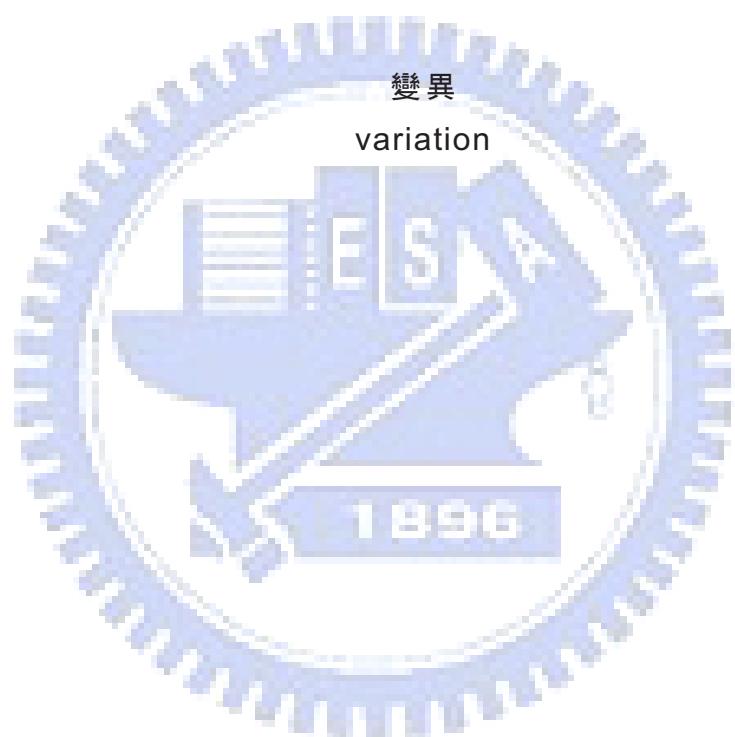
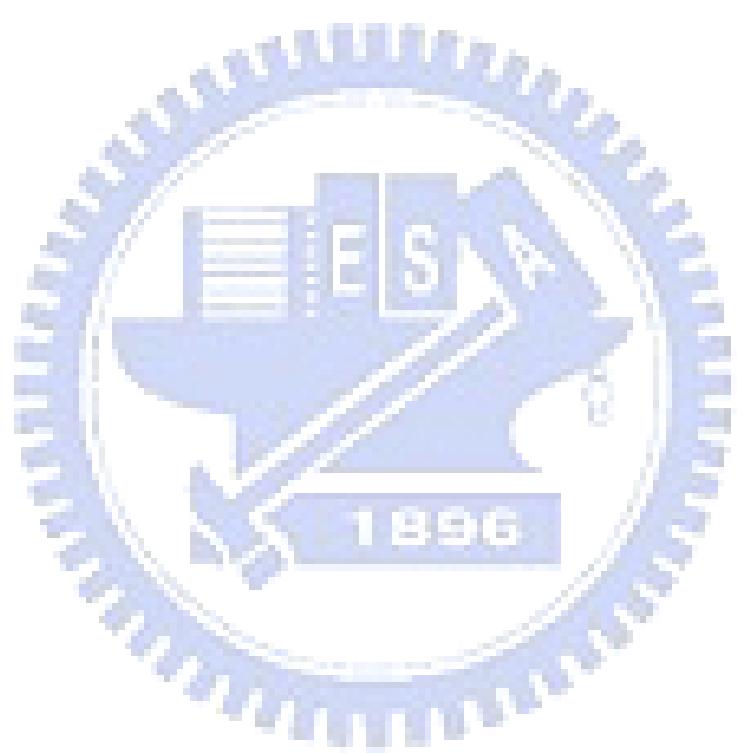


國立交通大學  
建築研究所  
碩士論文



研究生 吳柏璋  
指導教授 張基義

中華民國九十八年七月





變異 | Variation

Variation of Boundary - Variation of Spatial Activity  
Variation of Information - Variation of Landscape

# 變異 | Variation

Variation of Boundary - Variation of Spatial Activity  
Variation of Information - Variation of Landscape

## Abstract

空間具有一定的特性，區別了不同的空間屬性，藉由探討與空間相關議題，諸如活動、邊界、地景、資訊、機能之間的互動性與變異性，並透過對空間活動的再定義，尋找空間的其他可能性，以發展出新的空間行為。在這樣的變異空間中，產生矛盾與縫隙，也產生可被討論的第三空間。

建築不僅構築一個家、一個城市、一個場所、一個記憶，隨著時間軸的變動，各種因子也跟著有所改變。設計研究的方法及過程中藉由碰觸這些變因找尋可能性，先追溯自我空間概念形塑之進程、空間與物件的矛盾與曖昧；從個人觀點嘗試提出空間相對於在地建築現象的分析及論述。

邊界的變異，空間活動的變異，資訊的變異，地景的變異，分別以同樣的觀點探討四個不同主題的觀點。邊界的變異中的規劃設計概念，以創造出不同的空間概念，則是探討台灣本土常見的居住空間，則是探討台灣本土適合民生資訊的結合，進而轉換創造出適合於民間的資訊如何結合，為虛擬空間與實體空間的發想，為當代網路空間實體化做出新的詮釋，創造出新形式數位圖書館。



## Variation

Variation of Boundary - Variation of Spatial Activity  
Variation of Information - Variation of Landscape

## Abstract

Spaces have their own characters and are therefore distinguished into specific types. With the study on the interaction and variation between space related issues such as activity, boundary, landscape, information, and program and the redefinition on activities, new spatial behaviors occur through these processes of looking for another spatial possibilities. Contradiction and interstice come into being in such variable spaces. A discussible third space is also created.



## 變異 | Variation

Variation of Boundary - Variation of Spatial Activity  
Variation of Information - Variation of Landscape

### Content

III\_前言 / 變異

IV\_Prologue / Variation

VI\_Content



邊界的變異  
Variation of Boundary

**01\_Chapter\_01**



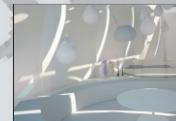
空間活動的變異  
Variation of Spatial Activity

**33\_Chapter\_02**

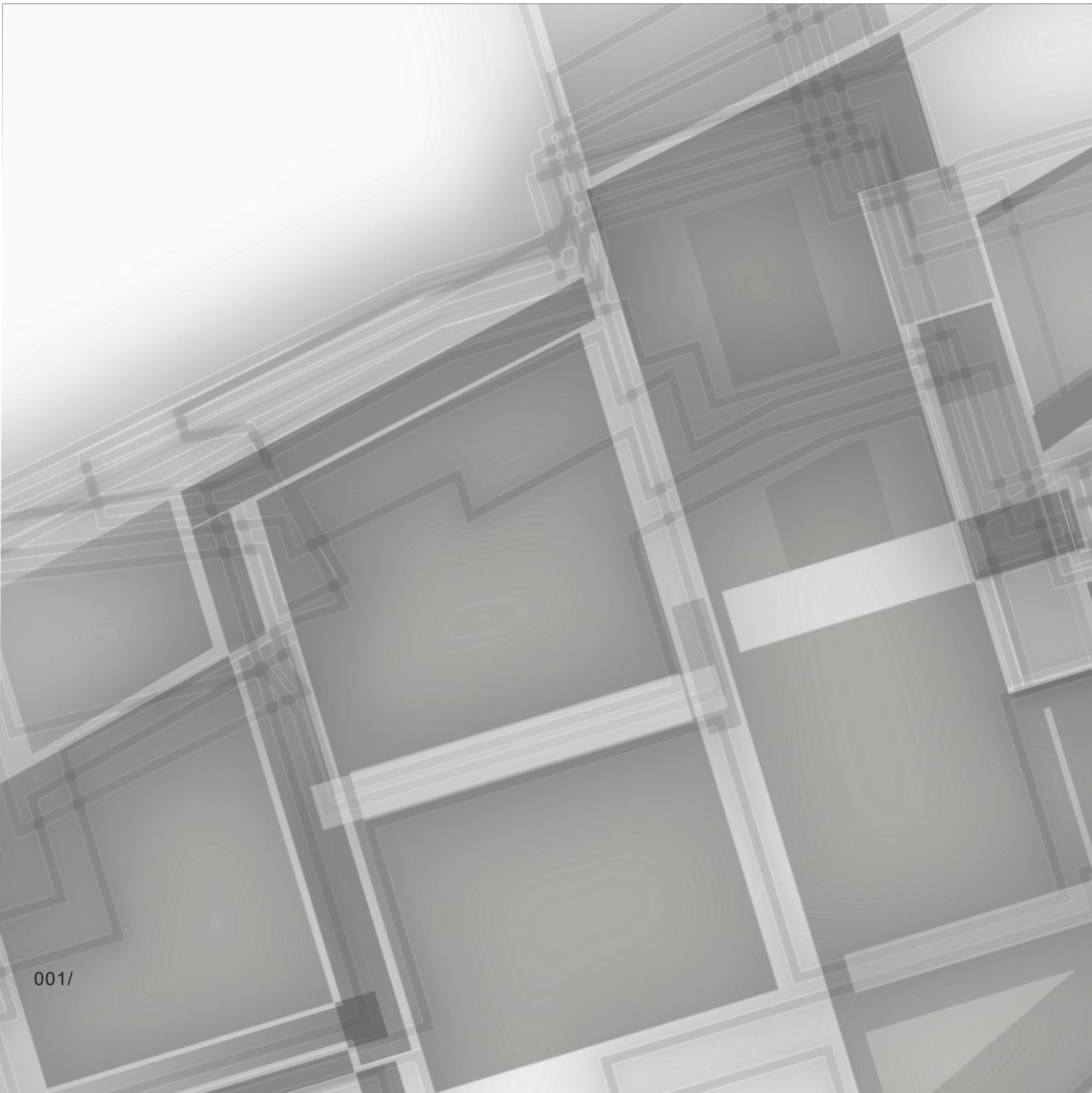


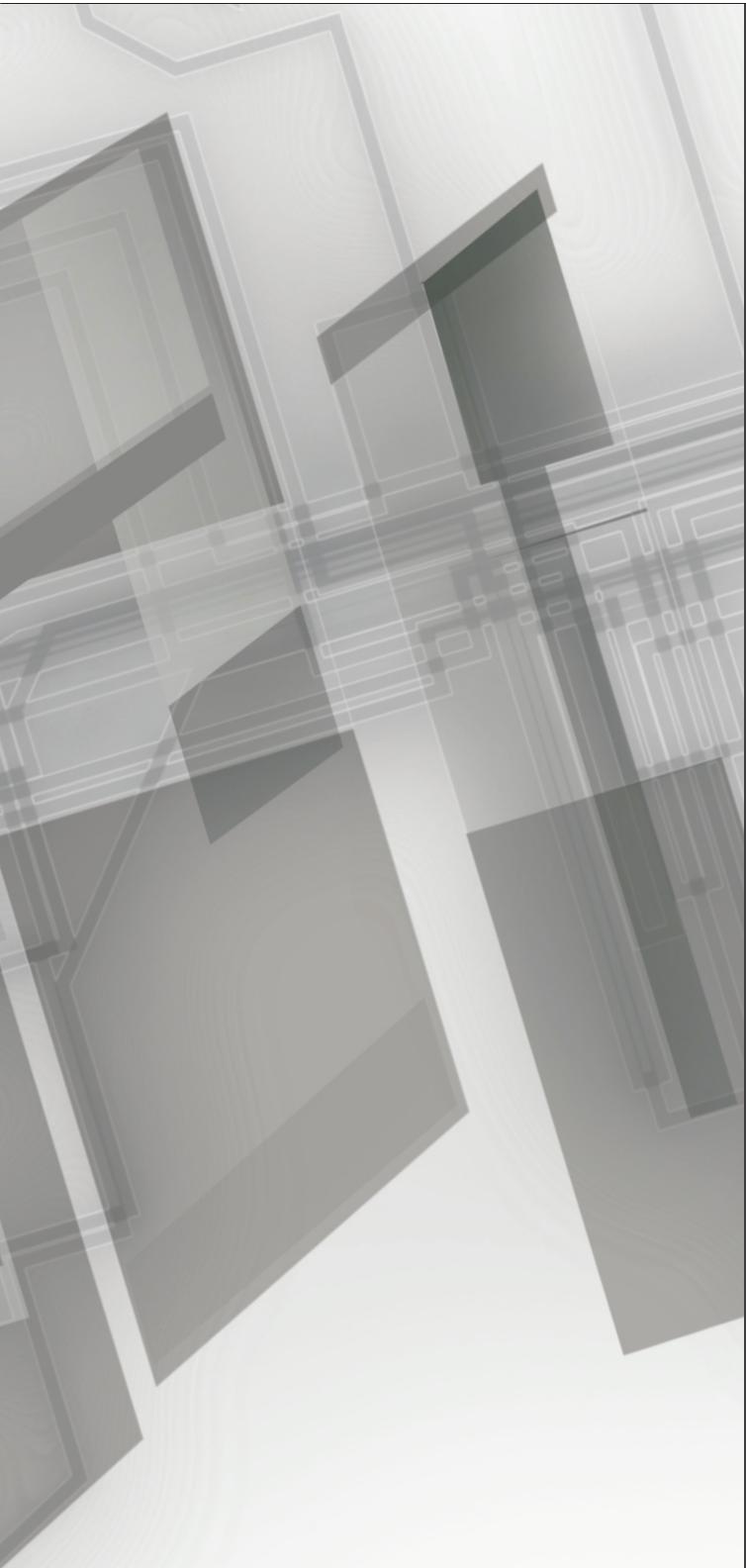
資訊的變異  
Variation of Information

**61\_Chapter\_03**



**77\_Chapter\_04 Comptition**





## 交通大學校園規劃 NCTU Campus Planning

移動邊界 /  
空間中因各種因素造成了邊界的存，再此研究中去發現及再定義[邊界]，經由控制變因後出現新的邊界，這可變可移動的邊界，所界定新的空間。

邊界的變異  
Variation of Boundary

### Chapter\_01



Advisor : David Tseng & Wei Tseng  
Location : Taiwan / Hsinchu  
2009



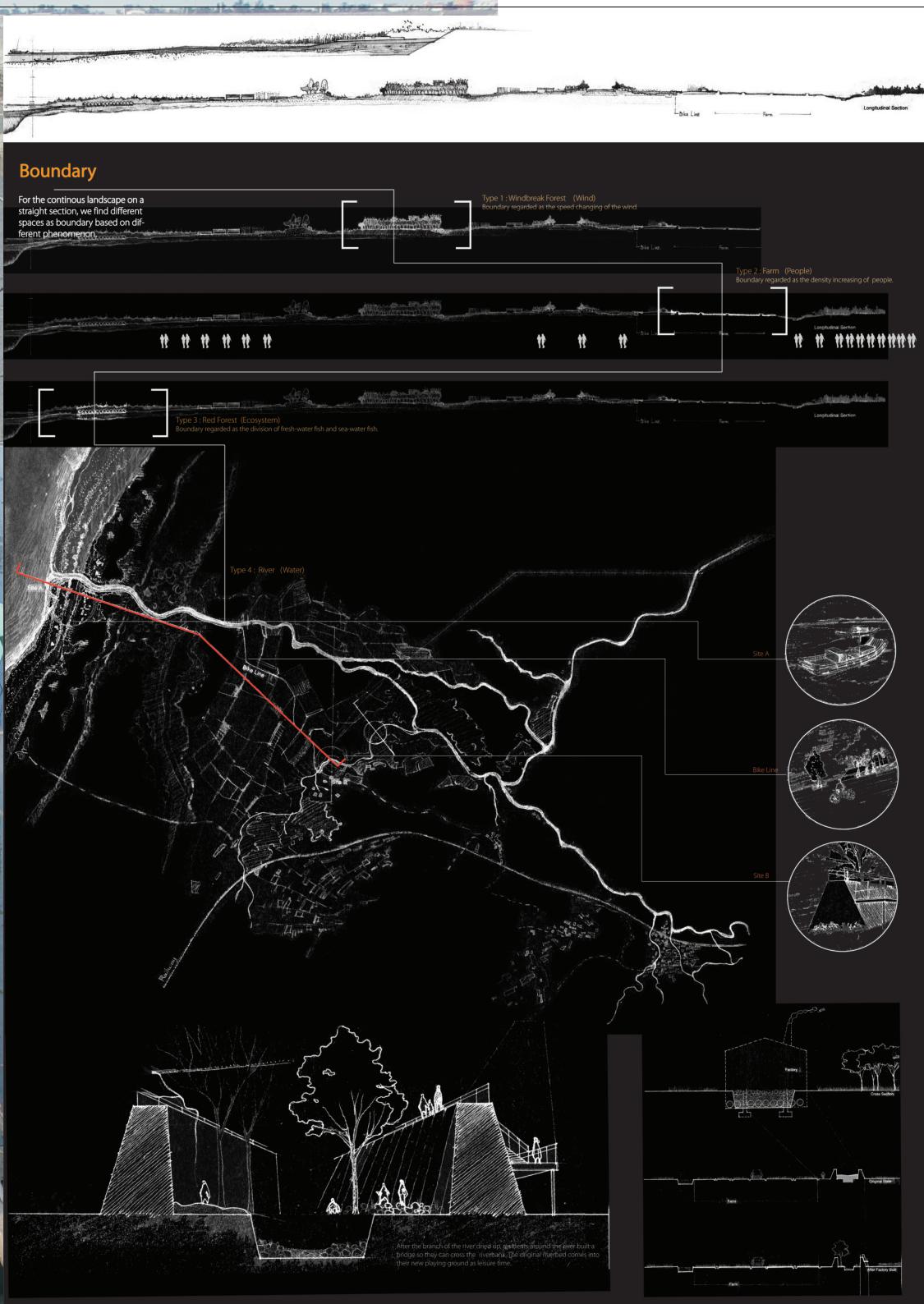
The TEA/

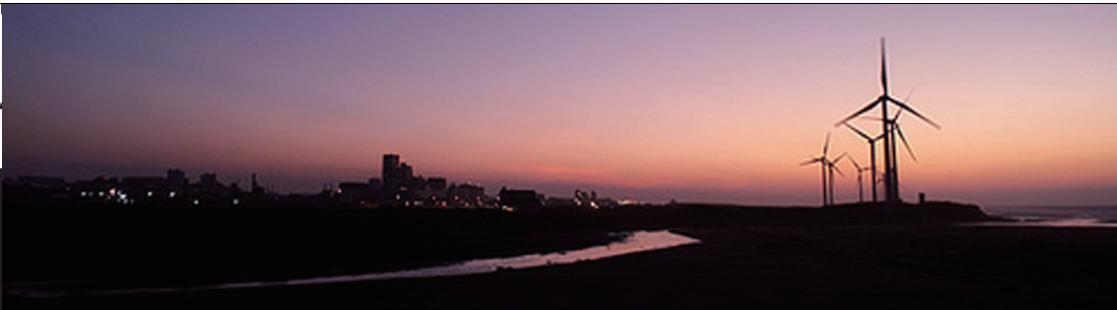
003/



connect





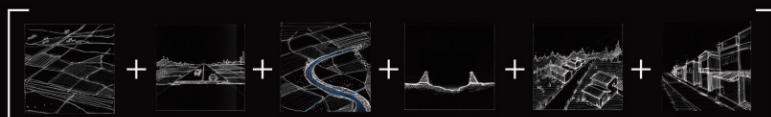


## Boundary

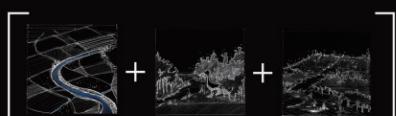
For the continuous landscape on a straight section, we find different spaces as boundary based on different phenomenon.

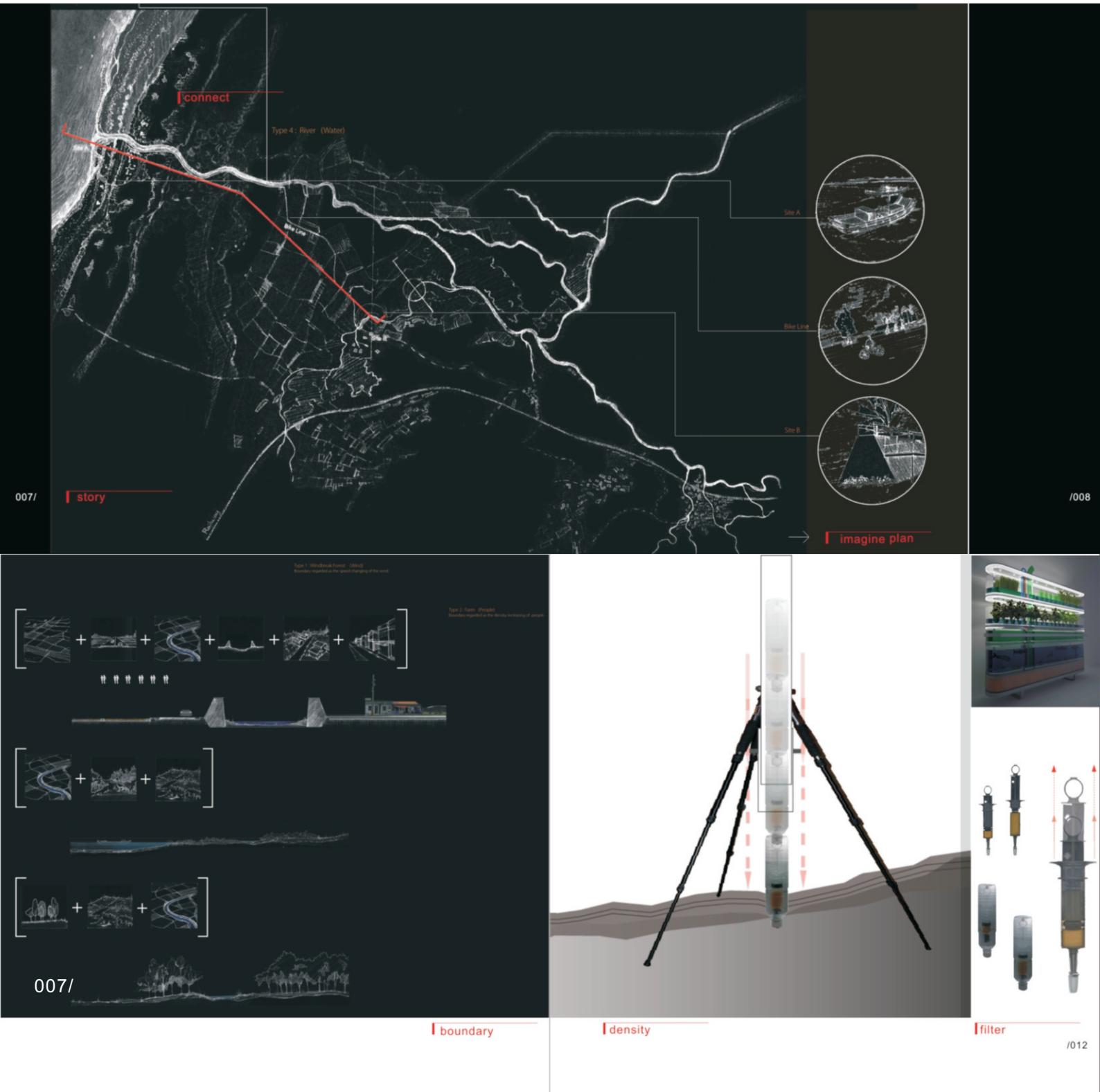


Type 1: Windbreak Forest (Wind)  
Boundary regarded as the speed changing of the wind.



Type 2: Farm (People)  
Boundary regarded as the density increasing of people.



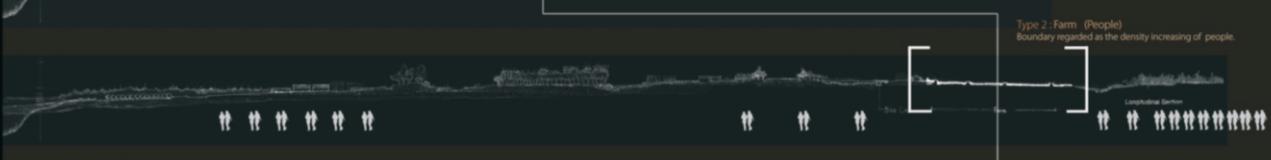


## Boundary

For the continuous landscape on a straight section, we find different spaces as boundary based on different phenomenon.



Type 1: Windbreak Forest (Wind)  
Boundary regarded as the speed changing of the wind.



Type 2: Farm (People)  
Boundary regarded as the density increasing of people.



Type 3: Red Forest (Ecosystem)  
Boundary regarded as the division of fresh-water fish and sea-water fish.



After the branch of the islanded oak, children around the river built a bridge so they can cross the riverbank. (the original blurred corner into their new playing ground as leisure time)



/010

009/

## Dynamic Balancing



Original section



Originally, the river spread on plane, the dynamic force like the river bending.

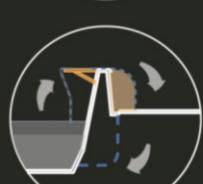
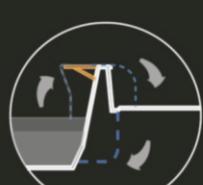
After riverbank built, the water spread along the vertical axis.



Original section



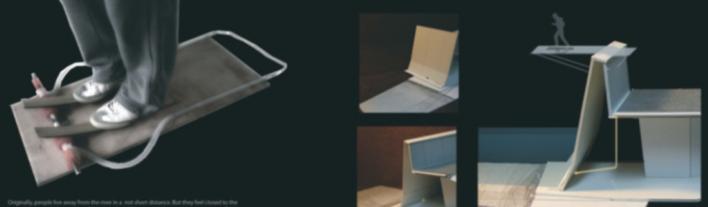
Exchange



Type 1

Type 2

Type 3



Originally, people live away from the river to a red about distance. But they feel closed by the water. Now people live just beside to river, but they don't really sense the water space for they always the water as a relaxing space. So we are now trying to make the river to get closed by the water again. Our intention is to make the river and the boundary

blurred

boundary

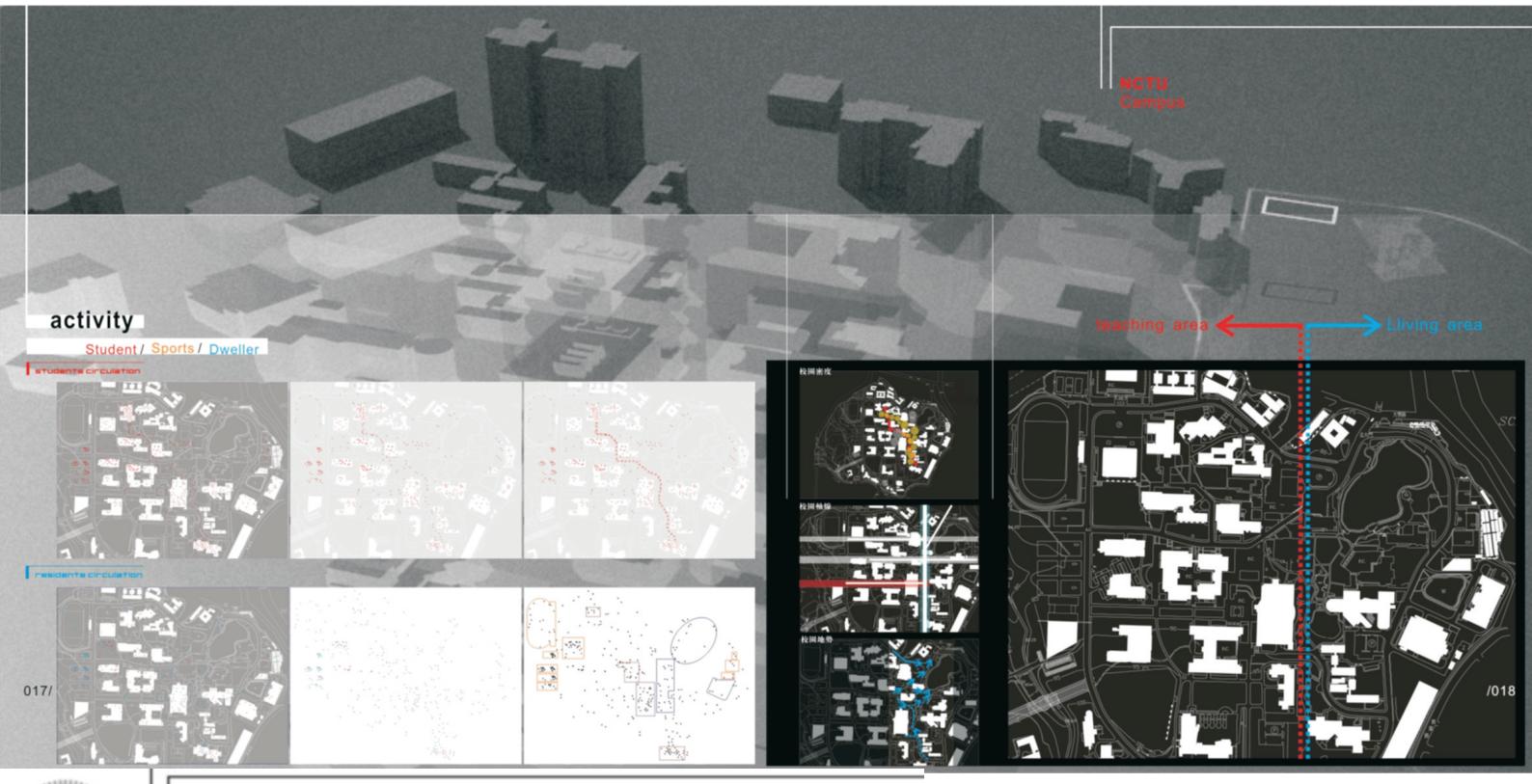
element

blurred boundary

/008

/013





NCTU  
Campus

/010



## Materials Reaction Activity

Elemente



011/

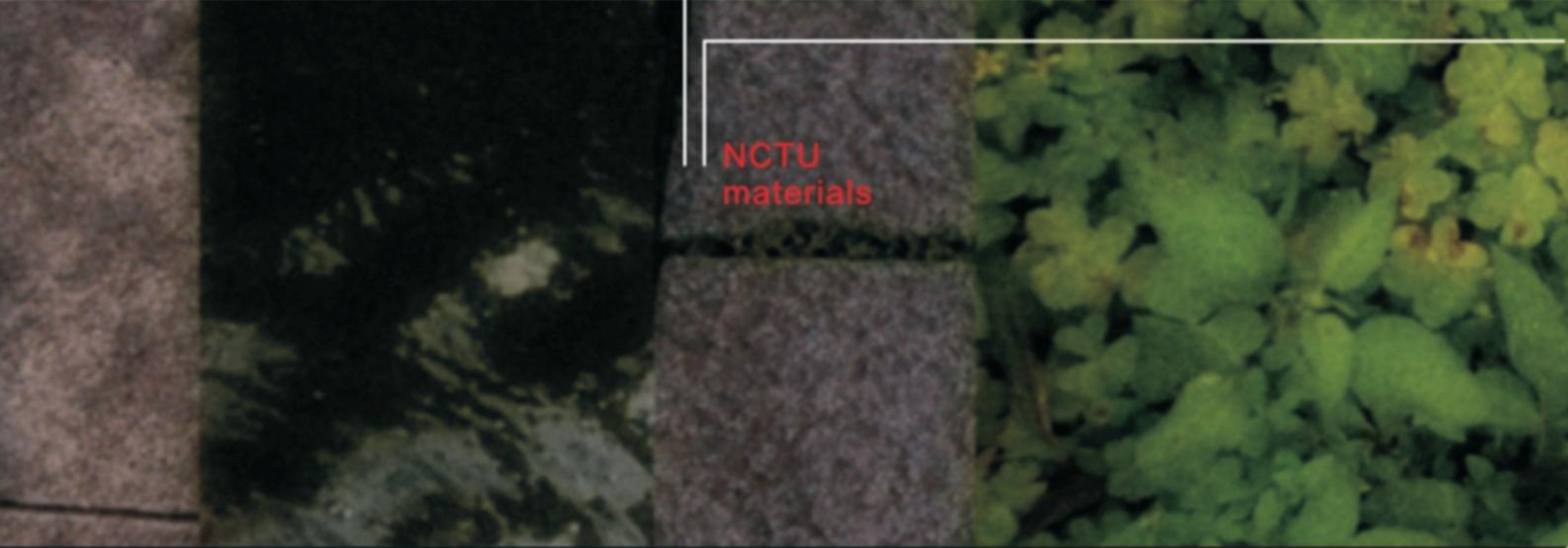
Density  
&  
Boundary



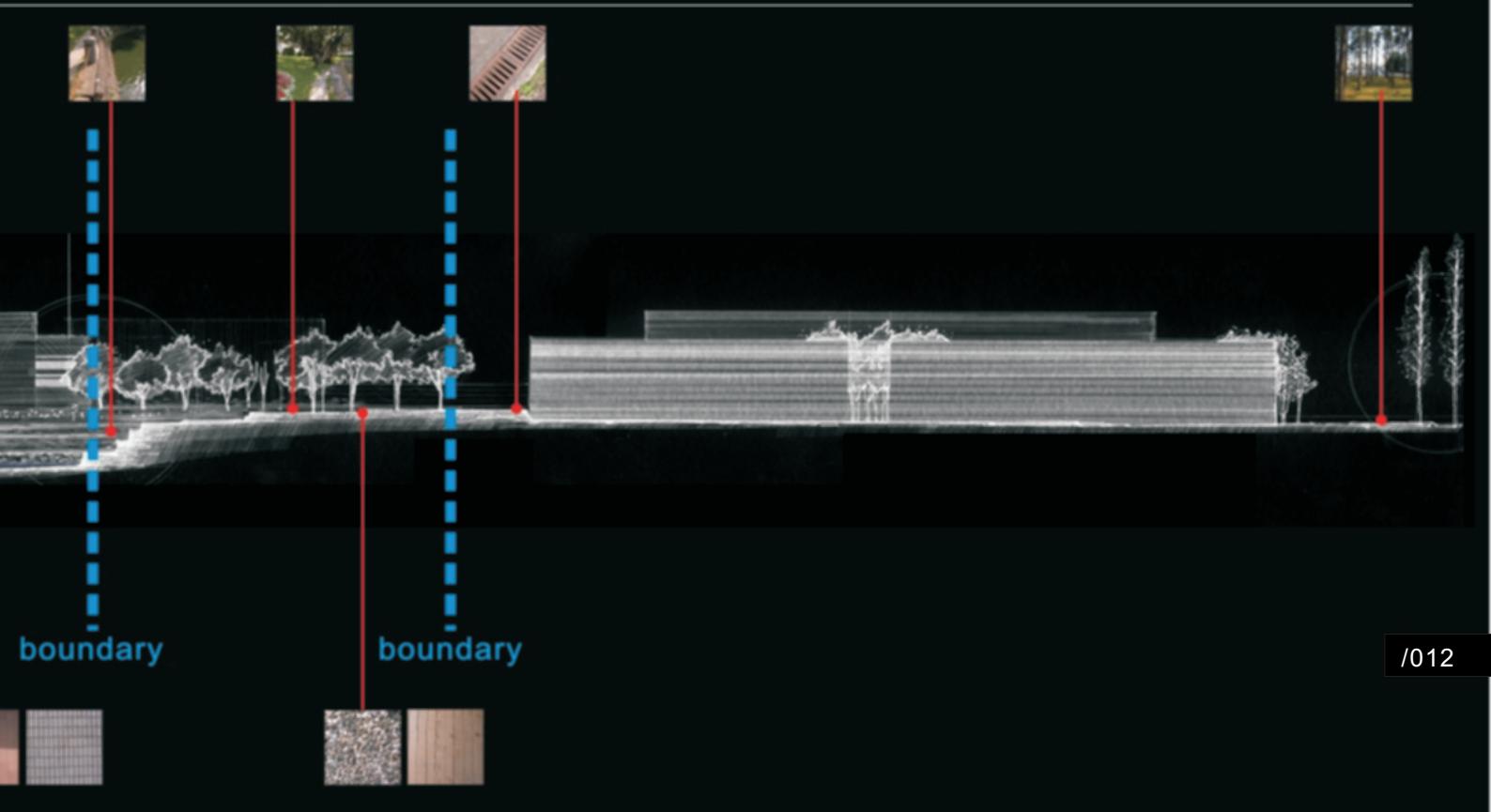
boundary

boundary





NCTU  
materials





Materials Filter

Day & Night Activity

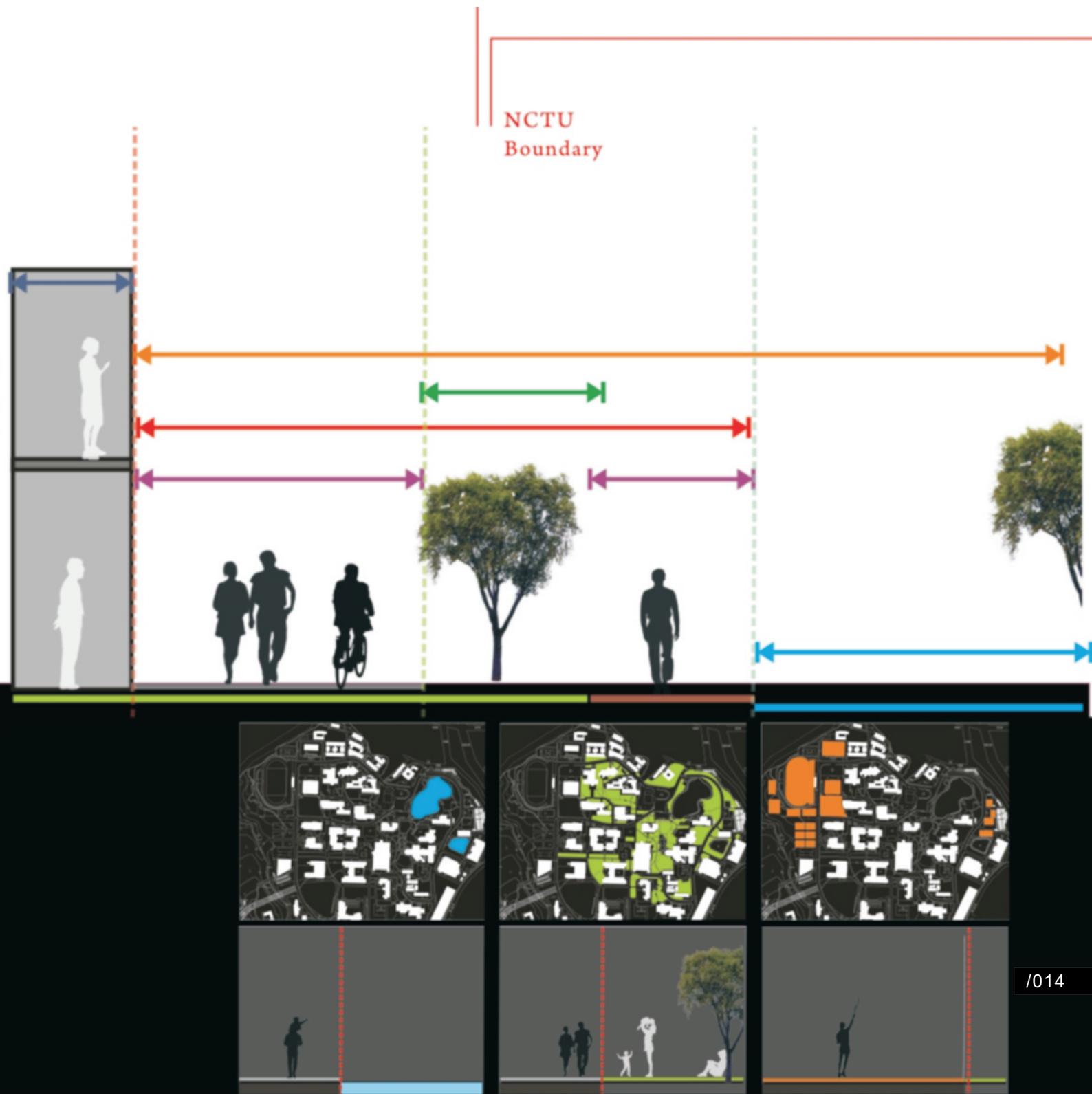


TIME AM:0800-PM:0600

013/



TIME PM:0600-PM:1200



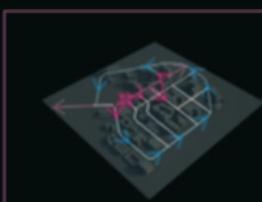
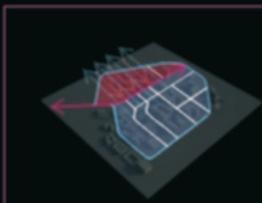
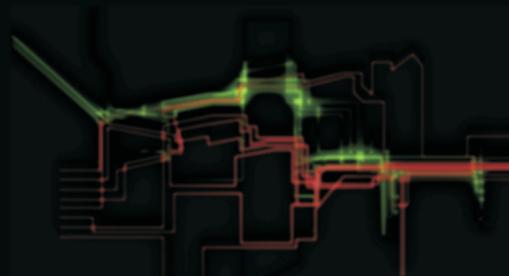


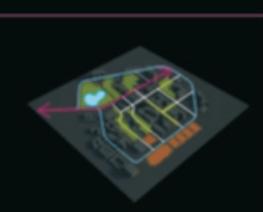
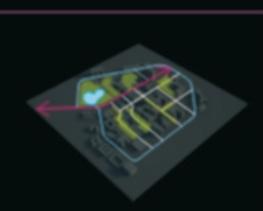
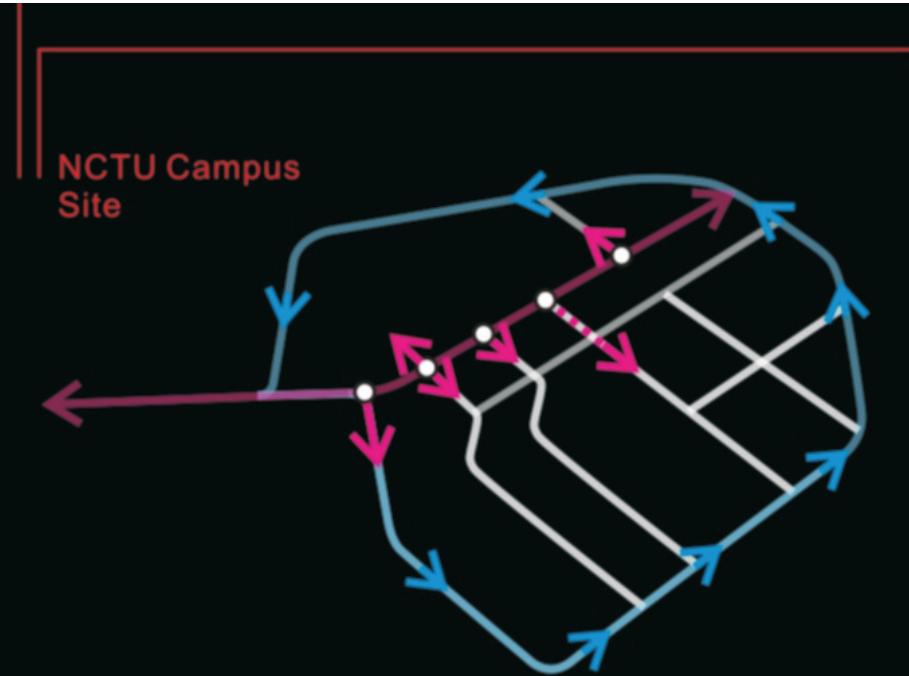
## Concept

concept model

## circulation - students & residents

Campus circulation

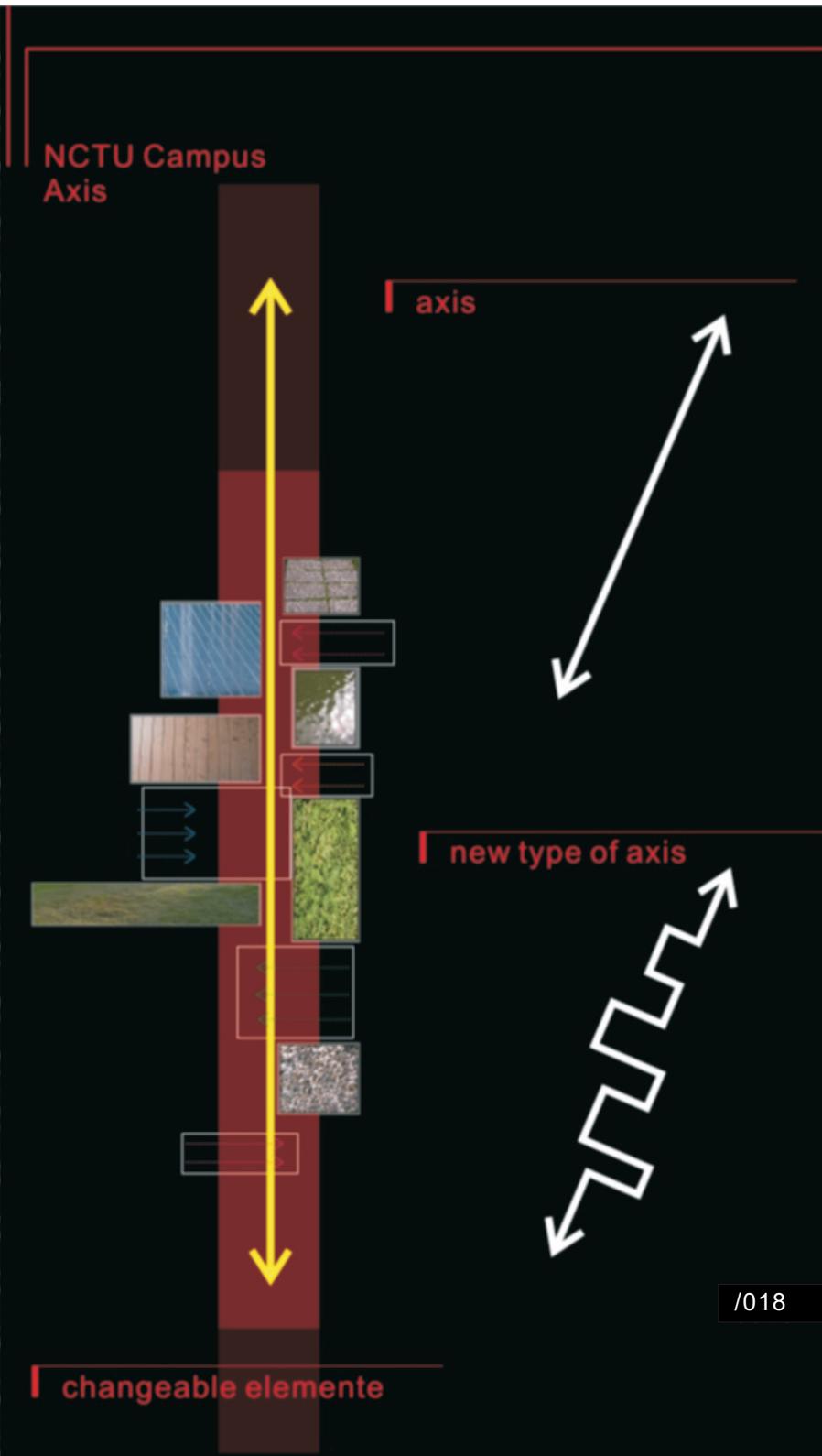


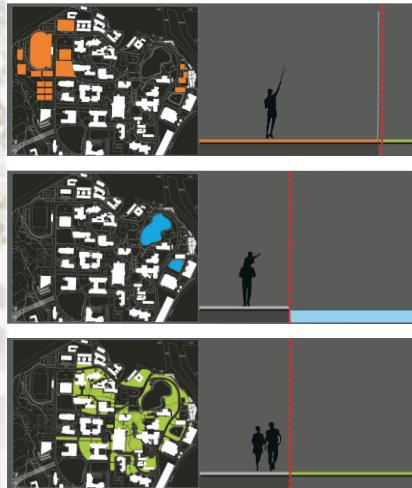
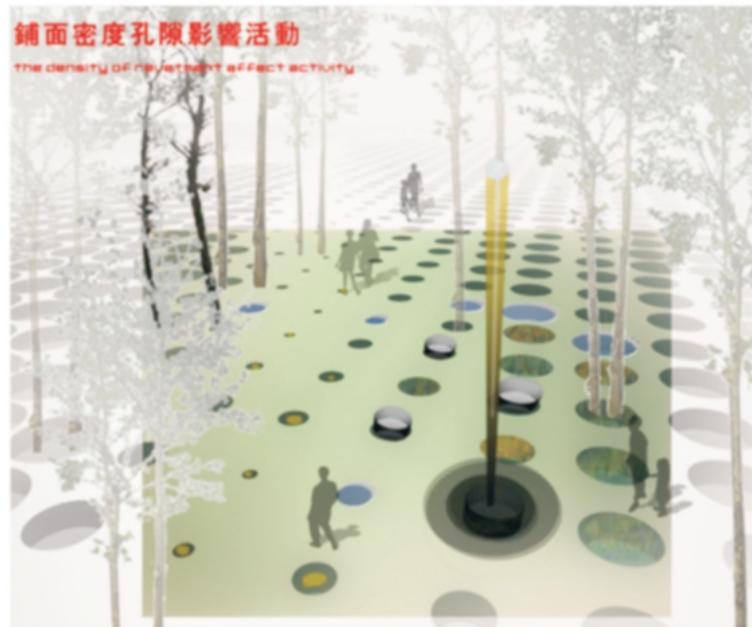


**Concept**

concept model







## site activity

### activity study

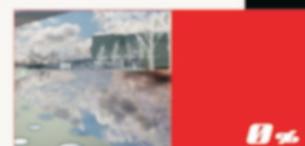
rainy day

0-2hr

2-4hr

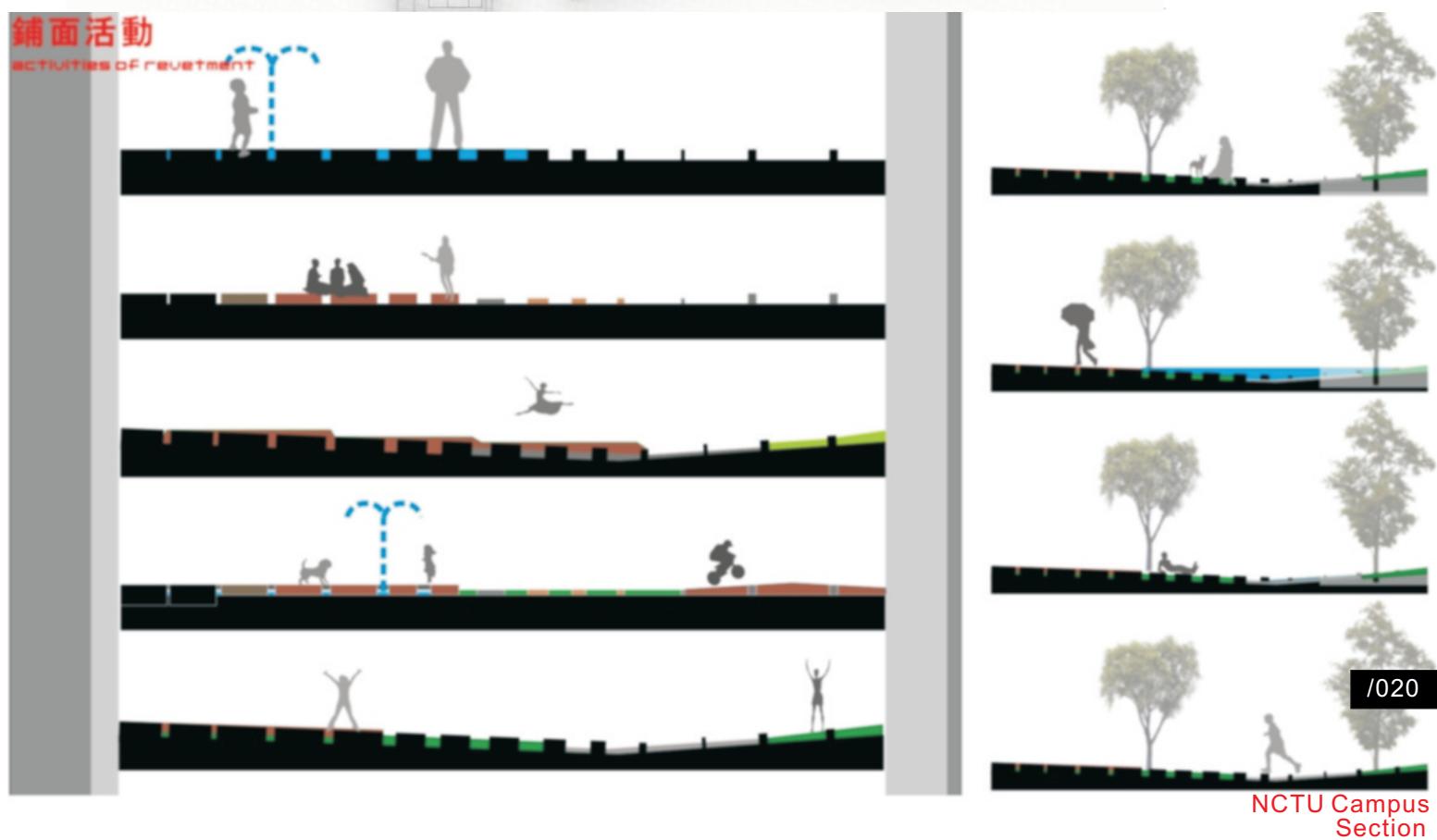
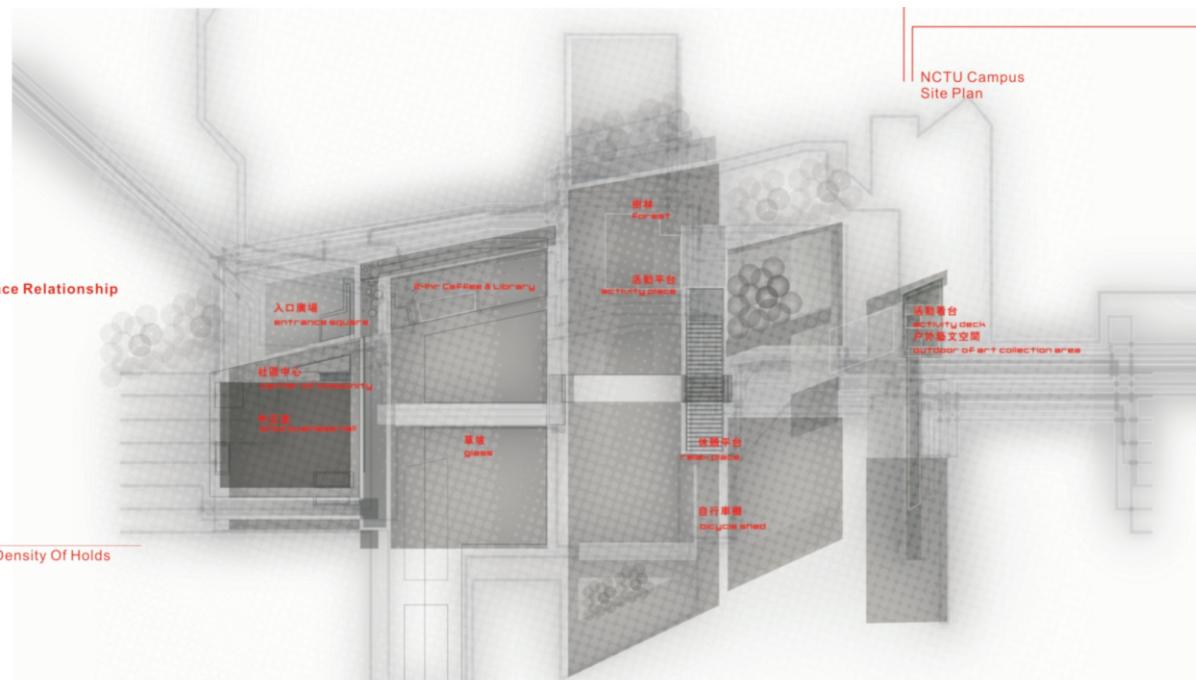
4-6hr

穿越率  
the ratio of pass



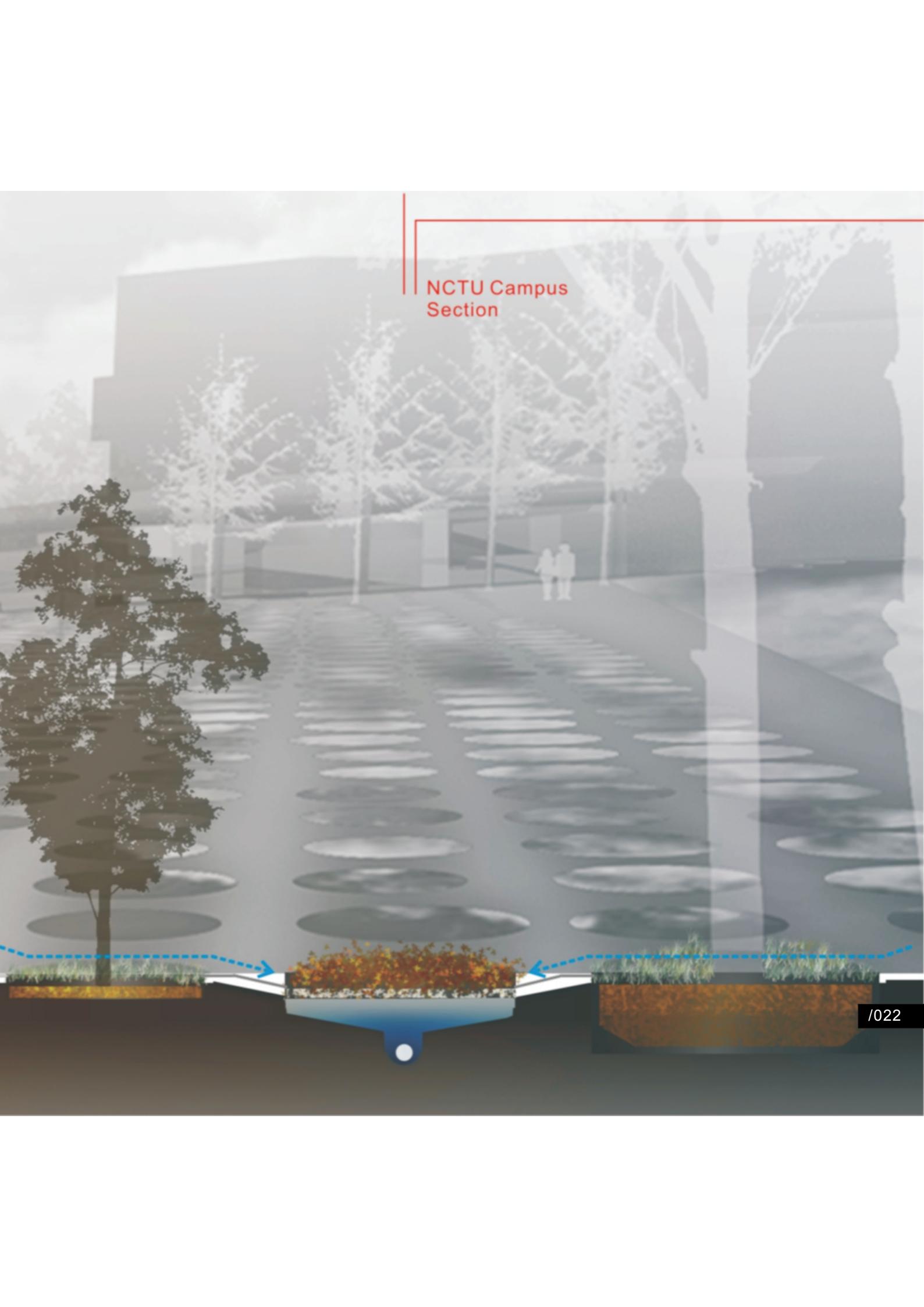
通水率  
the ratio of contain water



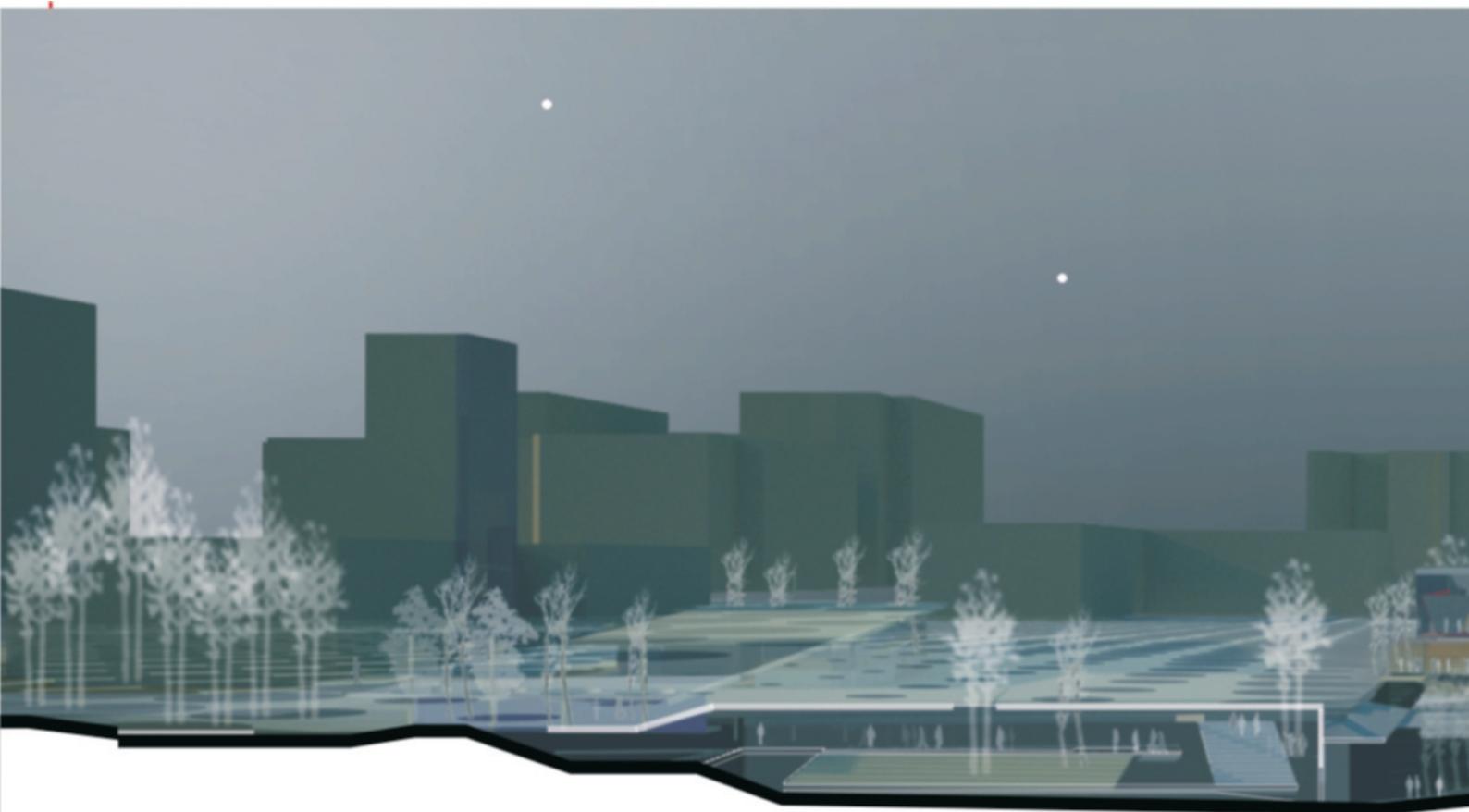




021/

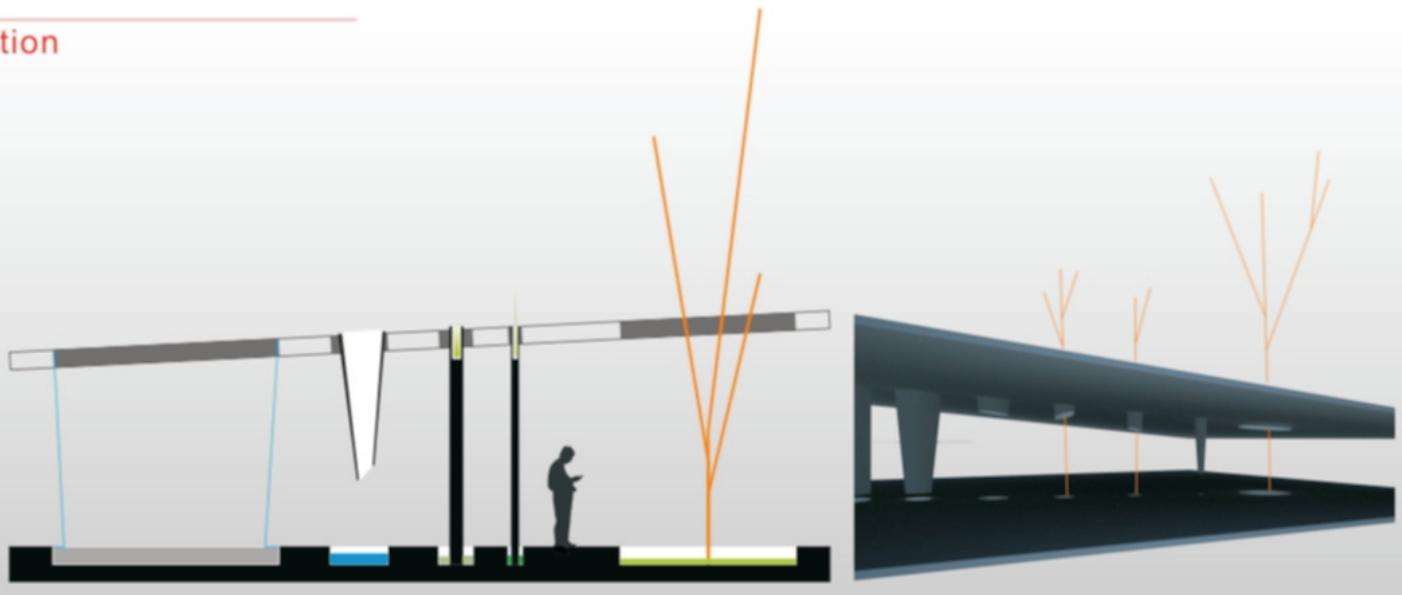


NCTU Campus  
Section

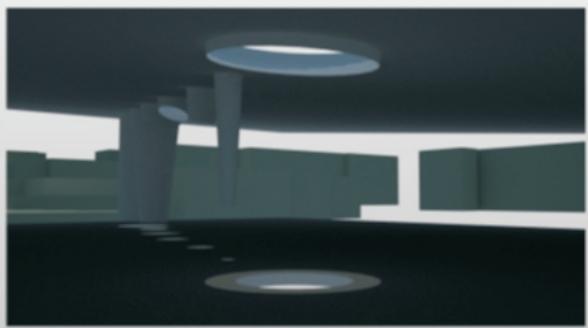


section

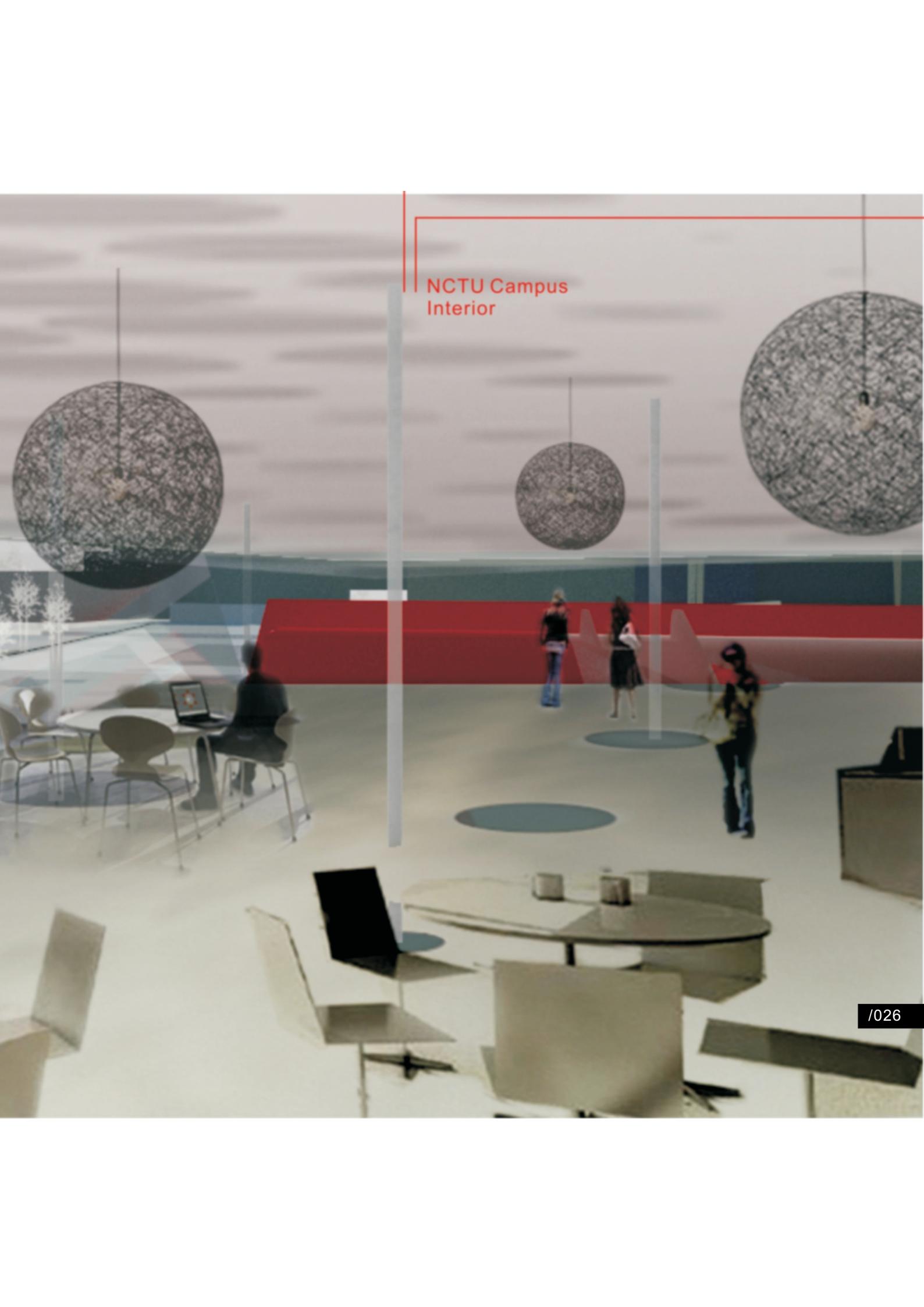
023/



NCTU Campus  
Site Plan







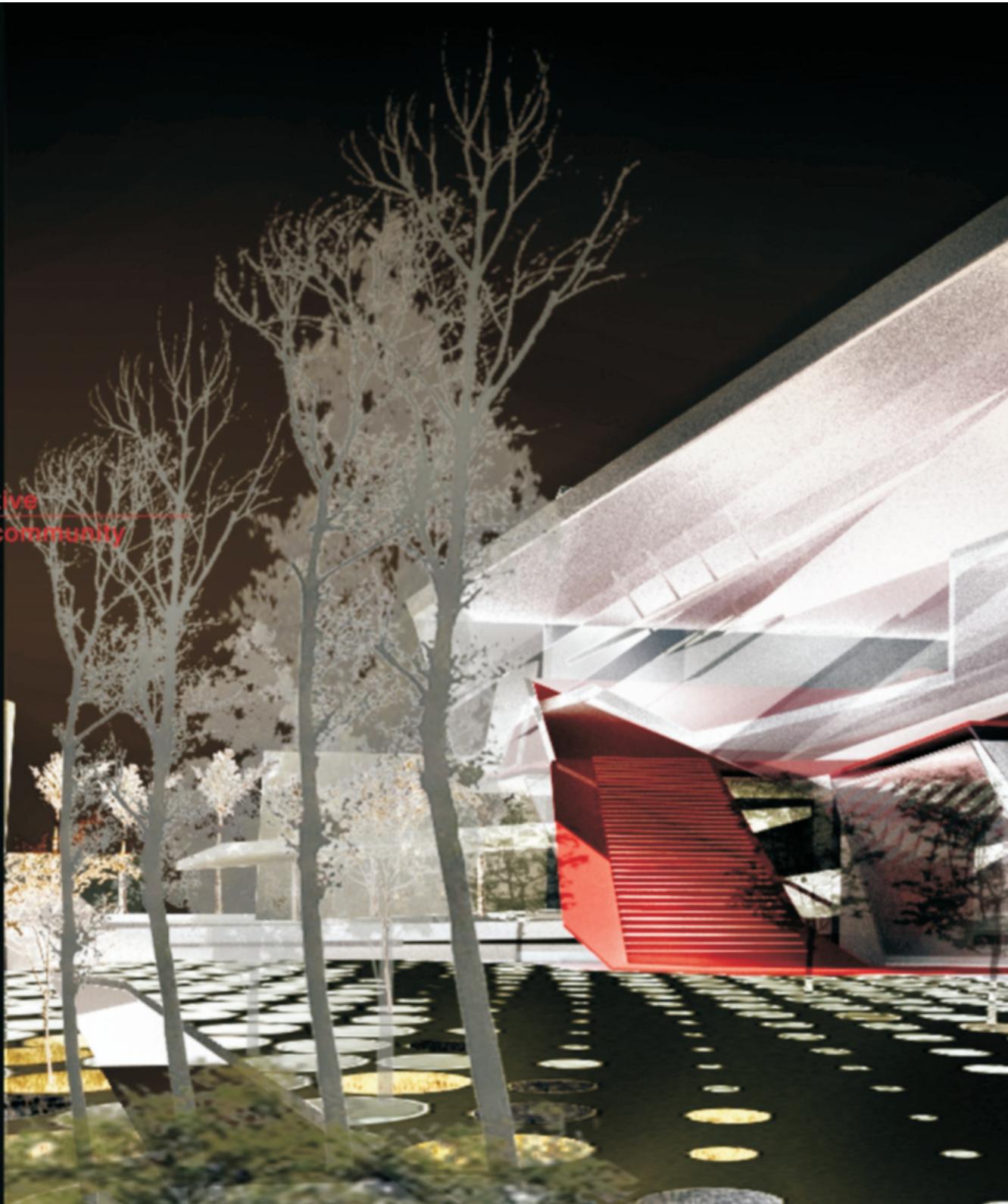
NCTU Campus  
Interior

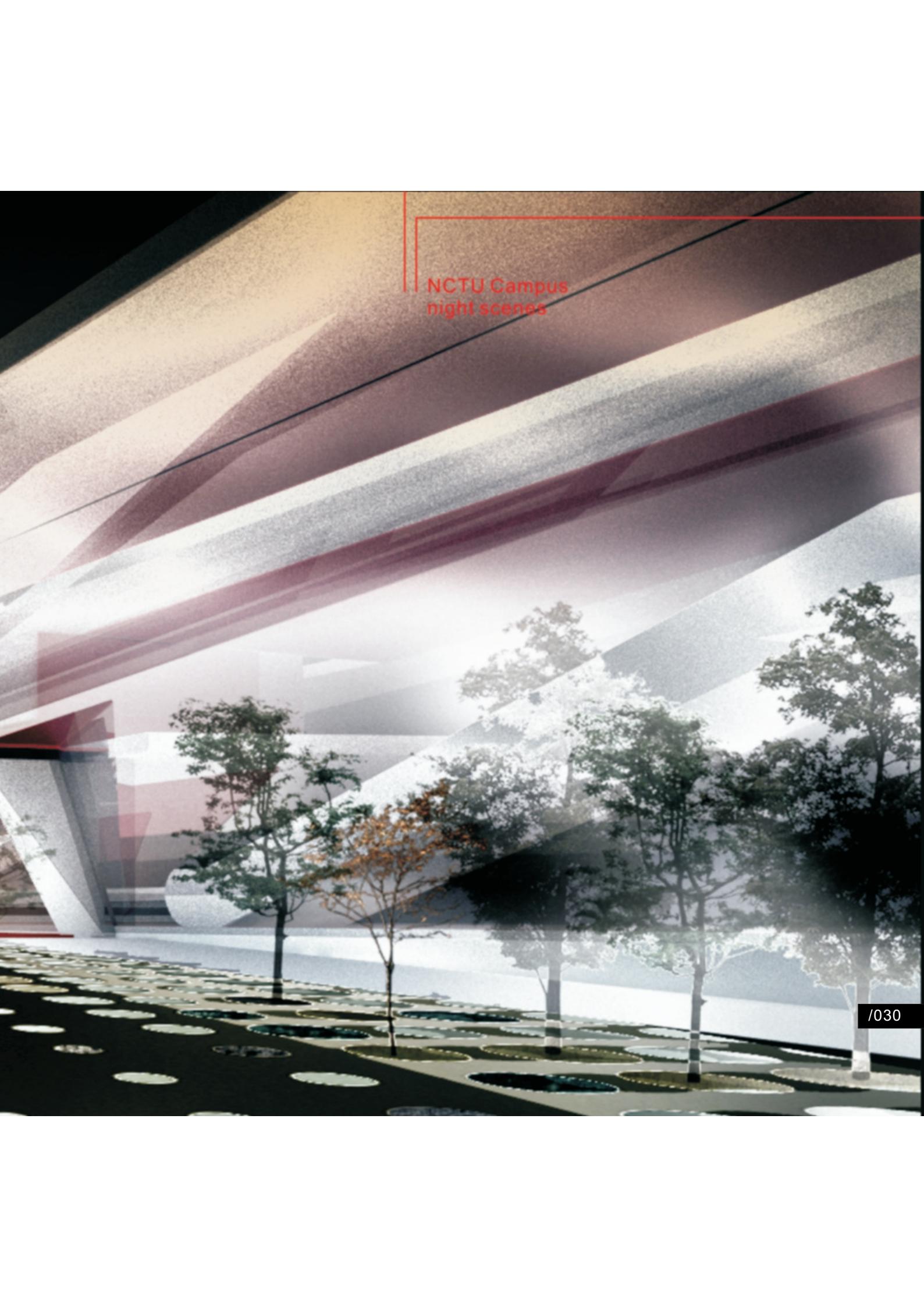


NCTU Campus  
Interior



**perspective**  
**center of community**

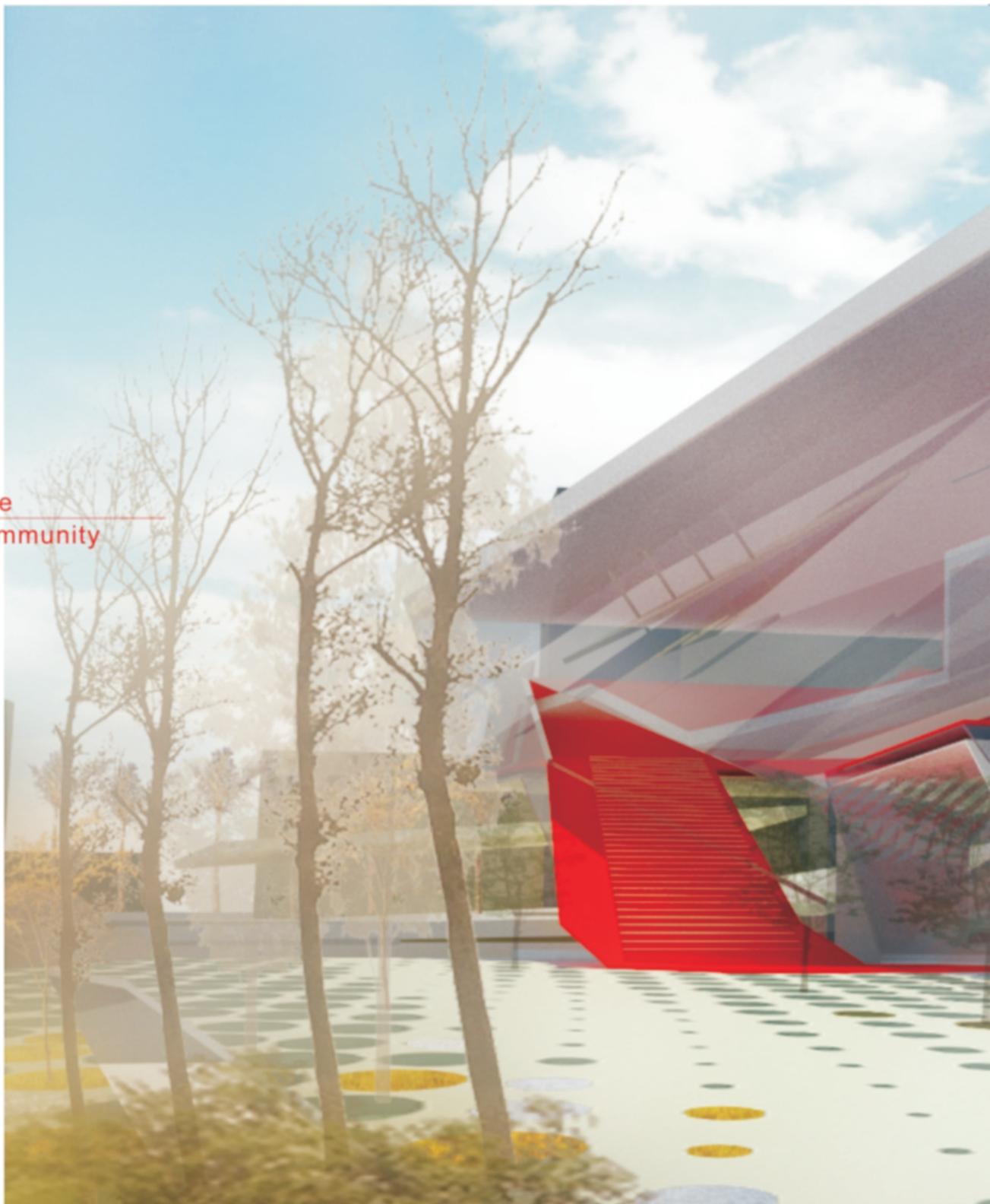


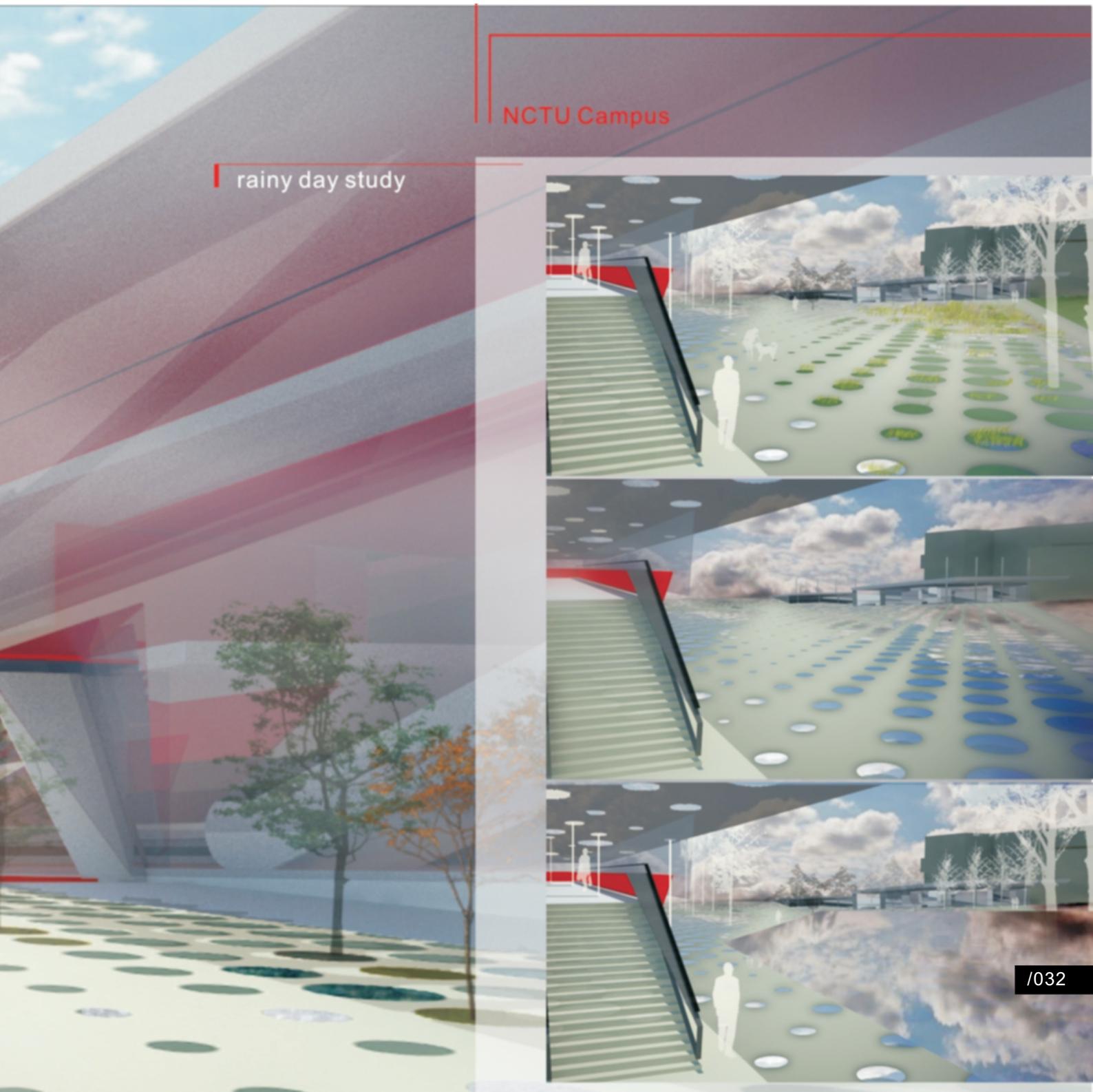


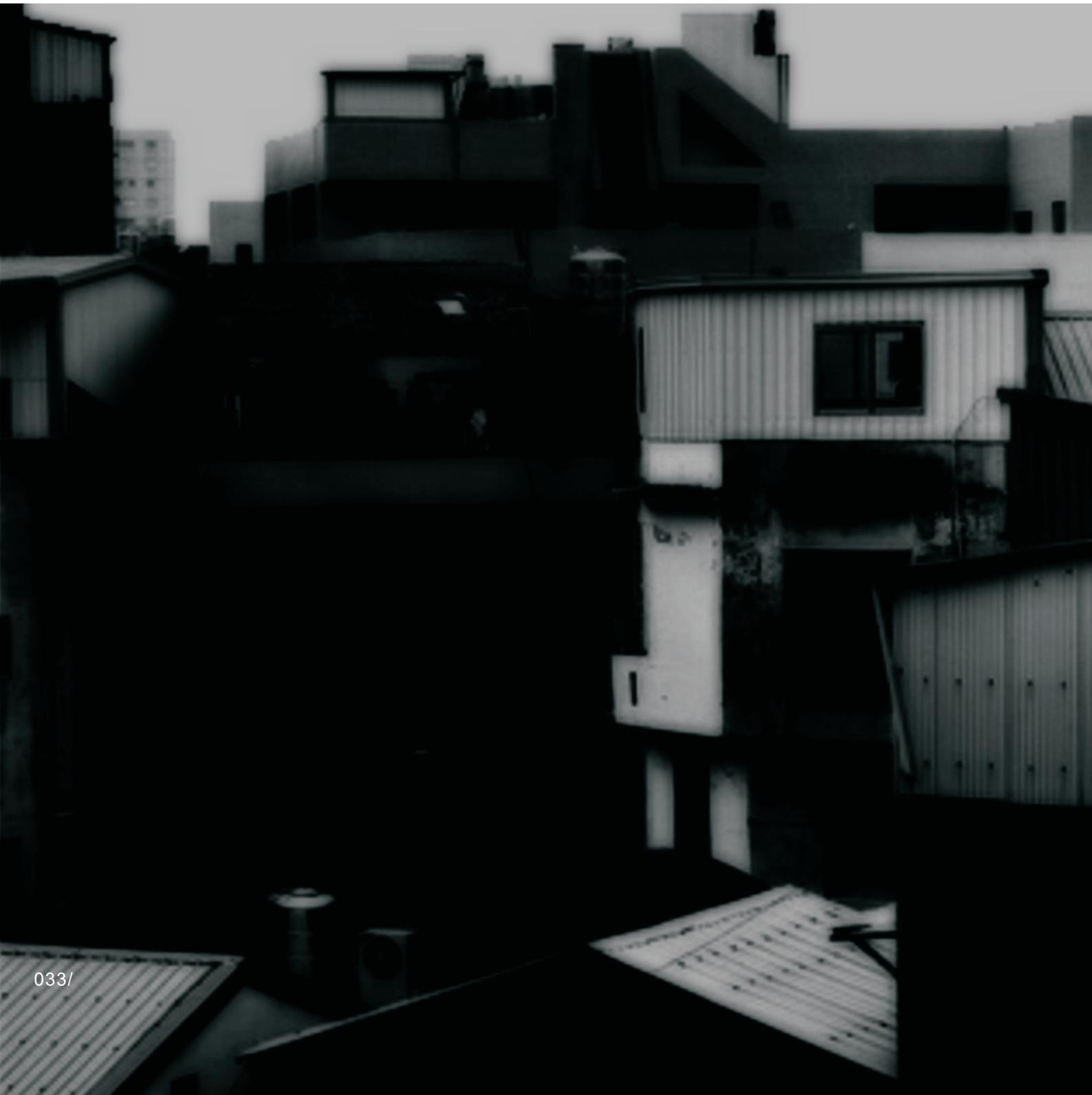
NCTU Campus  
night scenes

perspective

center of community







033/



方型鋼管自宅  
House of Square Steel Tube

方型鋼管自宅 /  
台灣社會中充斥許多我們常見的現象與建築材料，這些材料反應出台灣人的特性，把這些材料所構成的空間語彙分析轉化並結合自我風格，創造出符合自我需求和機能的住宅空間。

空間活動的變異  
Variation of Spatial Activity

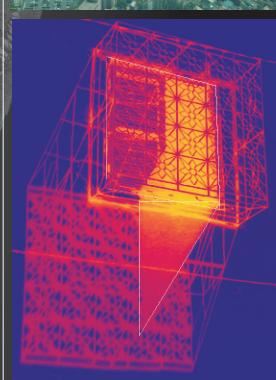
**Chapter\_02**



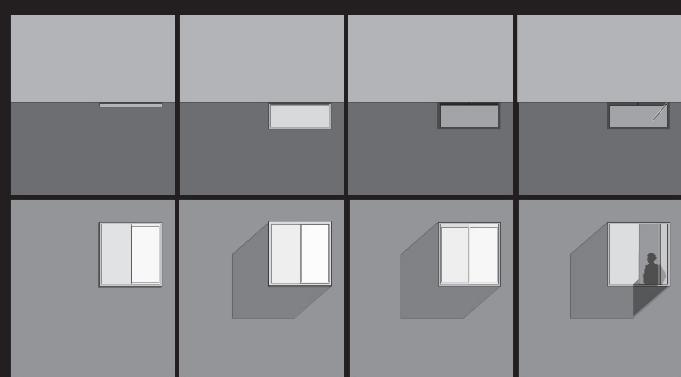
Advisor : Ch'iu Wen Chieh  
Location : Taiwan / Taipei  
2009

House of Square Steel Tube  
There are many common architectural phenomena and materials filled in Taiwan's society, which reflects Taiwanese characteristics. Through combining analysis and translation of the material-made spatial language with the personal mode, a residential space which corresponds with my need and function is created

Taiwan Image



Taiwan Image / grille



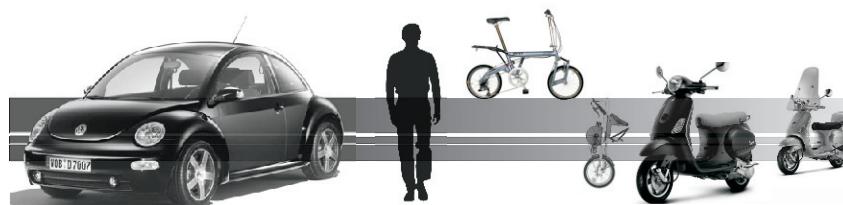




Program

- Image
- Program >>> Space
- Site
- Concept
- Study
- In site Study
- Diagram
- House

INTEREST / ART & CRAFTS , DRAWING, BICYCLE-RIDING  
 CONVEYANCE / x1 x2 x2



Home

studio / 40%

livingroom / 30%

bedroom / 15%

bathroom / 10%

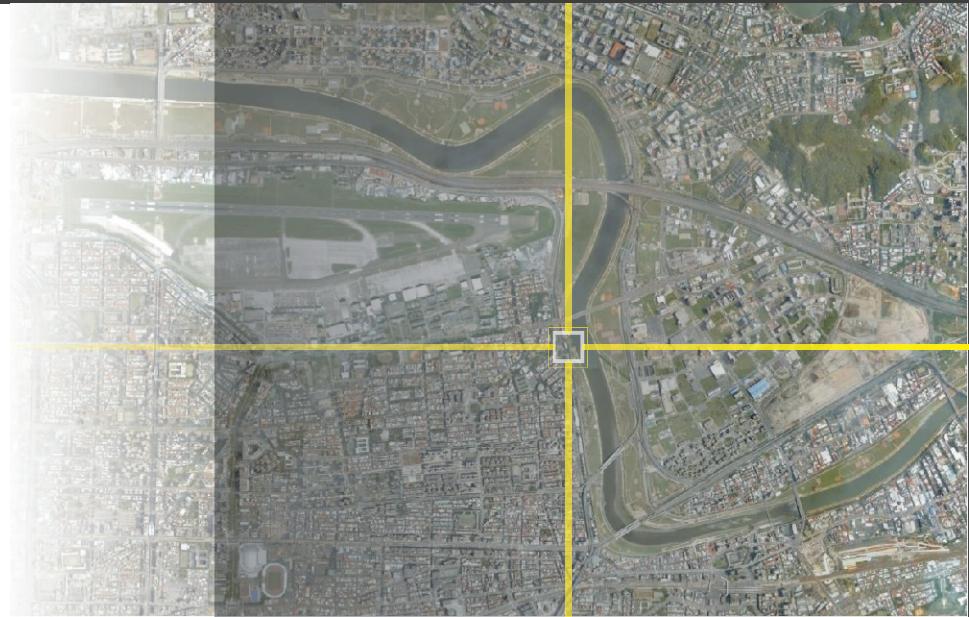
kitchen / 5%

2008/10/01



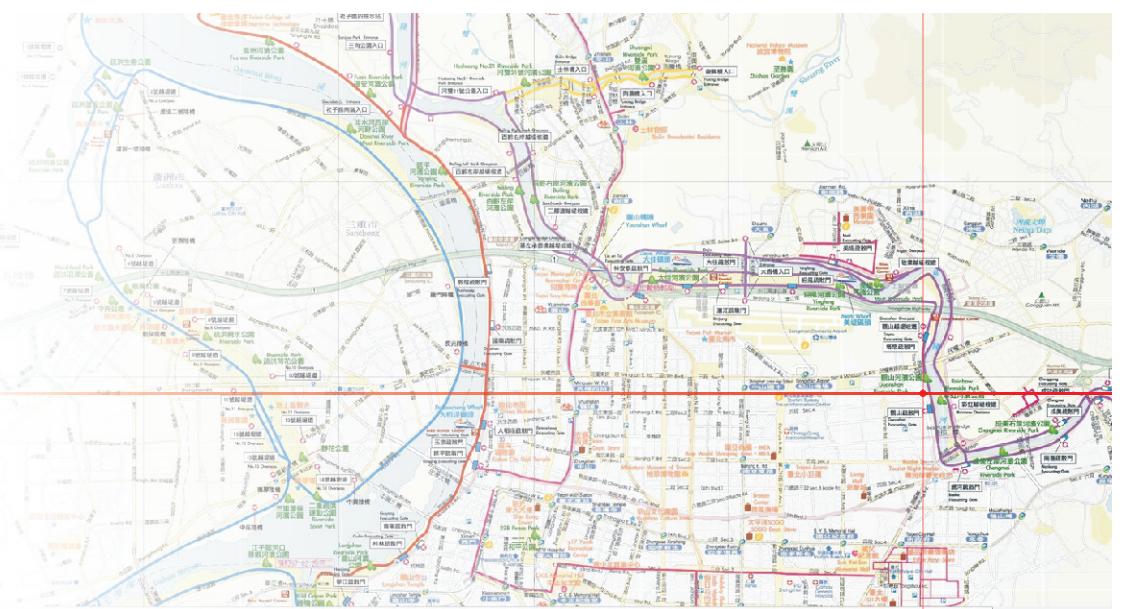
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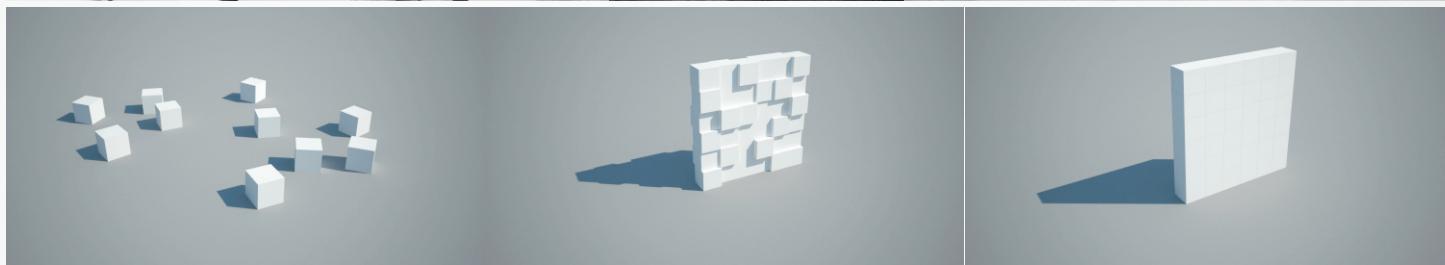
Site >>>  
Taiwan – Taipei

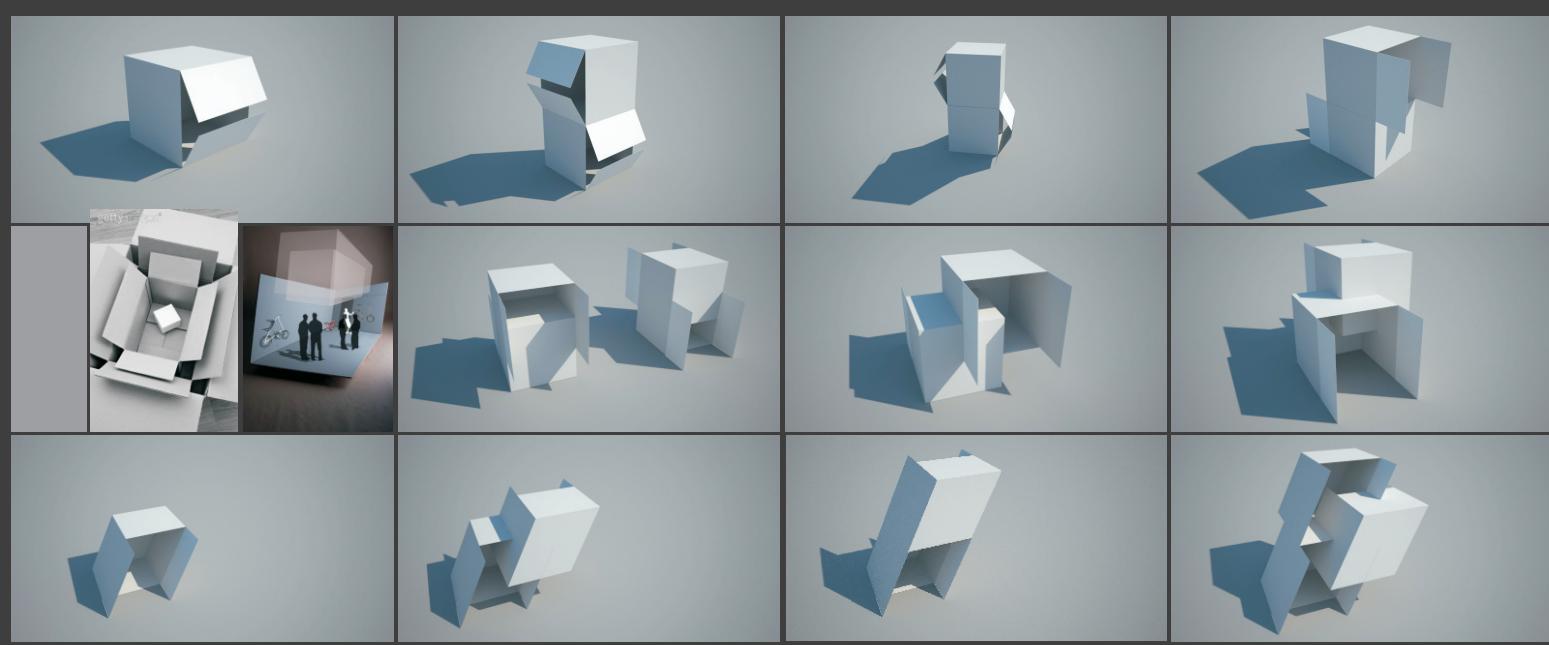


Taipei – 松山

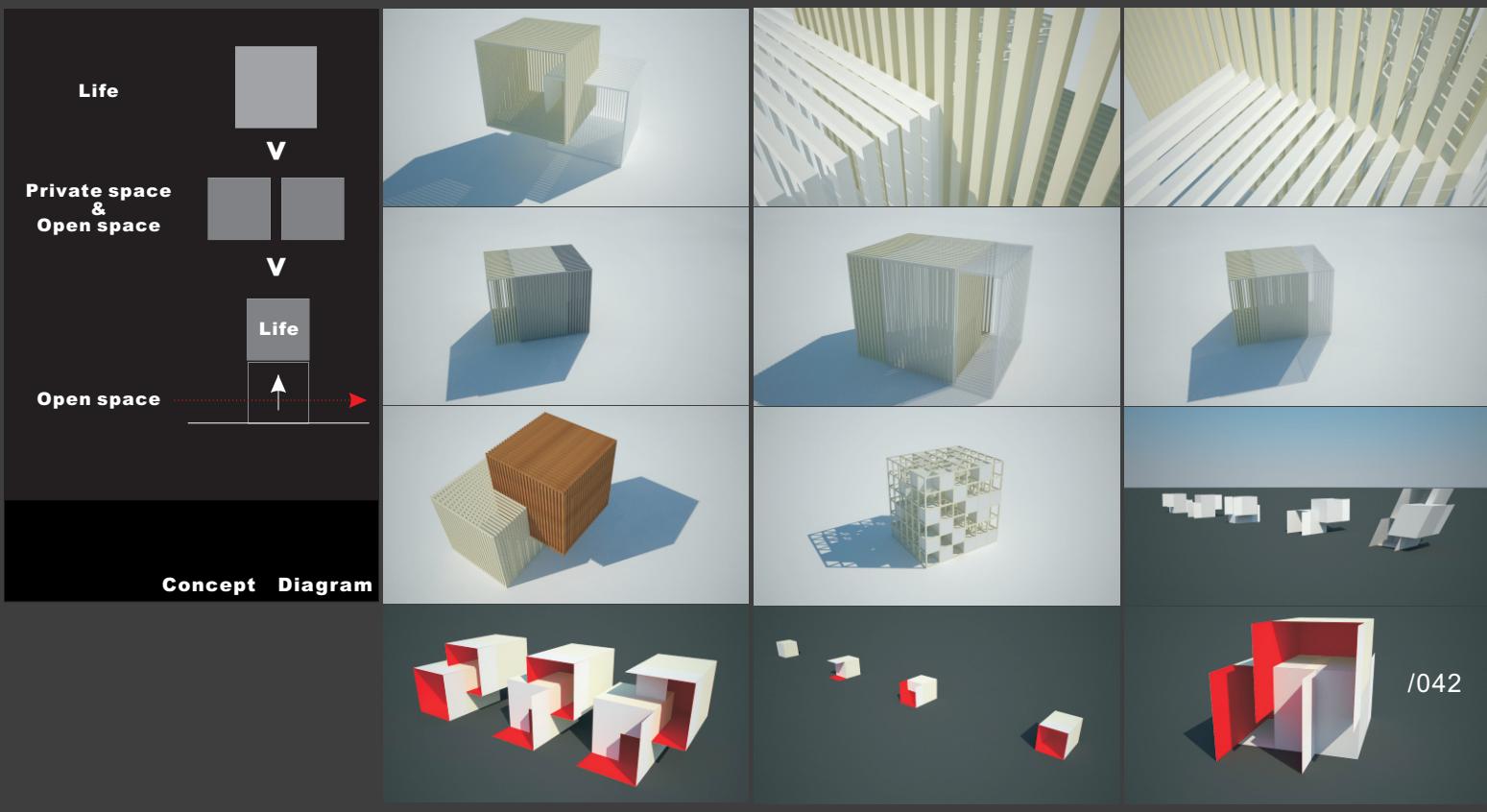






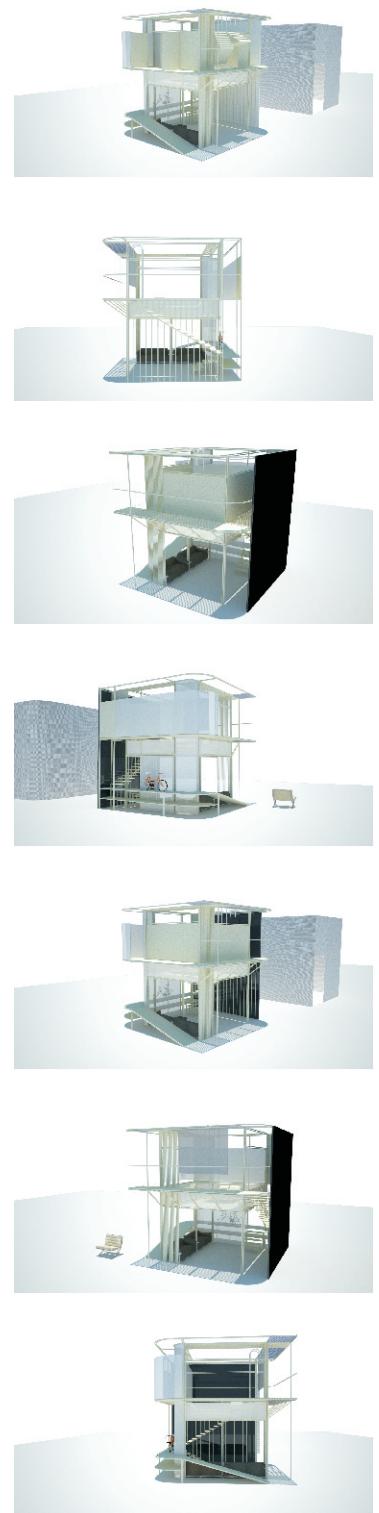
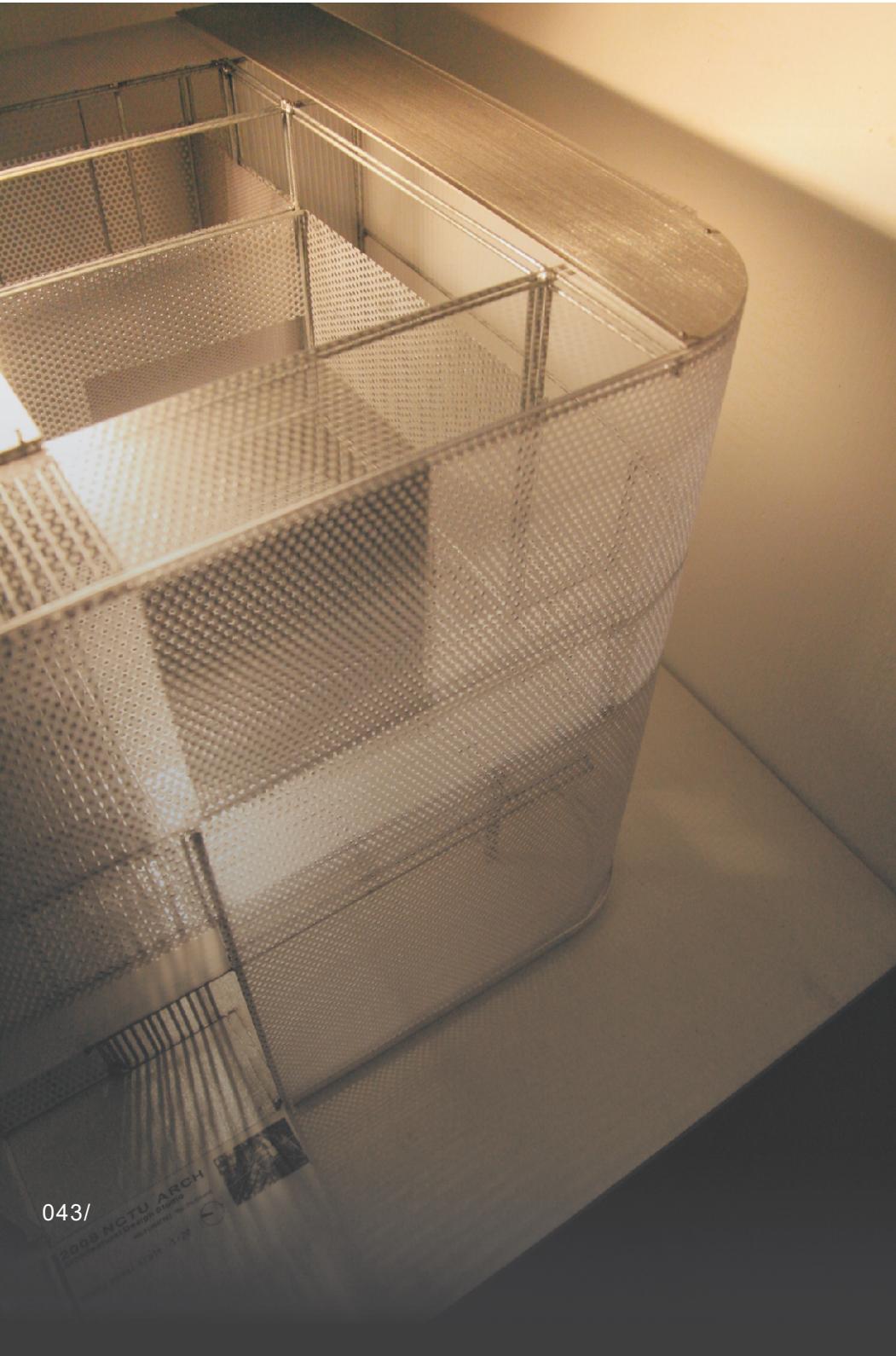


Space Study

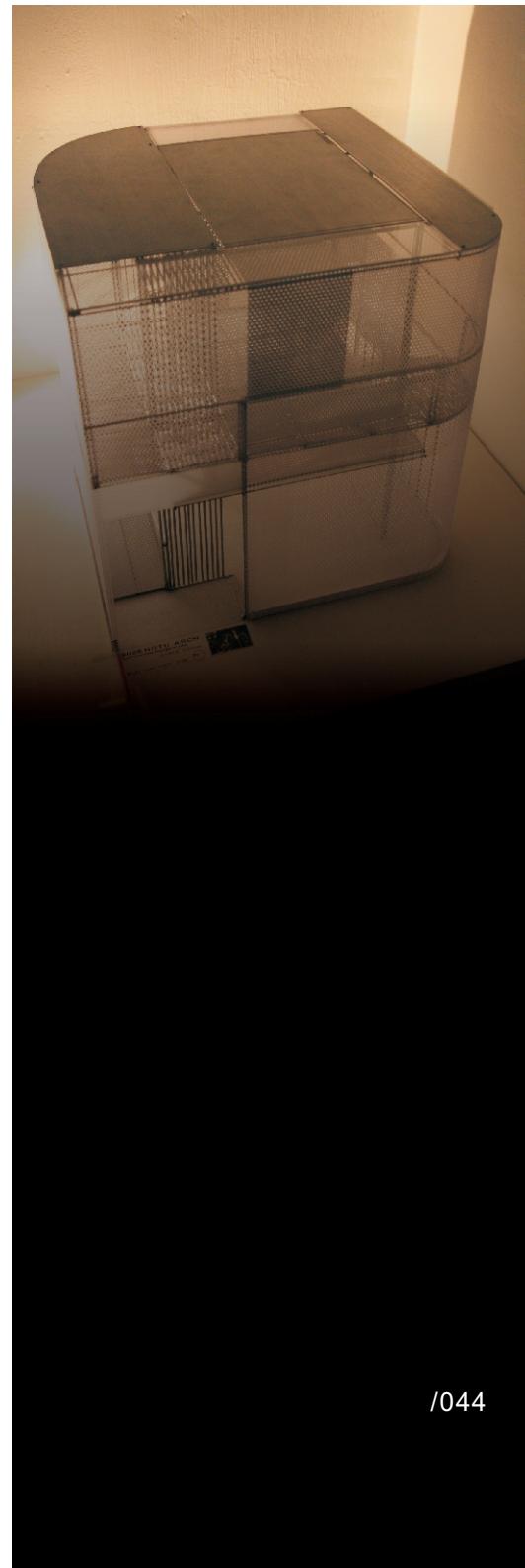
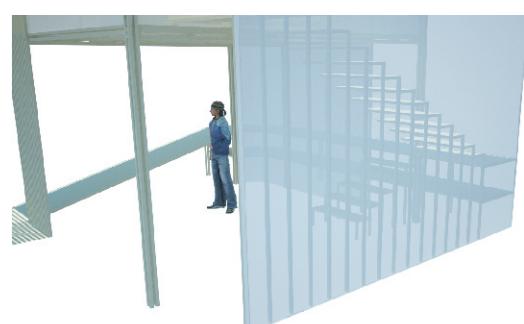
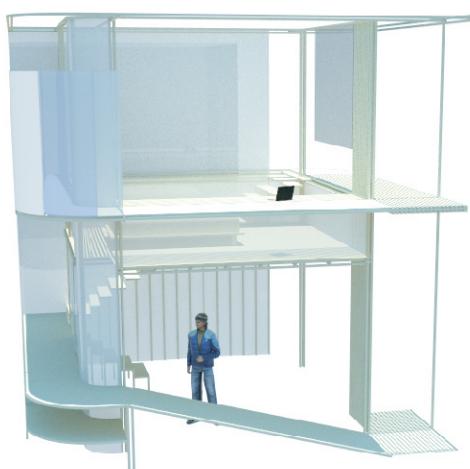
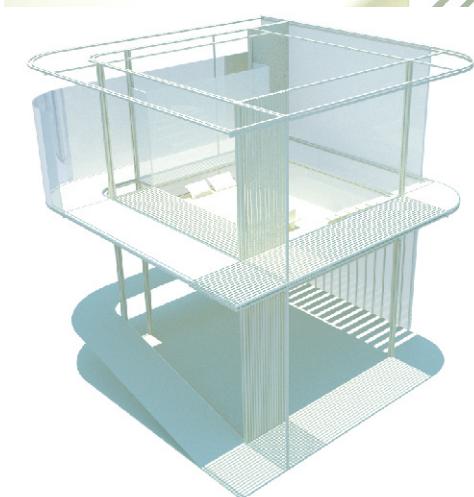
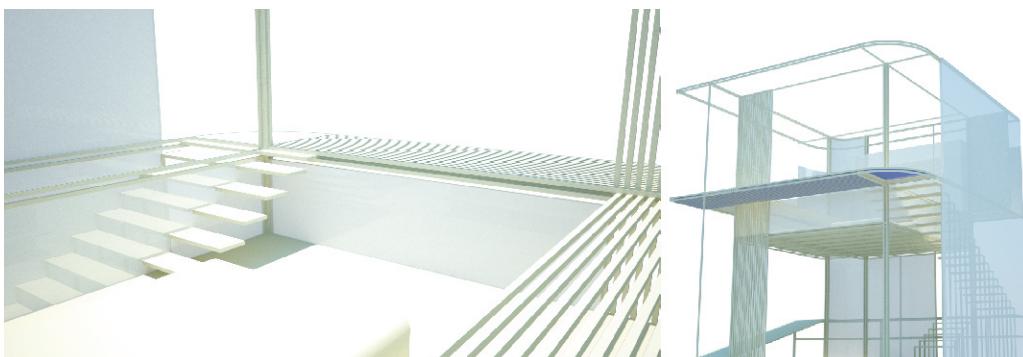
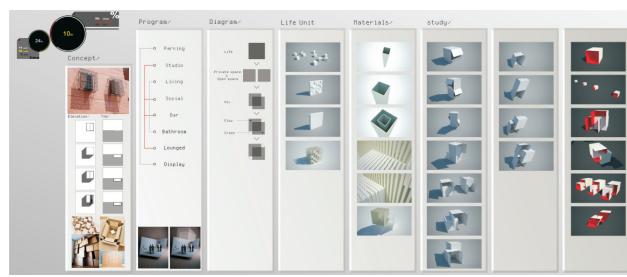
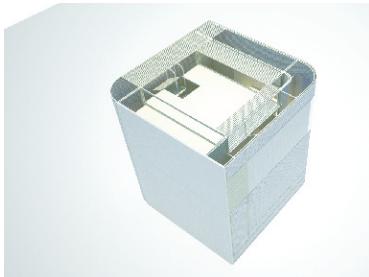


Material Study

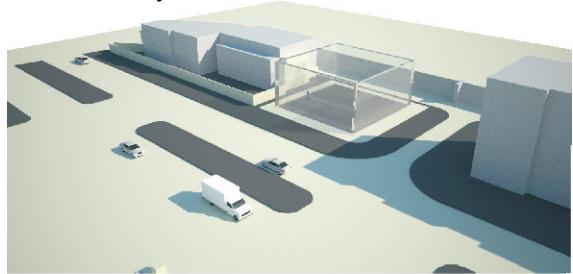
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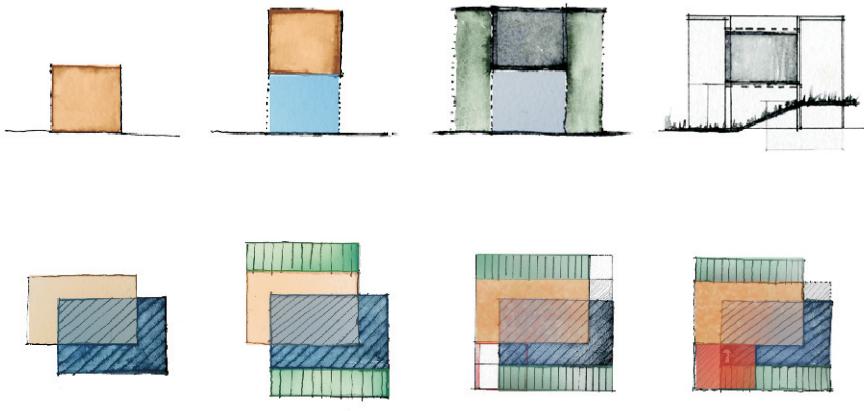
## Space Study Model



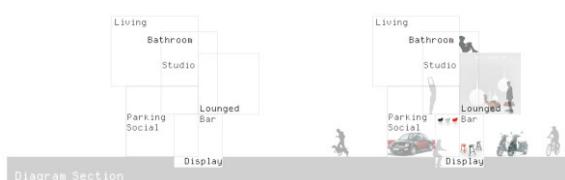
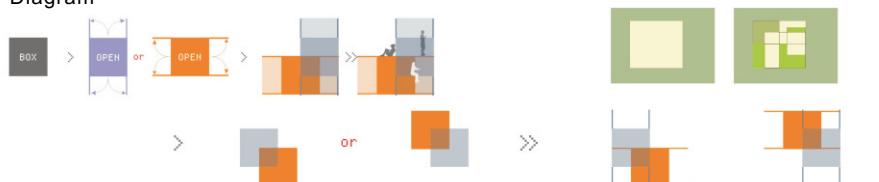
## In Site Study



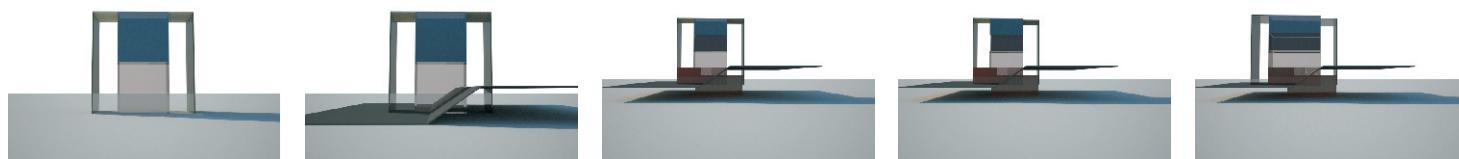
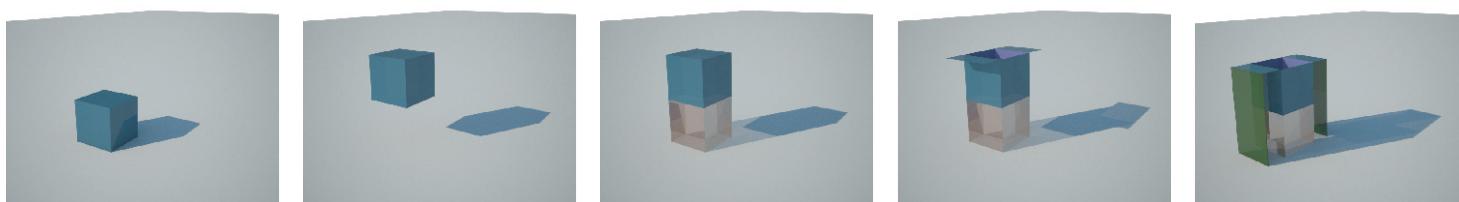
## Diagram



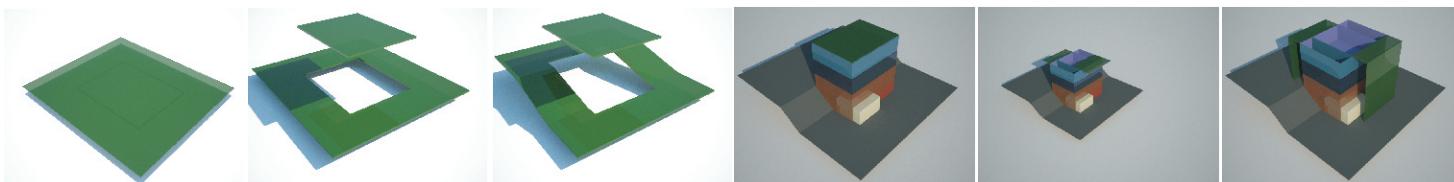
## Diagram

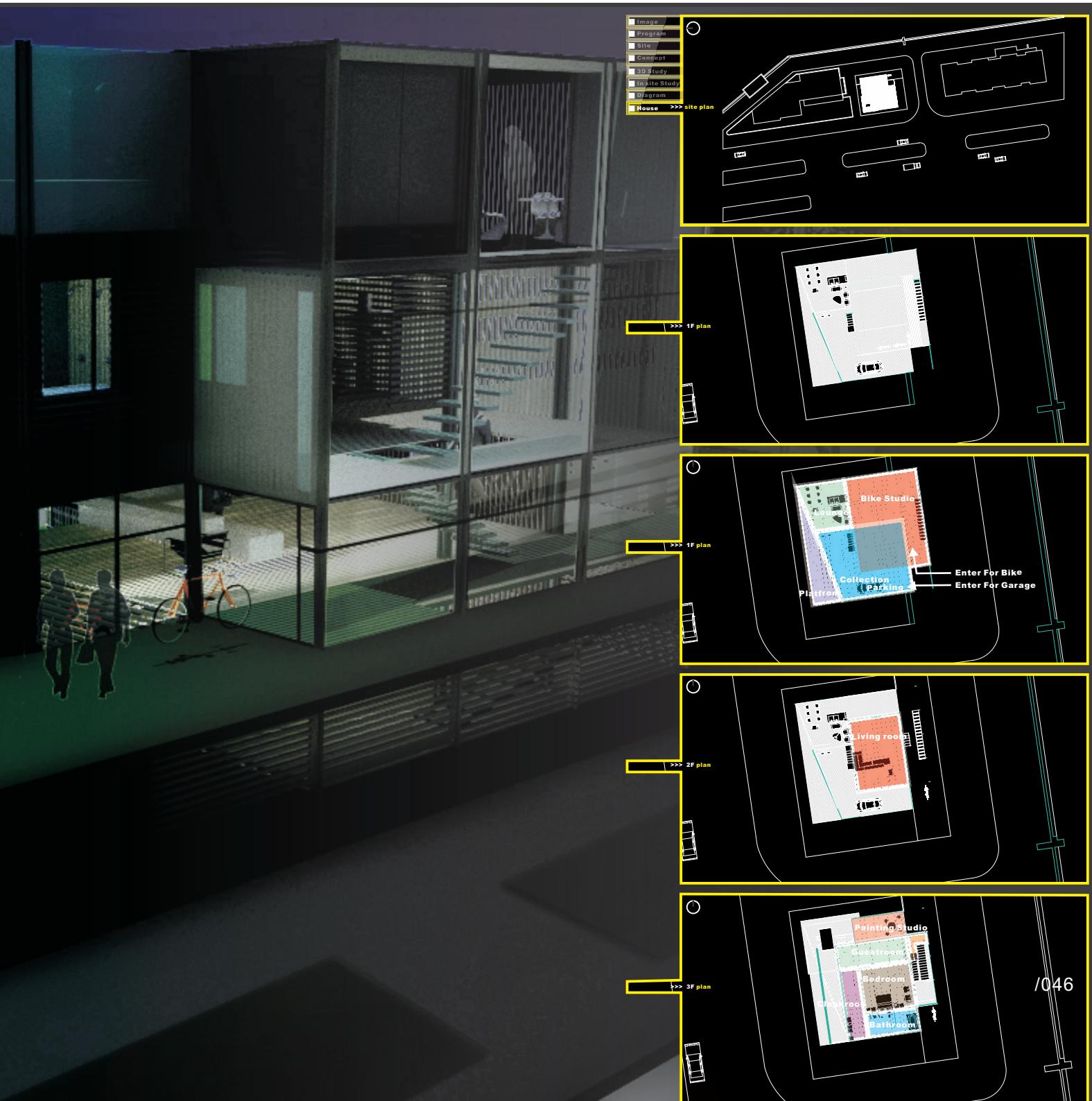


## Concept



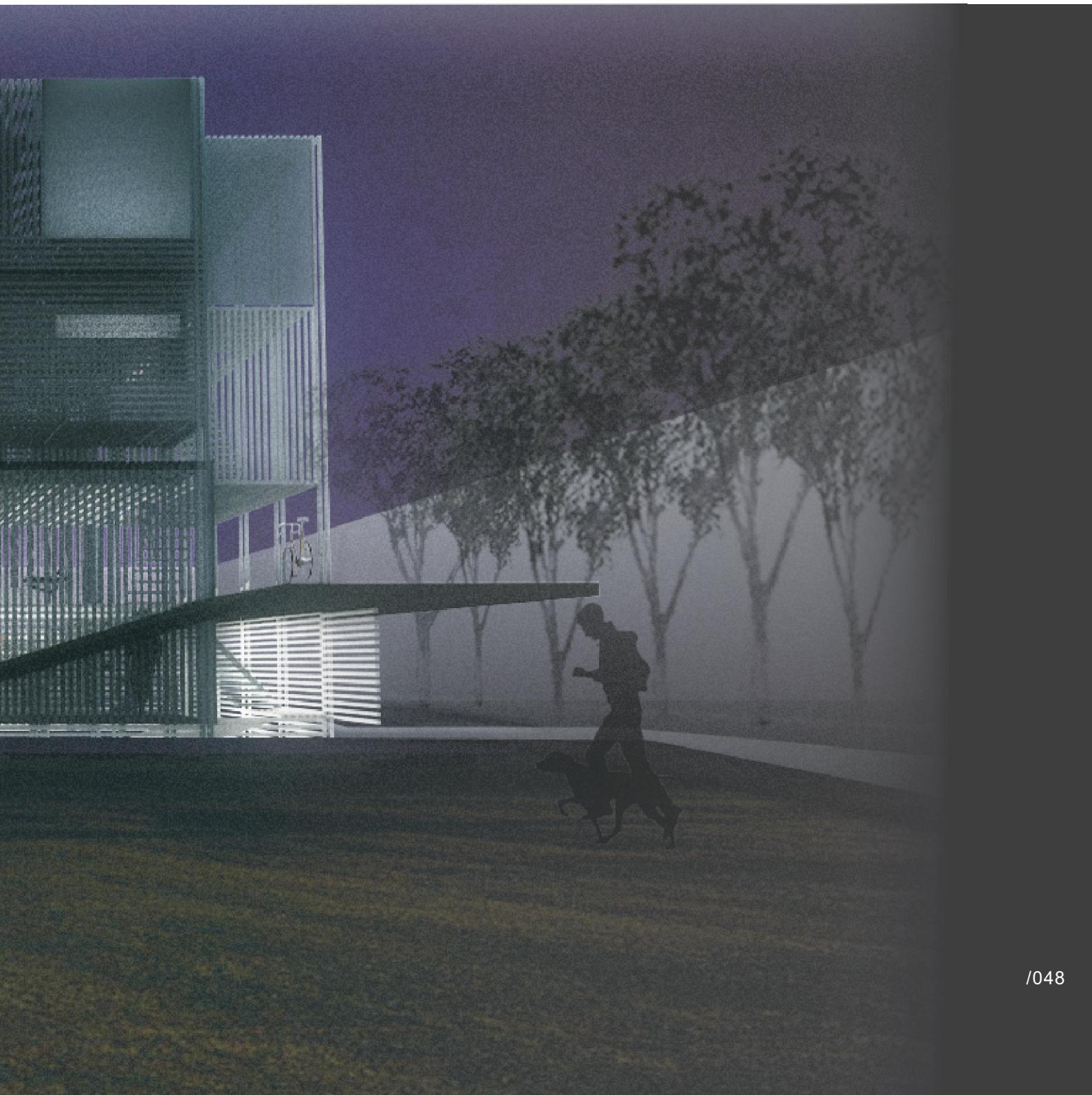
045/

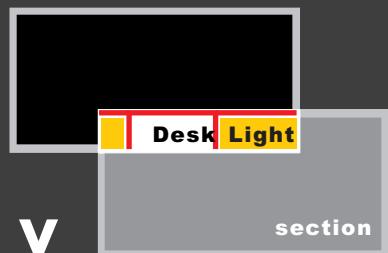
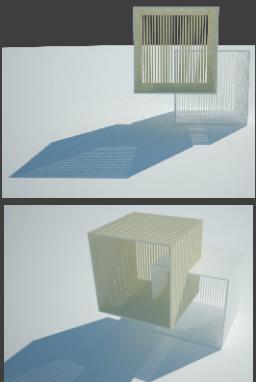
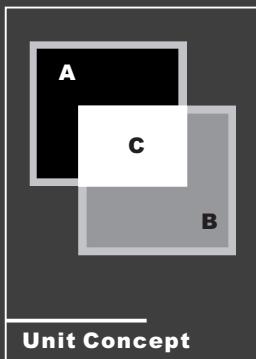




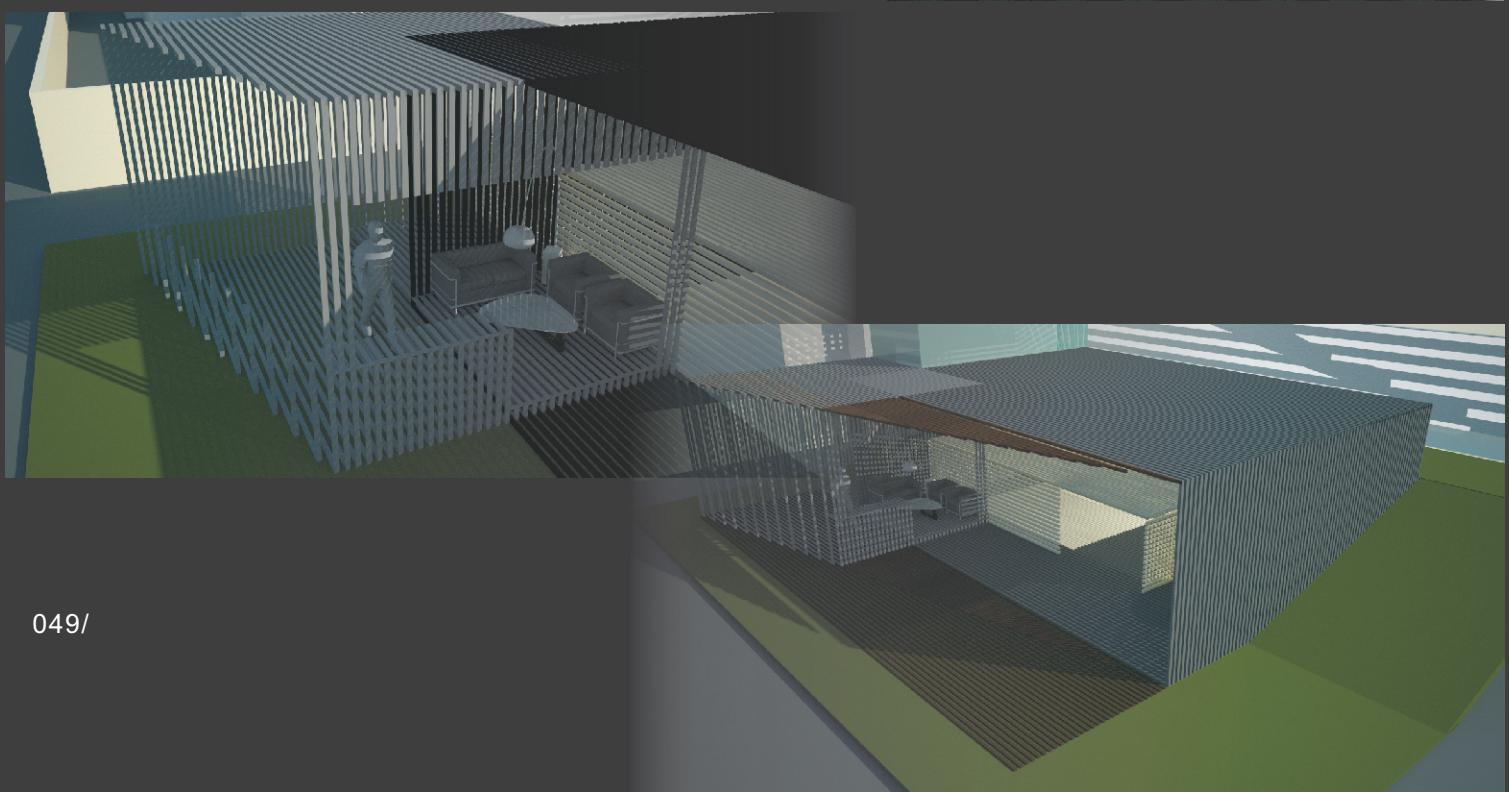
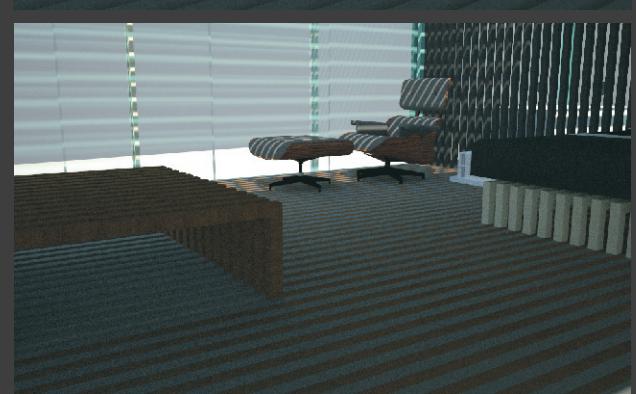
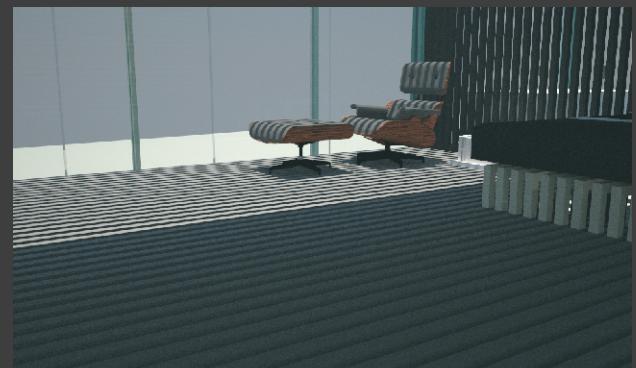
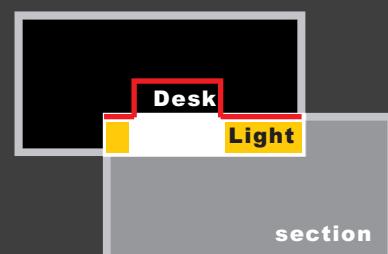


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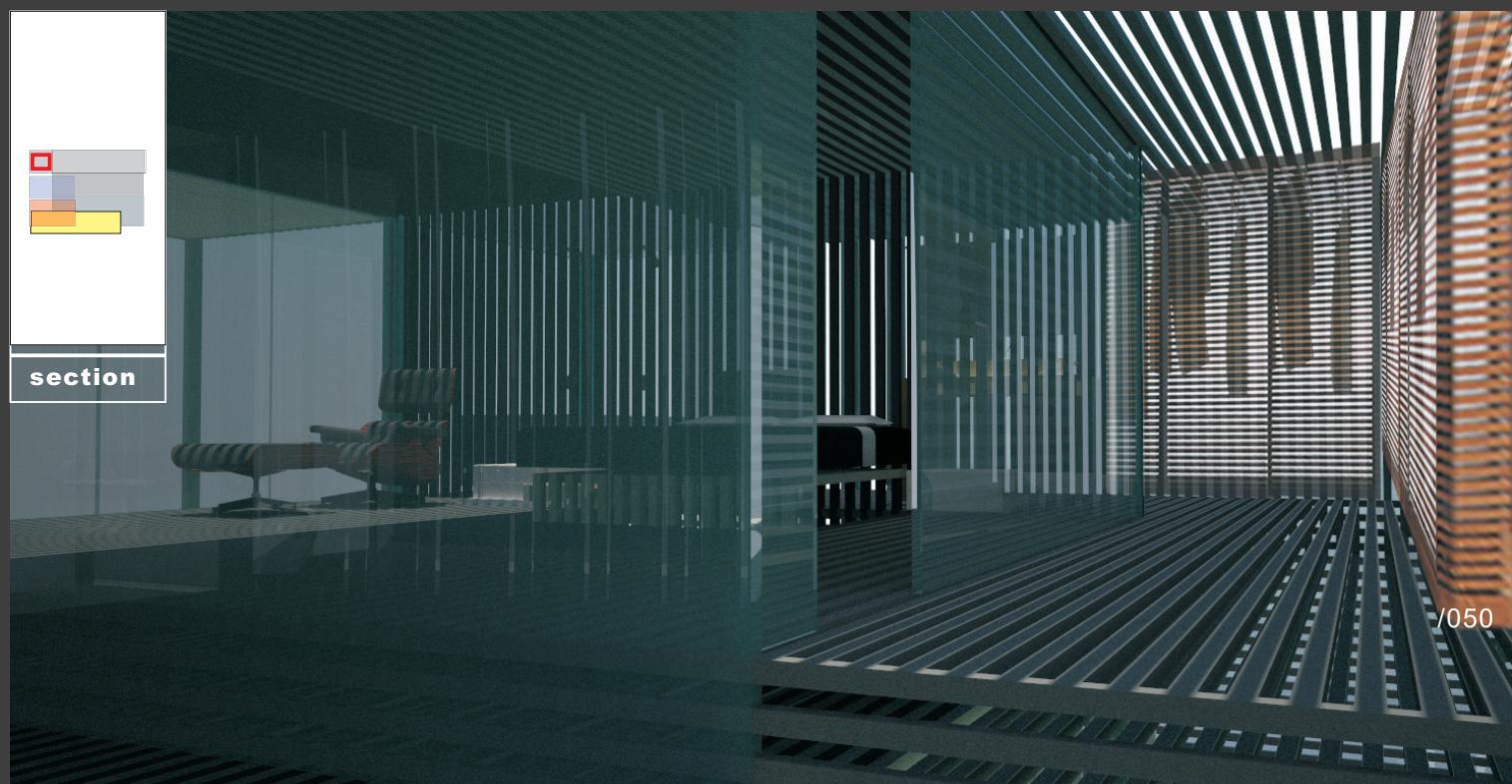




Image  
 Program  
 Site  
 Concept  
 3D Study  
 In site Study  
 Diagram  
 House >>>



elevation

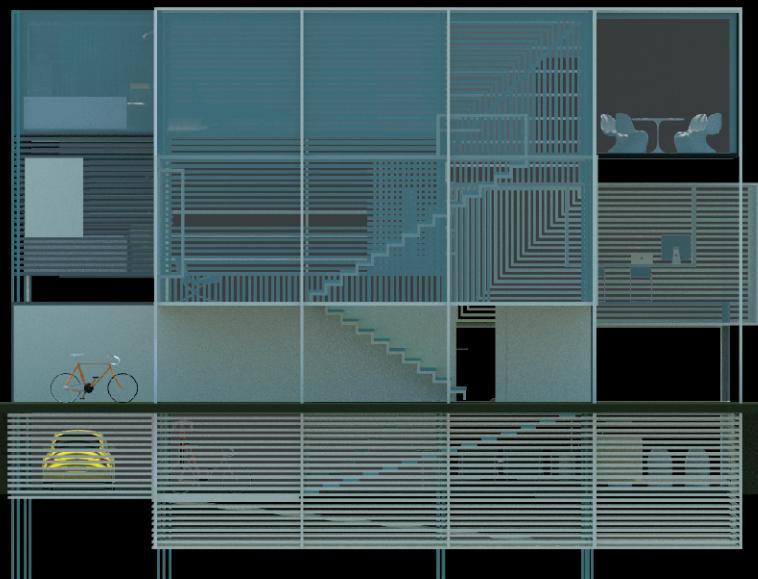
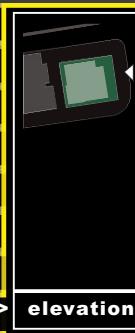
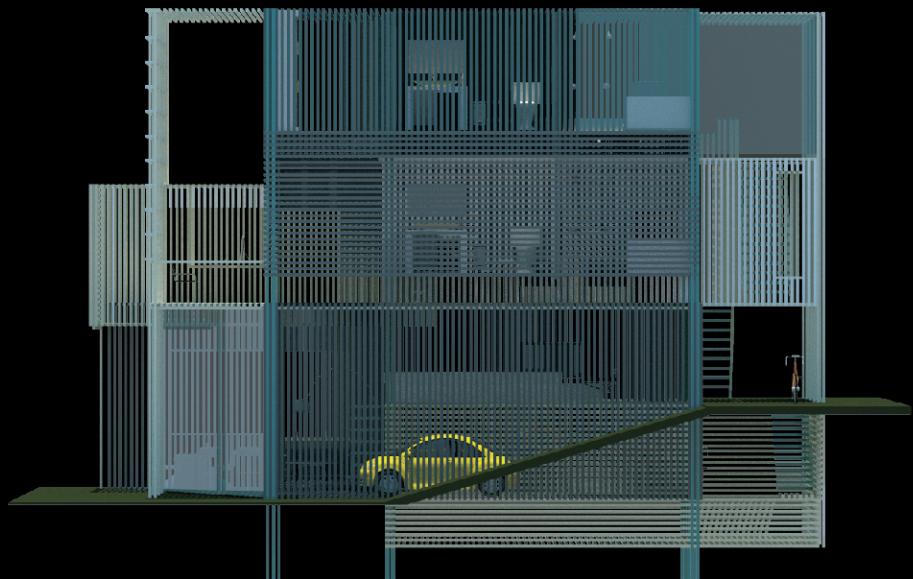


Image  
 Program  
 Site  
 Concept  
 3D Study  
 In site Study  
 Diagram  
 House >>>



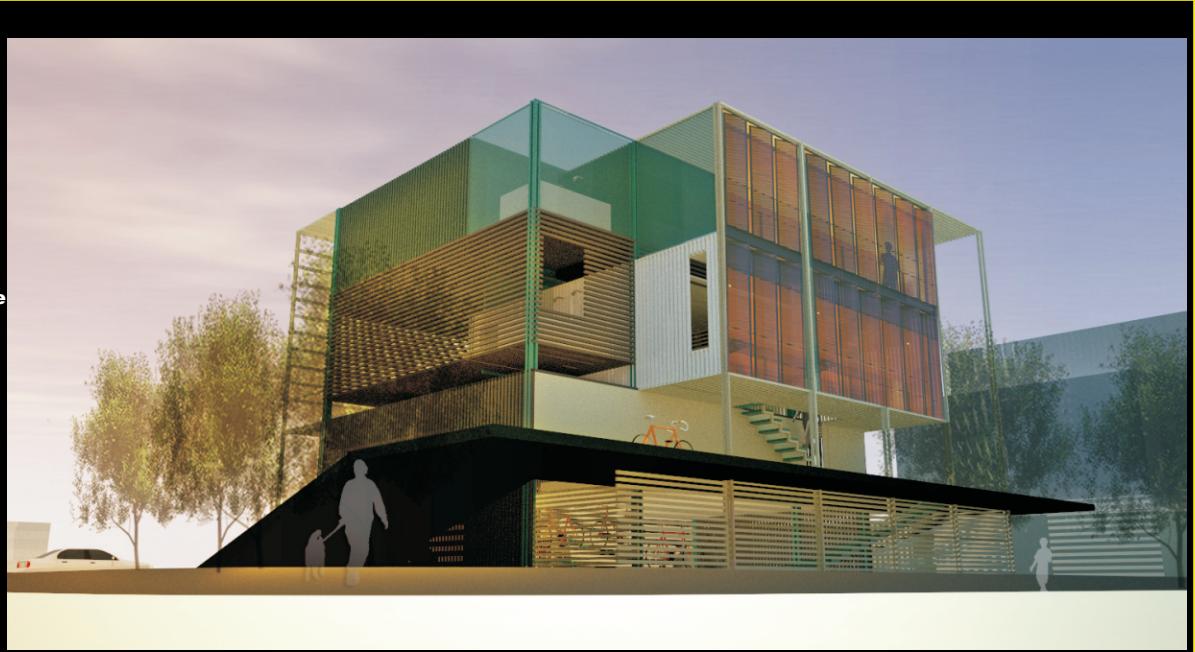
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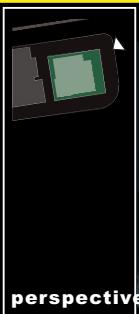
- Image
- Program
- Site
- Concept
- 3D Study
- In site Study
- Diagram
- House



perspective

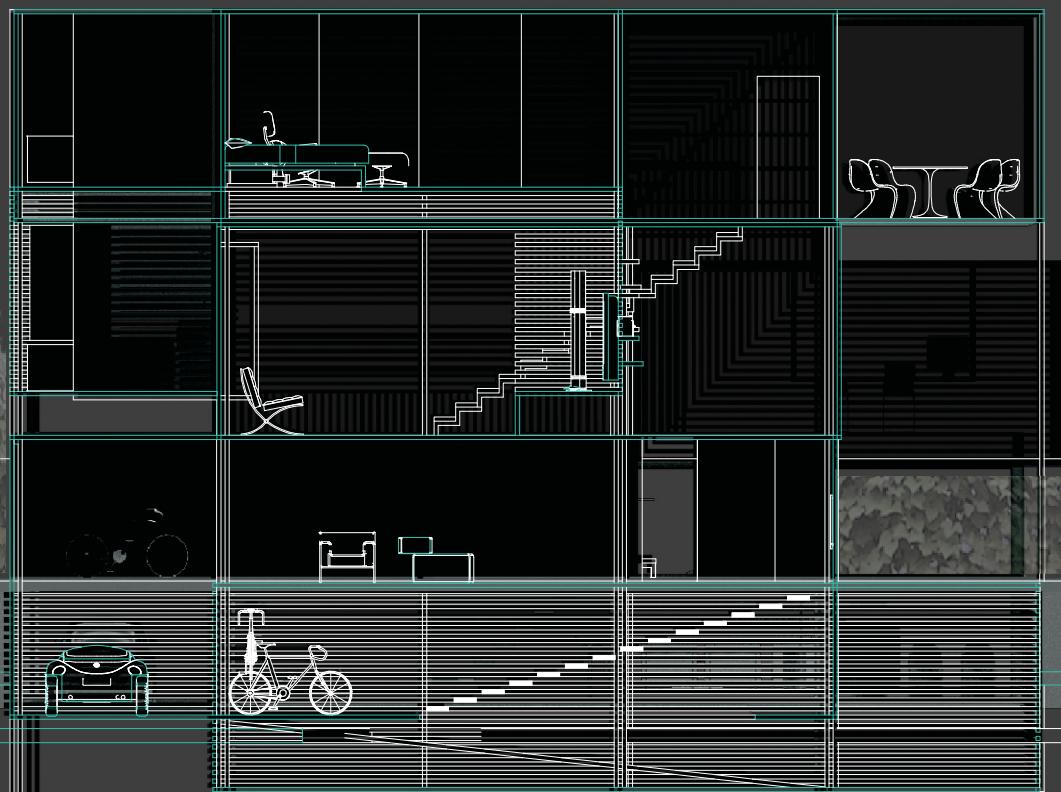
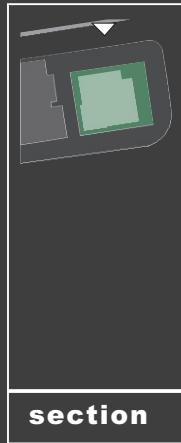


- Image
- Program
- Site
- Concept
- 3D Study
- In site Study
- Diagram
- House

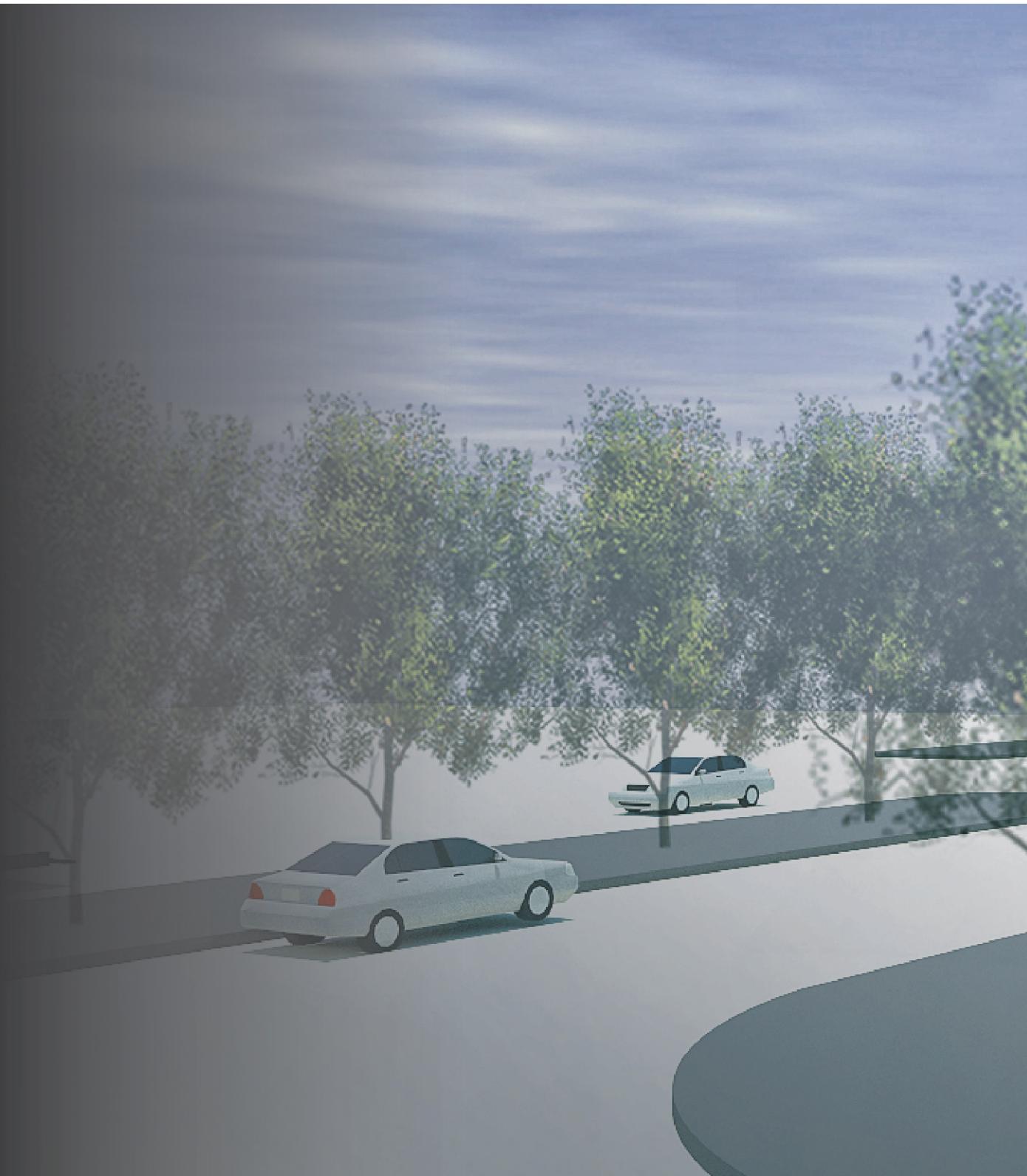


perspective

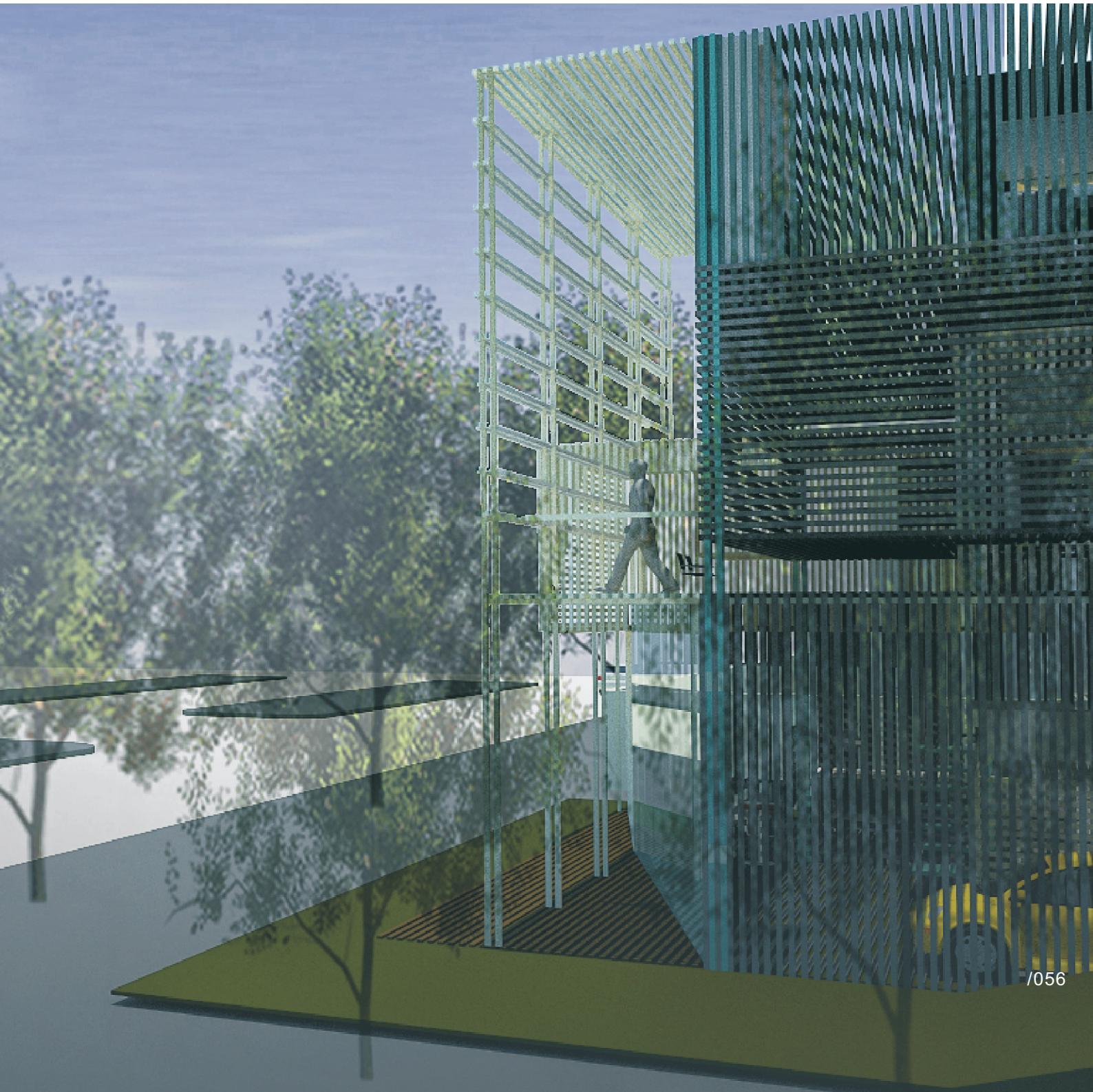


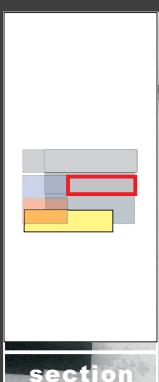


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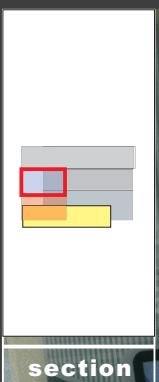


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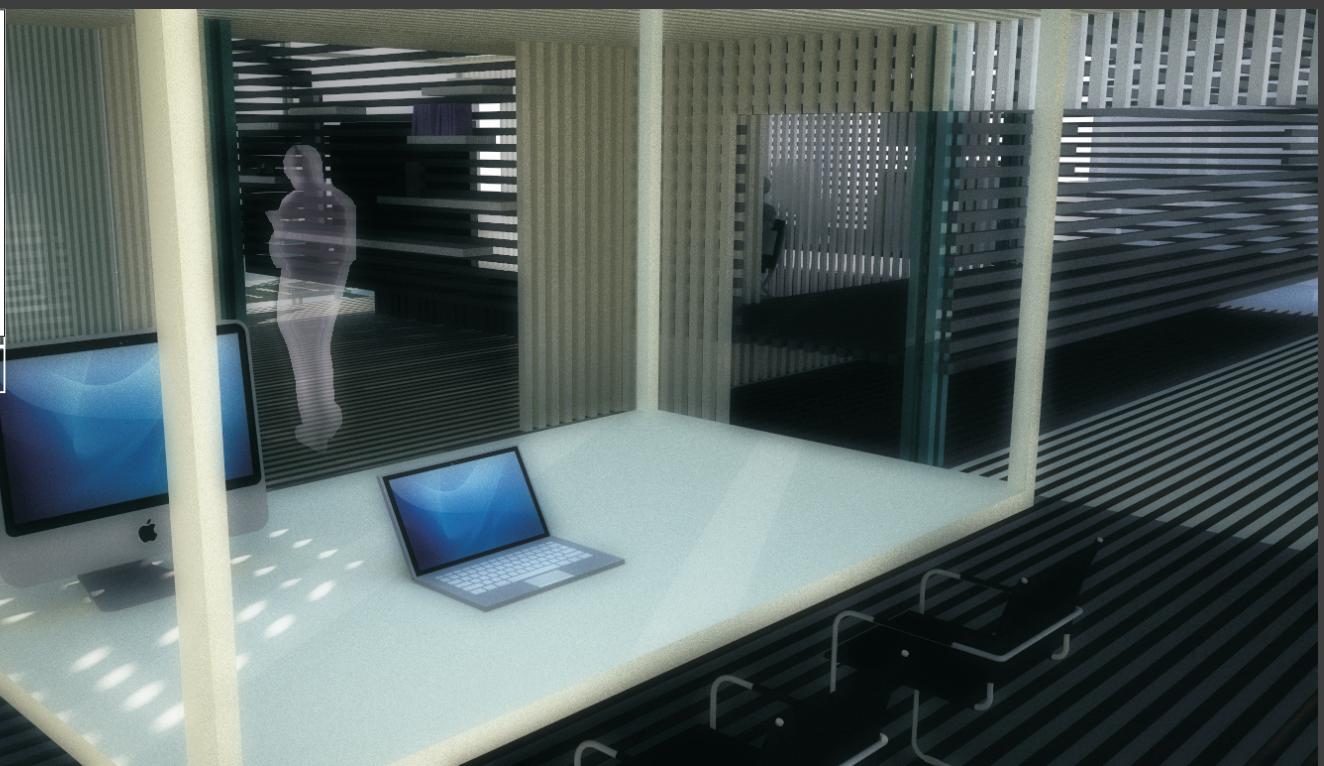


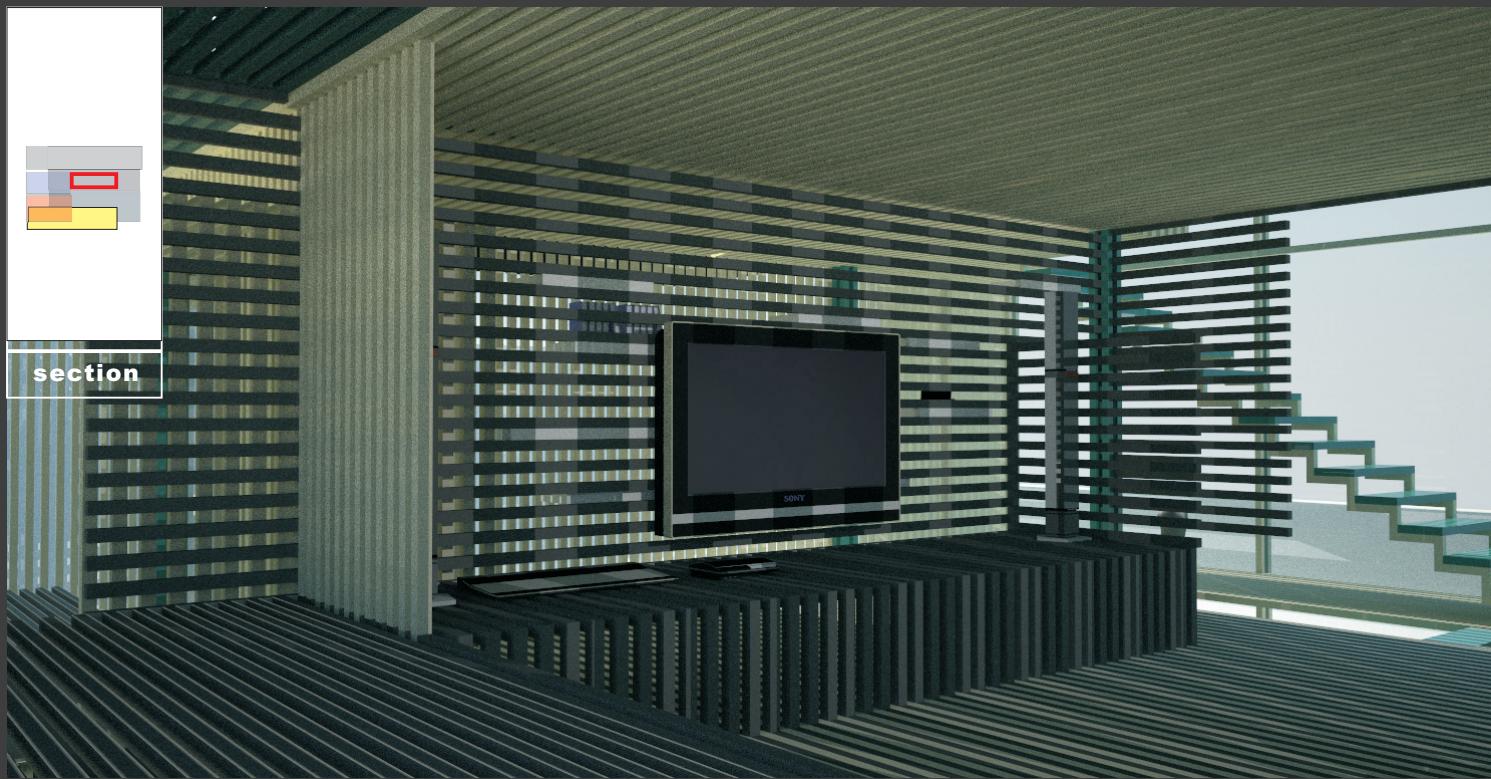
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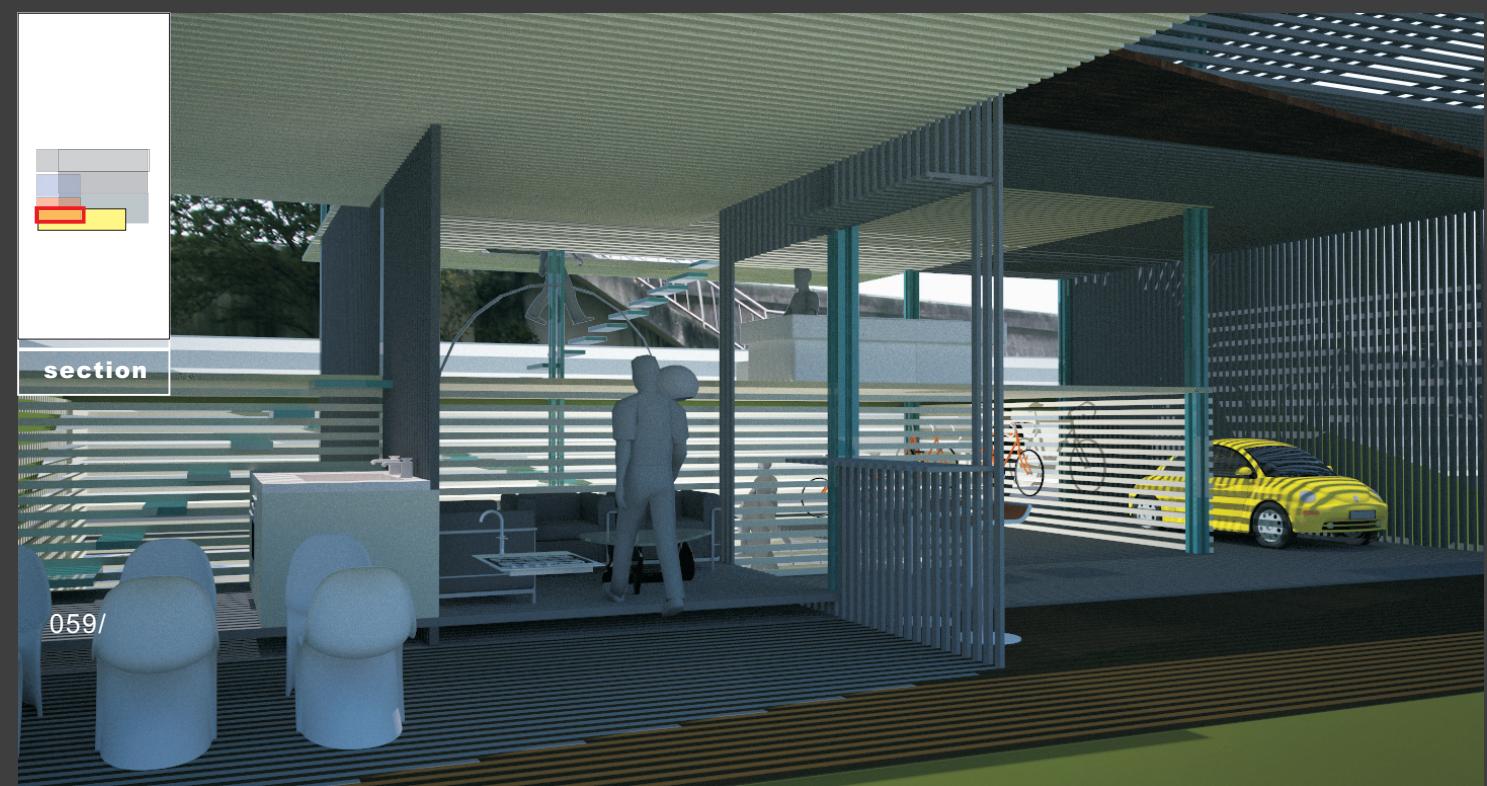


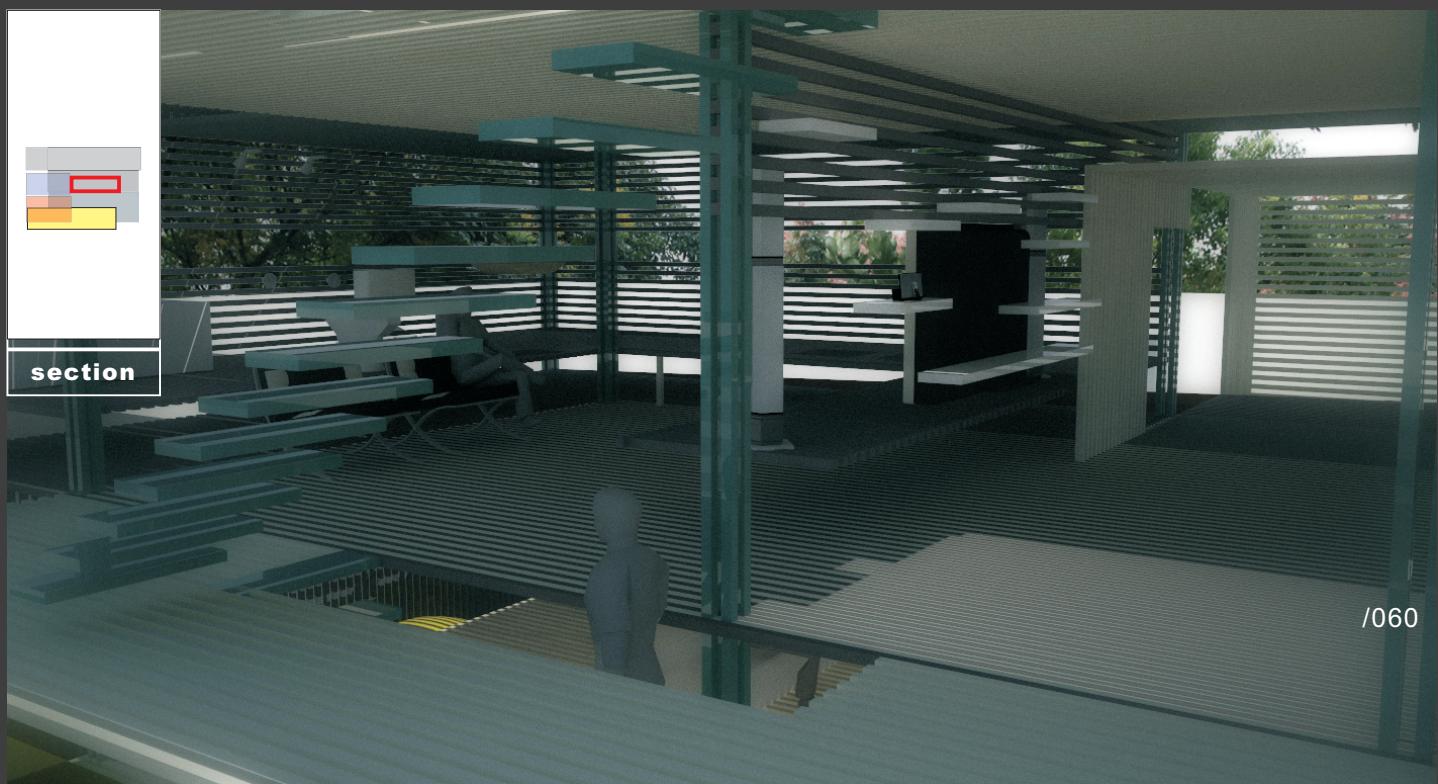
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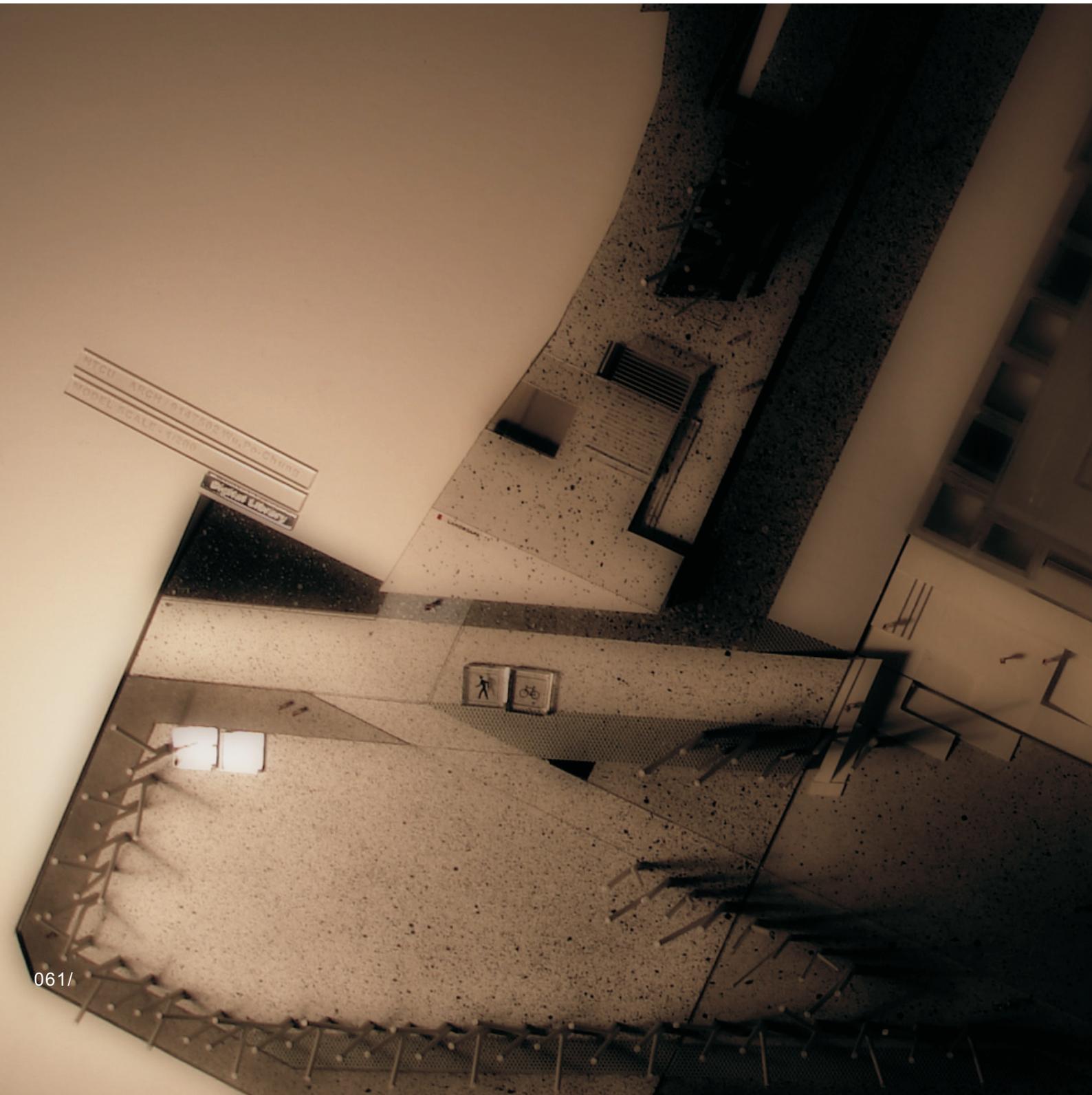
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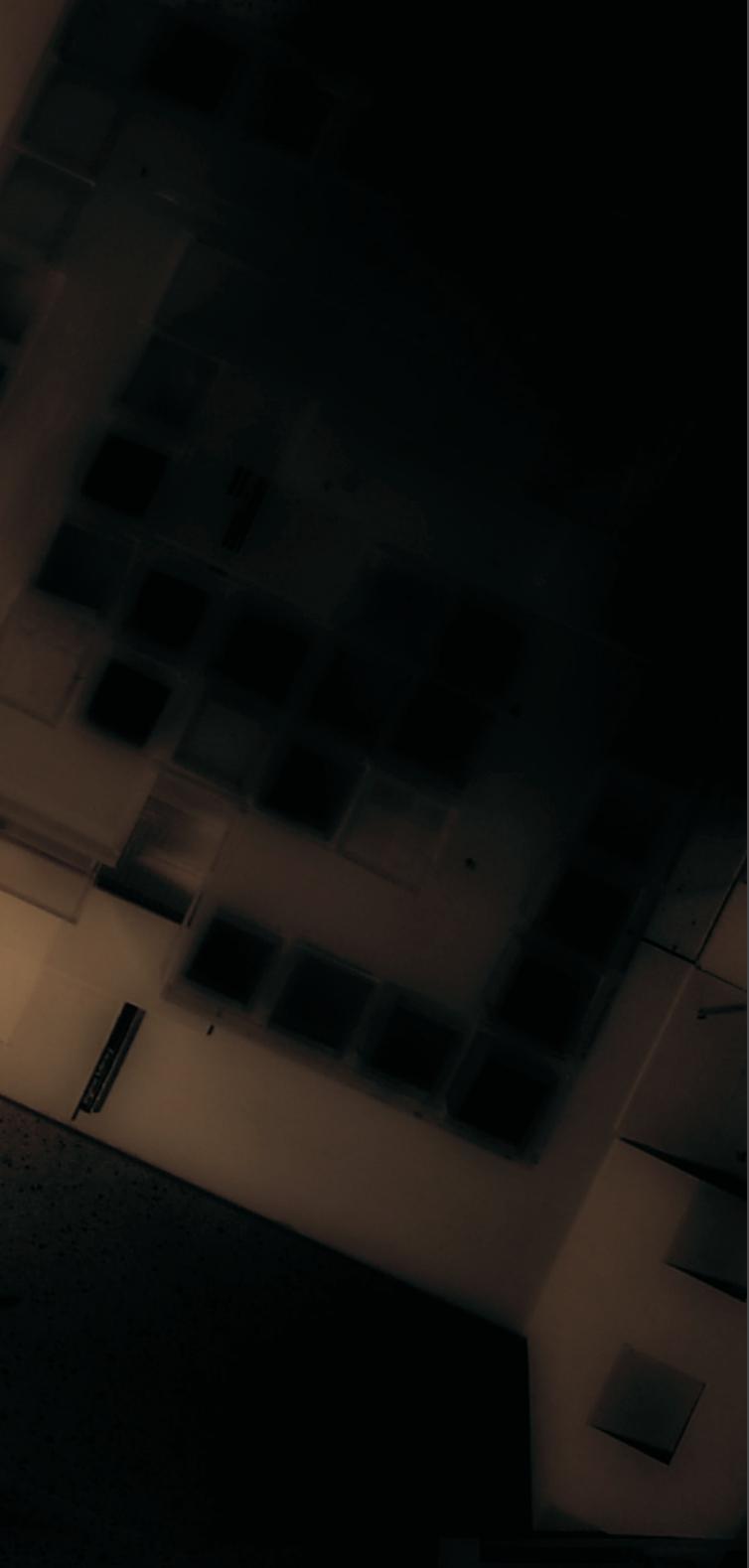








061/



## 媒體互動圖書館 Media Interactive Library

### 數位圖書館 /

隨著數位時代的來臨，資訊不斷的被壓縮，人與人的互動行為反應在數位上的情況漸多，電腦和手機成為現今世代不可或缺的物件，我希望經由活動把實體跟虛體的空間行為反應在建築上，創造出可以改變和反應的資訊建築，把人的需求跟空間行為結合，創造出新的空間可能，把壓縮後的空間留給公共使用，人用不同的方式閱讀資訊的同時，資訊也反映人的使用情形，建築上也反應出空間彈性對應機能，給未來建築另一種可能性。

### 資訊的變異 Variation of Information

#### Chapter\_03

Advisor : Shu-Chang Kung  
& Jr-Gang Chi

Location : Taiwan / Taichung

2008



□ As the coming of digital era, information are continually compressed. The interactions among people more and more arise in the digital fields, laptops and cell phones become necessary objects of generations nowadays. This project is expected to reflect on architecture the spatial activities between real and virtual, thus creating the most flexible information architecture capable of changing and reacting momentarily. The designer integrates human needs with spatial activities, creating the whole new spatial possibilities. The compressed space is left for public use. As people acquire information through different ways, the info reflects users' needs as well. In addition, architecture reflects the relationship between spatial flexibility and programs, offering another possibility of future architecture.

## Analysis

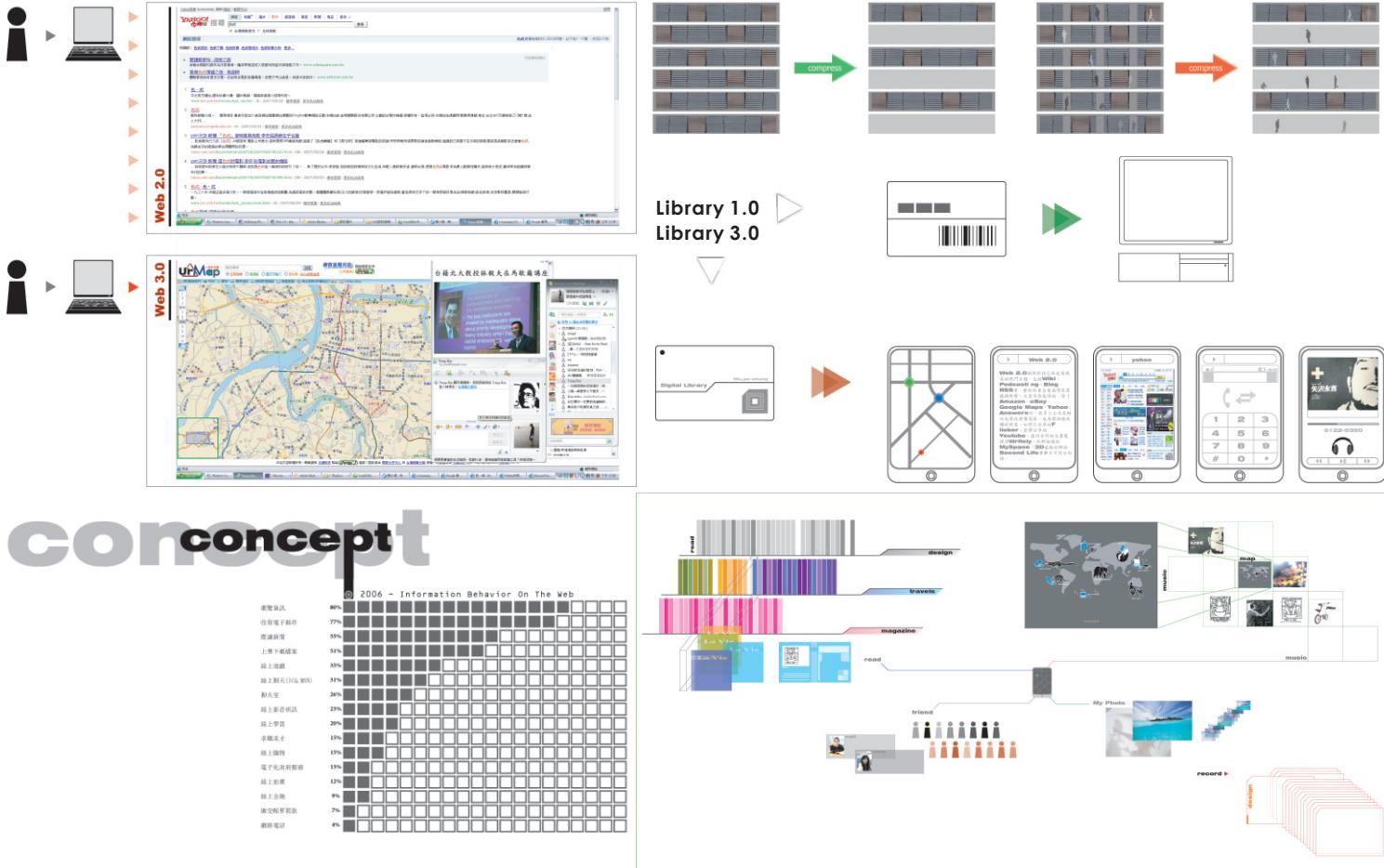


數位化之後資訊不斷的被壓縮的方式被呈現



Web 2.0與新科技已經成為現在的熱門主題，包括Wiki、Podcasting、Blog、RSS等，都給社會各層面帶來震撼與衝擊。大家耳熟能詳的，除了Amazon、eBay、Google Maps、Yahoo Answers外，很多小公司及網站也因此身價高漲、成為競相被收購的對象，如照片分享的Flicker、影帶分享的Youtube、協同合作的文書處理器Writely、社群論壇的MySpace、3D虛擬社群的Second Life等都不可同日而語。

Web 2.0對很多人而言，是互動、客製化、社會性、多媒體，甚至加上人類的智慧，還能獲利；但是在Web 3.0的時代，更添加了層「意義」於其上，也就是語意網路 (semantic web)，簡單的說，就是網路將變得更為聰明、更有智慧。

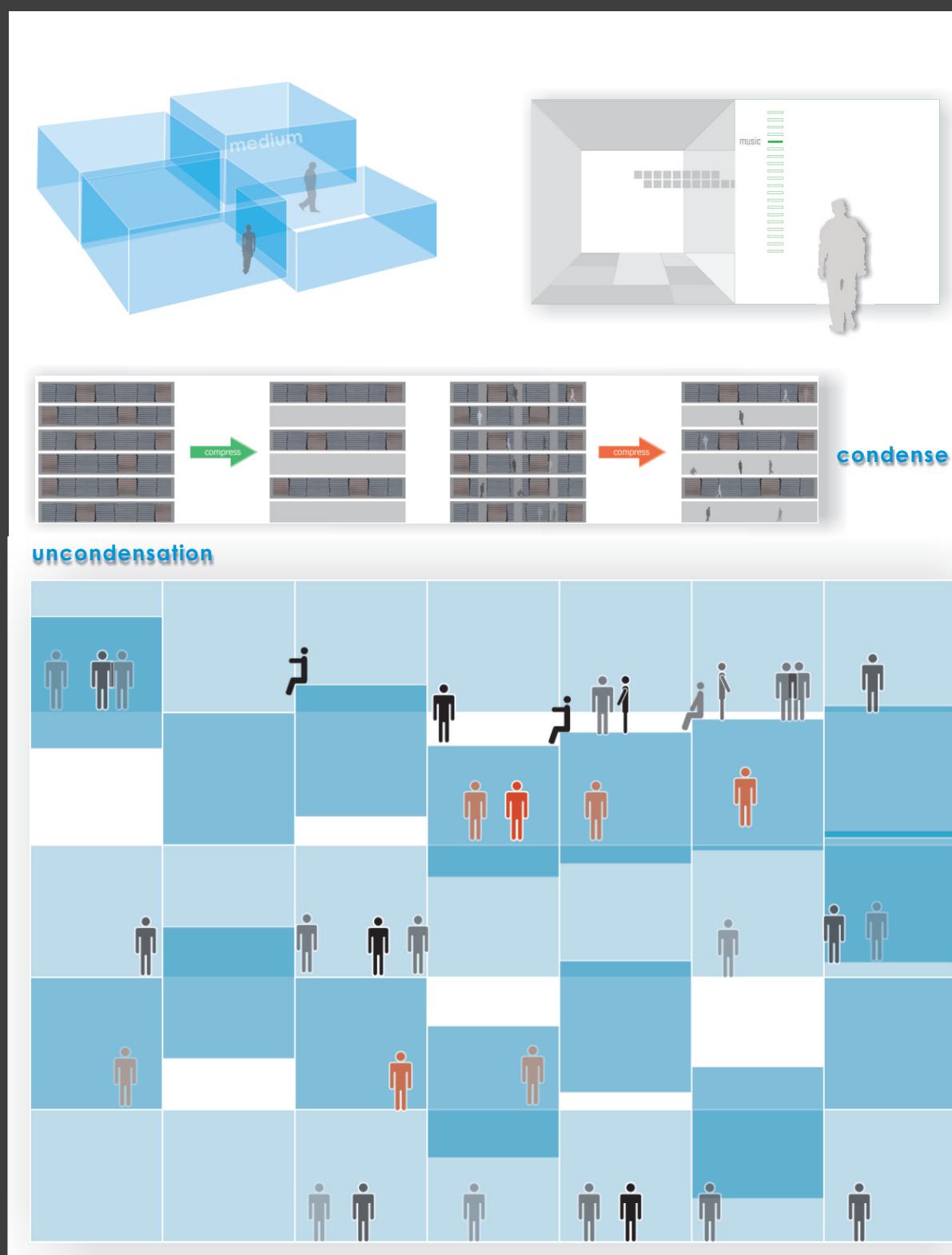


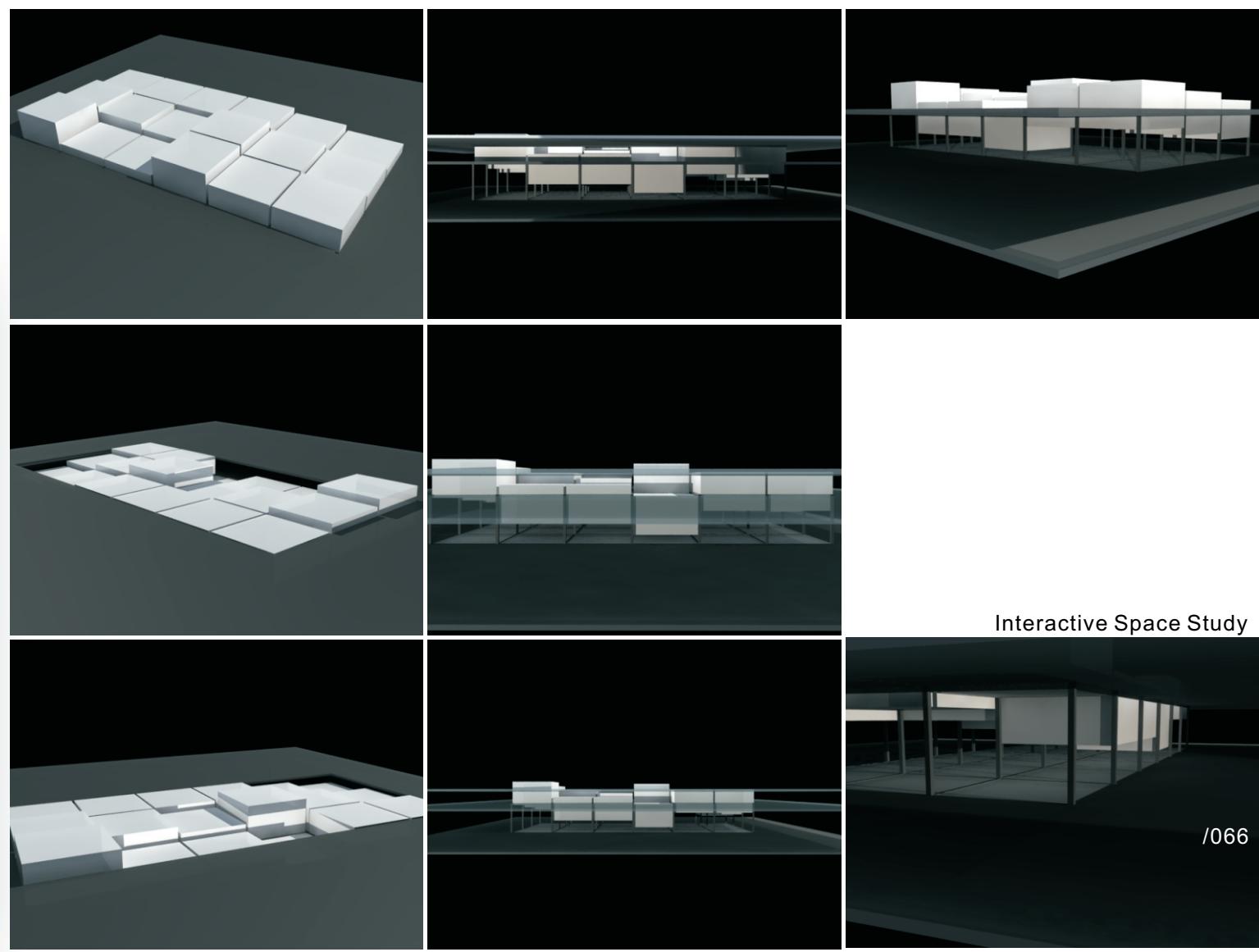
在Web 3.0，所有的網站、連結、媒體及資料庫能夠聰明、自動地傳遞更多的意義，例如一個網站宣布一個會議，背後包含很多相關的資訊與程式連結，使用者只要點一下連結，就能夠立刻將時間及地點登錄在工作日誌，甚至相關經緯度傳送到GPS，同時會立即將主講者背景及講題資訊寄給名單上的相關人員。

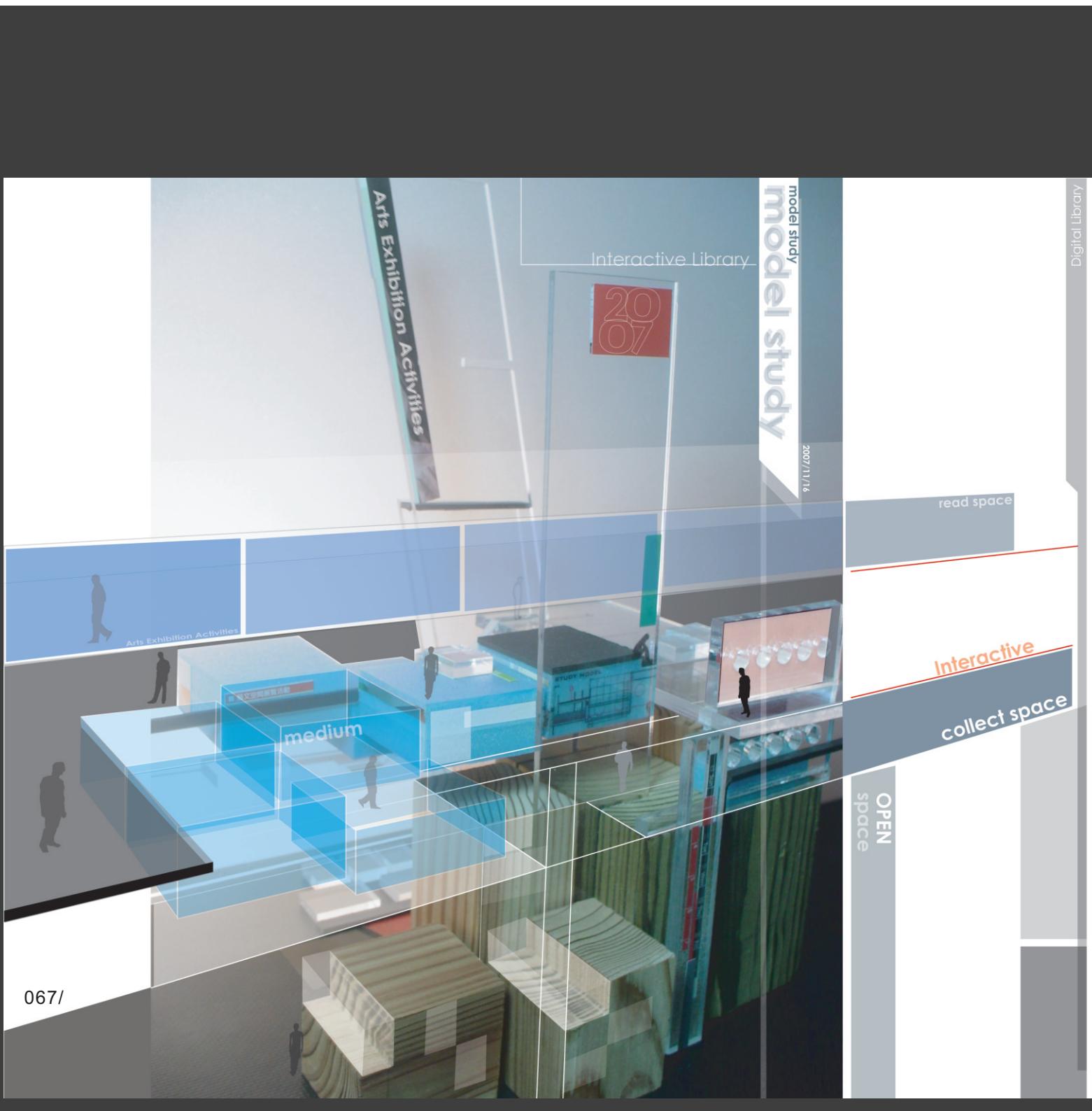
種種可能的應用，Web 3.0將許多的服務整合在一起，讓使用者可以方便、有彈性的、以自助的方式達到目標，如果可以成功，勢必比今日的搜尋引擎、更具備商業價值，因為Web 3.0是有意義地在回應搜尋的問題，而不是以上千份可能不相干的文件回應，這其實帶給商業應用非常大的想像空間。

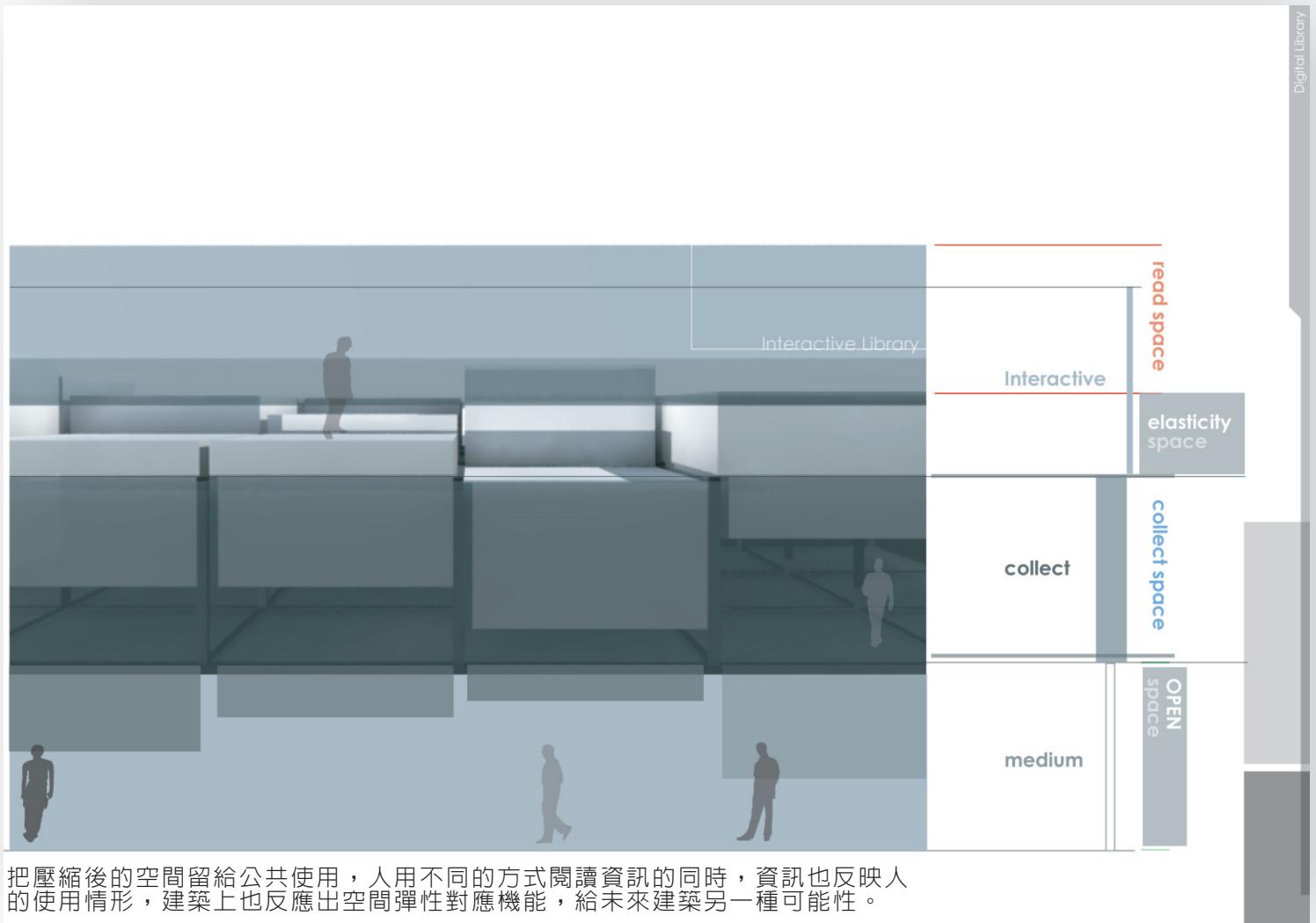
90年代的網路是以文件為主，之後的網路則將以資料為主。Web 2.0將不同的應用與服務連結，比較像是目錄；Web 3.0則是具有人類智慧、能思考的系統，能夠提供指引。

■ 分析過去的圖書館發現，空間機能從剛開始的，單純的保存書到現在多重的空間概念，機能不斷被累加，我們試著重演化的過程去推演 2010 年的圖書館形式，之所以現在圖書館還存在，是因為就算上網可以查找到我們要的資訊，也可以線上討論，但卻少了一點真實的互動與社交關係，現在建築師們創造出可以很自在的閱讀空間，流動的空間型態，也提供免費的上網和咖啡，無非就是為了讓人減少距離感，而不是沿用制式的形式，讓我們在館放假時也可以進入圖書館，自在的查找資料並很溝通聊天，創造出新的溝通活動。想必未來除了繼續創造這種行為之外，也會配合多媒體或遠端互動式所衍生出來的活動，圖書館把新舊世代的資訊做一個統整，創造出屬於大家的社交互動空間，讓人們須取知識的同時也不會跟社會有距離感。



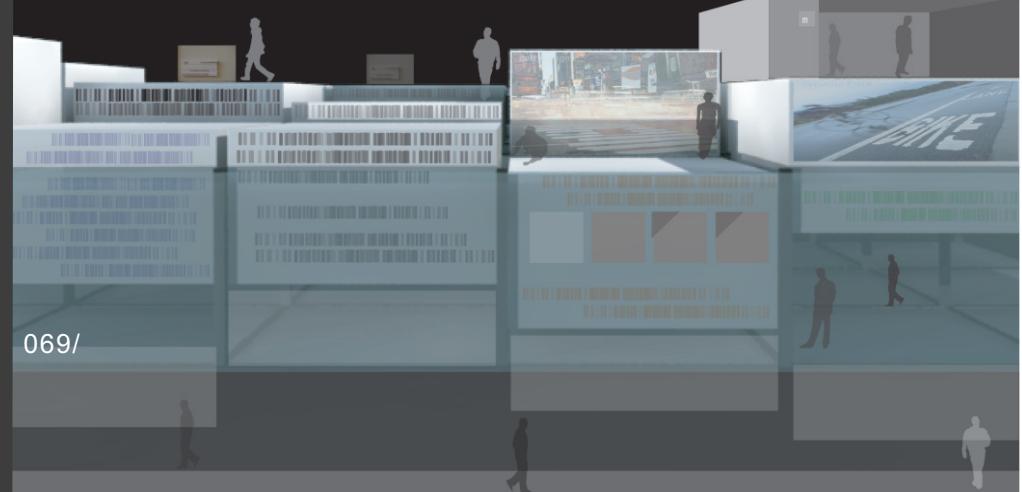
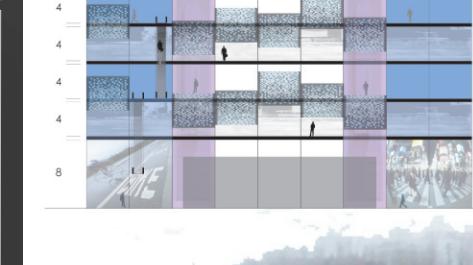
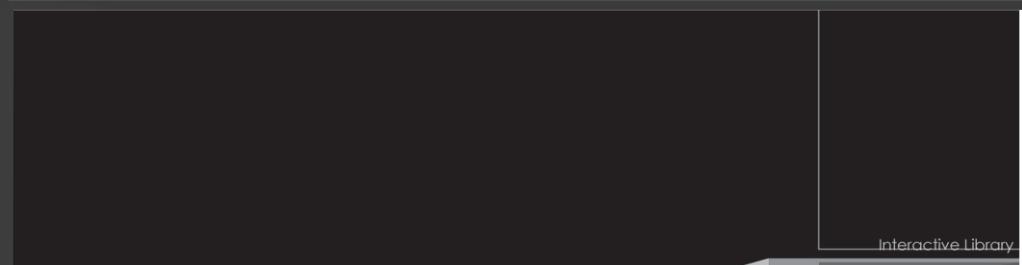
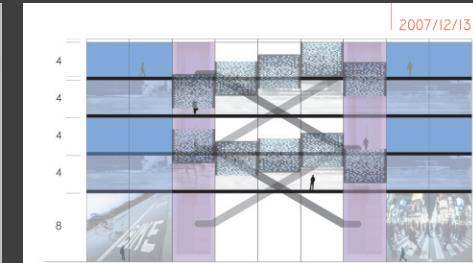
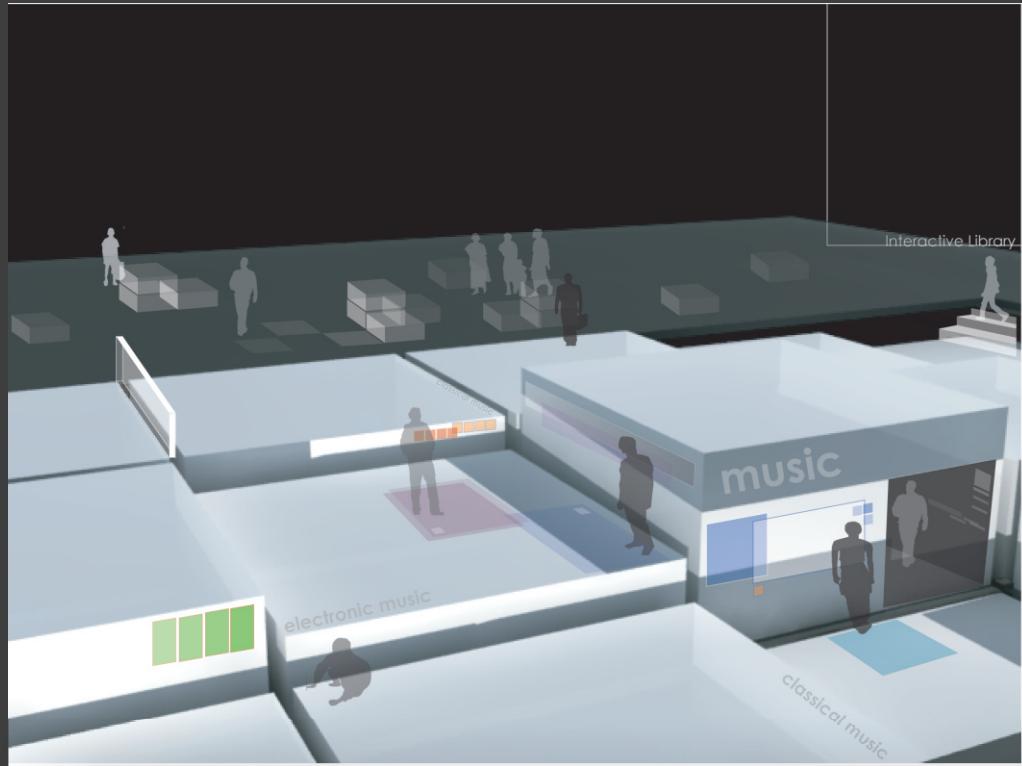




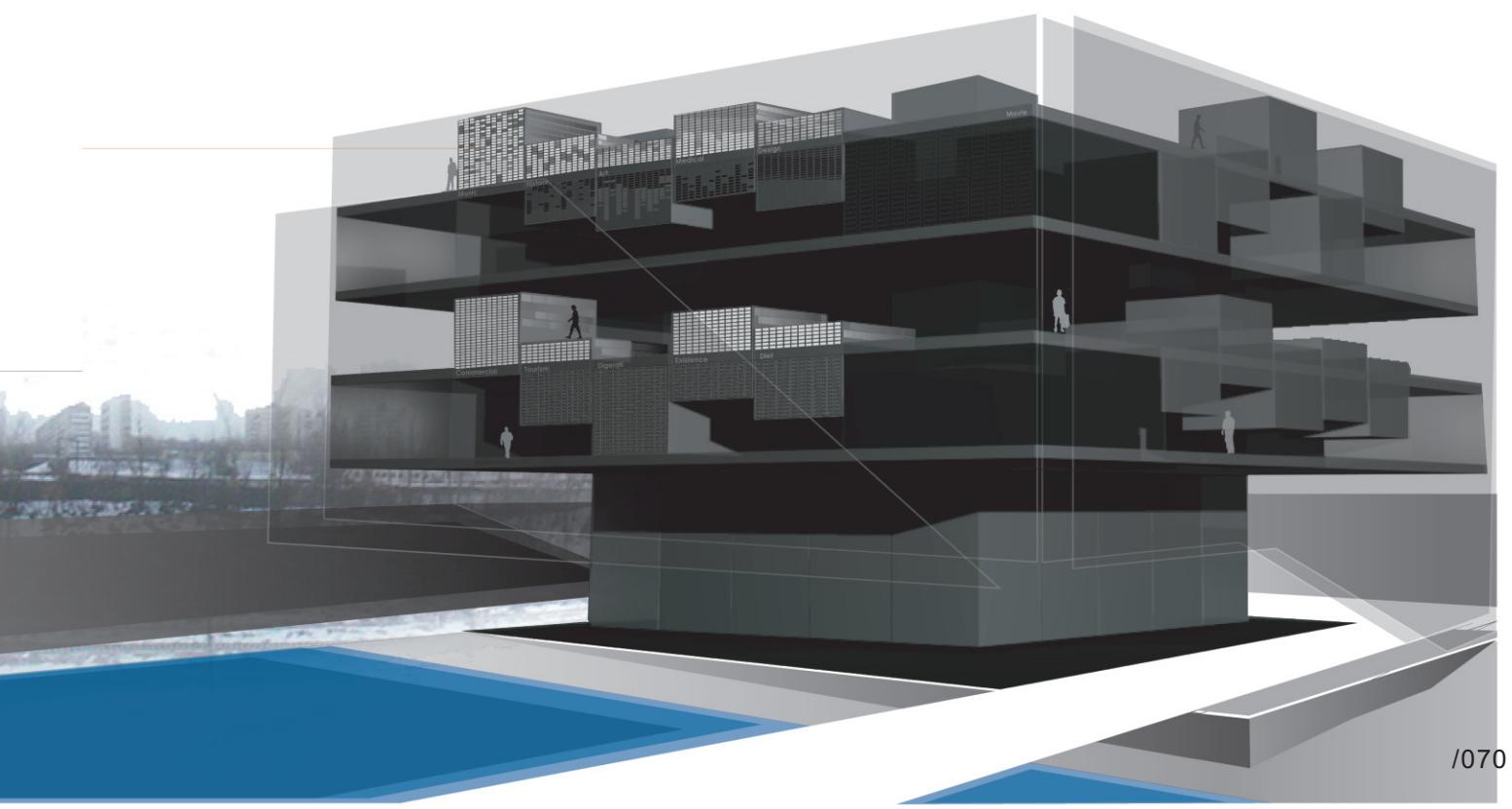


把壓縮後的空間留給公共使用，人用不同的方式閱讀資訊的同時，資訊也反映人的使用情形，建築上也反應出空間彈性對應機能，給未來建築另一種可能性。

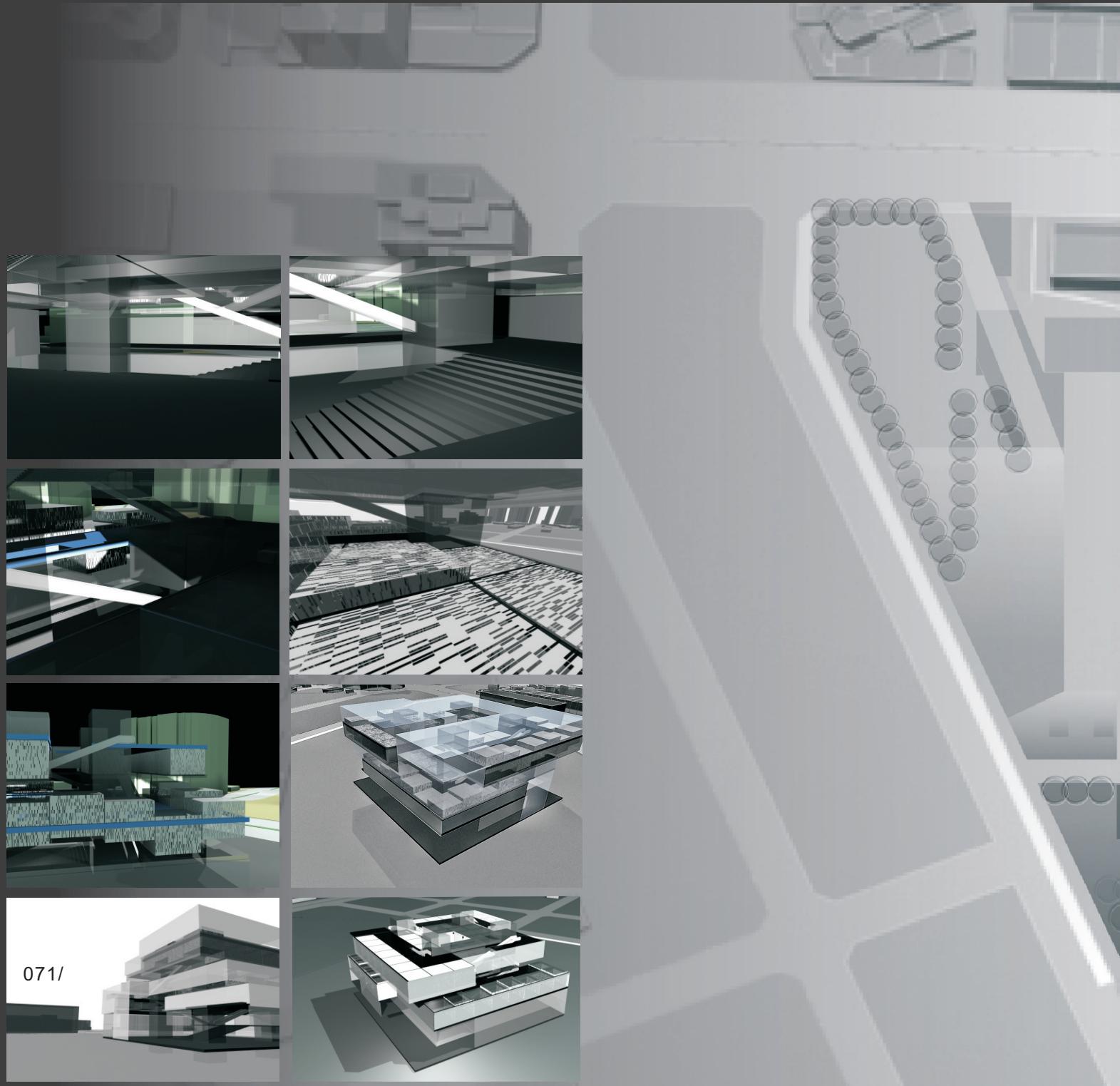
## Interactive Space Study

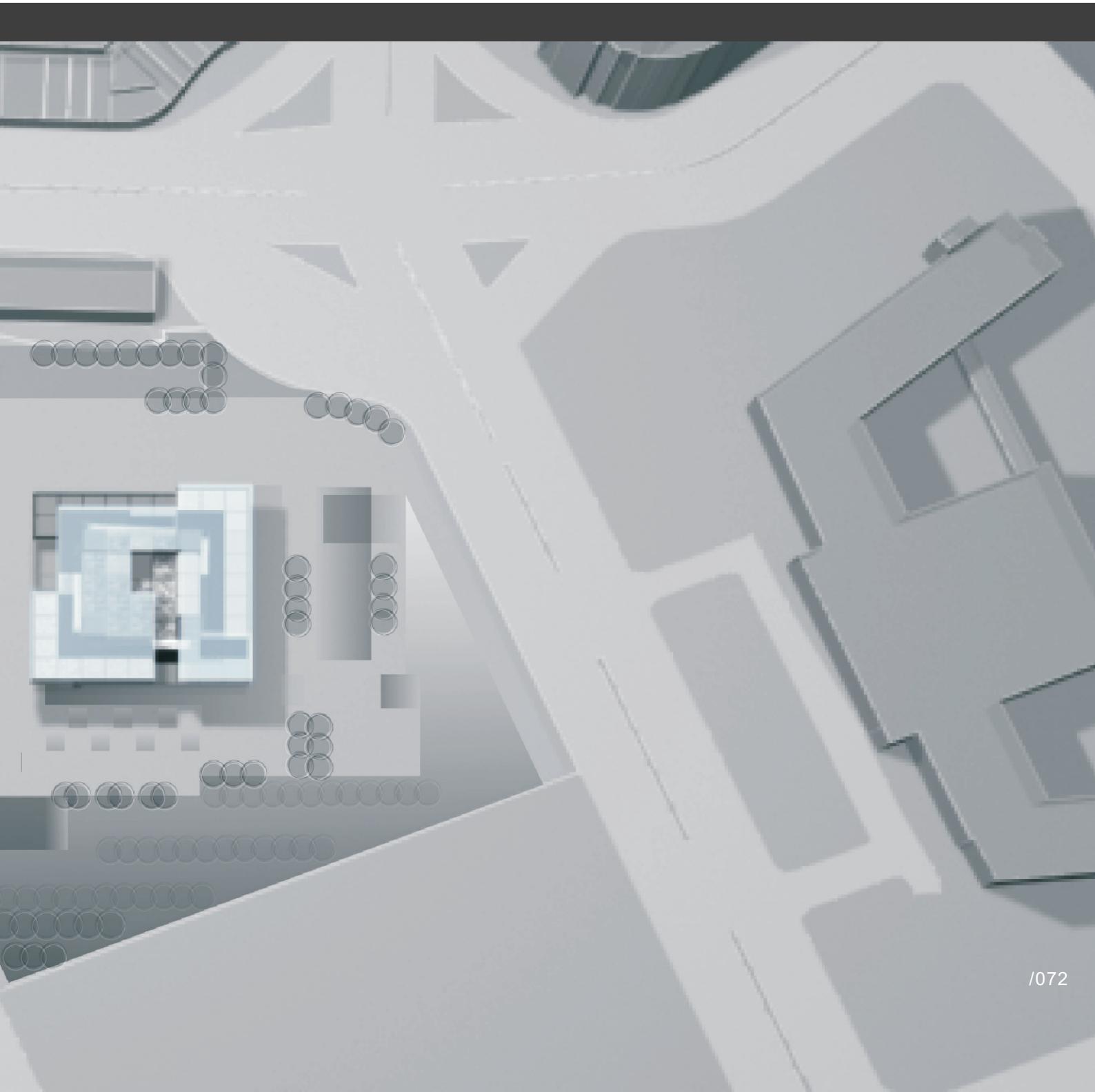


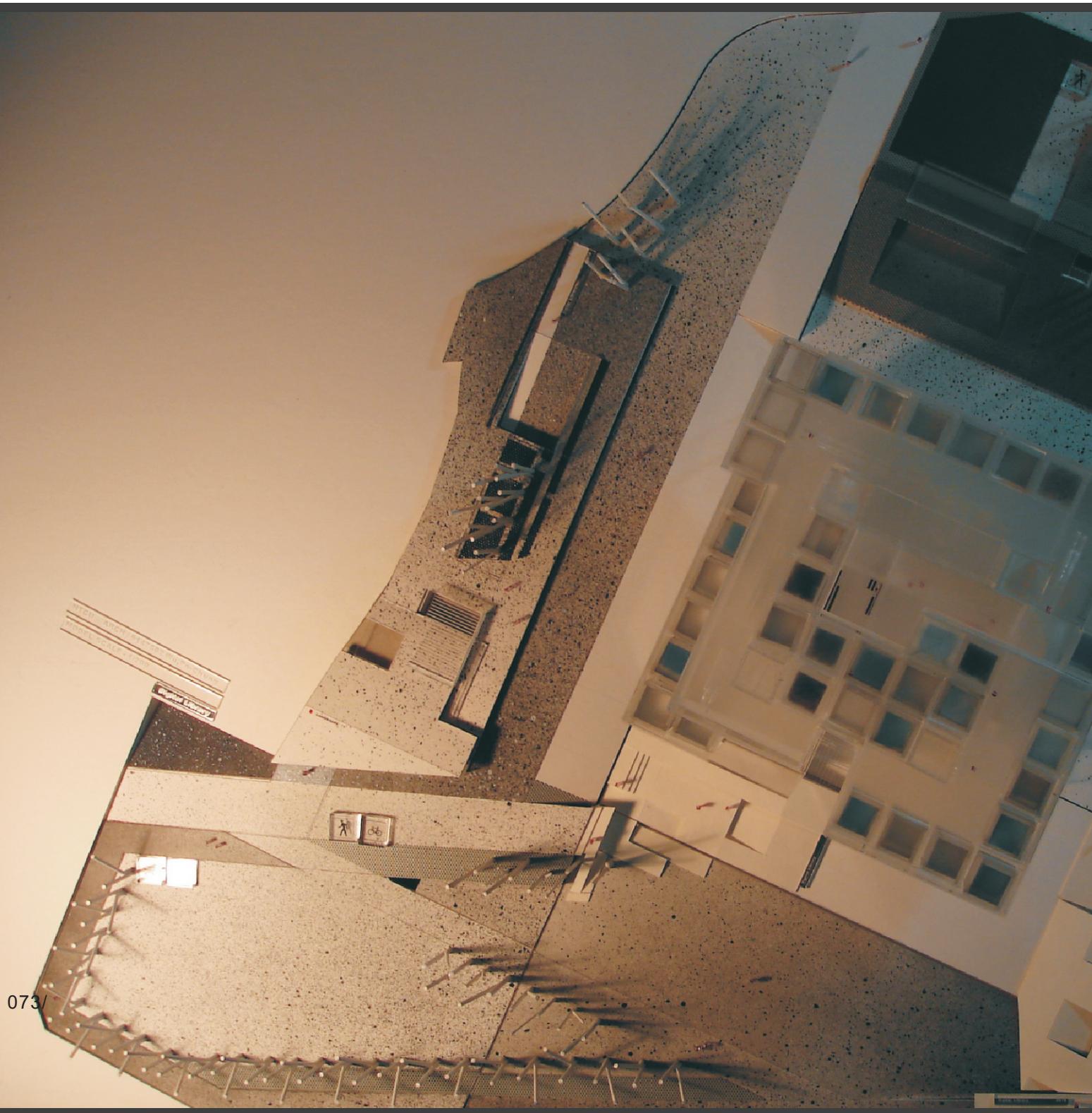
Digital Library



## Site Plan

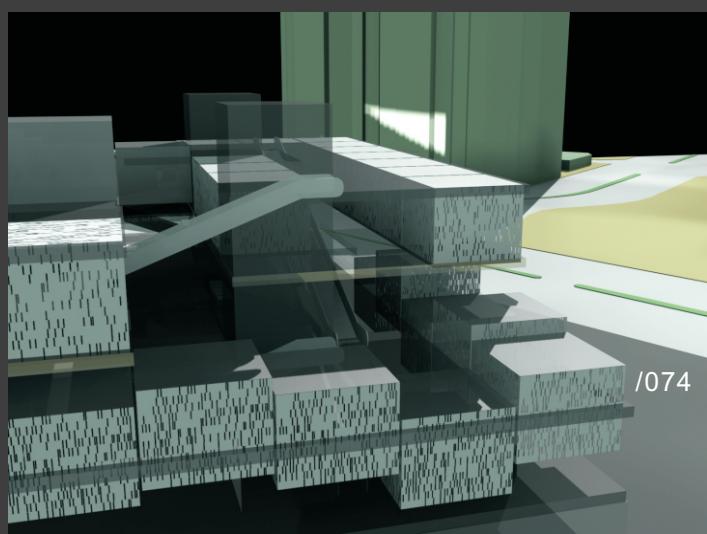
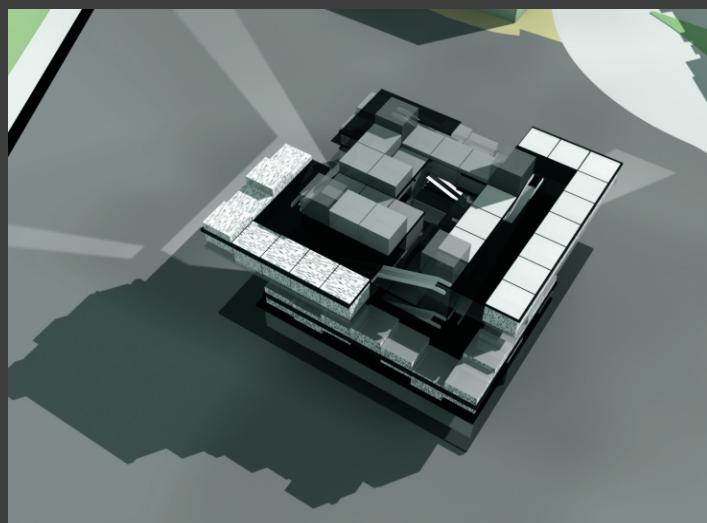
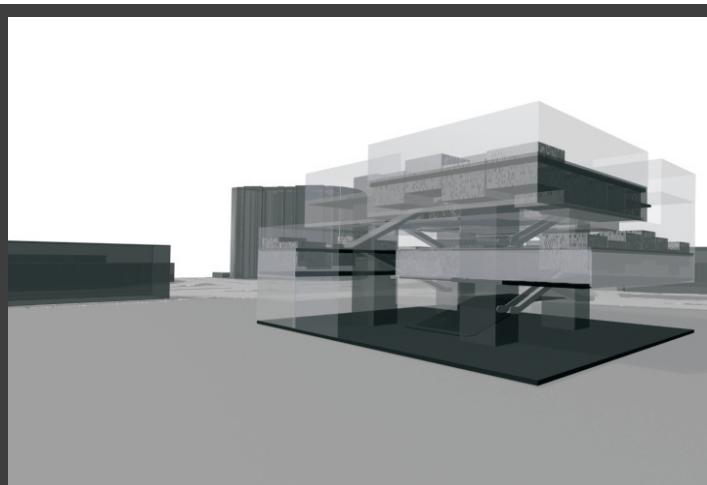


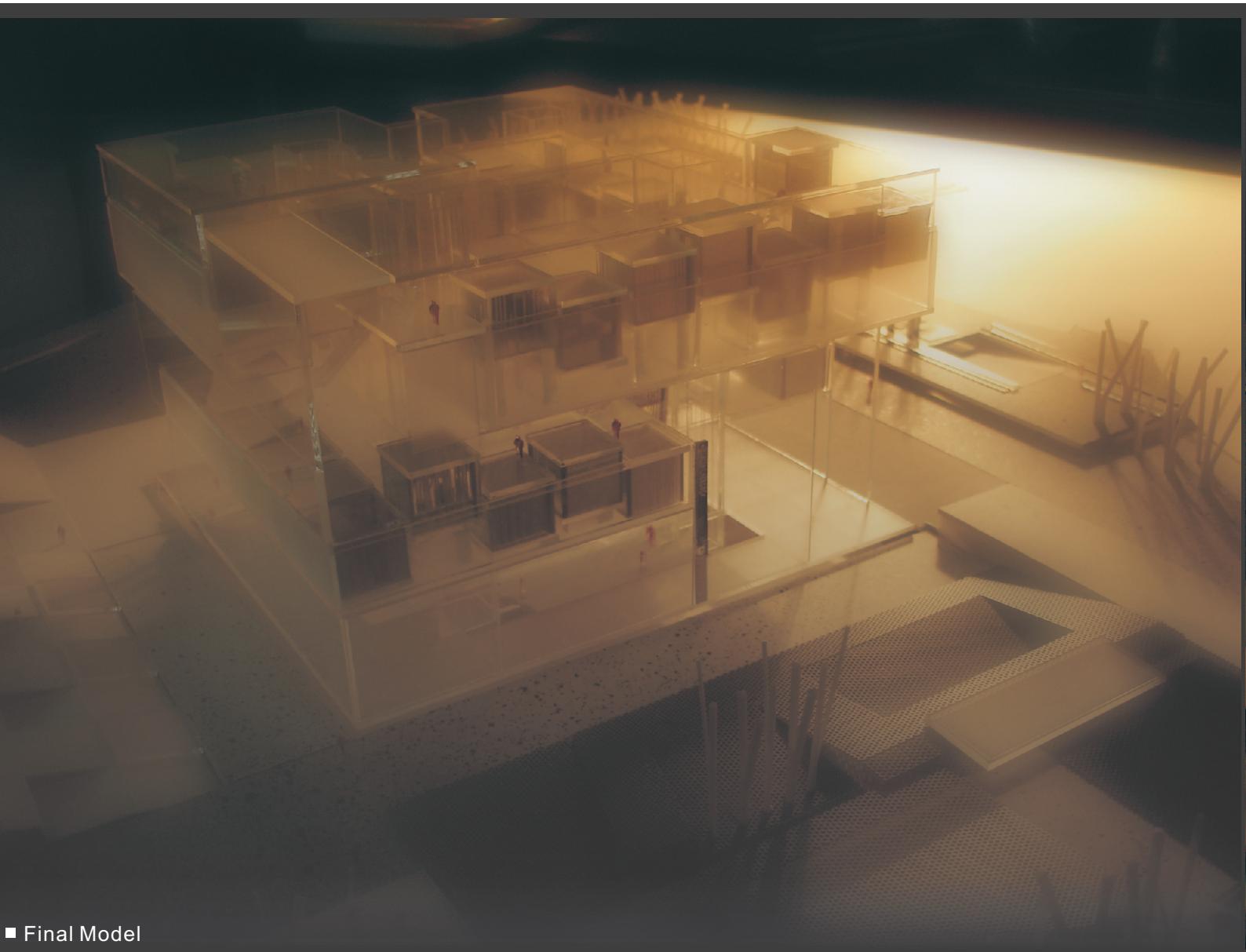






■ Final Model

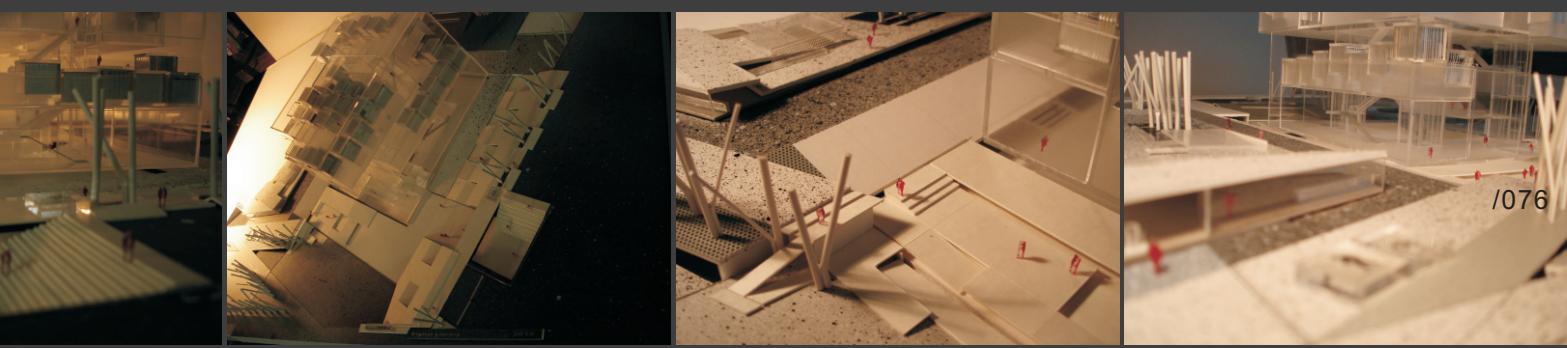
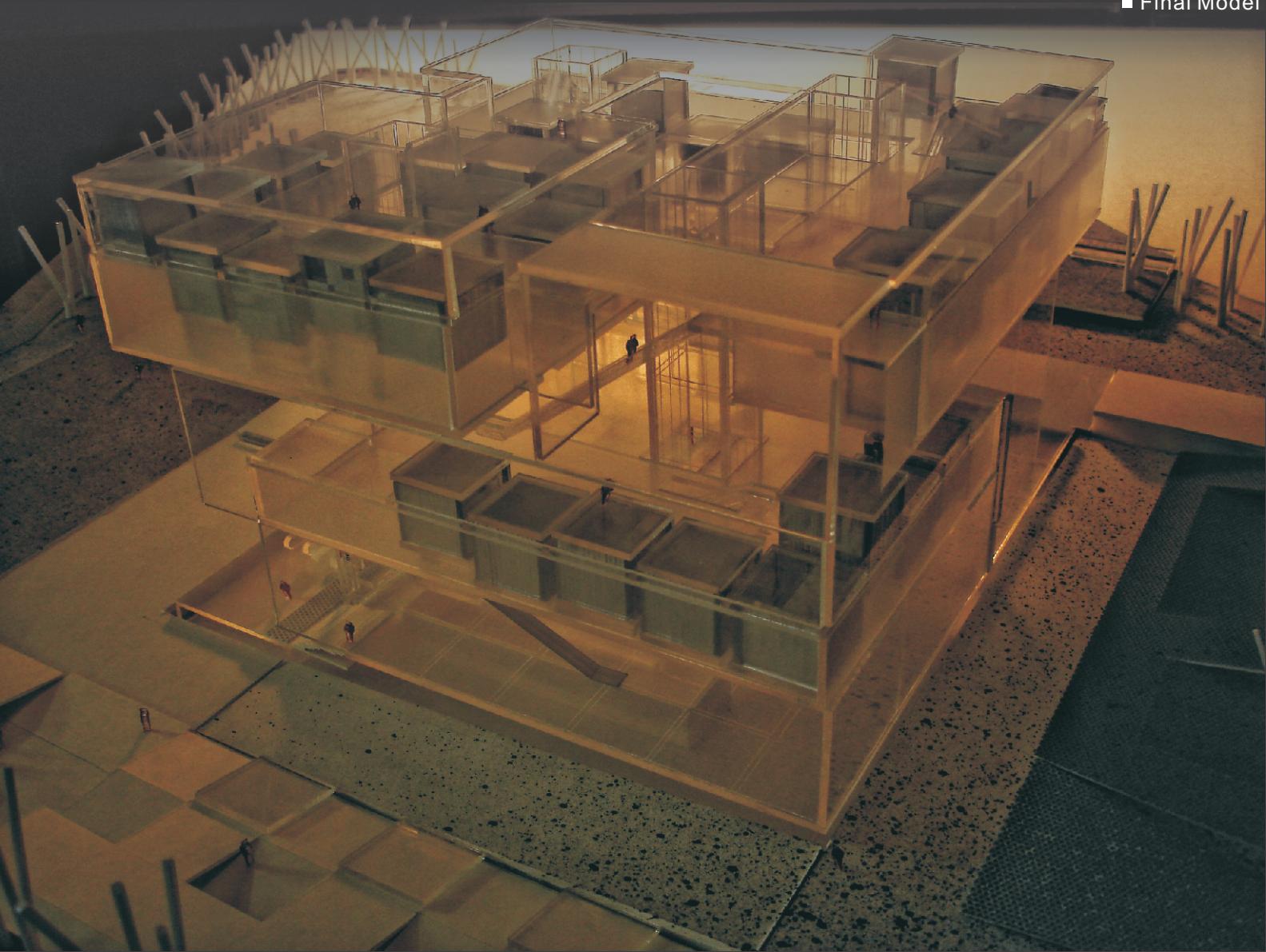




■ Final Model



■ Final Model



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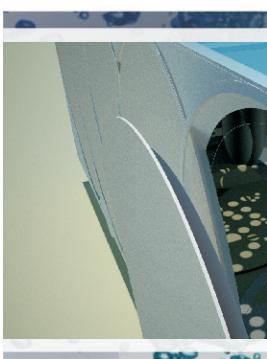
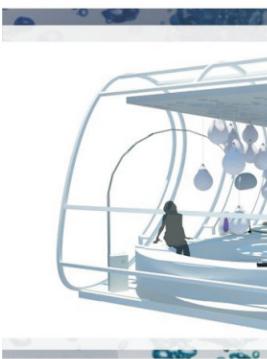
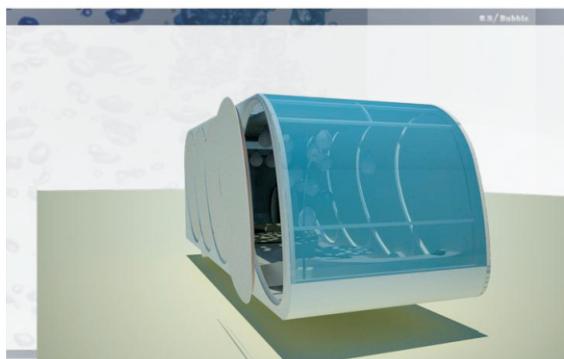
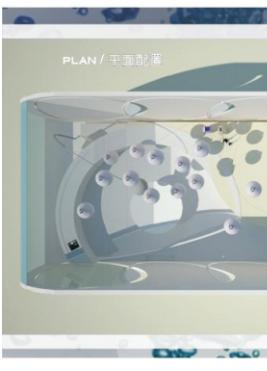
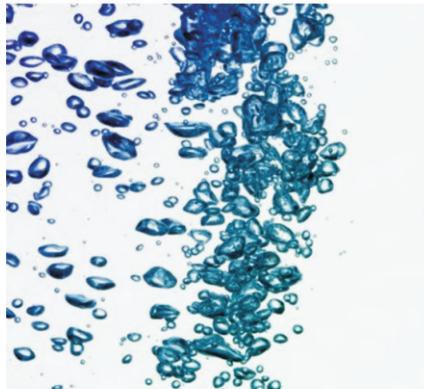
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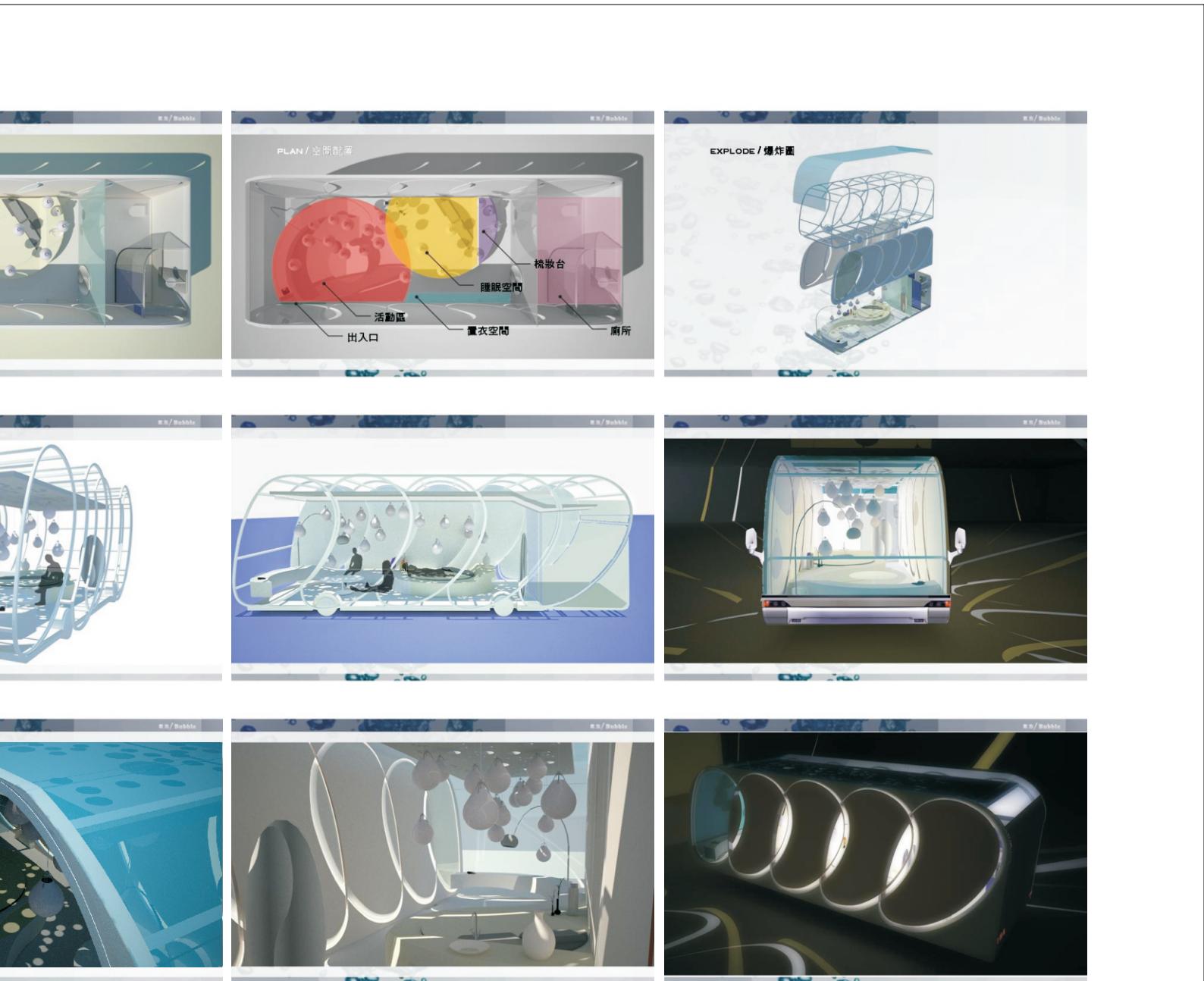


## Chapter\_04 Comptition

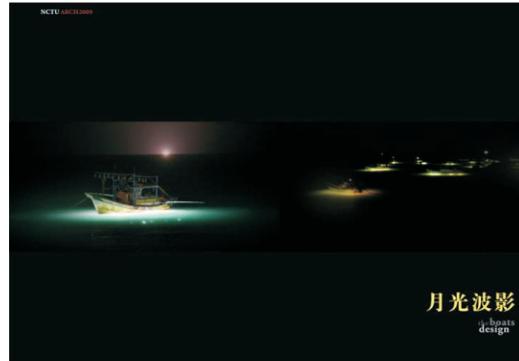
## 巴士旅館設計

地點 / 台灣, 龍洞遊艇港

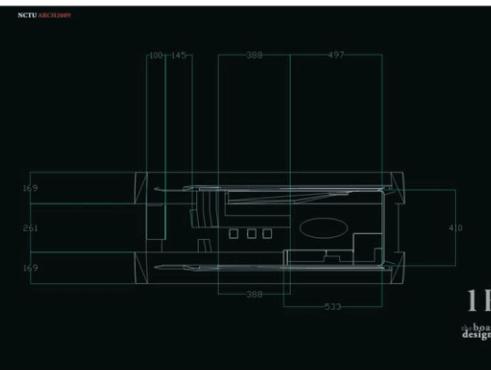
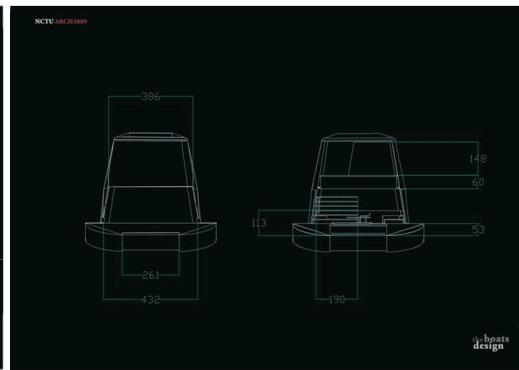
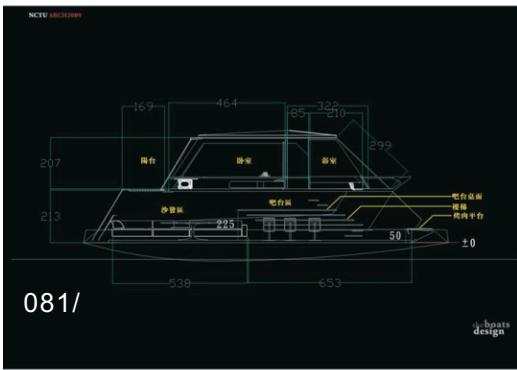
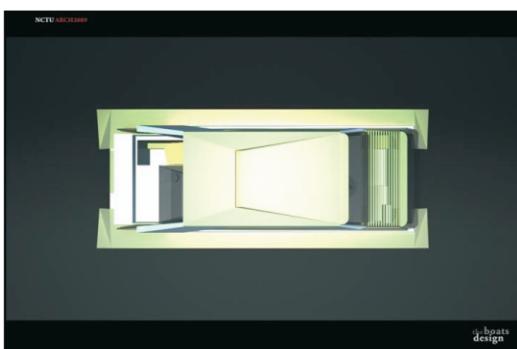


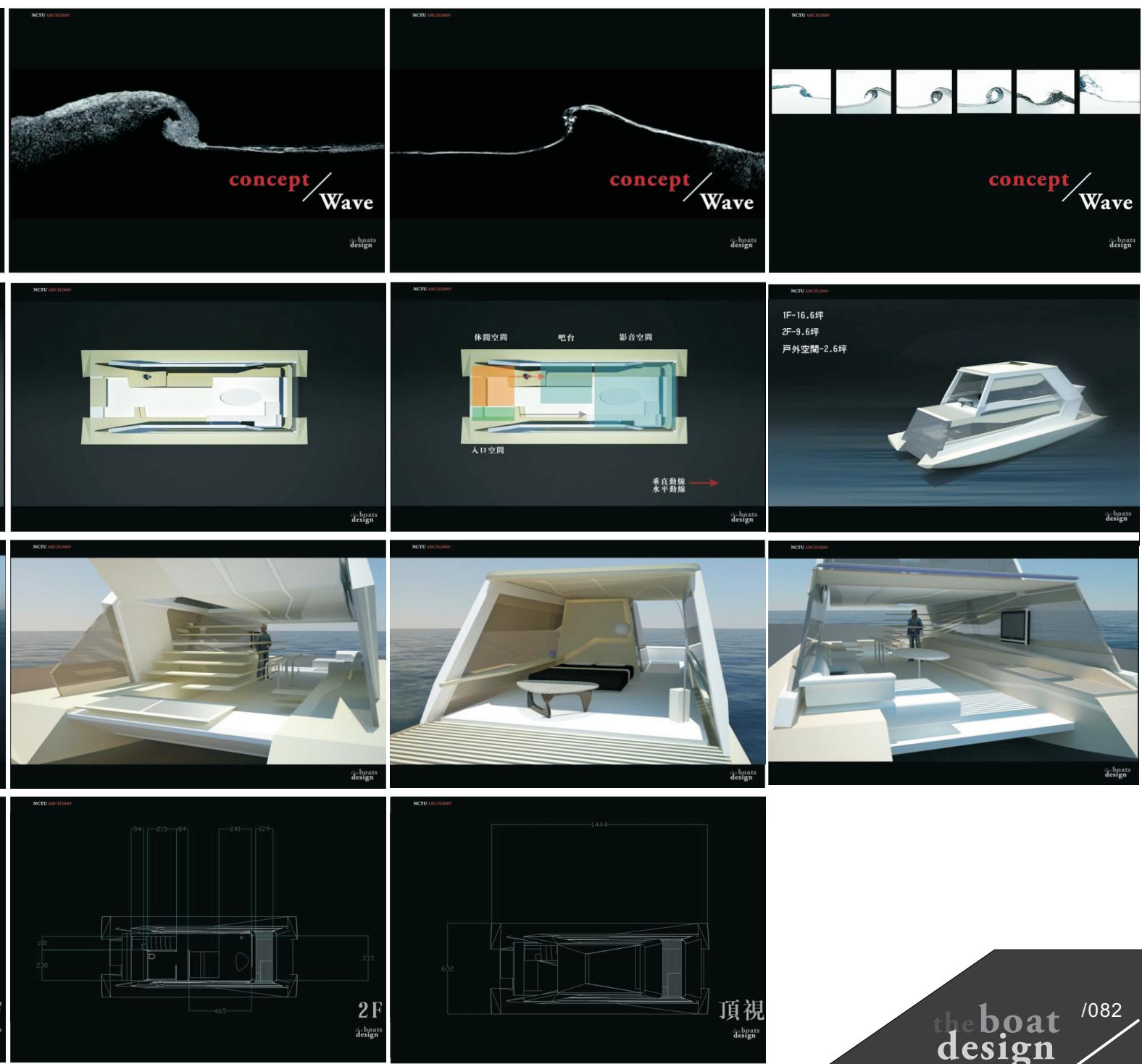


海上旅館設計  
地點 / 台灣, 龍洞遊艇港



concept / Wave  
design

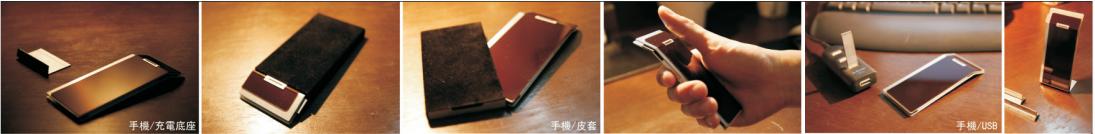




## 產品設計 / 手機



**NOKIA uni-phone** concept / 皮夾裡塞滿了不同的卡片，從身分證、駕照、健保卡、悠游卡、信用卡，到各個店家的會員卡，有幾張是我們每天用的到的卡片！？這些代表身份的證明文件卻佔據了很多不必要的空間，隨著數位科技的發展，手機除了聯繫外，是否可以壓縮這些資訊，讓我們更便利的享受生活。



**NOKIA uni-phone** 每個人身上都有一個獨特的識別符號[指紋]，根據多項需要身份識別的需求，例如使用信用卡時，我們可以透過手機來查看消費資訊，確定後少描指紋付款，同時也紀錄你的消費資訊及店家資料同時也取代會員卡功能，出國辦公旅遊時取代電子機票的功能，讓我們可以快速的通關的同時也不怕資料被盜取，讓我們更便利的享受生活。





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