken by author at different time of river.

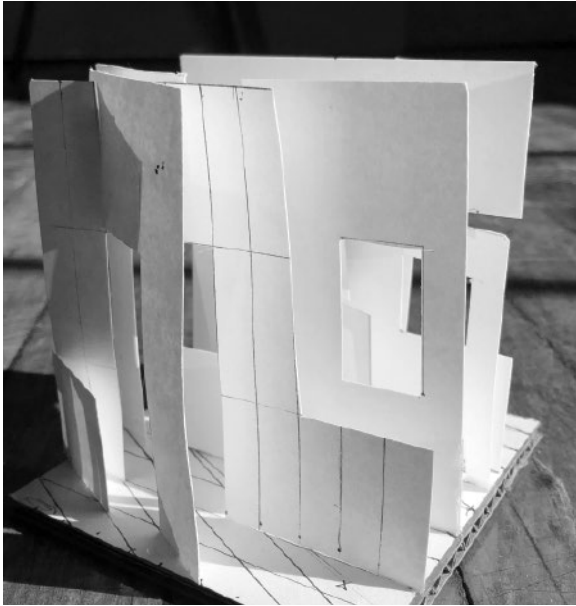
[2] The sketches show the water can be implicit but also explicit due to different light angle and viewpoint.



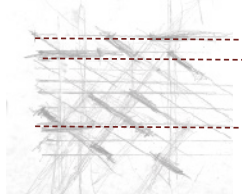
# MODEL 4 - INTERSECT

TESTED BY SUCCESSION OF LIGHT/ EXPERIENCE

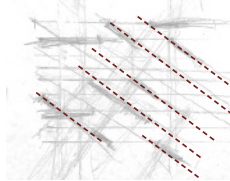
Model 4 formed by intersection of vertical stratification from two directions.



direction 1

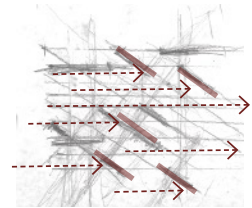
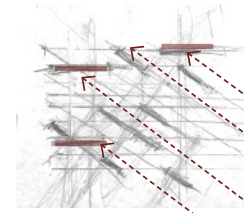
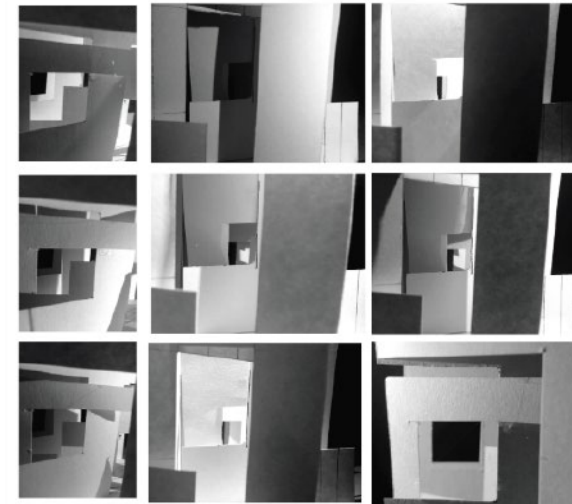
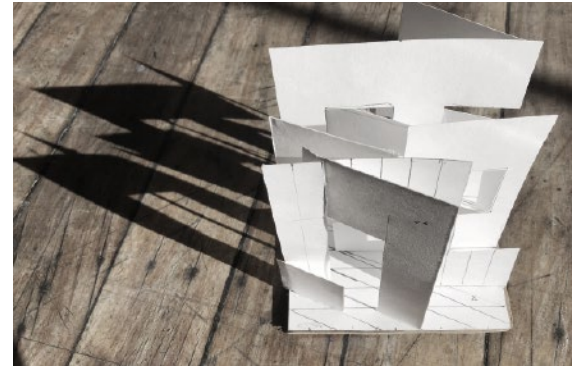
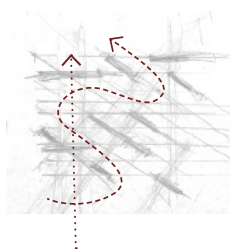
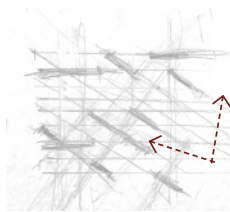
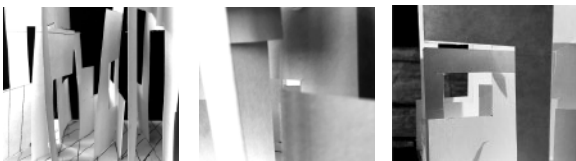


direction 2



Intersection suggests directionality, which changes with orientation.

Corresponding openings create frame for visual corridor but the body has to move around in different way.



The directionality responds to change of light, creates fluctuation between figure and ground; illusion of depth.

# CRITIQUE NOTES

## EMBODY PHENOMENAL TRANSPARENCY

“ View and analyze the space from perspective. Test it outside. Mock up the situation. Use your head, eye to occupy space. ”

“ You didn't recognize what is pushing back to you so you find it hard because of too many possibilities. If you start with a site, start to recognize the conditions and name them. ”

“ Include context in model instead of being isolated. Consider changes of things in relation to something else. When do you take away context, when take back? What's the visual background? The river or city? It will change the measurement and perception. ”

“ How does the change works in my design? Create static frame or datum to measure the changes such as the dock measure the tide. What's the register? How do they control/influence human experience? Clarify these in model, what element you choose, what's your frame, what's the outcome, what's being perceived? You should decide how many variations you want to take. Clarify what's the frame, what you are testing with this set of moves, don't change all sets of variables at once. How it form different perception? Clarify what change, what doesn't? ”

“ The register can be frame, perceptual edge (point where eye meet edge)... The thing I create to measure things differently. Start with one register, bring it out as a measurement. You propose new measure of things and new organizational system. Diorama could be a tool that you can wear to observe site. Perceptual edge, your eye, and everything beyond, use these 3 elements to test. ”

“ Interval is more important than sequence. Sequence is too reliant on a set of prescriptive idea. What happens to your perception in interval? Refer to the concept of 'ma' in Japan. ”

“ How do we perceive the limits of space VS how phenomenal transparency create 'interval' , VS how perception is guided by phenomena? ”

“ Focus on: form of corner/ person relation to corner/ phenomenon affect the corner. The wall itself doesn't matter, it's the corner, our relation/orientation with the corner and the condition of the corner that matter. ”

“ Create a rigorous matrix to diagram and focus. Such as Ground /vertical/ roof plane (above, under, within vertical access), that define the place. Then consider texture, reflection, scale, distance, material shift; and where do we move, where do we view. ”

“ Clarify what you're going to take, control and achieve on site. Otherwise ,you can create endless types of experience, or ending with categorizing things. Two direction: Insert frame in a larger landscape create a discrete moment? Or take the whole site? ”

“ You representation is not convincing. How can you present incredibly immersive experience through drawing/video? What's the characteristic of being in them? How do I ground it and let people experience it? ”

These notes are re-organized and refined from conversations during review according to author's interpretation and Patricia Noto's kind notes of review.

Conversations include Faculty Advisors: Scheri Fullineer, Elizabeth Dean Hemann, Nick DePace, Colgate Searle

# ASSESSMENT & REFLECTION

## EMBODY PHENOMENAL TRANSPARENCY

### STORY TELLING:

The definition of critical terms should be articulated and clarified as background for entering the project. The 'phenomenal transparency' is not the transparent quality of landscape phenomenon but a spatial-organization that forms multiple readings and be defined differently by time.

The analysis of axonometric drawings and digital rendering remove the viewer from immersive experience. More convincing representations should be developed in next phase, consider:

1. Analytical perspective with material and context.
2. Larger physical models that can be tested in real environment outside, can be analyzed by eyes.
3. Photography or time-lapse video to represent changes.

### REGISTER:

In phase 2, several operations has been tested by succession of phenomenon and interval. However the frame work is not clear. The register for each model should be clarified and tested independently. Set up a system of "register", "a person", "everything beyond" for analysis.

Map out the parameters that construct the register from the three formal operations.

### INTERVAL:

The original criteria for test is "succession of sequence", which is replaced by "the succession of interval". Because sequence relies on a set of prescriptive experience but interval marks the critical transition of time-space.

Definition of "Interval" in this thesis relates to the concept of "间" in China and the concept of 'ma' in Japan.

"It is best described as a consciousness of place, not in the sense of an enclosed three-dimensional entity, but rather the simultaneous awareness of form and non-form deriving from an

intensification of vision. Ma is not something that is created by compositional elements; it is the thing that takes place in the imagination of the human who experiences these elements. Therefore ma can be defined as experiential place understood with emphasis on interval." [1]

Compared to the definition of phenomenal transparency, the interval shares some quality with the spatial overlap where the organizational transparency happens.

### MATRIX / CLARIFICATION OF GOALS

Categorize variations in more rigorous matrix:

how phenomenal transparency create 'interval' ; how do we perceive the limits of space in experience; how our perception is guided by phenomena. For example, in model 1: form of corner/ person relation to corner/ light affects the corner.

Phase 3 will be focus on a site acts in the frame; or installation added to site for a discrete moment.

Recognize the conditions on site, decide what variation will be taken. In order to create the form being perceived differently with time, what parameters will be determined?



间 .(jian), the Chinese character composed by a pictorial sign of "door" and "moon", refers to the moon shining through the negative gap of door and evokes the sense of time-space in both objective and subjective ways.

Reference:

[1] <http://www.columbia.edu>.

Fig: <http://huazi.qcqx.cn>

# PHASE THREE

WORKING ON SITE

# ABSTRACT

## WORKING ON SITE

*"In a complete and successful work there are hidden masses of implications, a veritable world which reveals itself to those whom it may concern, which means: to those who deserve it. Then a boundless depth opens up, effaces the walls, drives away contingent presences, accomplishes the miracles of ineffable space. "*

*Le Corbusier*

Phase 3 integrates the operations from previous phases and contextualizes them through a design project, connecting conceptual organization, articulation of space and perceptual experience which expands the application of phenomenal transparency through the language of landscape architecture.

# INTRODUCTION & METHOD

## WORKING ON SITE

Phase 3 focus on the following questions:

How to use phenomenon transparency as a formal tool to create place that generates multiple readings where various possible space-time function relative to each movement or event?

- What are the possible condition or event elated to landscape architecture which can be created by operations of phenomenal transparency on site?
- How can the considered elements on site generate specific order and form?
- What are the possible spatial operations that can achieve the proposed ondition and event?
- How to simplify the operations as a synthesized and superimposed system of landscape architecture?

To test the expanded application of phenomenal transparency in landscape architecture, phase 3 can be divided into following steps:

1. Capture and identify the possible conditions and events.
2. Generate and synthesize the organization and operation through landscape architecture.
3. Projective design outcome tested at site.
4. Refined design according to test and be tested again.

**Field Trip  
Photography  
Site Analysis**

**Concept drawing & model  
Mapping & Diagram**

**Modeling  
Analytical Diagram  
Mapping  
Material Test  
Photography  
Representation**

# REFERENCE

This primary spatial principles are the background information of design in phase 3.

## DIMENSION

The author identifies three formal operations: **penetrate, stratify and intersect** and two organizational operations: **superimpose and correspond**. These all function at the primary spatial elements: **overhead plane, wall plane and base plane**.

These operations and organizations form the quality of "**phenomenal transparency**", which can be understood as "**interval**" defined by **geometrical parameters and type of compositions**.

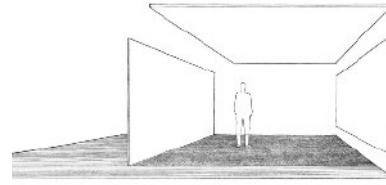


fig 1

## RELATIVE SCALE

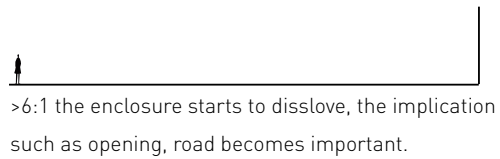
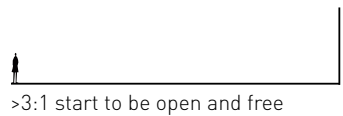


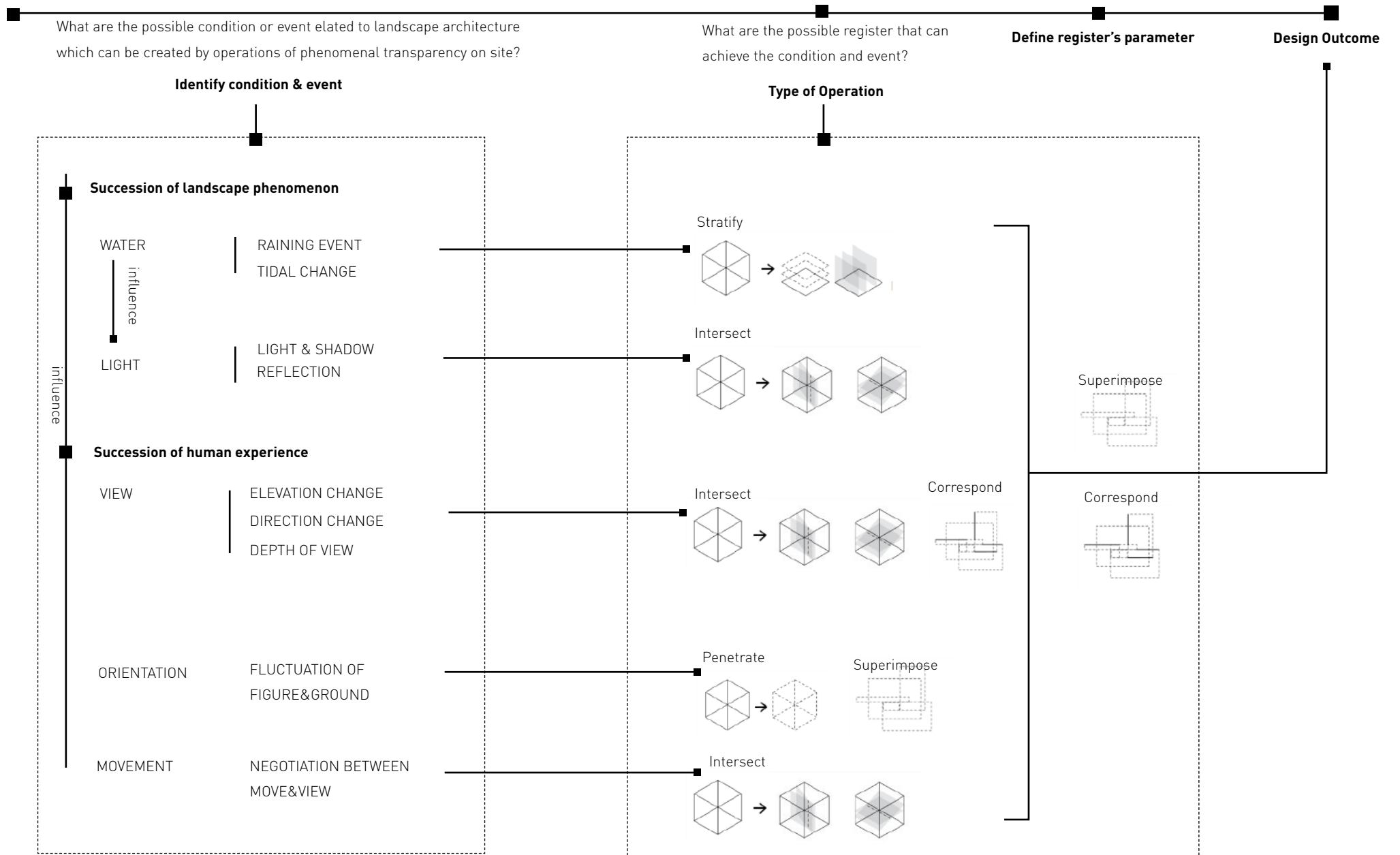
Fig 1: Primary element of space- Overhead plane/ Wall plane / Base plane; Francis D.K. Ching, Architecture - Form, Space and Order 3rd Edition

Fig 2: wechat official accounts: LA\_bang

# RESEARCH STRUCTURE

## WORKING ON SITE

How to use phenomenon transparency as a formal tool to create place that generates multiple readings where various possible space-time function relative to each movement or event?



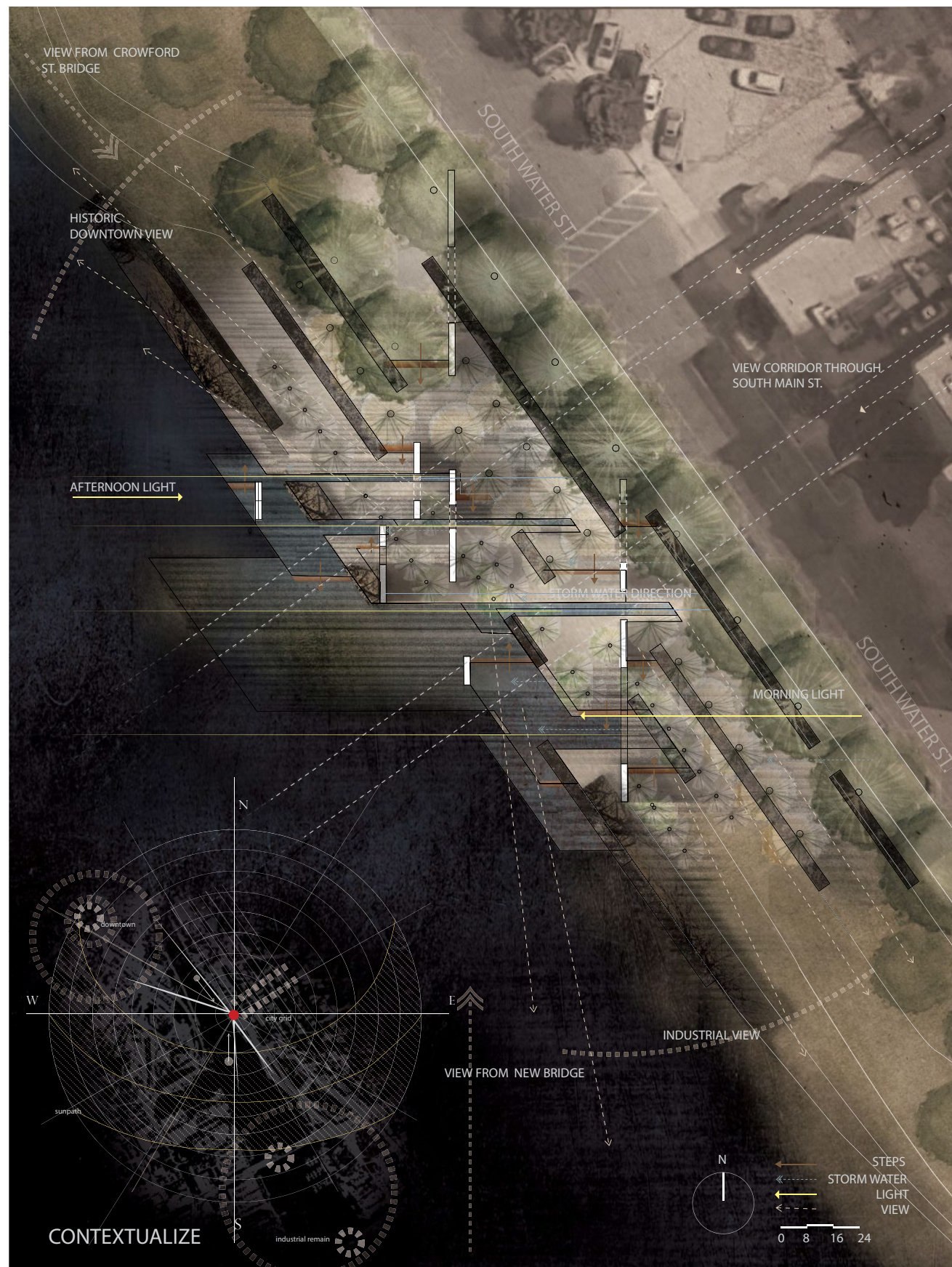


# SITE

From dry land to wet land, from city to water.



Sunset and shining river.





# WATER-VEGETATION

## STRATIFICATION OF GROUND

RAINING EVENT

Rain

surface runoff

hard pavement  
dry land

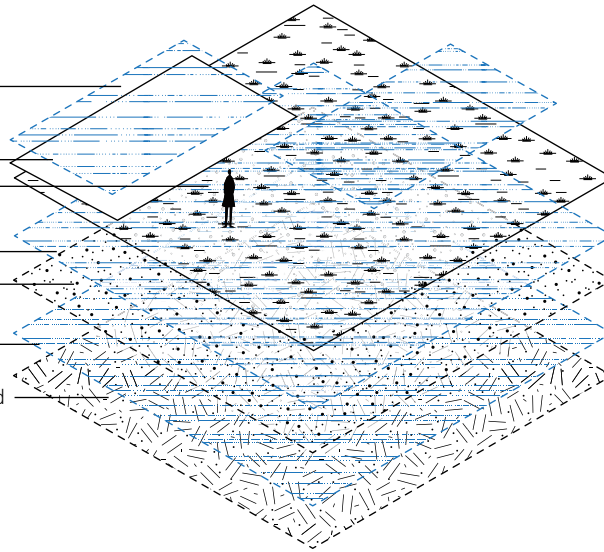
TIDAL CHANGE

High tide 4.5'

emergent land

Low tide 0'

submerged ground



Stratification of ground corresponding to tide defines specific type of vegetation, which sets up the stratification of wall plane and overhead plan.

STRATIFICATION  
OF GROUND  
PLANE

8'

7'

6'

5'

High tide 4.5'

Low tide 0'

STRATIFICATION  
OF OVERHEAD  
PLAN

spartina

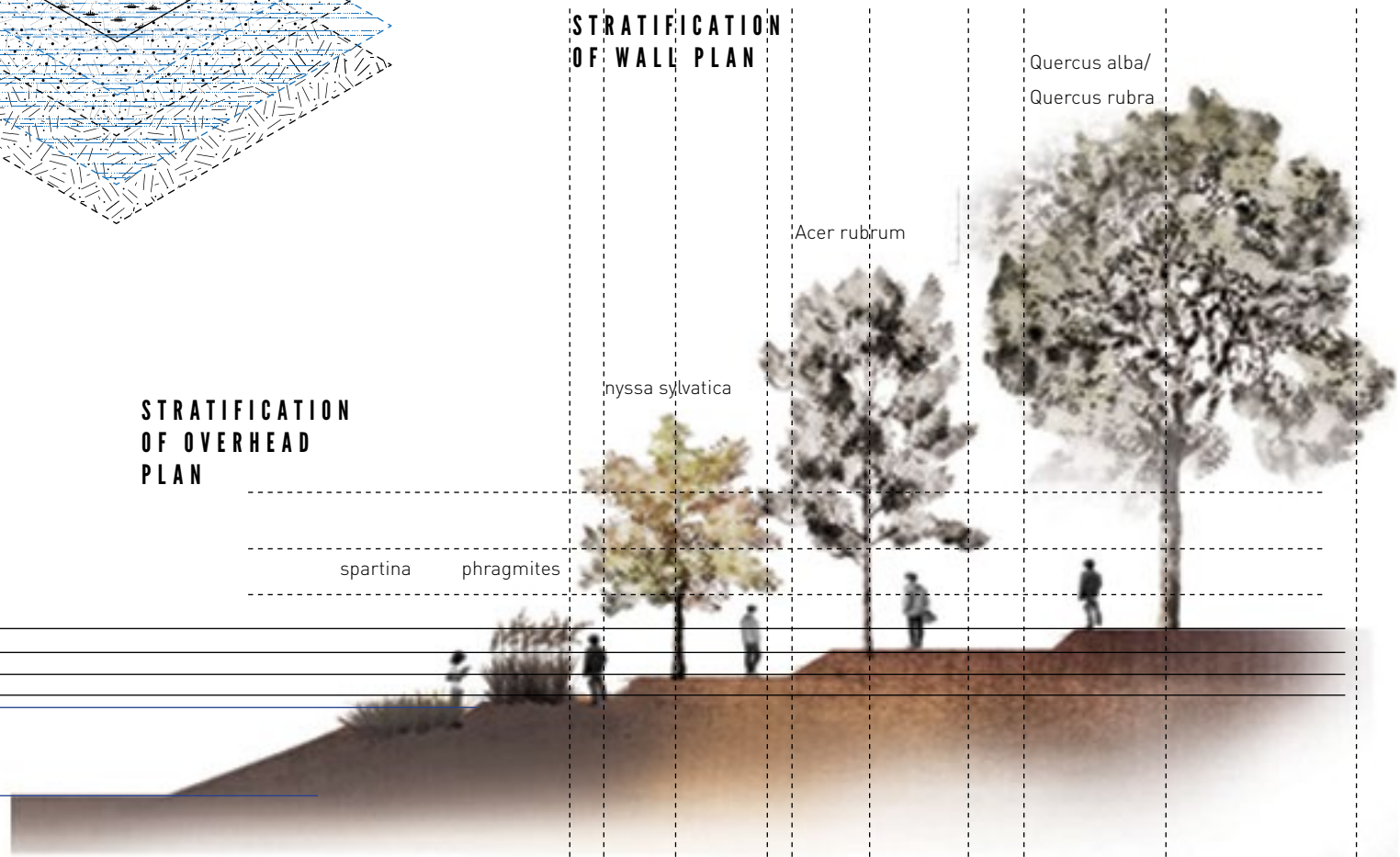
phragmites

STRATIFICATION  
OF WALL  
PLAN

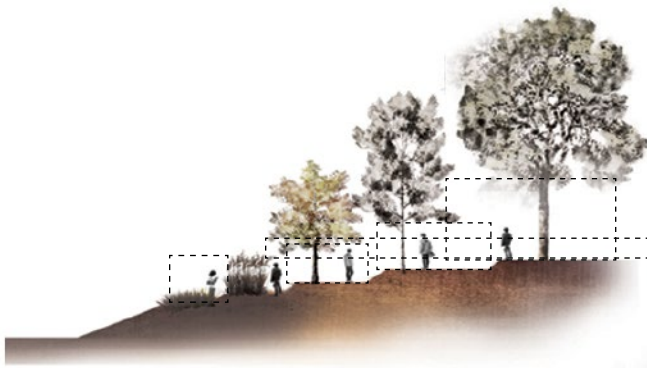
*Nyssa sylvatica*

*Acer rubrum*

*Quercus alba*/  
*Quercus rubra*

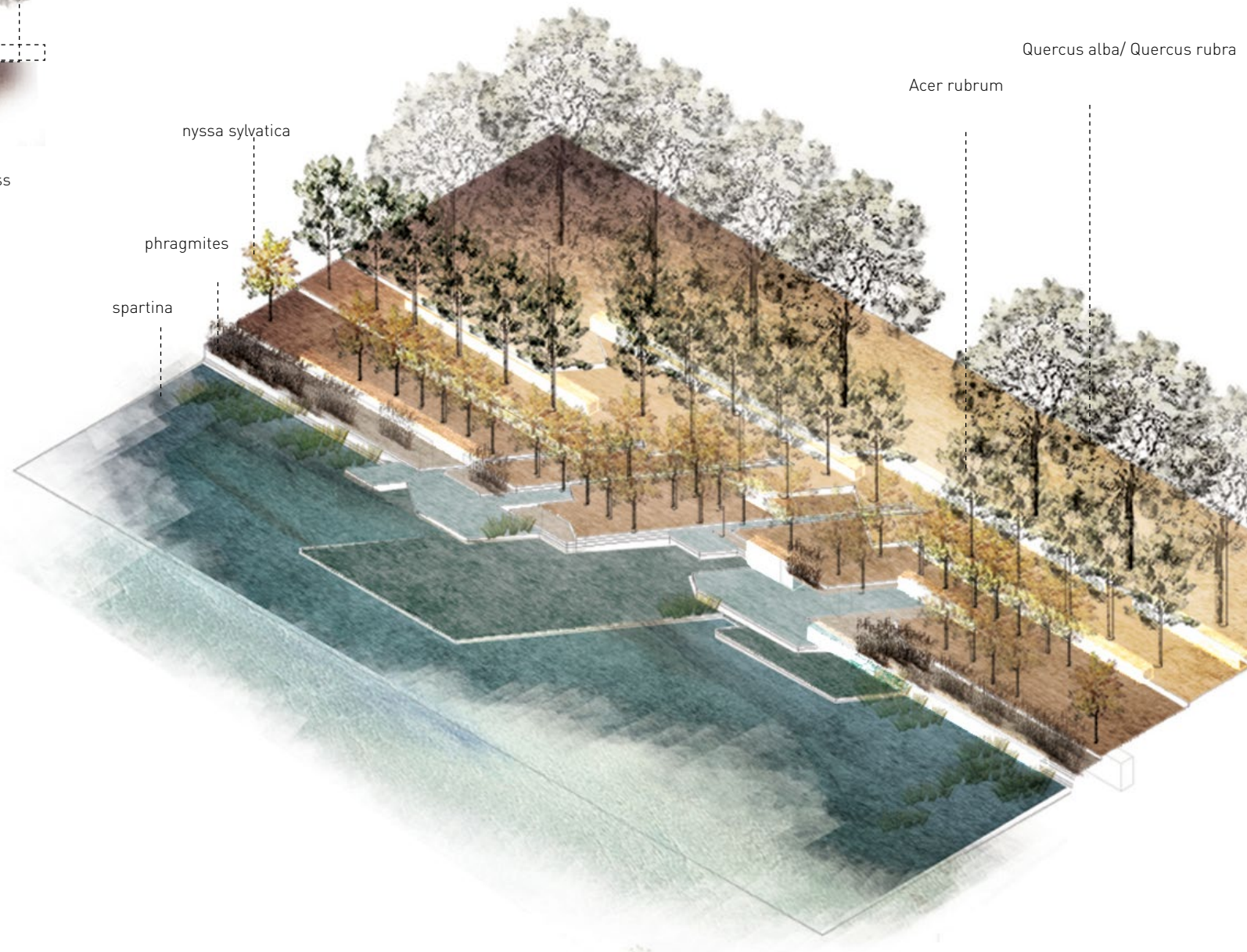


# WATER - VEGETATION



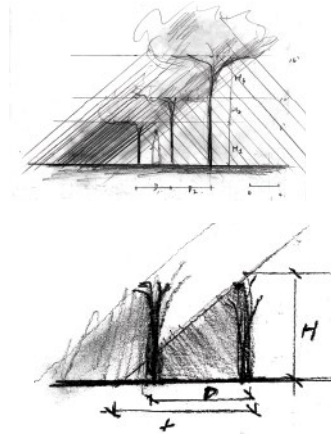
Water, vegetation marked by water, ground, create the thickness of space. The manipulated landform creates organizational transparency together with water and vegetation.

The changing density of vegetation towards seasons is unique register in landscape architecture. The literal transparency of these filters allow spatial penetration, which is essential to phenomenal transparency.



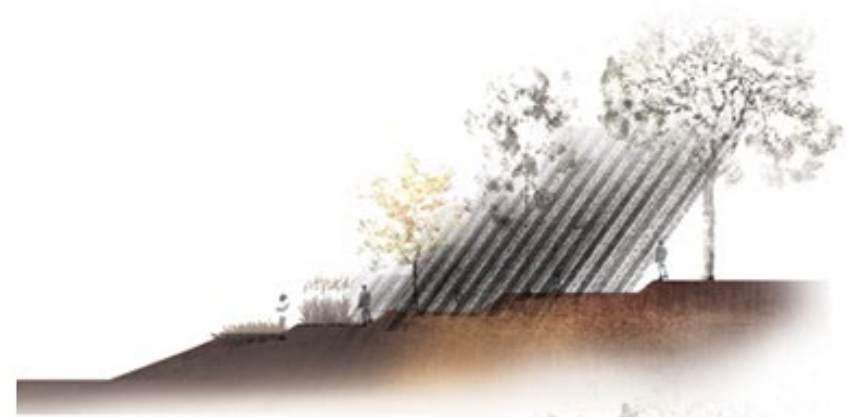
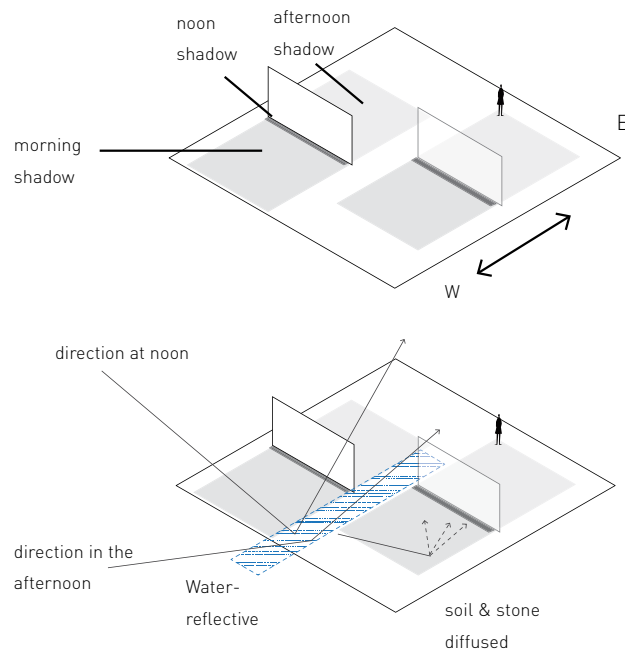
# LIGHT

Based on conclusions from phase 2, the alignment & orientation of wall intersected by water channel maximizes the changes of light phenomena.

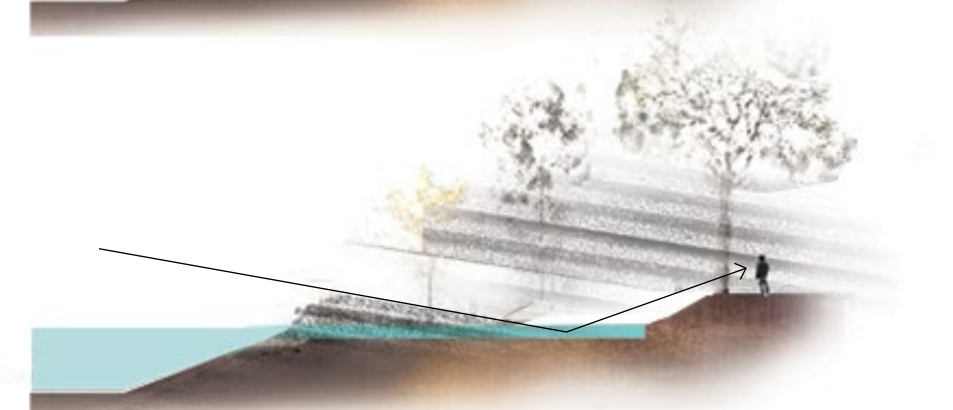


The alignment & orientation of wall intersected by water channel maximizes the changes of light phenomena.

## INTERSECT



Morning



Afternoon

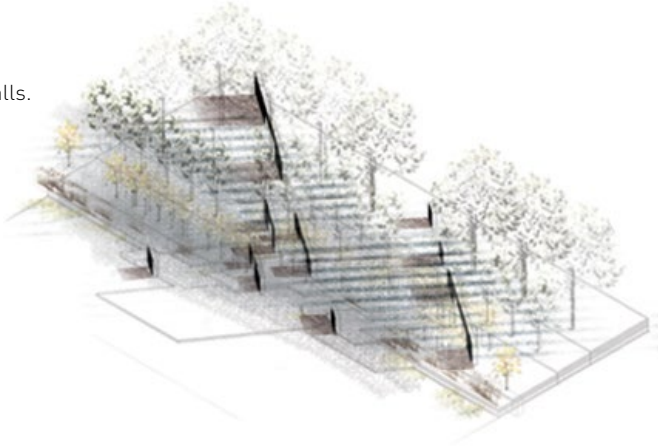


# LIGHT & WATER

The spatialization of light and water creates a condition of flux.

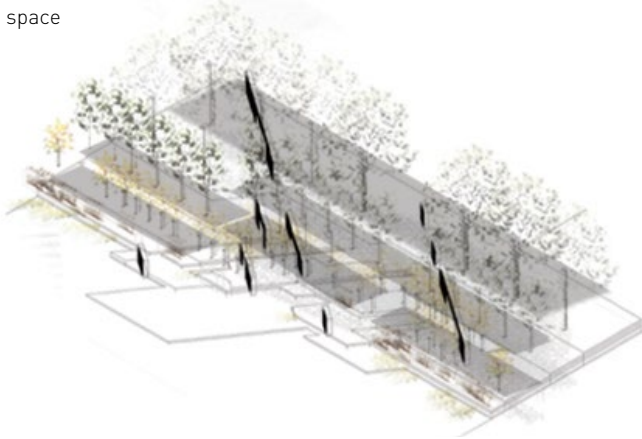
Morning:

Shadows of trees overlapped and reinforces the space defined by walls.



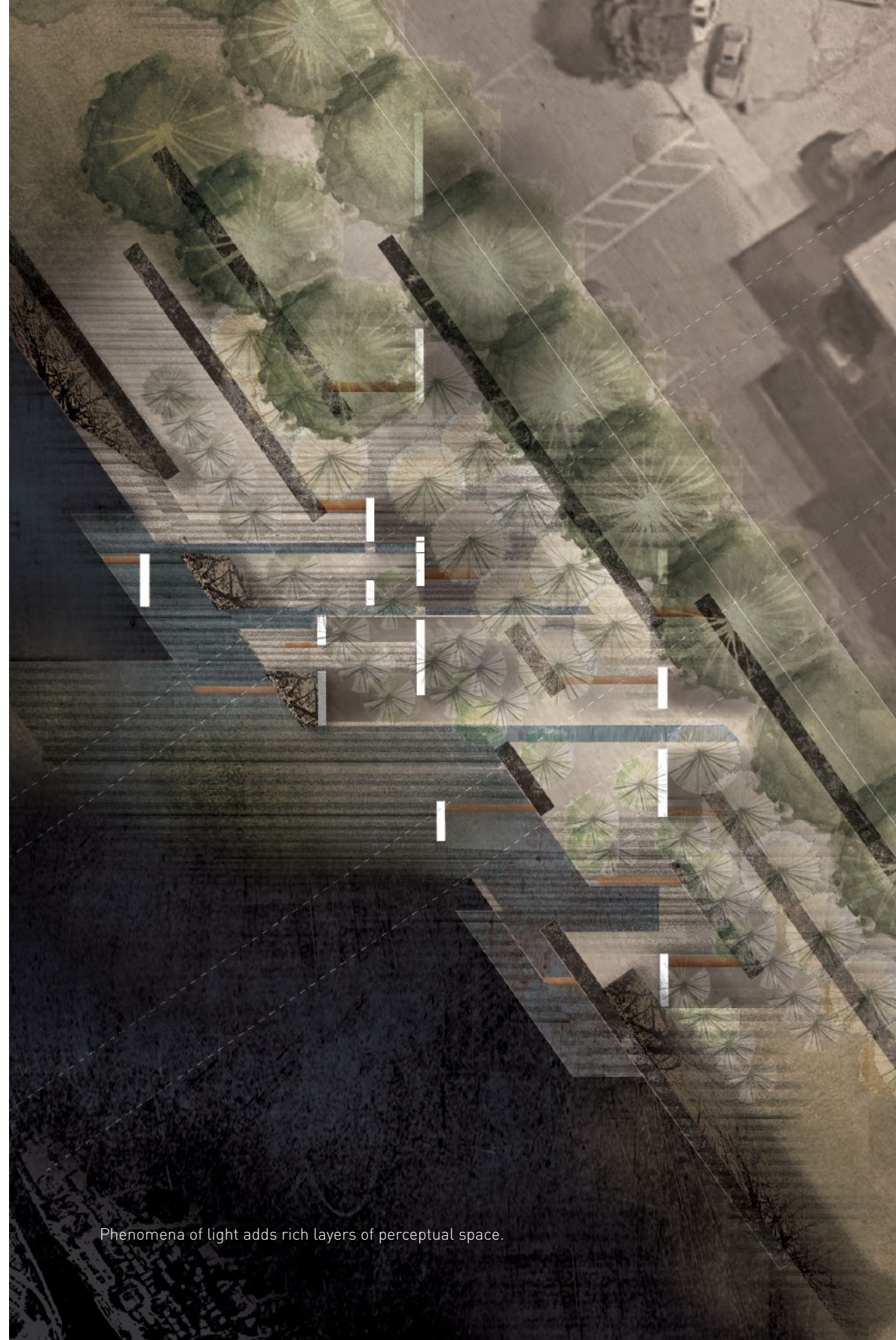
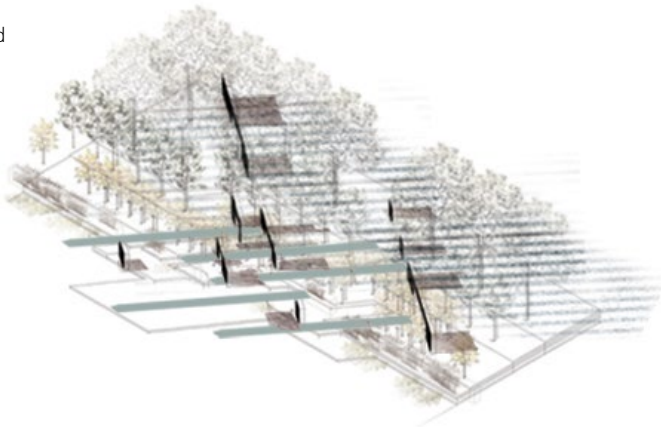
Noon:

Shadows of trees emphasize the space defined by canopy.



Afternoon:

The water channel reflects light, and re-defines the order of walls and ground texture.



Phenomena of light adds rich layers of perceptual space.



## LIGHT & WATER



View at noon with low tide. The spatial order defined by tree alleys is dominated while the water channel and ground texture are implied.



View at sunset with high tide. The water channel becomes dominated, collapsing the space set up by tree alleys.



**VIEW**  
FROM OUTSIDE TO INSIDE

**ELEVATION  
CHANGE**

From S. Main street



From S. Water street



**DIRECTION  
CHANGE**

From Crawford st.  
bridge



From opposite bank



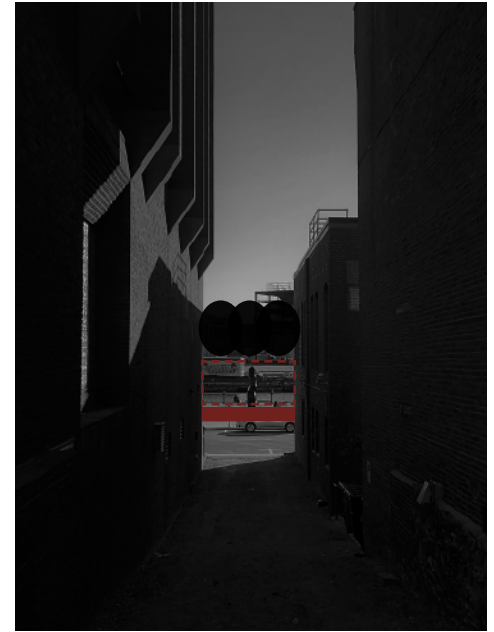
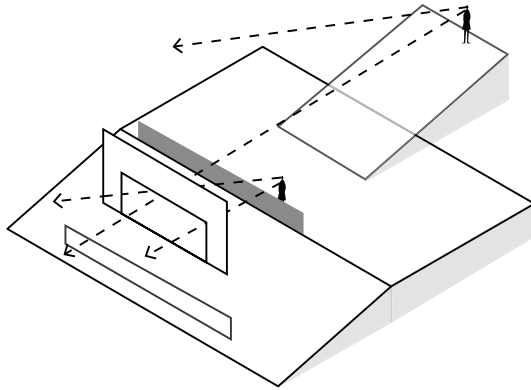


# VIEW

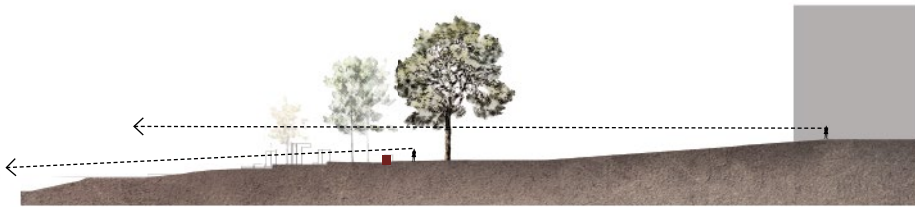
FROM OUTSIDE TO INSIDE

ELEVATION  
CHANGE

CORRESPOND



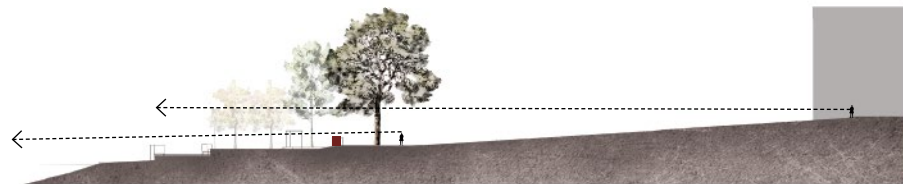
At S. Main St. : Stone wall blocks the site and the trees frame the view of opposite river bank.



S. Water St.

S. Main St.

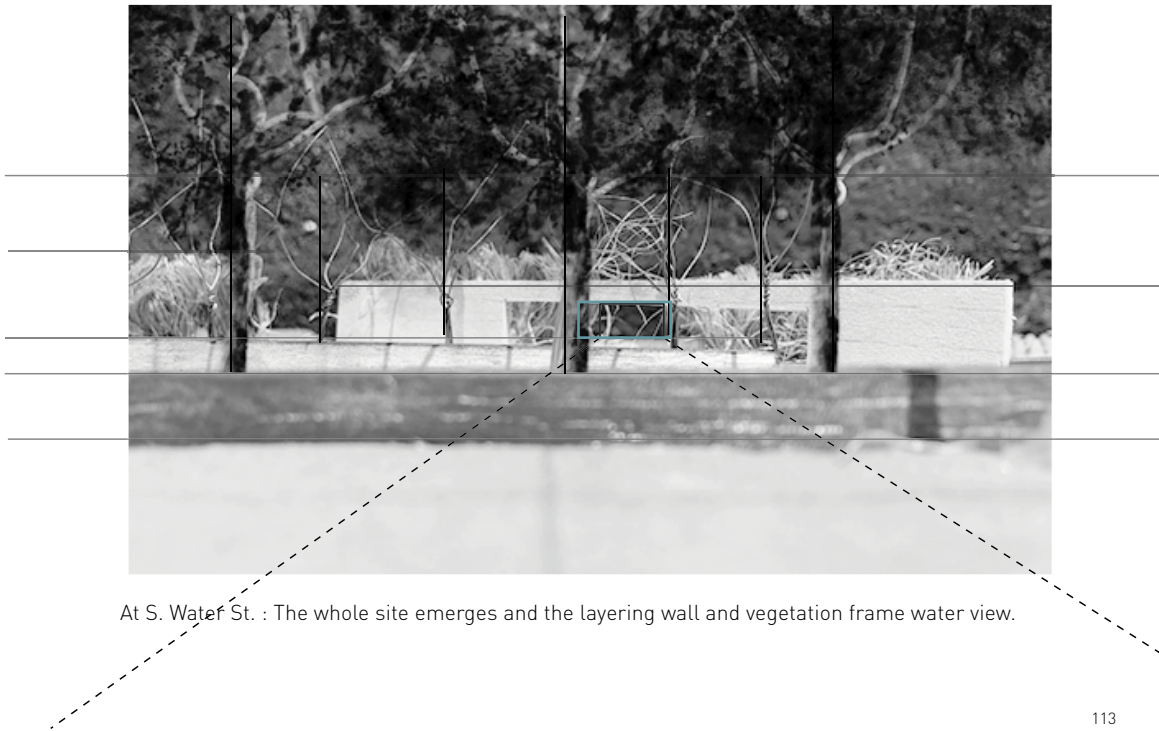
View corridor 1



S. Water St.

S. Main St.

View corridor 2

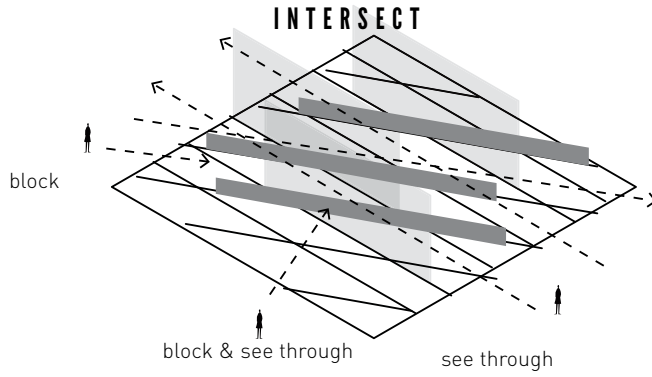


At S. Water St. : The whole site emerges and the layering wall and vegetation frame water view.

# VIEW

FROM OUTSIDE TO INSIDE

DIRECTION  
CHANGE



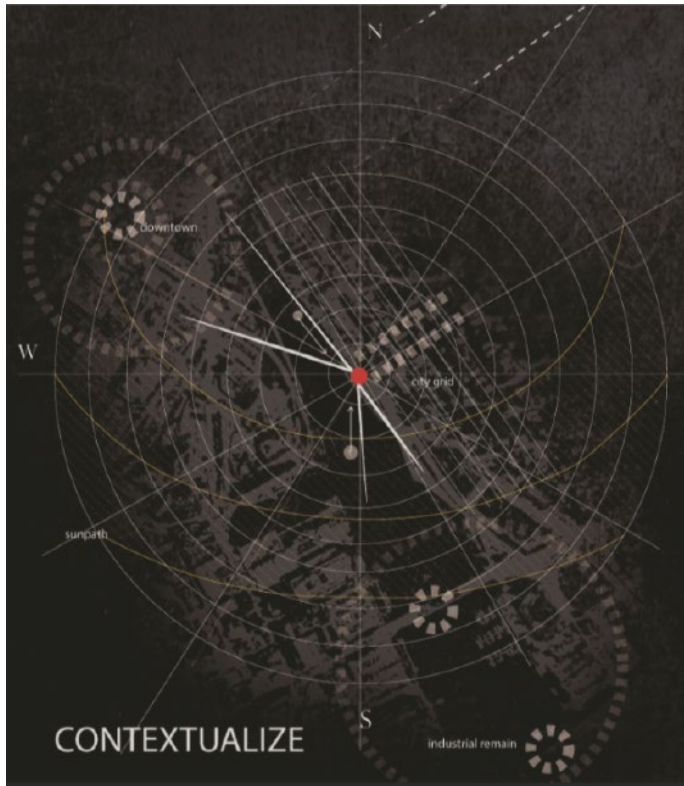
From Crawford st. bridge: the walls and vegetation block most view, making the site a solid mass.



From new pedestrian bridge: The wall opens up and the volume of site dissolves.



From opposite bank: The site will be understood as layers of horizontal orders through the alley of trees.





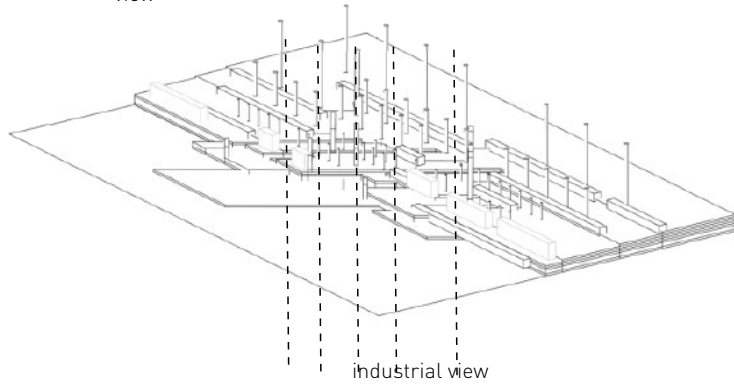
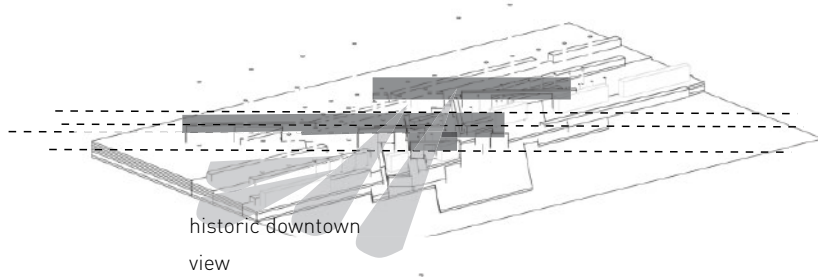
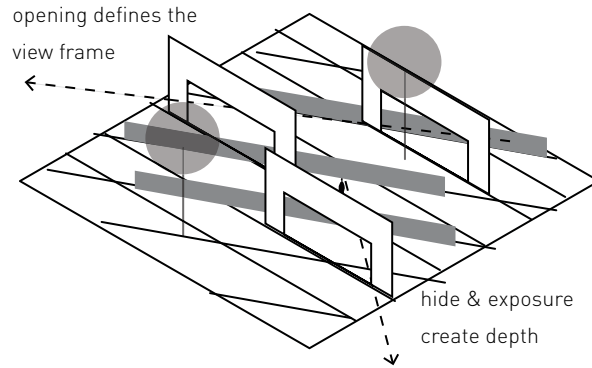
# VIEW

FROM INSIDE TO OUTSIDE

DIRECTION  
CHANGE

DEPTH OF VIEW

CORRESPOND



Downtown view



Industrial view

# VIEW

FROM INSIDE TO OUTSIDE



Industrial view



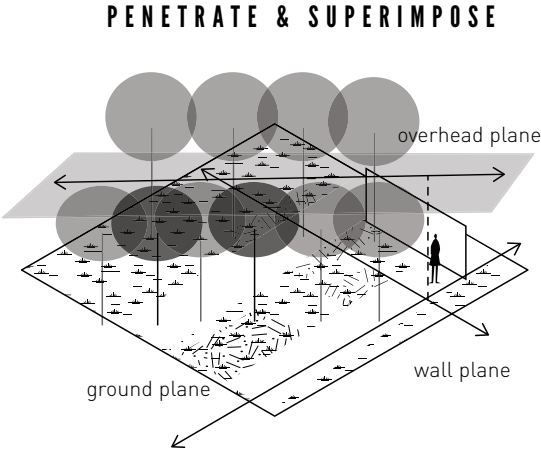
Depth of view



# ORIENTATION & MOVEMENT

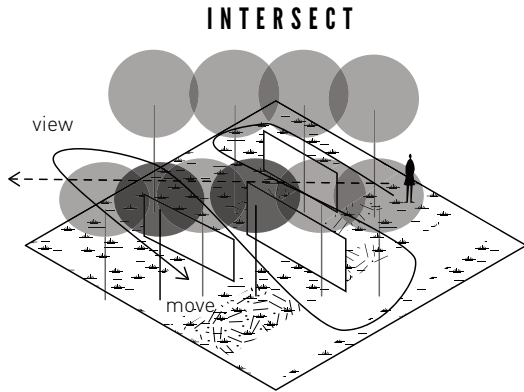
## FLUCTUATION OF FIGURE & GROUND

Shifting between overhead plane (defined by canopy), wall plane (define by wall) and ground plane (defined by texture and water), creates fluctuation of figure and ground along with movement and also is influenced by light condition.



## NEGOTIATION BETWEEN MOVE & VIEW

The changing direction of movement and negotiation between moving and seeing arouse awareness of being present and sets up a mutual and dialectic relationship between body, perception and imagination.

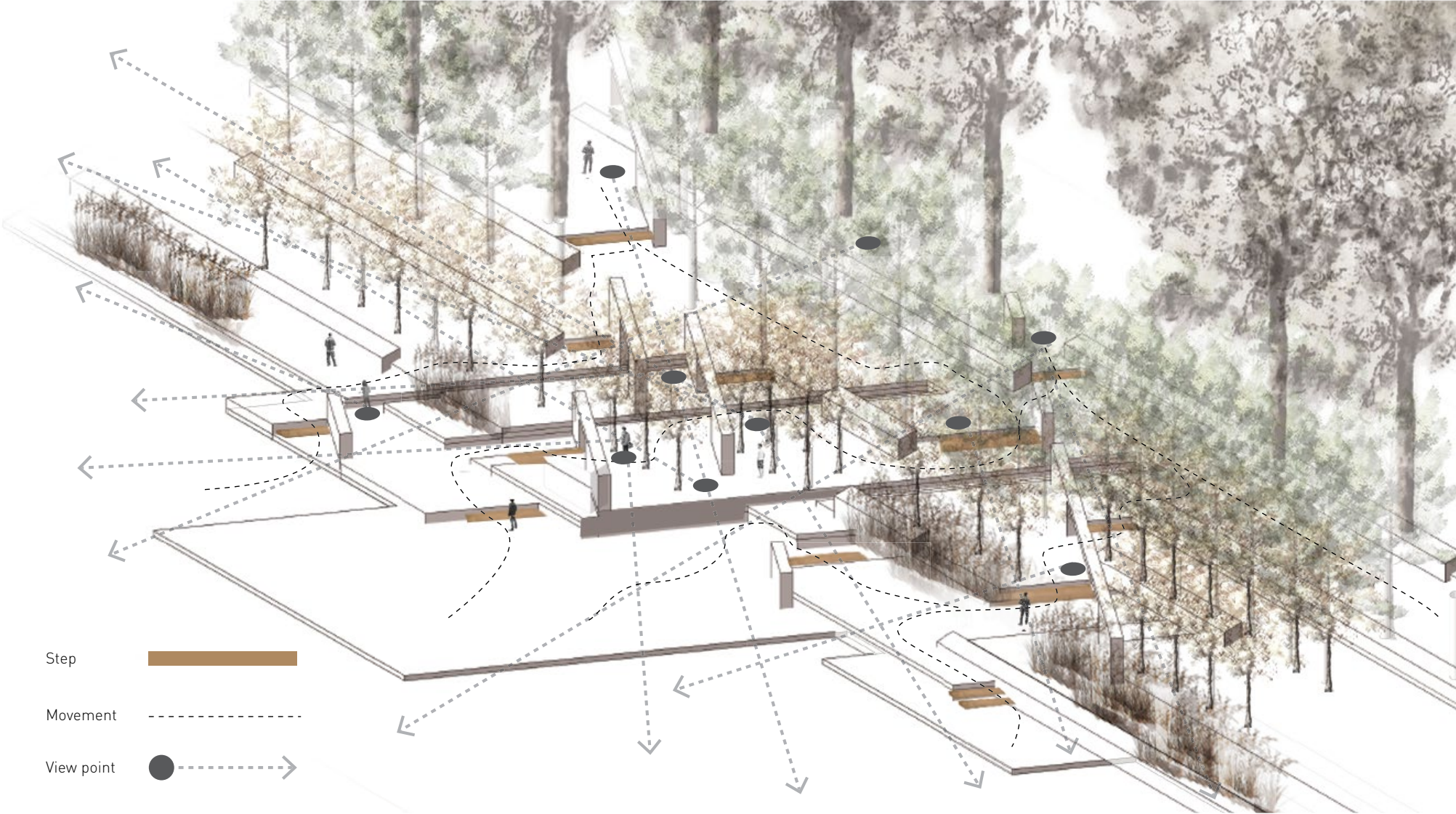


tension in space

move contratry to view



# ORIENTATION & MOVEMENT





# ORIENTATION & MOVEMENT

*“The real depth of experience comes as perception and imagination intertwine, producing thicket of meaning from which we can never extricate ourselves and which we can never truly order. Instead of imagination being a pale imitation of perception, perception itself collapses without the enriching participation of imagination.”*

-----From the things themselves, edited by Benoit Jacquet, Vincent Giraud



ENTRANCE  
12:00PM SUMMER

TURNNING  
12:00PM SUMMER

CITY VIEW  
6:00PM SUMMER

WATER VIEW-LOW TIDE  
7:00PM SUMMER

STONE WALL  
12:00PM SUMMER

WATER VIEW-HIGH TIDE  
7:00PM SUMMER

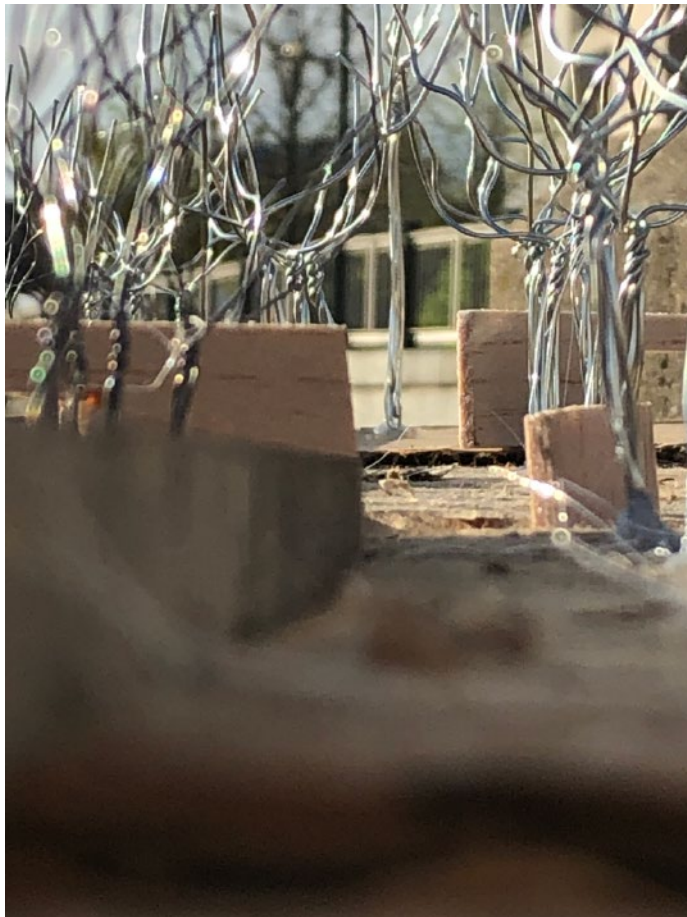
LOOKING BACK  
12:00PM SUMMER



## WORKING ON SITE

*"I suddenly saw that lines, allees and orchards/ bosques of trees, tapis verts and clipped hedges, canals, pools and fountains could be tools to build landscapes of clarity and infinity, just like a walk in the woods... a problem with using classic elements in modern compositions, for this is not about style of decoration but about articulation of space. The thing that is modern is space."*

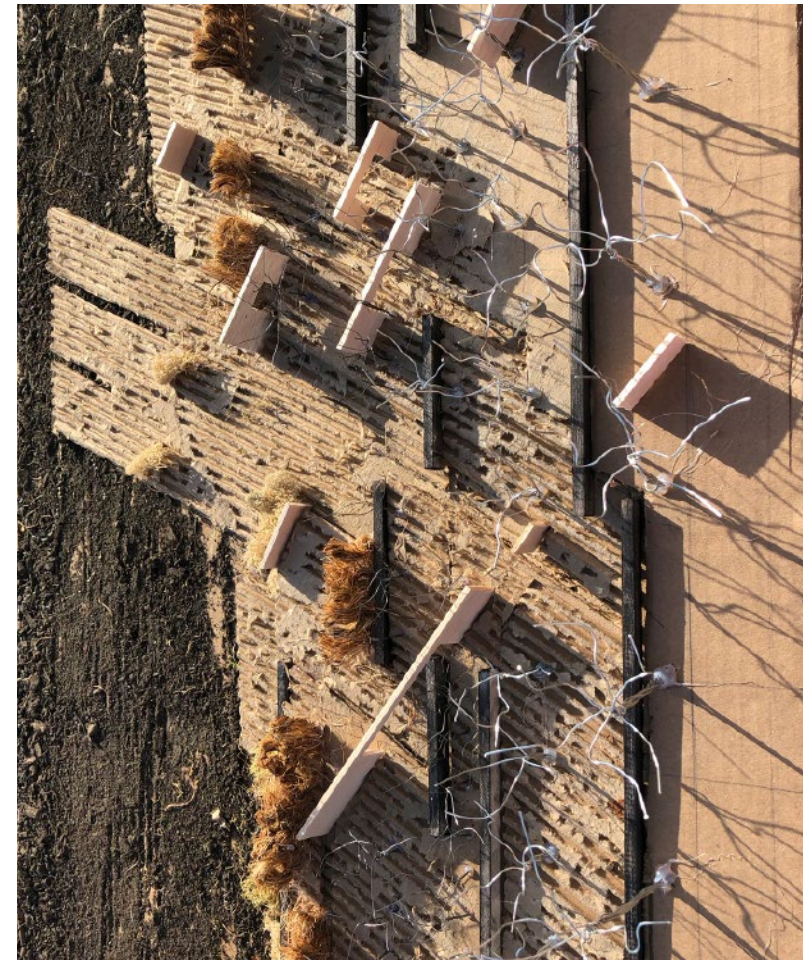
- -----Dan Kiley





# WORKING ON SITE

Plaster model of ground pavement tested on site.





# WORKING ON SITE

Model of first version tested on site.





# CRITIQUE NOTES

## WORKING ON SITE

“ How do you consider the spatial distance, for us to be prepared, to enter and perceive this condition? How do you decide the spatial scale and relationship between viewer and space? Now they are not clear in your plan. And it will be useful to build it in full scale.

”

“ What is the process of encountering the site? The transition between city and site? How can the fog change your perception, depth of view, and hierarchy? When the things dissolve and when they become solid? Where and when is the collapsing of viewpoint and story, where is the dissolving or refocusing?

”

“ The terms of operations suggest alignment or orientation. Your drawings or models should be more articulated about it. You need device, drawing, model that takes you back closely into each perspective.

”

“ Why this is important to you and to landscape architecture? How do you define phenomenal transparency yourself? How do you expand it? How can we use it to understand something new about physical condition of landscape? What do you learn from this thesis? Why it's important for me to perceive in this way? What is the difference from painter and architect?

”

“ The painter and architect, they work with phenomenal transparency in different ways. In landscape at a site, it is beyond the scope of architecture. The soil, tide, vegetation, view, light, urban context set up richer layers of phenomenal transparency which are constantly in a flux.

”

“ Theory is not just a formal tool or rule that generates design. It is for understanding complex issue in design through investigation.

”

“ It seems to become a project. You should step back and relate back to theory in conclusion. What's the usefulness of this theory? How can theory drive design? What's the specific way landscape can engage with?

”

“ The theory of phenomenal transparency was generated from a context at that particular time. The painter responded to a certain condition which was after first world war. The world as a stable state was up-side down, both environmentally and socially. It will be helpful to look at why the theory emerged at that time and maybe there is a parallel between then and now. You are working at now with different material, context, what's important for current context? Why it's still relevant in landscape aspect?

”

These notes are re-organized and refined from conversations during review according to author's interpretation.

Conversations include Faculty Advisors:  
Colgate Searle, Scheri Fultineer,  
Elizabeth Dean Hermann, Nick DePace,  
Emily Vogler, Nadine Gerds,  
Suzanne Mathew, Emily Mueller De Cells

# ASSESSMENT & REFLECTION

## WORKING ON SITE



Phase 3 is a design driven process, which configures and synthesized the ideas from the previous research, case study and experiments.

Working and testing on site contextualize the generic operations of phenomenal transparency. On one hand, it rebuilds and enhances the relation between site and city; on the other hand, it creates the real condition that spatialize the landscape phenomenon of light and water. Experiencing it and imagining it based on real environment with light and tide, with direct connection of city, gives author the opportunity of occupying the discrete moment created by models.

The matrix of proposed condition, spatial operation, register and parameter has been established through specific design project and the theoretical thinking starts to be grounded.

However, there are some problems unsolved:

1. The scale and distance of wall needs to be considered more rigorously.
2. The frames created by wall and vegetation need to be more intentional.
3. How to achieve the ground plane's texture from concept model hasn't been figured out, especially about how the ground collects storm water.
4. The project hasn't been explored fully in aspect of landscape architecture due to time issue. For example, what's the unique quality of landscape material or can the wall be replaced with vegetation? Or how can the different walls of various structures and materials create habitats in tidal zone?
5. Being too concentrated in design project results in the missing of reflection on theory . Need to step back and re-consider theory within current context through the lens of landscape architecture.

To be continued...

# OVERALL ASSESSMENT

## CLARIFICATION OF GOAL

The thesis question was not clear and narrow enough at the beginning and it was hard to be focused without deeper understanding of the theory especially with limited reference in both architecture and landscape architecture. At the end of phase one, a linkage between formal operation and experience was set up and then the goal became clearer and it got expanded in phase two because of the discussion of infinite landscape phenomenon and experience through types of operations. The goal wasn't fully clarified until the conditions at specific site were identified. The whole process would have been more cohesive if the specific question could be asked at the beginning. The topic was broad and involved many sub-topics. Considering the time frame, it would be more efficient when focusing on just a segment of this topic.

## SUBJECT MATTER

1. From painting to space:

Achieving implication and multiple readings in 2D world is much simpler than in 3D. This has been the most challenging step in this thesis because the uncertainty of space or time can be imagined from cubism painting because the physical scenario of painting is unknown. When it comes to space and our traditional experience of space, the physical form we set up is certainly there and without any other possibilities. Even in Colin Rowe and Slutzky's book, the process of unfolding space hasn't been clarified and diagrammed. So the ambiguity of formal plan and top-down grid was too much emphasized at phase one and the research wasn't able to be moved forward until the phenomenological concept was brought out. It opened up a broader definition of space, which critiqued the space as absolutely physical reality but acknowledged the human body and perception. Therefore, the space became unfixed and could be unfold through embodied experience.

2. From architectural space to landscape:

The material landscape architecture works on is different from architect. Purely artifice in architecture is born with articulation and intention such as a wall, an alley of columns, a window and a door. It has been confusing at first on how to move from an architectural theory to landscape and which element should be consider. The formal order of transparency also pointed to the urban scale in terms of environmental collage, which has been distracted the goal for a while. The

material of vegetation or else in landscape is subtle and the landscape phenomenon is ephemeral, which creates distinguished difference in characteristics.

3. From theory to design:

There was a gap between theory and design during this thesis. Descriptive writing set up the narrative and intangible sense of experience which became extremely difficult to be created through the application of a design project. The simultaneous perception, the scenario of body moving the space with time, the multiple possible projection of physical space though perception, the imagination intertwined with perception...These were all difficult to be saptialized.

## LOGIC OF PROCESS

The rigorous logic and structure was constructed through process with several refinement. So even this thesis missed clarification of goals at some point, it was still in a logical process of constructing a clearer goal.

The design matrix at phase 3 is framed but wasn't figured out thoroughly.

## DESIGN OUTCOME

The tested design outcome was satisfying. Proposed condition and event were created in time-space relative to movement. Physical model on site was effective and authentic.

The design outcome successfully integrated previous operations and carried both quality of formal space and ephemeral space.

## CONVINCING REPRESENTATION

A convincing representation hasn't been found. New analytical device or method beyond traditional models and drawings need to be created. The physical model allowed some tests but need to be in larger scale so the movement in the space could be captured. A full scale installation might be both analytically effective and convincing.

# FINAL CONCLUSION

## SENSE OF PLACE

The whole research started from the interest in "sense of place". Author's previous projects focused a lot on site-reveal in terms of collective memory of history. Through this thesis, the understanding of "place" was deepened. It was enlarged from the scope of collective memory to individual and subjective memory and experience. It was broadened from the focus on history : "a place as an emblem of past, present and future time"[1], to "originally the dwelling of other, characterized by natural element of light, wind and water" which "does not represent an homogeneous ideal of empty space, but instead is full of fear and surprise, a reflection of the pre-existing flow of natural elements." [2] This idea was grounded during last phase when several conditions on site were identified and was achieved when the final design spatialized water and light.

Integrating historic context through phenomenal transparency is a way of approaching place-making while re-framing and spatializing the natural phenomenon on site and bring it into a dimension that can be grasped, comprehended by human is another phenomenological trial.

If talk about memory then we cannot minimize the awareness and if talk about experience then we cannot separate the perception and imagination. How fascinating that the quality of phenomenal transparency can satisfy both and how powerful it can be applied in landscape design with unique material from nature! When one fully occupies that instant moment with entire and mutual engagement of your body and mind, as a personal way of being in and being present at this natural world, the configuration of "dwelling" is substantiated. And therefore answers the questions of what can landscape do and why it matters to individuals.

### Reference:

1. What time is this place, Kevin Lynch
2. Relph, 1976
3. Pallasmaa, The eye of skin, p17

## ARTICULATION OF SPACE

The world is complicated, the space and time are infinite, environmental design is able to bring them into human measurement and understanding. Phenomenal transparency emphasizes on the simplicity and articulation of complex or even conflicting organizations because it allows simultaneous perception and the multiple possible readings are always fluctuating. It has the ability to unveil the mystery layer by layer and to fold them into an extraordinary richness.

In landscape architecture, we see the trace of layering and subtle landscape phenomena , we see the in-between characteristics of vegetation, ground, or ecotone, we see the flux of urban context, but it hasn't been articulated as a device that can generate space, evoke sense of place and as an investigation for us to measure and understand the things beyond us.

## IN-BETWEEN

With a background of Asian aesthetics, the author was always fascinating by the space in-between. In Chinese is the character of "间" and in Japanese is the time-space continuum of "ma". Before this thesis, the interest was more intuitive but through the whole process, the author can clearly see the connection between traditional Chinese or Japanese garden and embodied experience. Phenomenal transparency bridges the western view with Asian perspective and also associated with Phenomenology and Quantum Physics. We may encounter infinite possibilities at each interval, based on all the relative and ephemeral perceptions. As Merleau-Ponty saw "an osmotic relation between the self and the world, interpenetrating and mutually defining each other"[3], then, where does this world exist?



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To myself,

Please remembering the questions you've asked today and keep finding the answers tomorrow.

Because,

*“This will happen again and again if you are open and free like young children, as you spend time on the land and listen with no expectations; life’s mysteries will be revealed over time.”*

*--Re-Envisioning Landscape Architecture, Catherine Spellman*



