國立交通大學 建築研究所 碩士論文

建築|故事

Architecture | Story

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ABSTRACT

建築 | 故事 對生活情境的想像

[生活]

生活就是:與朋友吃飯、到公園運動、在客廳看電視....由一連串生活動作所組成。生活,是動態的。

[生活情境]

我們腦海中所浮現的一幕一幕生活情境,是由我們一連串的動作、行為所組成。生活加上活動,構成了空間情境。故事, 就是對生活情境的想像。

[故事]

故事,由生活的連續動作與生活情境所組成,她可以講述一個事件,她同時傳達了訊息、風景、聲響、甚至活動與行為。

故事,就在生活內發生;故事,也在建築內發生。建築的空間,就是由發生在內的故事所決定。有故事的空間,其實就 是有機制來規範空間的運作。由機制,來激發空間裡的故事。

閱讀建築時,閱讀發生在裡面的故事與機制,閱讀由故事所引發的生活情境與生活行為。

用故事來閱讀空間,空間之間不再是以一條界線來區分。有故事的空間,可以是很流動的,它是由發生在裡面的故事來決定各個空間的性質。由故事所觸發的建築,介面很活潑,情境很動態;是自發性的狀態、我們無可預期的情境。 在無可預期的建築裡,故事可以一直發生,空間性質可以一直變動...,這才是故事存在於建築內有趣的地方。

ABSTRACT

Architecture | Story

[Living]

Living is flow.

To have lunch with friends, to exercise in the park, even to be couch potato Living is the actions clicking through series chemistries of flow.

[Scenario]

With these clipping memories flashing in our minds, our living are articulated through the collaring of actions.

With action, king becomes the story of space.

With story, our imaginations picture ouvling.

[Story]

Story, cascaded by actions and scenarios, can picture an event; it also can channel message, sound, view, even activity and behavior.

Story lives in daily life; it also lives in architecture. Architecture is framed by the stories inhabiting inside. Architecture with stories is acted with the mechanisms to refine the play of space. Through mechanisms, stories can be inspired within space.

We cannot read architecture form outside the stories and mechanisms. We have to live through the play and the actions to read the story, the story of life.

To story a space, space is overly rich to be defined only through single line. Space with story can flow through lines, it also can be characterized by the plays happening inside. The acting space interfaces so active, so flexible; it's so spontaneous, even us cannot really expect what's next.

In such a spontaneous space, stories can play with the play, and the characters of space can always move with the move...

Having an architecture moves within stories, that is the true story we want to story.

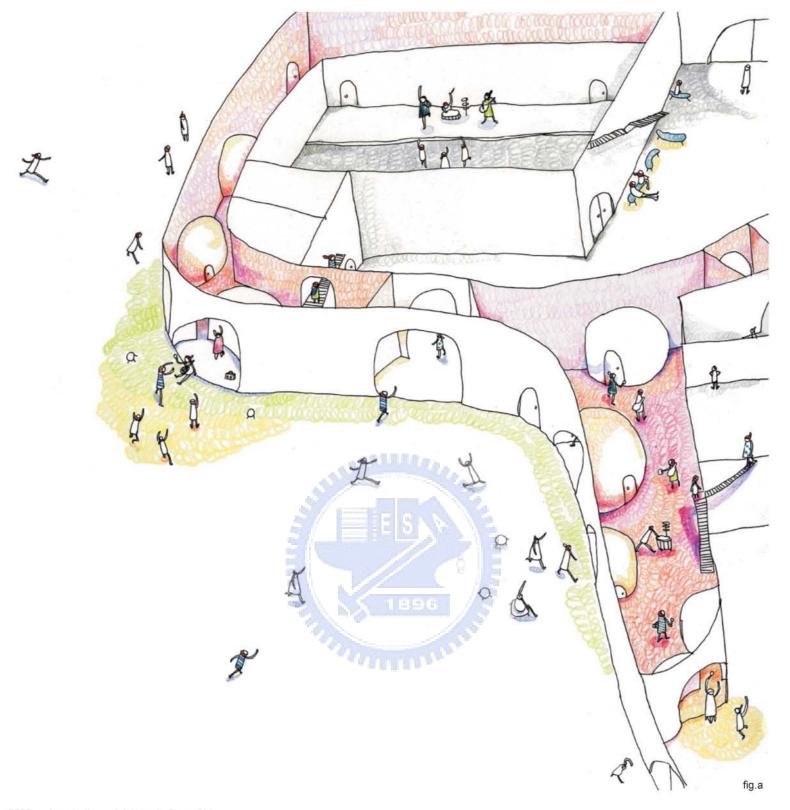


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建築 | 故事

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2009.spring studio. Adviser_Jr-Gang Chi.

Flash Mob, a spontaneus pop music center.

- 真實世界與虛擬世界,
- 音樂人的世界與觀眾的世界。
- 音樂人,我們無法觸及的,是在虛擬世界;
 - 觀眾,(就像我們),在真實世界裡。
 - 藉由樂團快閃的活動,
 - 樂團們出現...又消失...在真實世界裡。
 - 樂團們高昂的表演,
 - 樂團人們與觀眾們一同嗨翻!

When people (•) in a place get to a number, Flash Mod will have a live show at the hole!

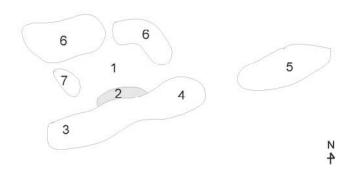
We dont know which hole will musition appear, cause there are so many hole in here!

Every activities in this pop music center, are unpredictive and spontaneous!!!





PROGRAM



1.outdoor performance hall,

for 15,000 people.

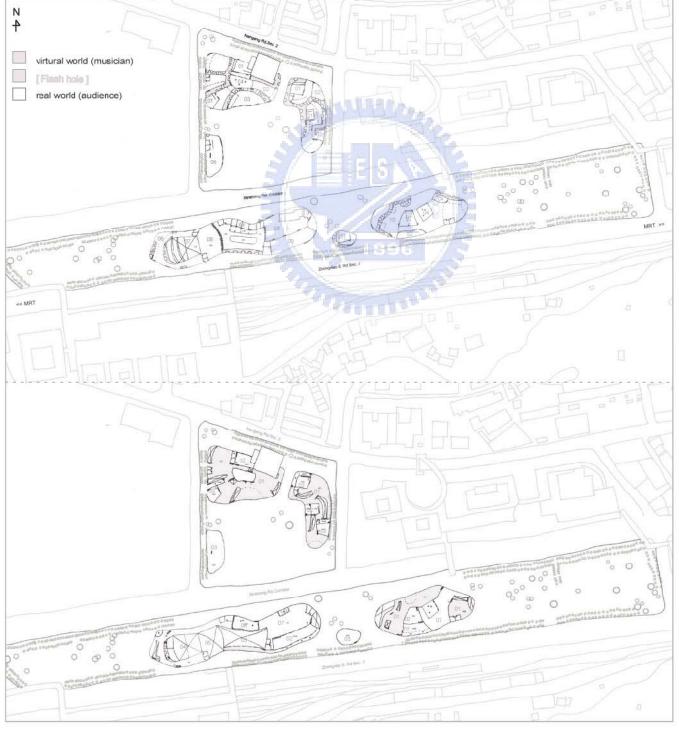
2. movable stage, can be folded when there's no perform.

3. main hall, indoor performance.

4. back stage, for indoor & outdoor performance (both).

5;6;7 Exhibition; Live House + eat; Administration

SITE PLAN



1F SITE

01.Live House 02.food 03 plaza 04 garden

05.administration

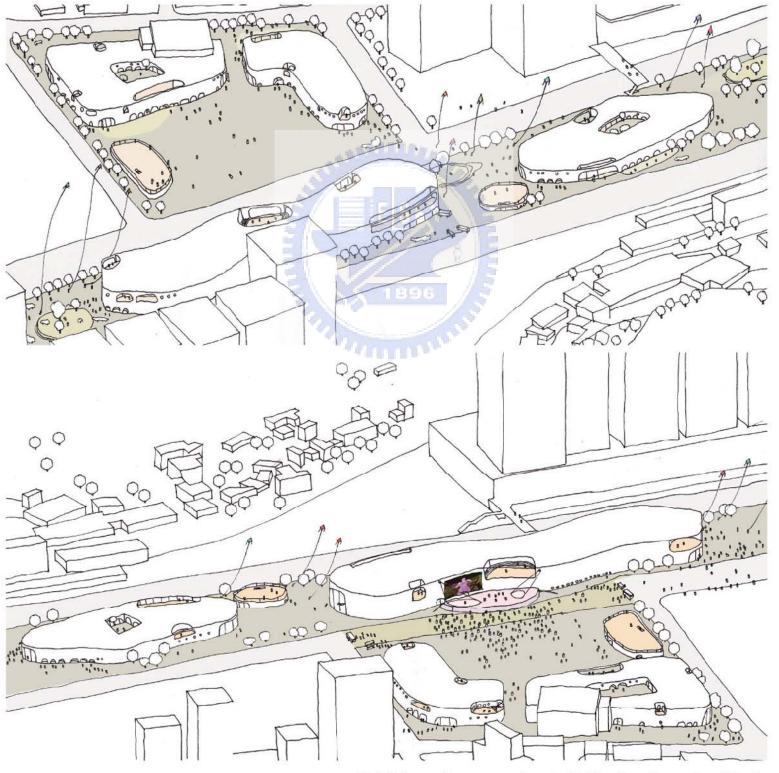
06.entrance hall 07.main hall 08.back stage 09.dressing room

10.exhibition 11.screening room

2F SITE

01.musician world 02.play+eat room (for audience) 03.roof garden 04.main hall 05.back stage 06.perform room 07.exhibition

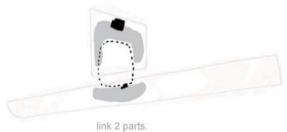


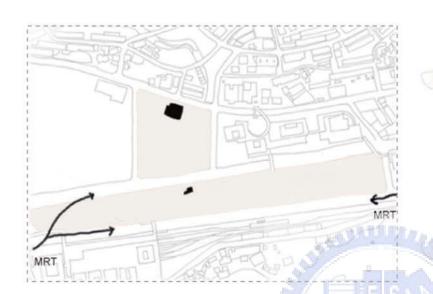


Flash Mob, a spontaneus pop music center 03 | Tzyy-Fong Chan work 2011 | 05 - 06

SITE

@ Namgamg District, Taipei. between Kunyang & Nangang MRT station.







→ main entrance. ←



share back stage.

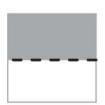
VIRTURAL WORLD & REAL WORLD

musicions & audience



THE PERSON NAMED IN

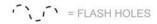


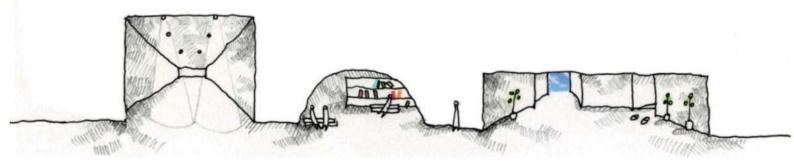






audience





4 type of Flash Mob & space

1 Flash, new songs

Flash holes, a place to realese new songs.

Bands can test the popularity of their songs,

and manager can find new singer by coming here.



Inner, spot, occur frequently.



2 Flash, warm up Live shows

"The live show will start at 10:00pm, maybe we could meat each other at 8:00pm first!"



"A flash band is going to perform at the outside of Live House 6 !!!"

3 Flash, inbetween

The coffee shop is quiet, it's the ladys tea time...

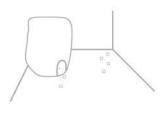
"GO SURPRISE THEM!!"



"A flash band is going to perform at the second tree in the garden !!!"







Outdoor, green; through the glass





4 Flash out @ plaza

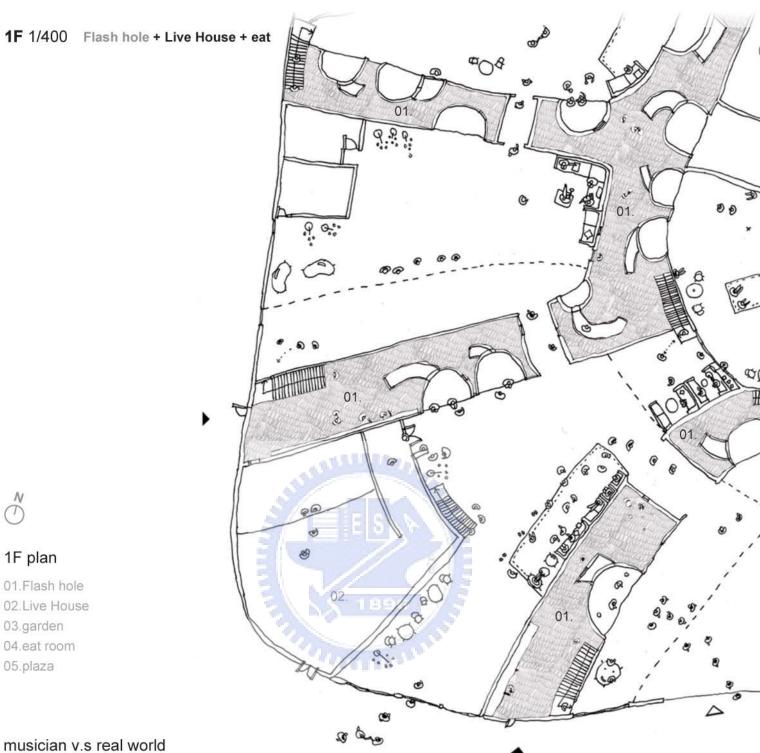
Bands will announse on there "PLURK" (20 minutes before the show)

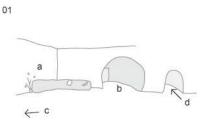
Fans come after receiving the message!

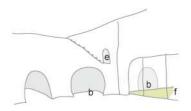


For indoor, plaza, large scale.

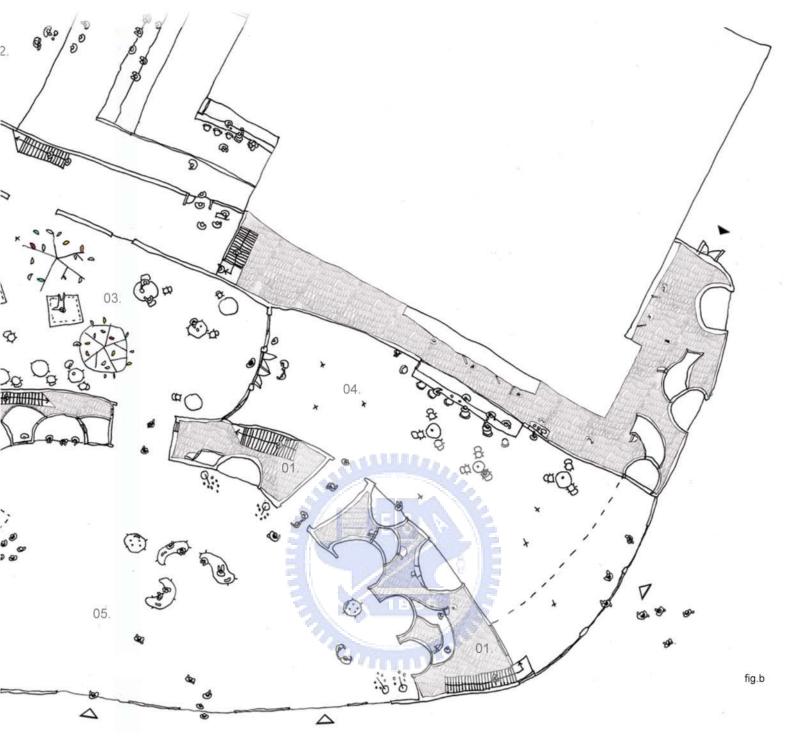








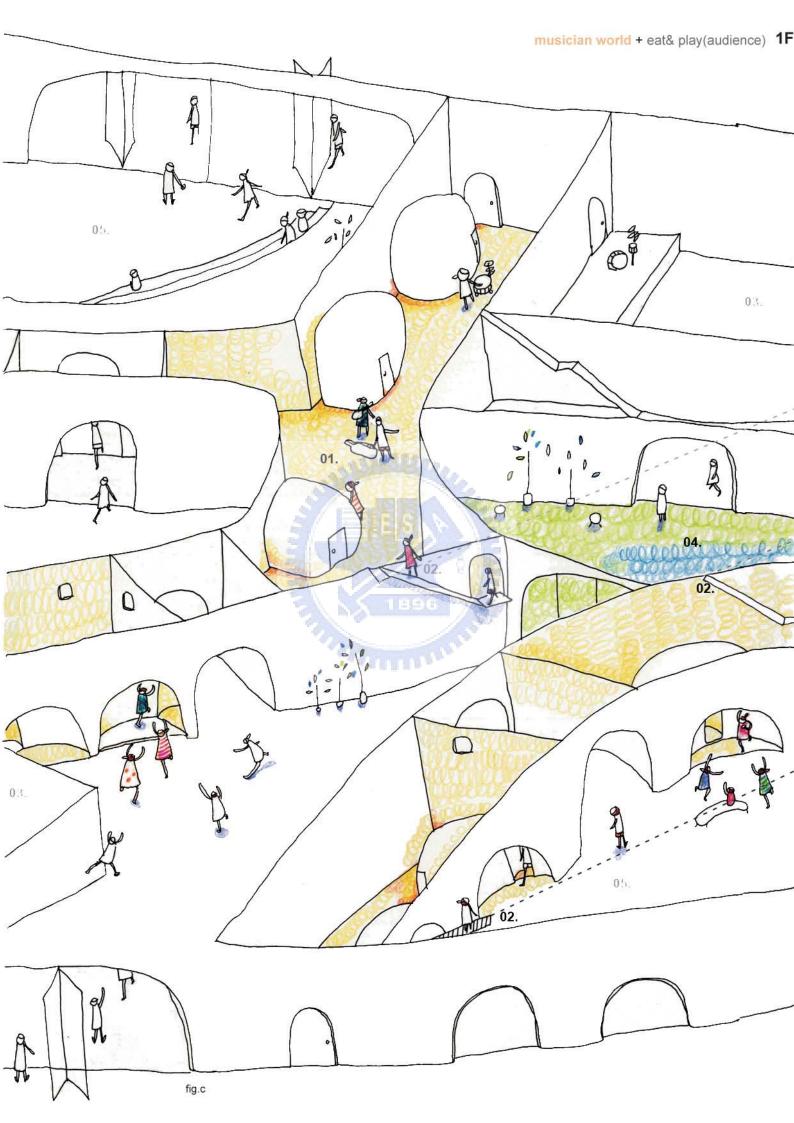


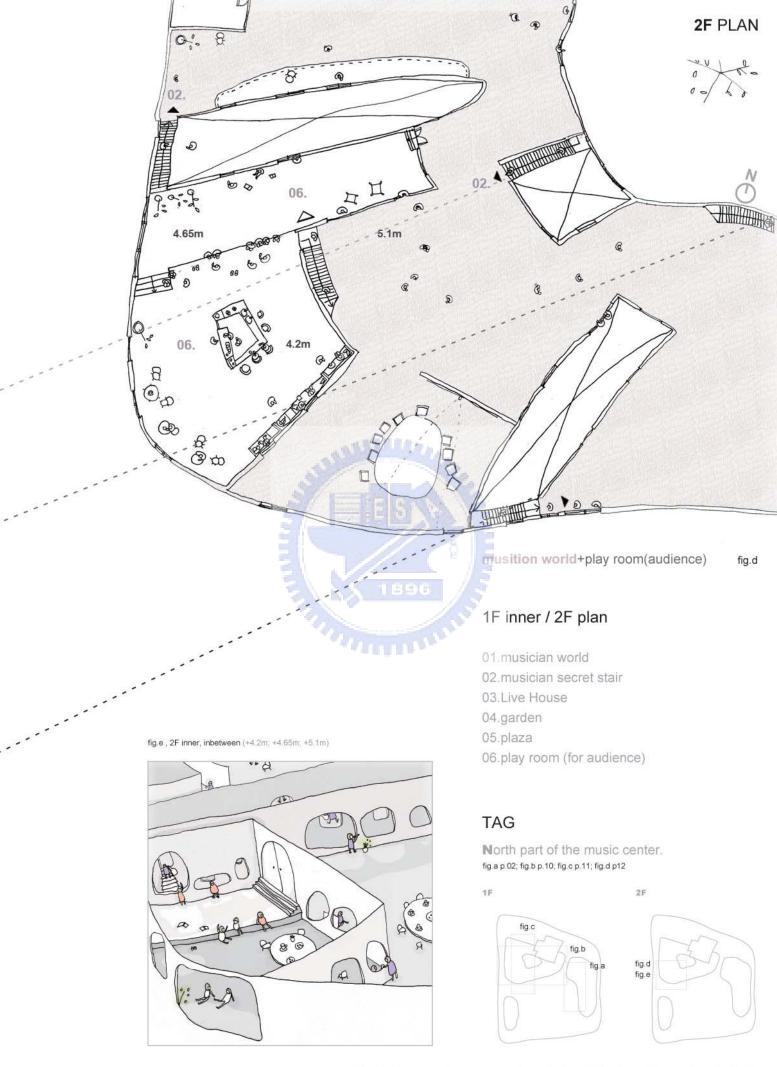




a. Live house b. Flash Hole c. Live House entrance d. entrance e. musician secret stair f. garden + eat

01	02

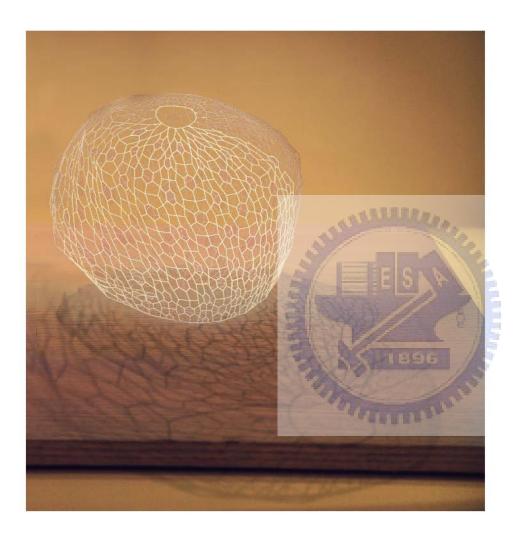












2010.feb | grasshopper. Keisuke Toyoda studio.

hexagon structure. grasshopper practice.

自然界的

- 生物們。
- 都有其生長的規律。
 - 以及幾何現象。

我所觀察的四照花毬果 (Cornus Kousa)

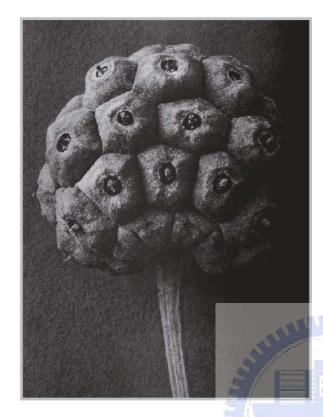
- 是由六邊形所組成。
- 由於地心引力的關係,果實的頭以及尾巴的幾何形
 - 逐漸內縮成 五邊形 三角形。
- 以grasshopper操作, 模仿毬果製造六邊形骨架的結構。
- 另外又再繼續分割每一邊的骨架。
- 成為更小的副結構(sub structure)系統。

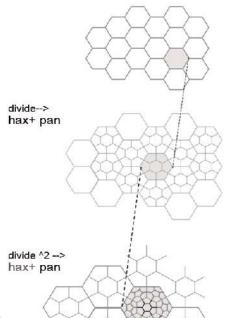
 - 依此類推, 可以以同樣的邏輯切割。
- 對於本作品的期許, 能依照六角形的結構分割邏輯, 在做為家具使用、或是建築結構計算時,
 - 能依照物件各部位被承受力的強度,
 - 在骨架的密度上。
 - 調整適度的參數。

main structure

sub structure

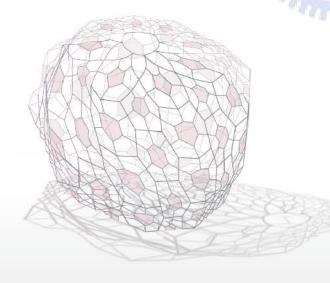


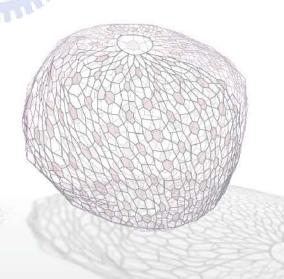




parameter

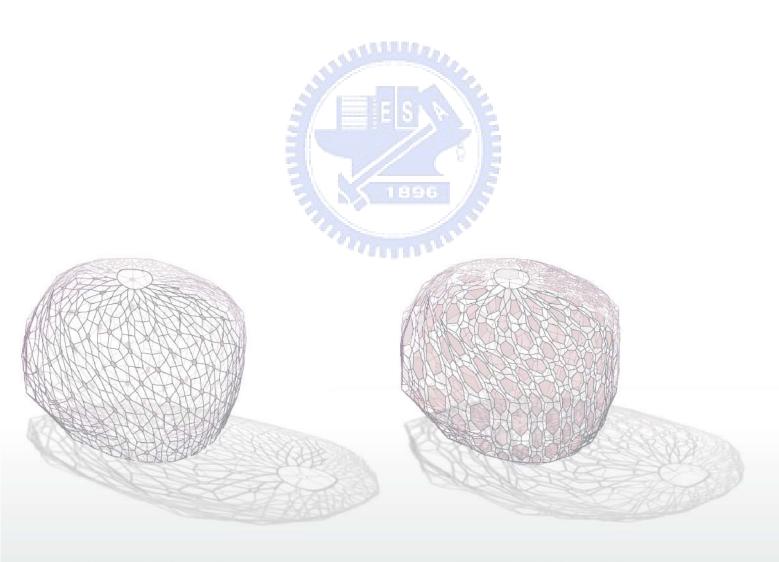
1896





 $U \times V = 5 \times 8$ n=0.5

 $U \times V = 10 \times 15$ n=0.5



U x V = 10 x 15 n=0.2

U x V = 10 x 15 n=0.75



chair no.01 chair no.02

- 一個給身體的,椅子。
- 椅子本身是由模矩化的三角錐單元組合而成。
 - 三角錐本身由兩種材料組合,
 - 為堅硬材,
 - 是椅子與人接觸時的接觸面。
 - 堅硬材與堅硬材之間的連接材:
 - 選擇較彈性的材質。
 - 使人坐上椅子時有緩衝作用的彈性感。

- 整張椅子由三角錐單元組合而成。
 - 嘗試了兩種組合方式: 一種為上下合起來的椅子;
- 一種為頭尾勾起,可以互相卡在一起的椅子。
 - 椅子在還未組合成一個大圓球之前,
 - 也是一個可以擺在客廳的兩個懶人骨頭,
 - 是一個可拆解、
 - 可以坐、可以翹腳...
 - 任意使用的家具。

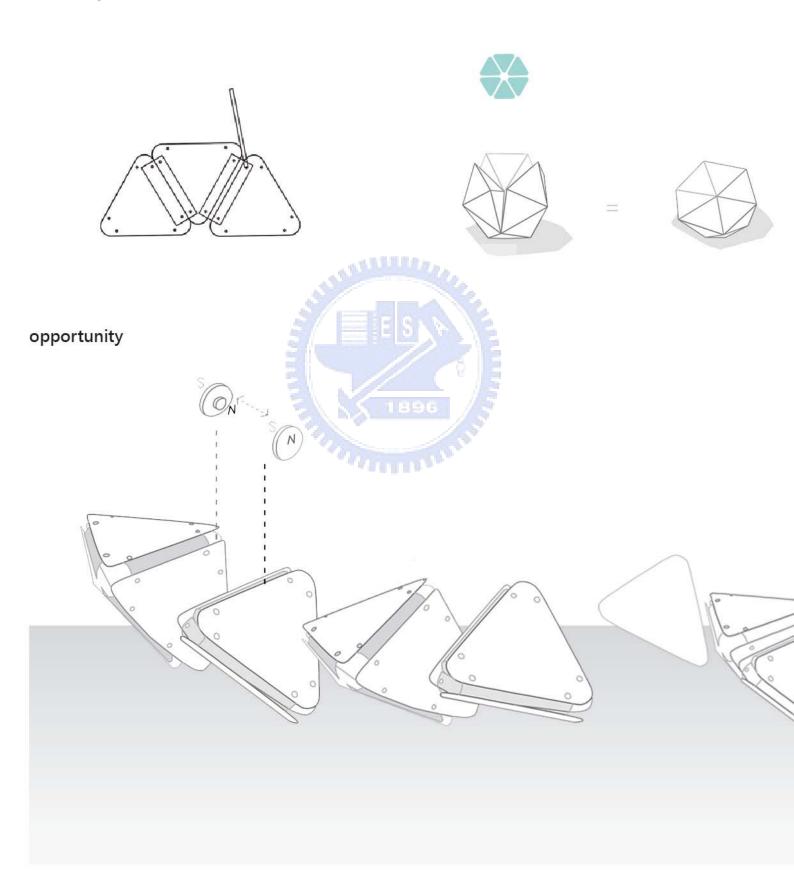


chair no.01

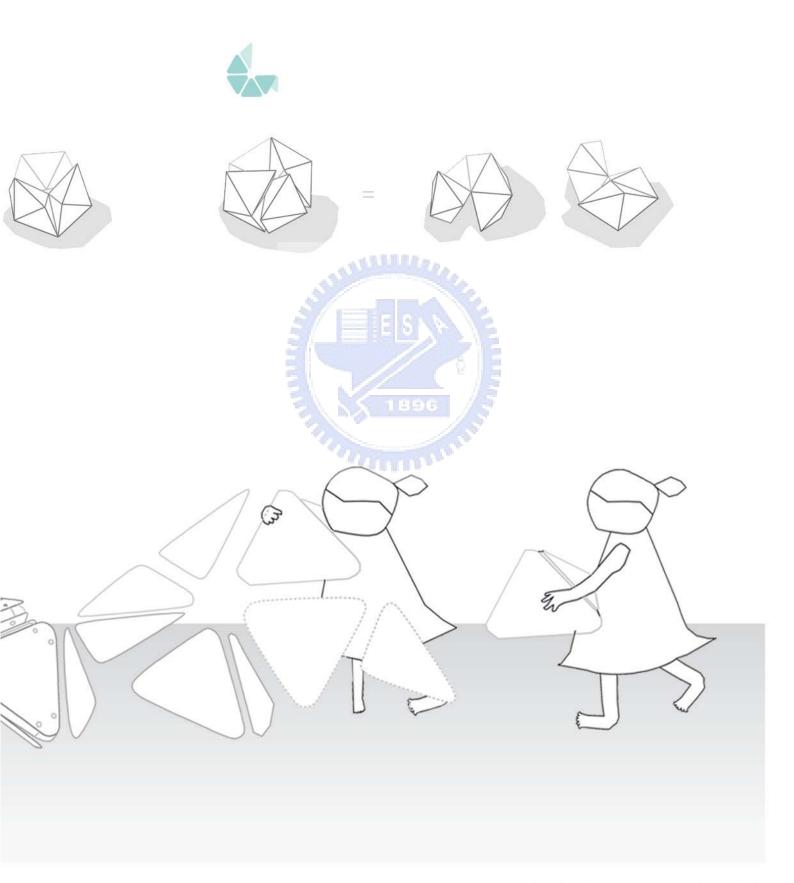
combine

material | hard + flexiable

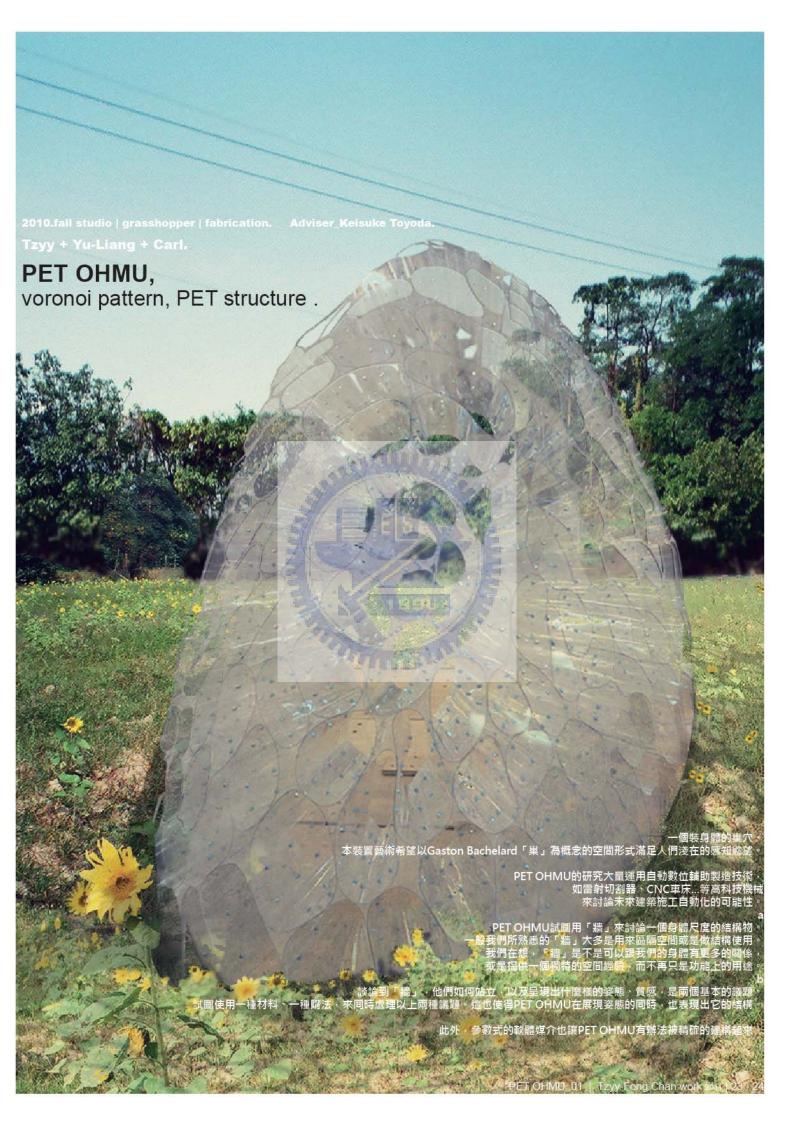
chair no.01



chair no.02

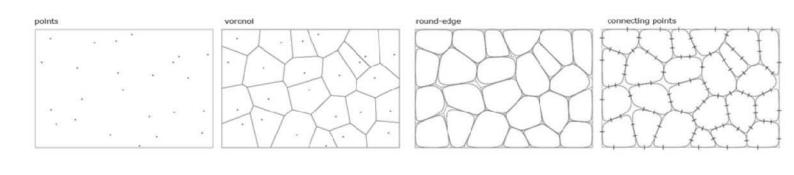


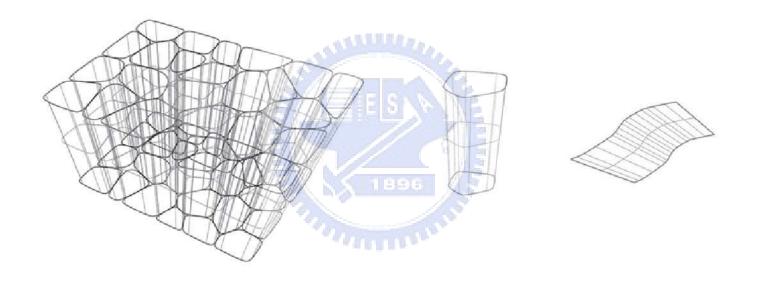




modeling | GRASSHOPPER

Shifting a little distance from the geometric points, so that we don't really need to fold the material. it would be a lot easier dealing with the connection between materials.

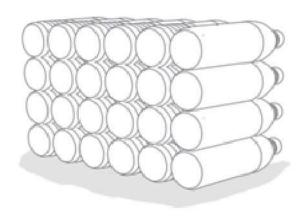




material | PET

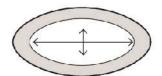
Recyclable Translusent Flexiable





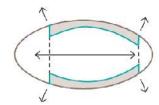
Stress analyse

1 original shape. complete, symmetrical.



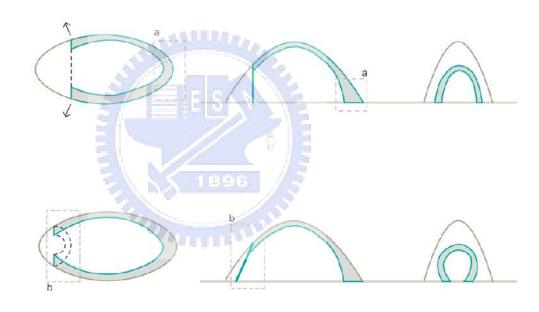


2 Entrance at two sides

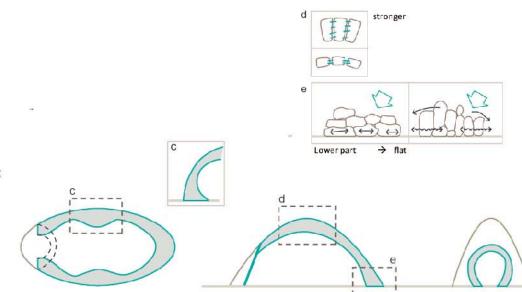




3 One entrance, stronger. Thickness of PET pipes at bottom should be wider.



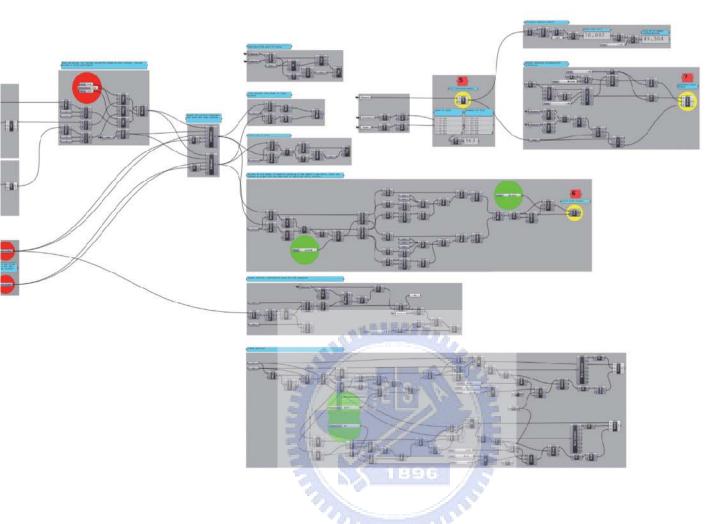
Section cut of entrance

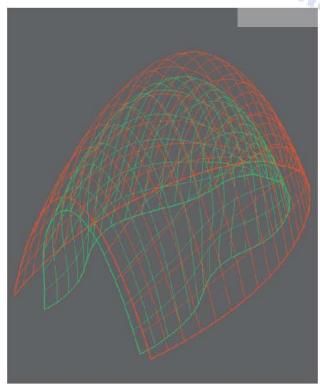


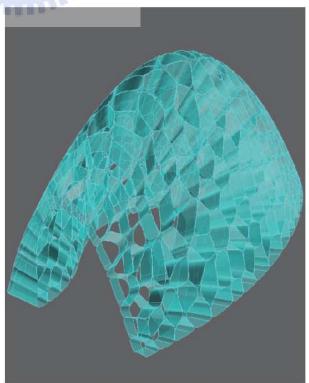
5
By changing shapes of bottom part may be much more stronger for standing, touch the ground stable.

Main inputs:

Inner and outer surface Amount and positioning of cells Maximum bending of cell border Rules for connections to neighbouring cells Outputs: - Cell shapes - Connection points - Orientation mark - Labeling - Max/min dimensions of cell depth and perin - Estimated material needed point cloud on reference surface 2d pattern removal of short partsv new points for curve final pattern original voronoi pattern

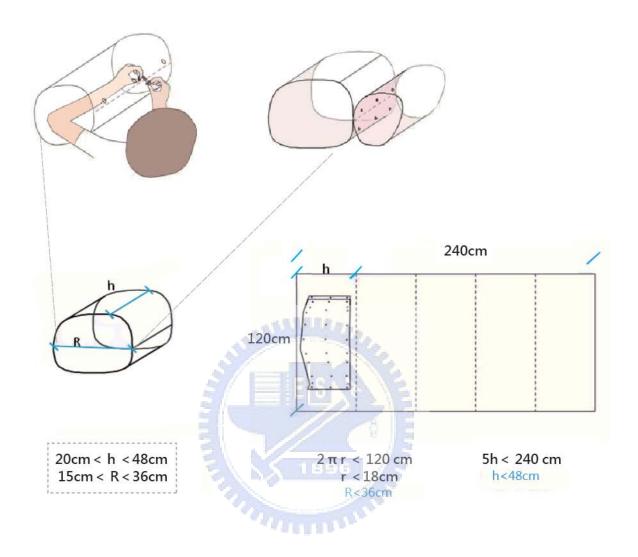




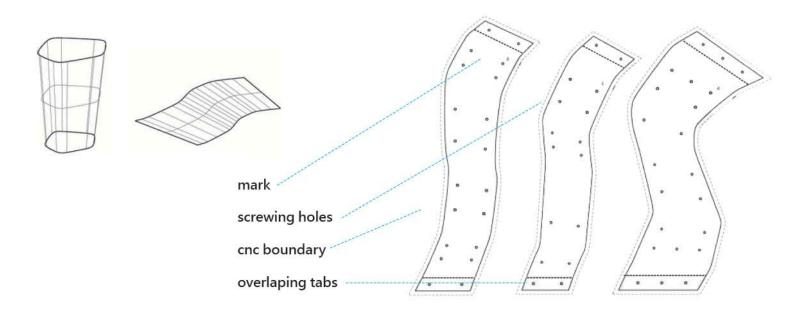


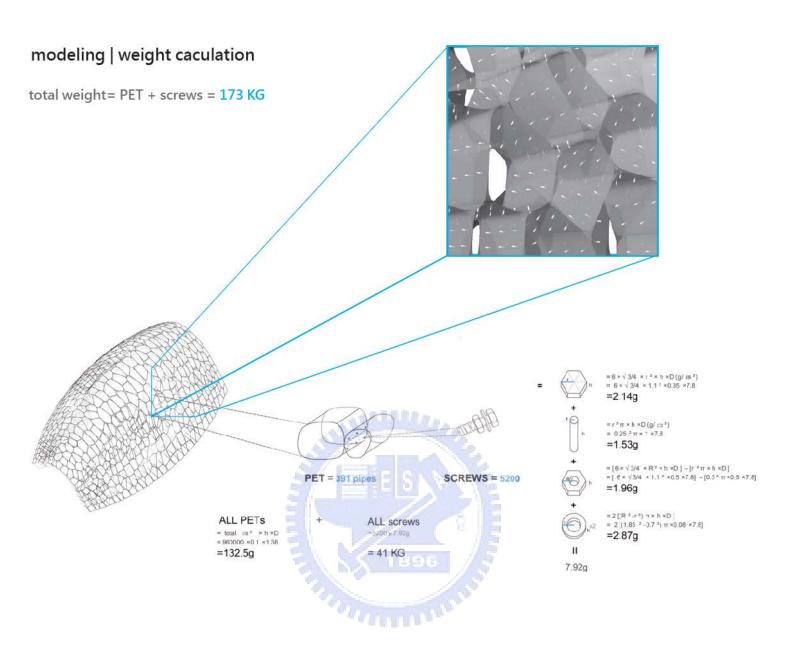
target surface connected 3D cells

modeling | material limit



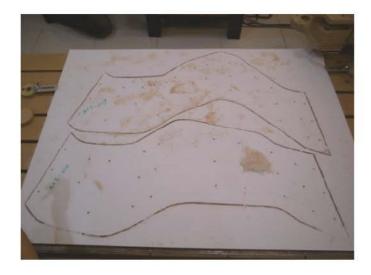
fabrication process







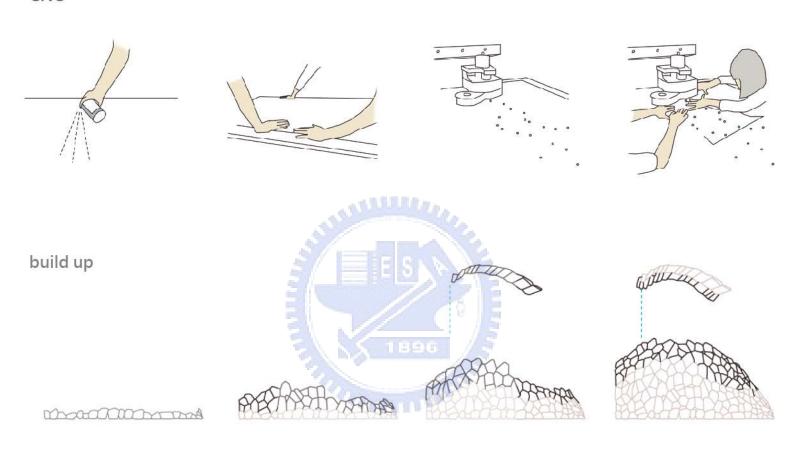


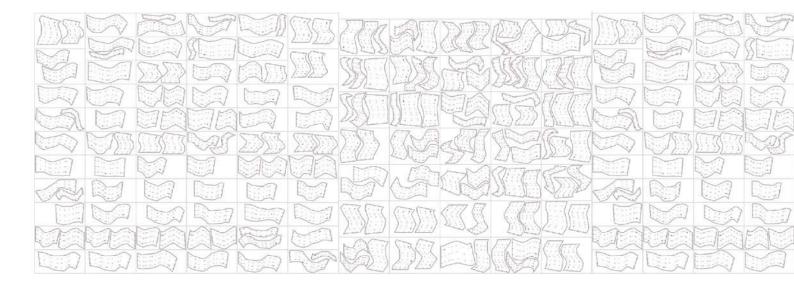


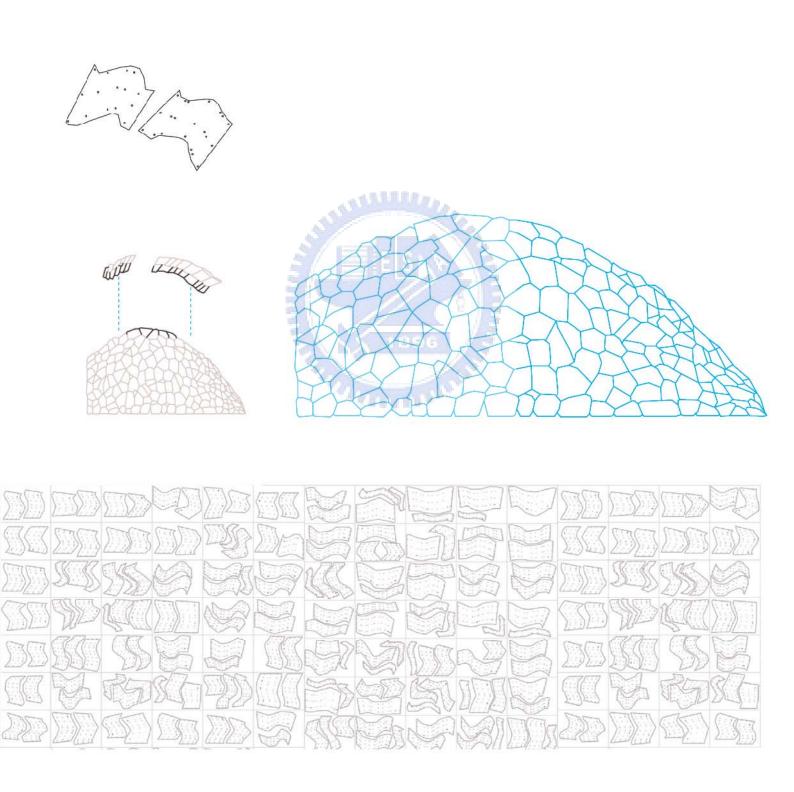
fabrication process

60 sheets of 4ft x 8ft PET plastic+ 363 pipes+ over 14000 screwing holes

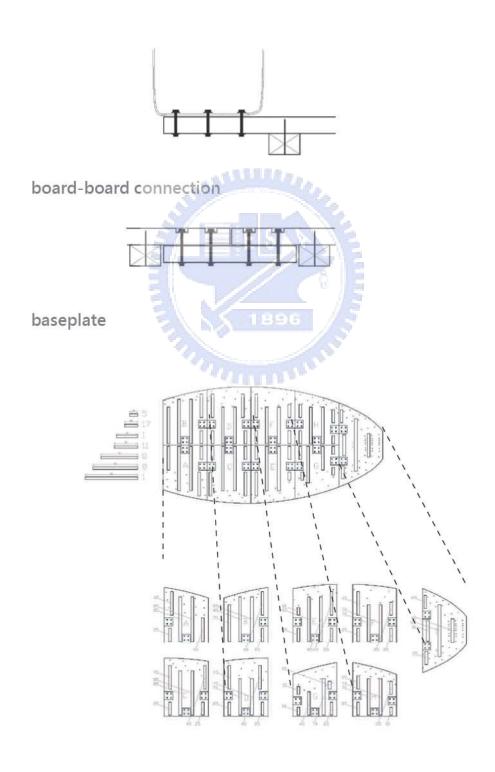
CNC







board-plastic connection



perspective

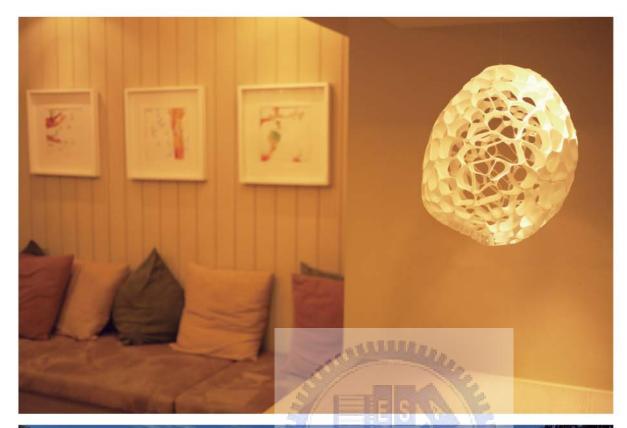
inner space







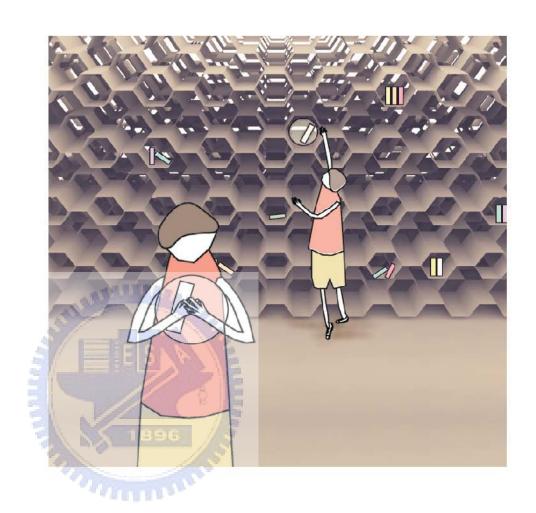






P egg, voronoi pattern, structure: paper.





- 一個垂直的開口圖書館
- 人們閱讀與書本運送的介面。
- 由大小六角形組成的垂直圖書館。

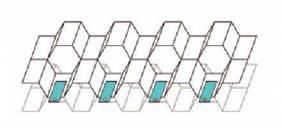
 - 藉由六角形們的開合,製造出不同大小的轟袋,
- 也創在出了運輸動線的開口、控制閘。
- 這個垂直圖書館,是人們閱讀與書本運送的介面。

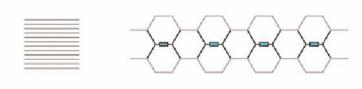
 - 大尺度的六角形,與他開合製造出的囊袋,
 - 是人們閱讀的書囊與移動動線。
 - 小尺度的六角形。 是圖書館書本的運輸軌道。
 - - 大小尺度交界面。
 - 可以藉由書本軌道的拉鍊開口。
 - 將書本傳送出來。
 - 在這裡,
 - 人與書本們都輕盈的在圖書館裡移動著。
 - 一個與以往形式不同的圖書館界面。
 - 人們閱讀與書本運送的介面。

2010.spring studio. Adviser_Ming-Wei Huang.

Opening,

a vertical reading and transporting interface

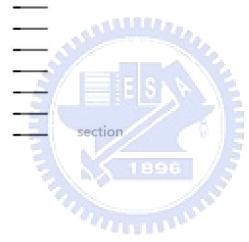


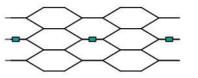


zip



one LAYER | ZIP+OPENING

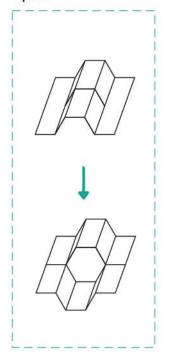


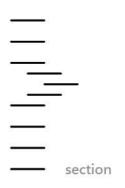


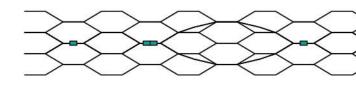


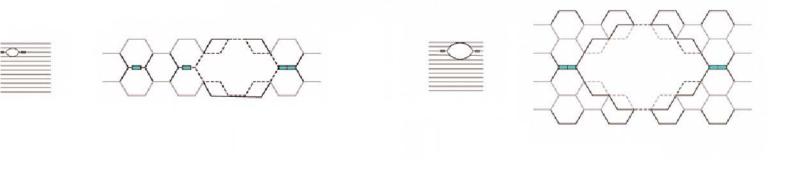
open

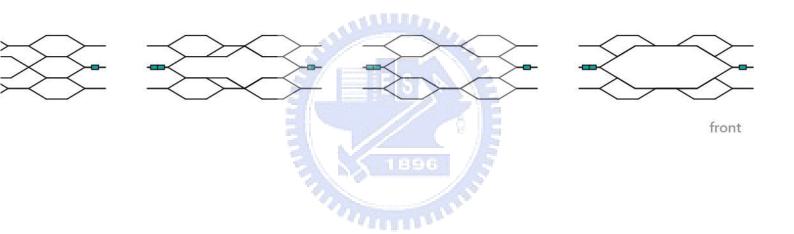
↑ two LAYER | ZIP+OPENING+DEPTH

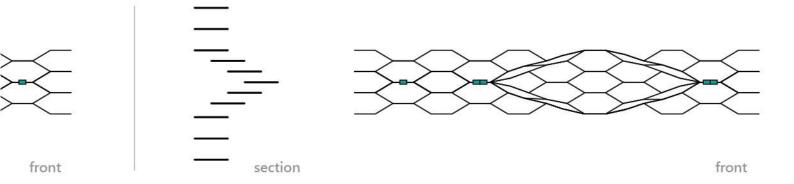


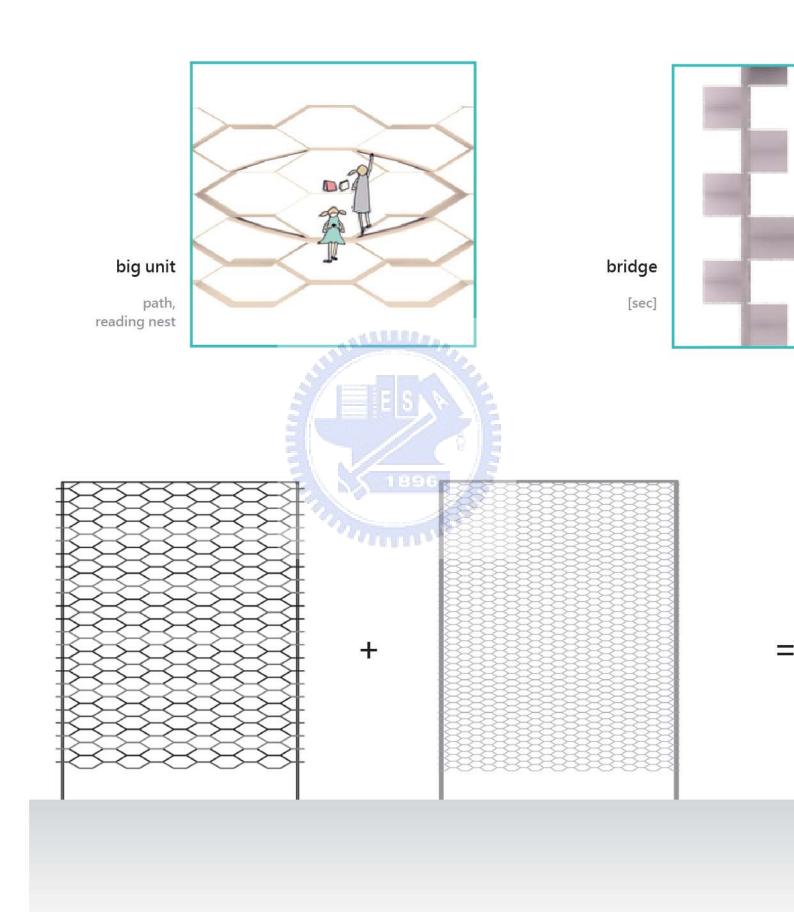


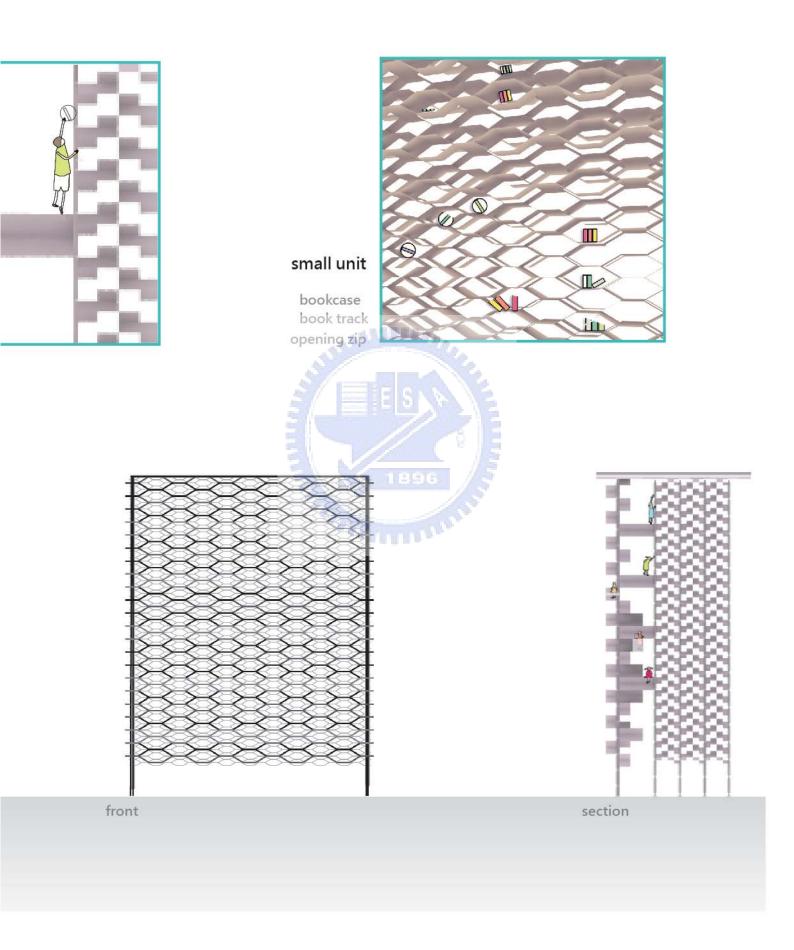






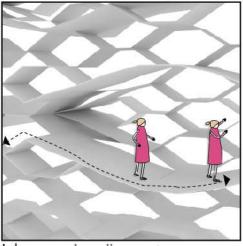




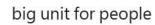


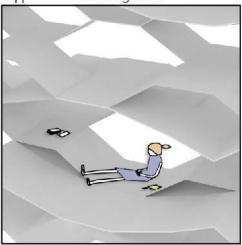
PROGRAM | Interface

a | moving path(for users)

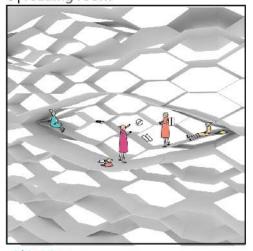


b | personal reading nest

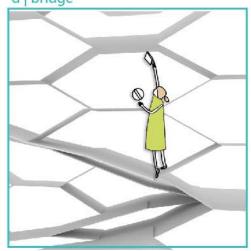


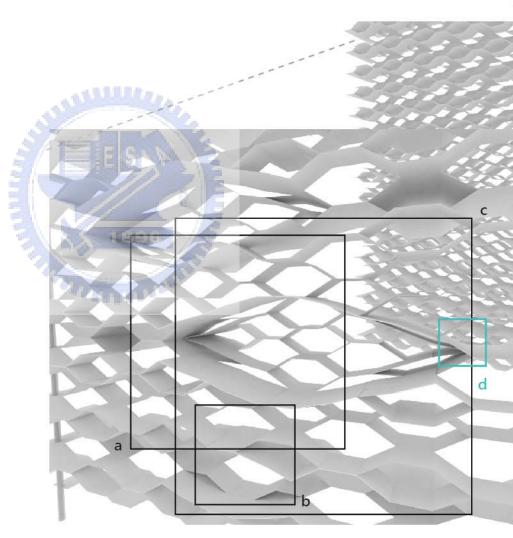


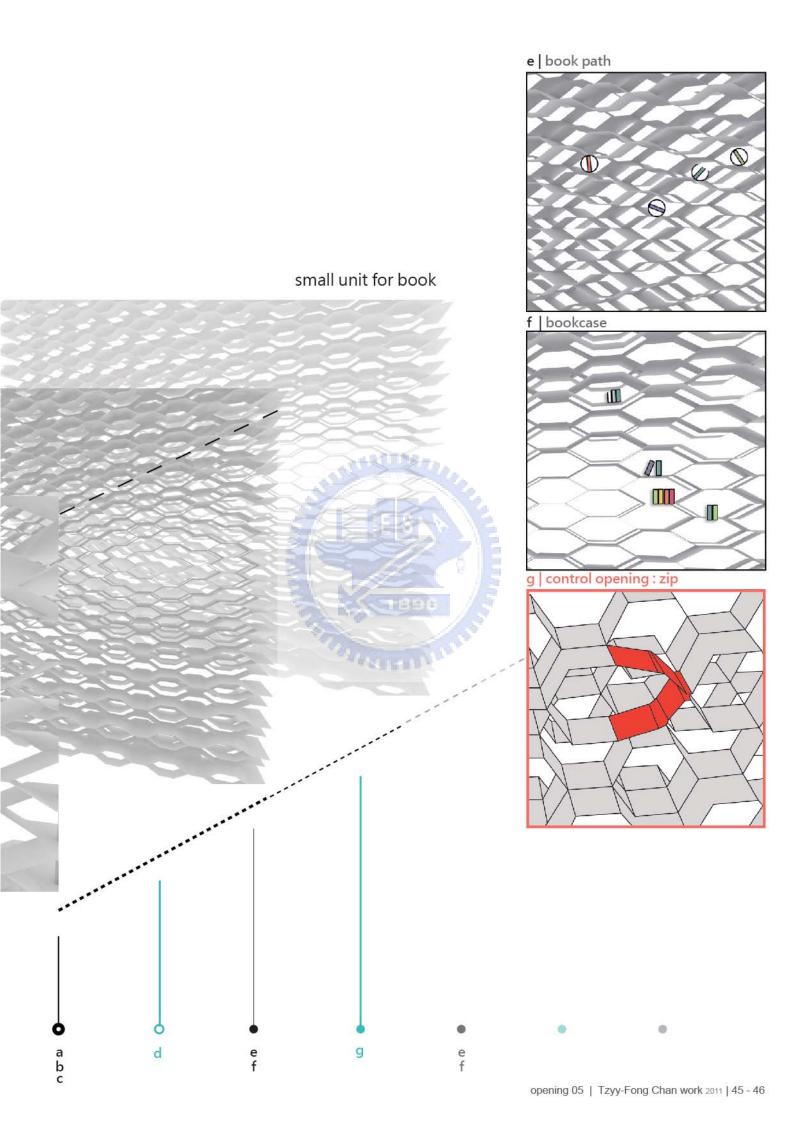
c | reading room

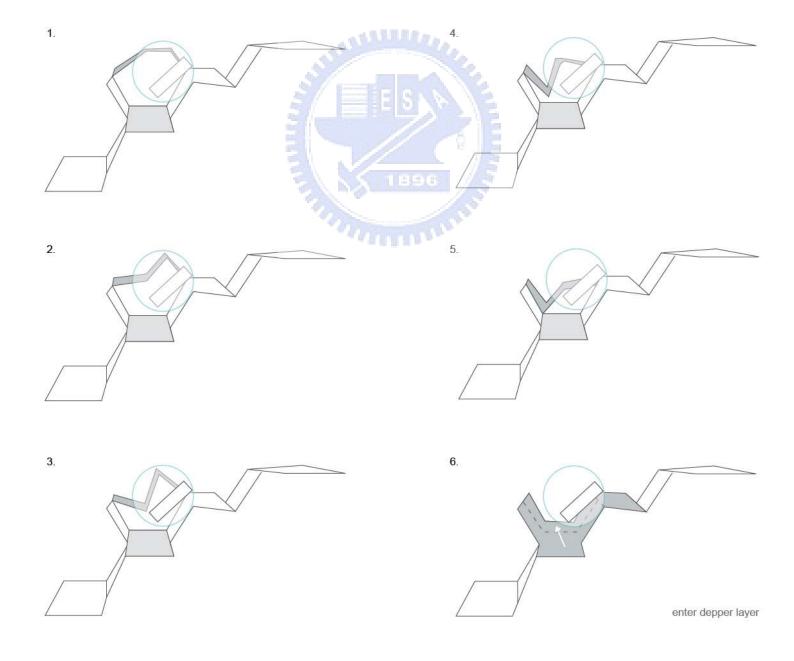


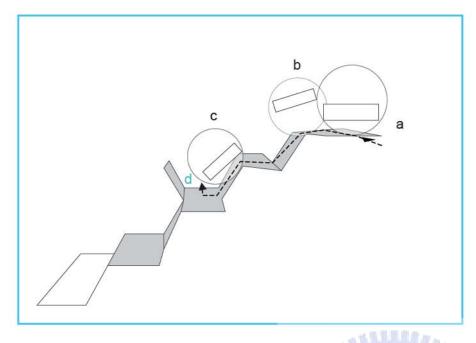
d | bridge



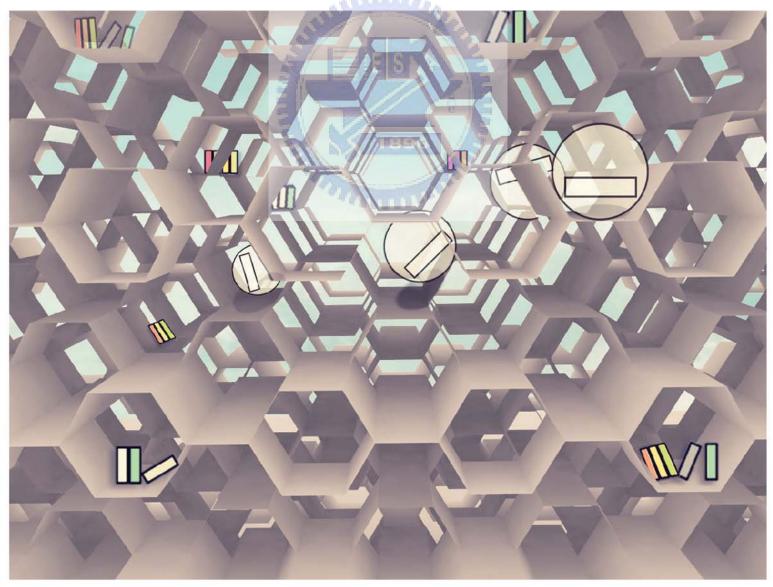


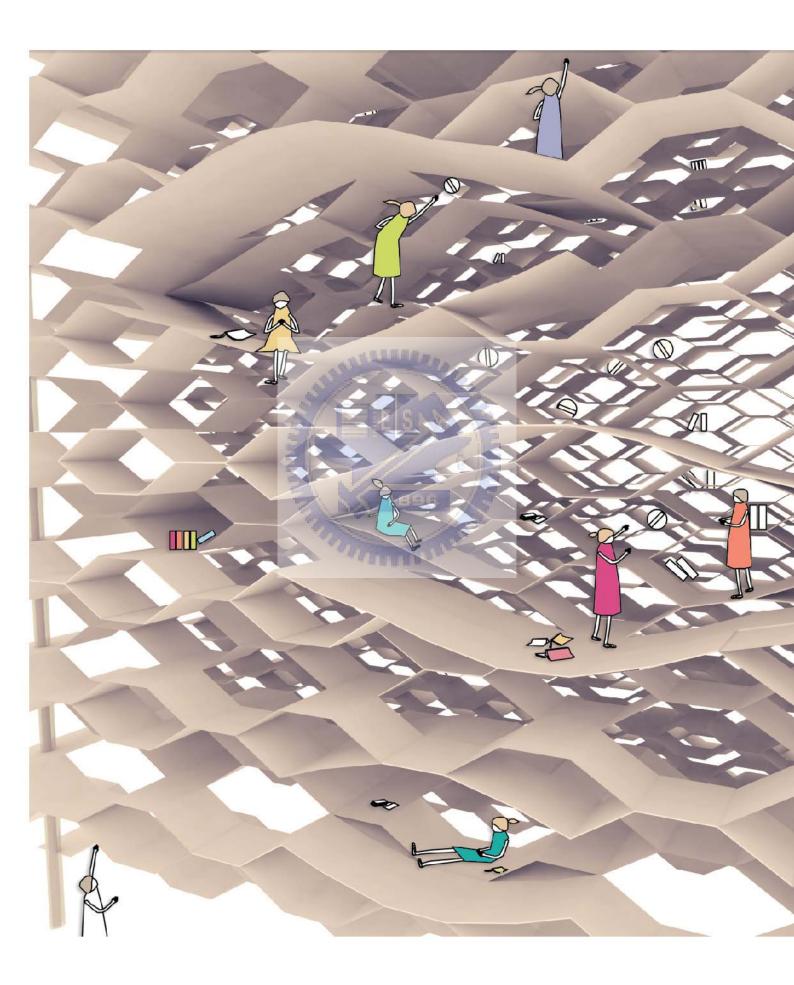


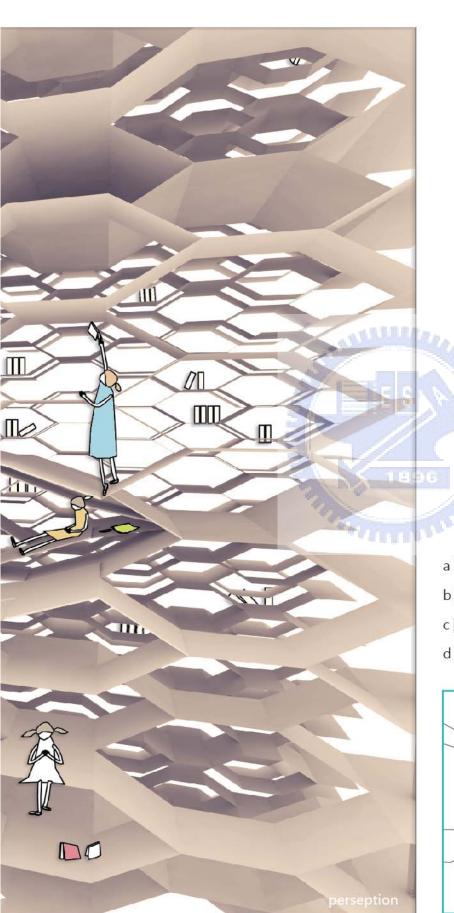




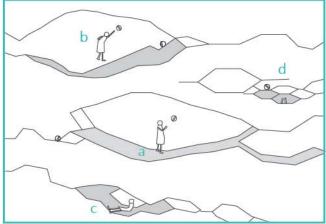
- a | moving path (a -> b->c)
- $b \mid moving path (a -> b->c)$
- c | moving path (a -> b->c)
- d | control zip (transporting for books)
- 1-6 | zip opening step







- a | moving path (for users) & reading room
- b | bridge (to reach books) & reading room
- c | individual reading room
- d | bookshelf & transporting path(for books)







房價高漲。

2011.fall studio. Adviser_Shu-Chang Kuang.

Unsettled City, Unhomely Home: a housing dogma for young people.

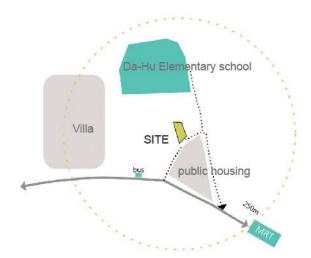
- 青年人在台北市求職、卻無法在北市購買房屋。
 - 青年人是一個國家活力的來源,
 - 但諷刺的是,
 - 青年人卻沒有能力得到最好的居住空間。
- 如何在現實的狀況下,有限的建蔽率、容積率、公設比, 提供青年人可購買的坪數、以及價位、
 - 創造出一種適合青年人居住的住宅型態。
 - 不管是面對任何基地。
- 利用接下來所討論的L,L',O,T,Z的小單元(小戶)來組織,

 - 所企圖的是: 可以利用**L,L',O,T,Z**置入任何塊基地。 並創造一個適合青年人居住的prototype。

Qualitative

Provide young people to rent housing

- @ MRT Da-Hu station area
- near by Da-Hu elementary school
- residential area: public housing, apartment, villa...





Issue

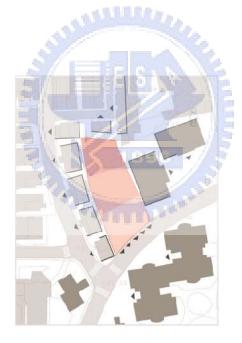
a | site , relationship

Problems

(3 side)face to buildings back side

Strategy

1 entrance(@ 1 side), both for traffic and pedestrian.



b | site , shape

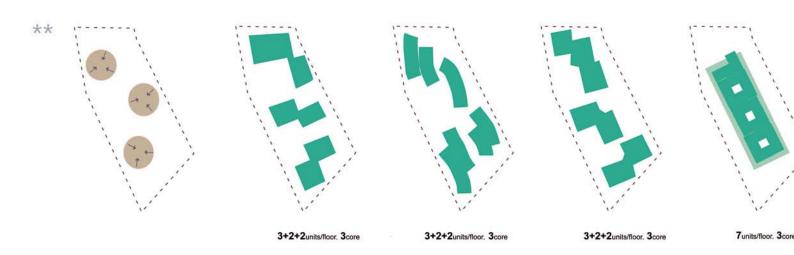
Problems

site shape: long and thin

Strategy

[front part & back part & middle part]

setting



Quantitative

Building coverage ratio: 45% Floor area ratio: 225%

Estimate unit no: 49 Estimate unit size: 49m Estimate floor no: 7

Regulatory restrictions

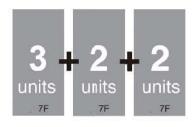
Once each floor area is larger than 200sqm, it's required to set up 2 sets of stair.

Once the building is more than 7 floor, it's required to set up 2 sets of stair.













c | high price of housing in Taipei city

Problems

young people can't afford the high price of housing in Taipei city

Strategy

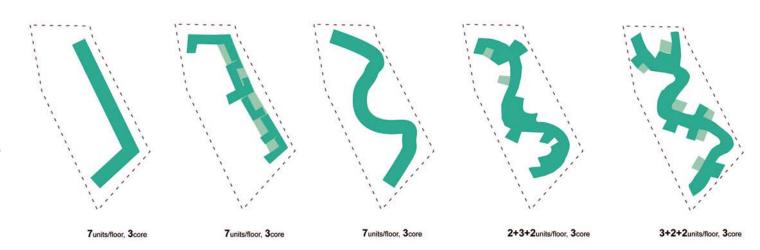
Government: allow to reduce the ratio of social housings' public facilities.

old housing 350,000-400,000 NTD / ping

new housing 450,000-500,000 NTD / ping

rental

400-1000 NTD / ping

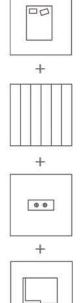


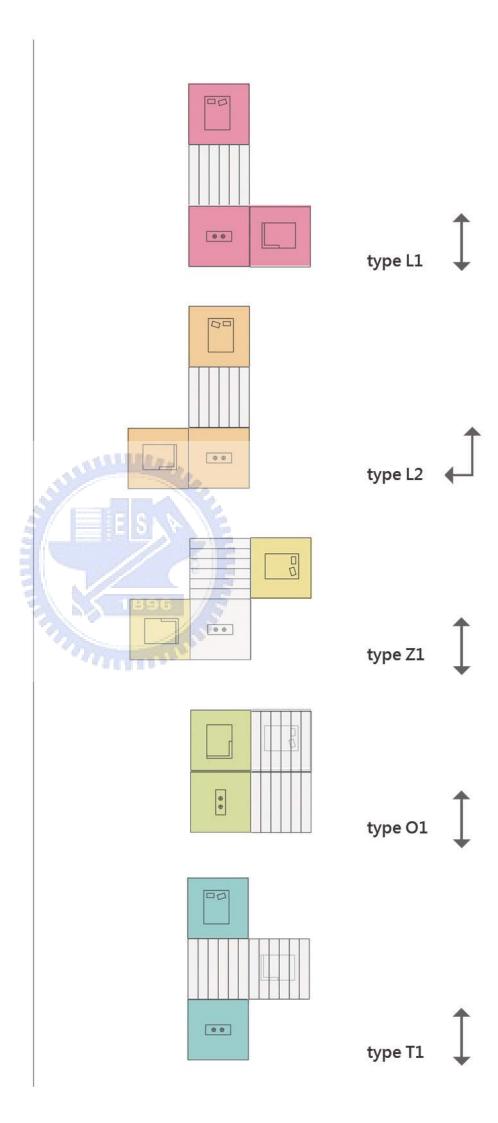




4*[3.6m x3.6m]

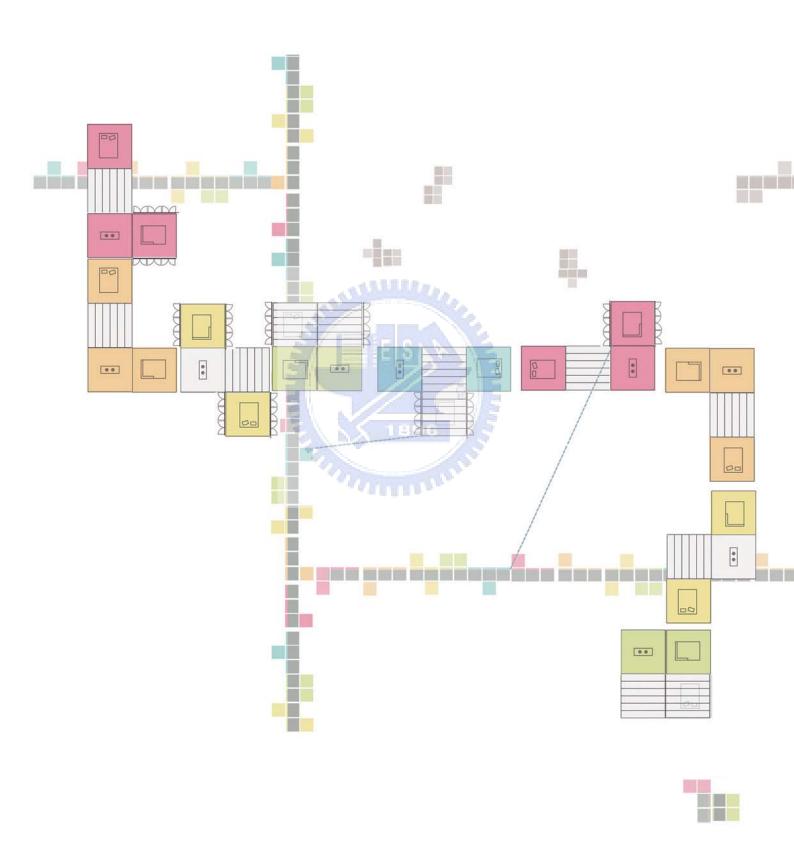




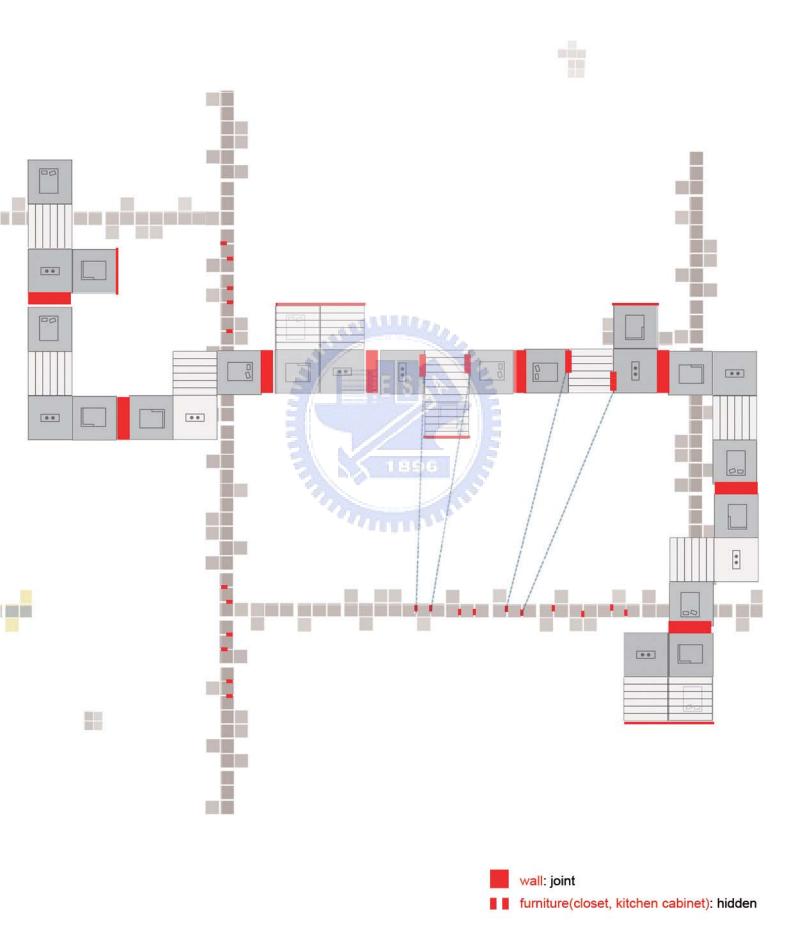


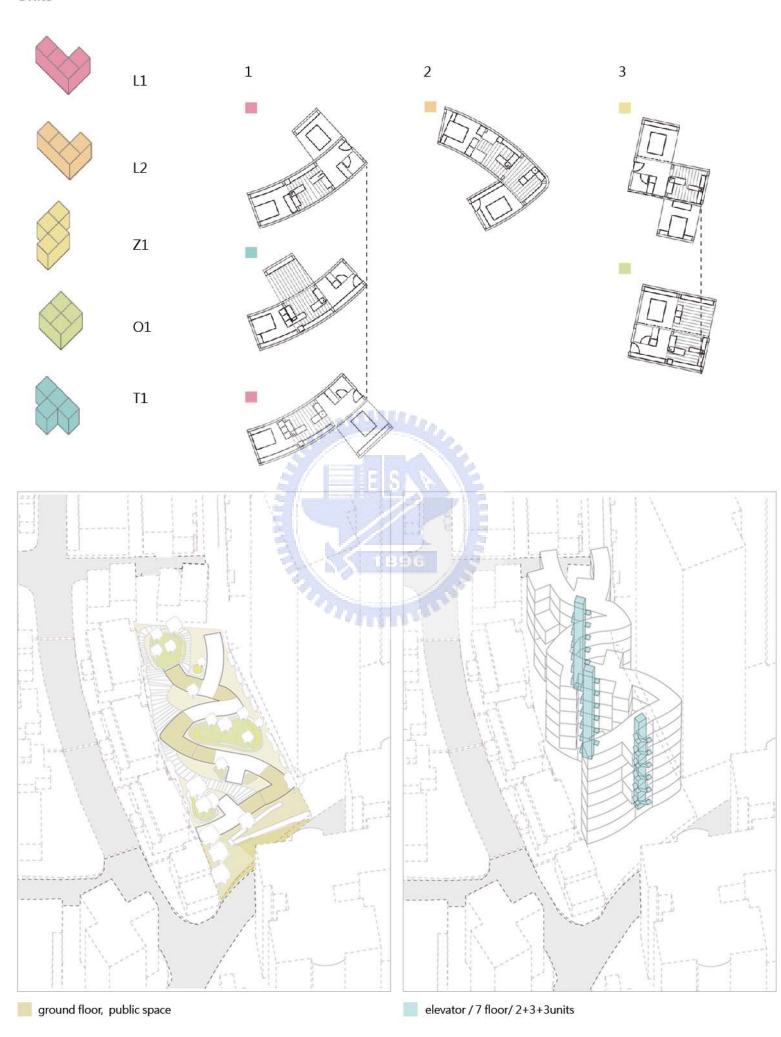
В

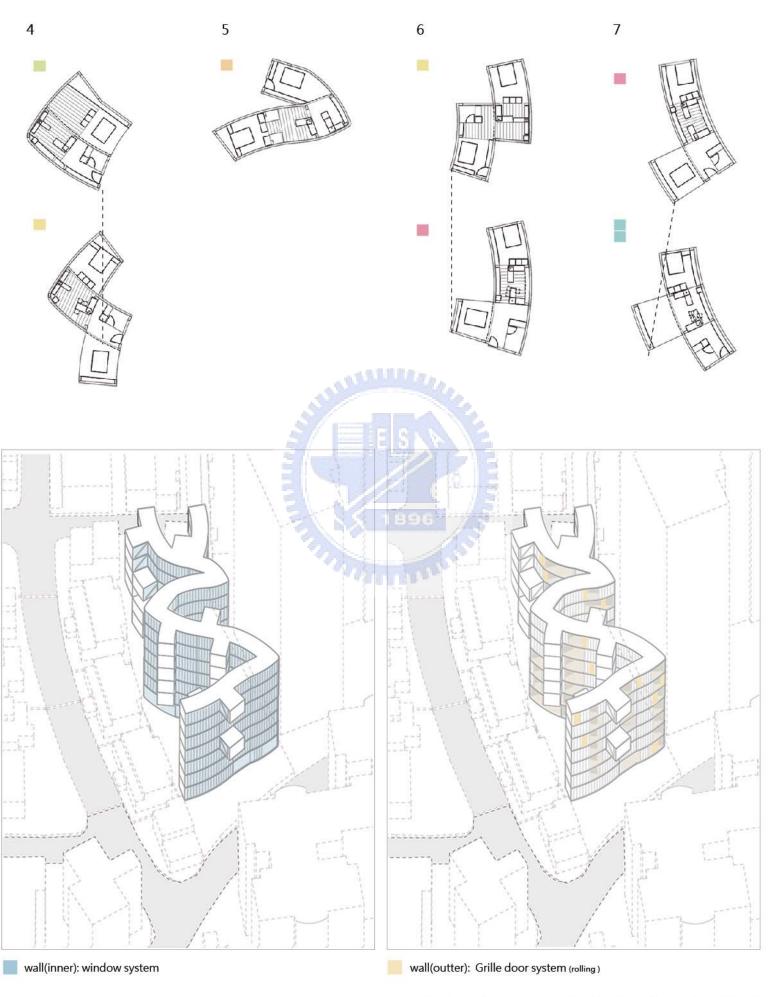
Α



protruding box: living room

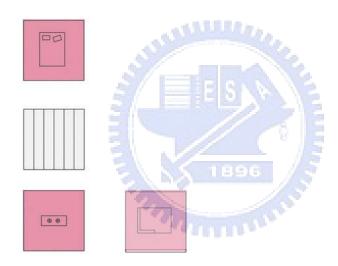




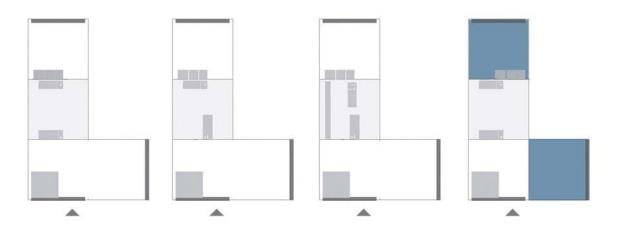


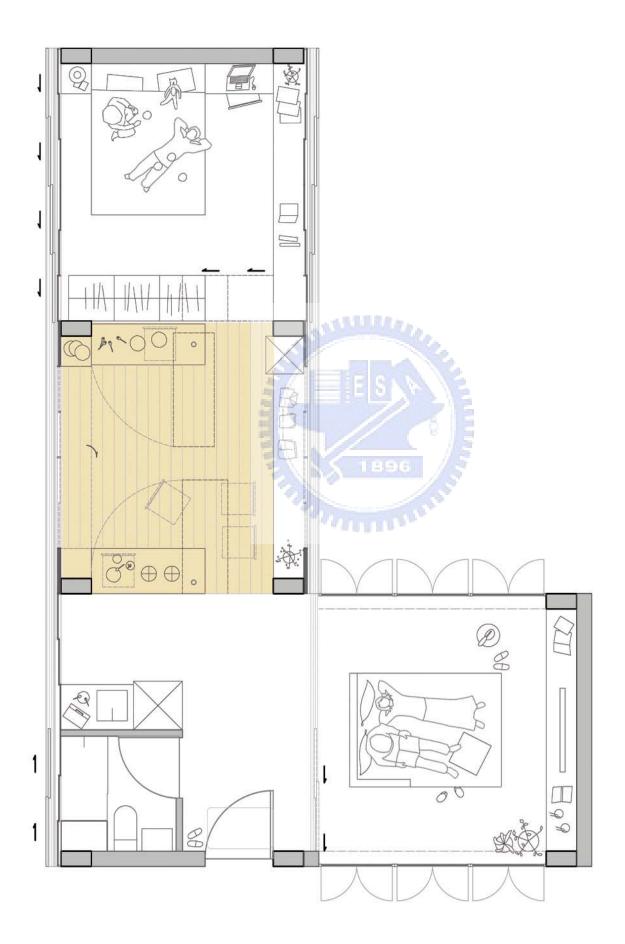
type L1



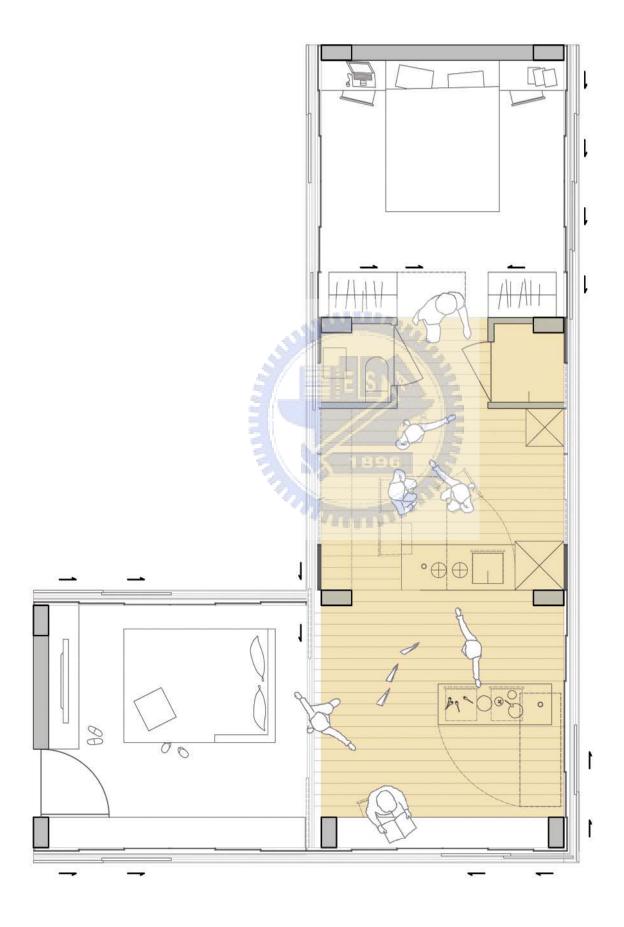


4 condition

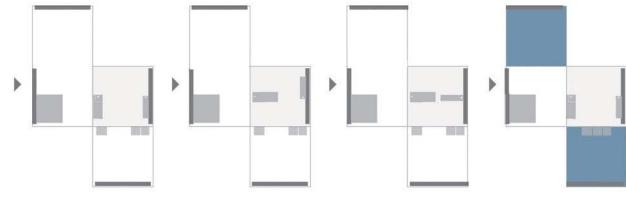


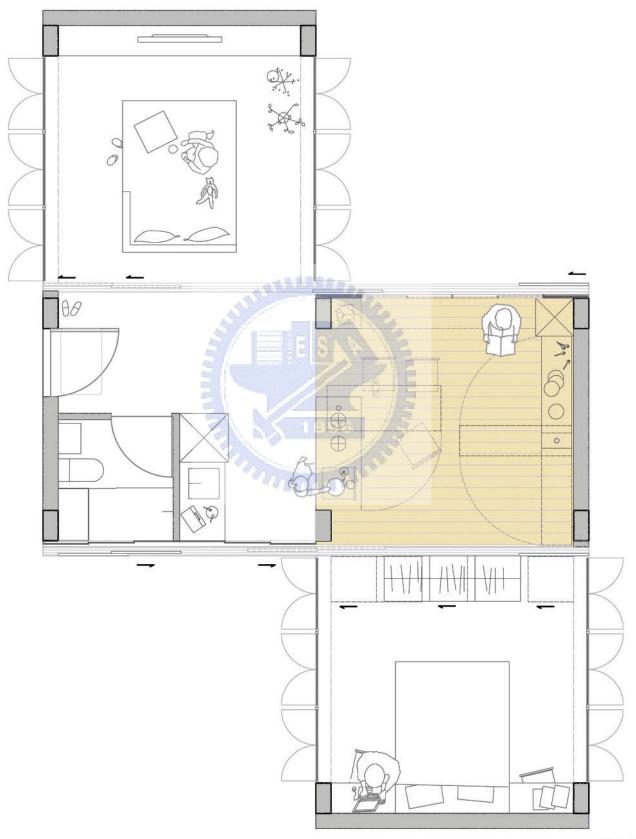


L11/50



L21/50

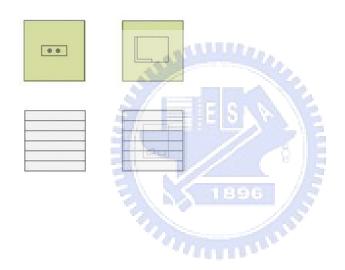




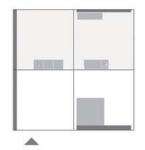
Z1 1/50

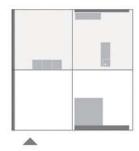
type O1

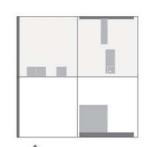


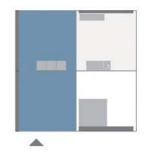


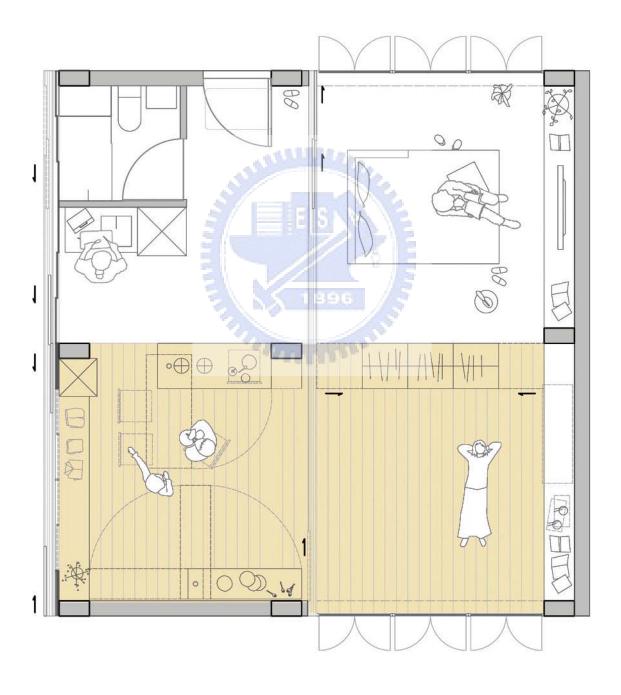
4 condition







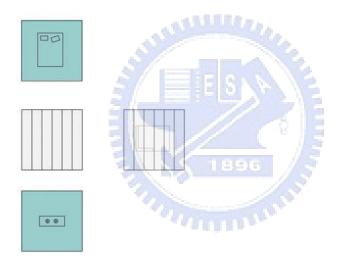




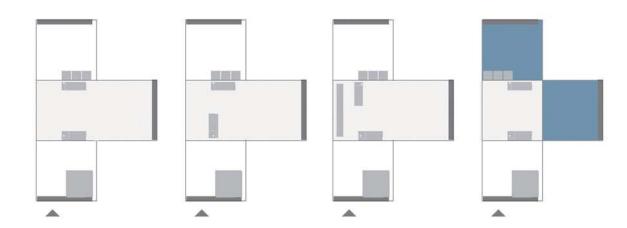
O1 1/50

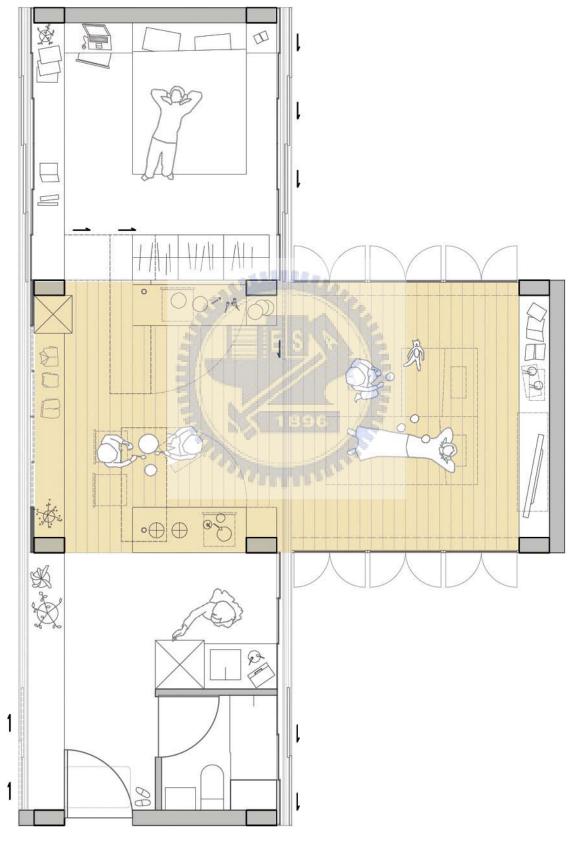
type T1





4 condition





T11/50

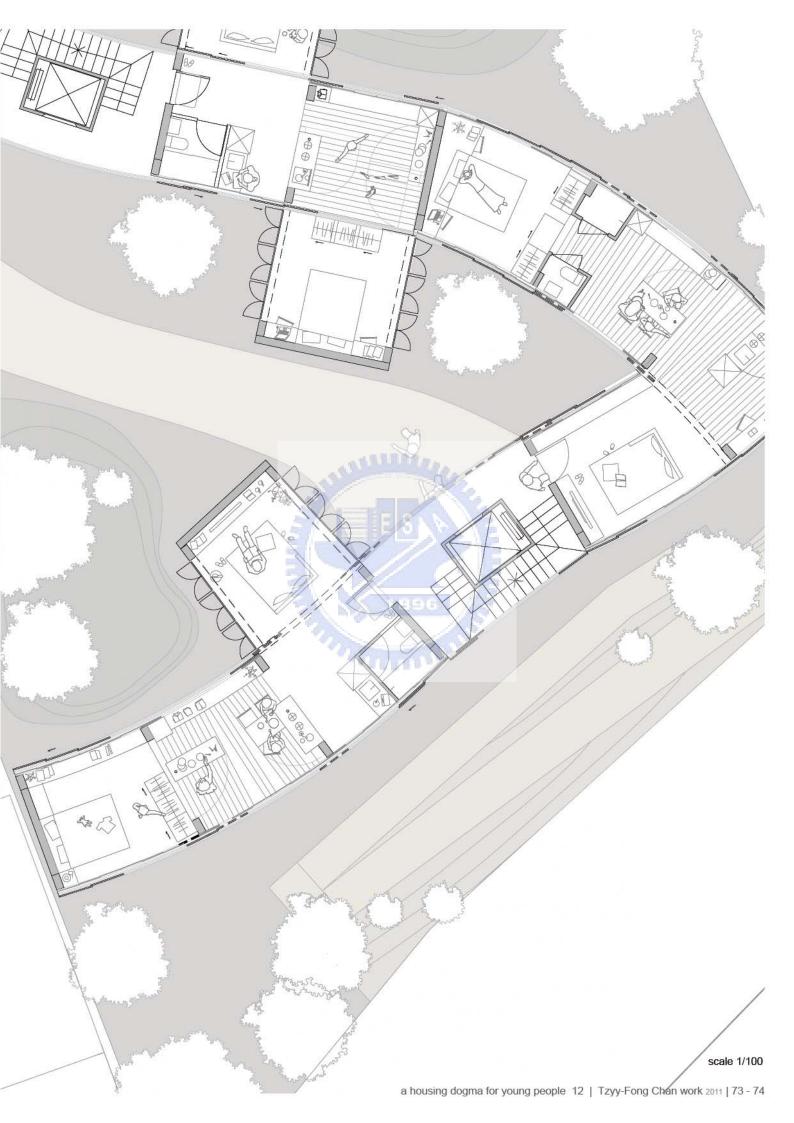




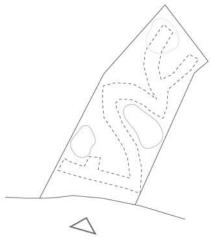












PERSPECTIVE front







這裡,交織了300年不同時代背景的故事 這裡,融合了清朝、日據、外省、中南部移民的生活文化 這裡,天天端出比士林夜市還要多樣的菜色 這裡,天天上演比電影還要義氣溫馨的故事

- 艋舺,是一個當地人可以講述很多故事的地方。 艋舺,是一個遊客們感受台灣信仰力量、 認識台北發展起源、體驗艋舺活力的地方。

2010.july | urban design AECOM bootcamp

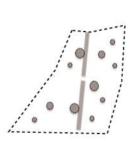
Mangka, a city that never sleeps.

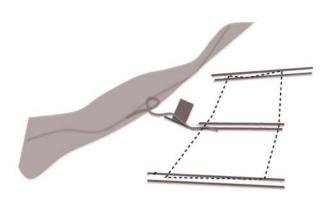
Strengthening Neighborhood Spaces

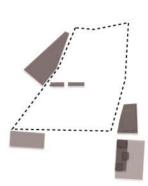
Connections to the City and Nature

Anchors for the Community

focus groups negotiate implement cultural anchor community anchor public/ commercial anchor







stratergy

At the Neighborhood – Alleys / Informal Spaces / Neighborhood Spaces – Elderly / Children / Youth Connections to City and Nature – LA / Infrastructure / Recreation Anchors for the Community – Cultural / Community / Economic

1896

cultural anchor

Activate Xiyuan Rd Connection with support services including: Visitor Information Kiosk (Visitors/Tourist Groups) Cafe and Restaurant (Local and Visitors (All-Day)

Support Infrastructure: Public Restrooms, Scooter/Bicycle Parking Areas, Way-finding

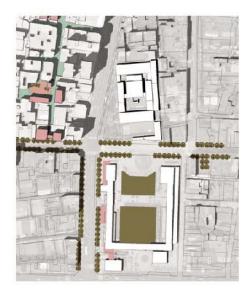
community anchor

Renovation and Addition of Longshan Elementary School to provide services for the Community:

Community Center for Elderly & Youth Library Gallery for Community Arts Children's Playgrounds

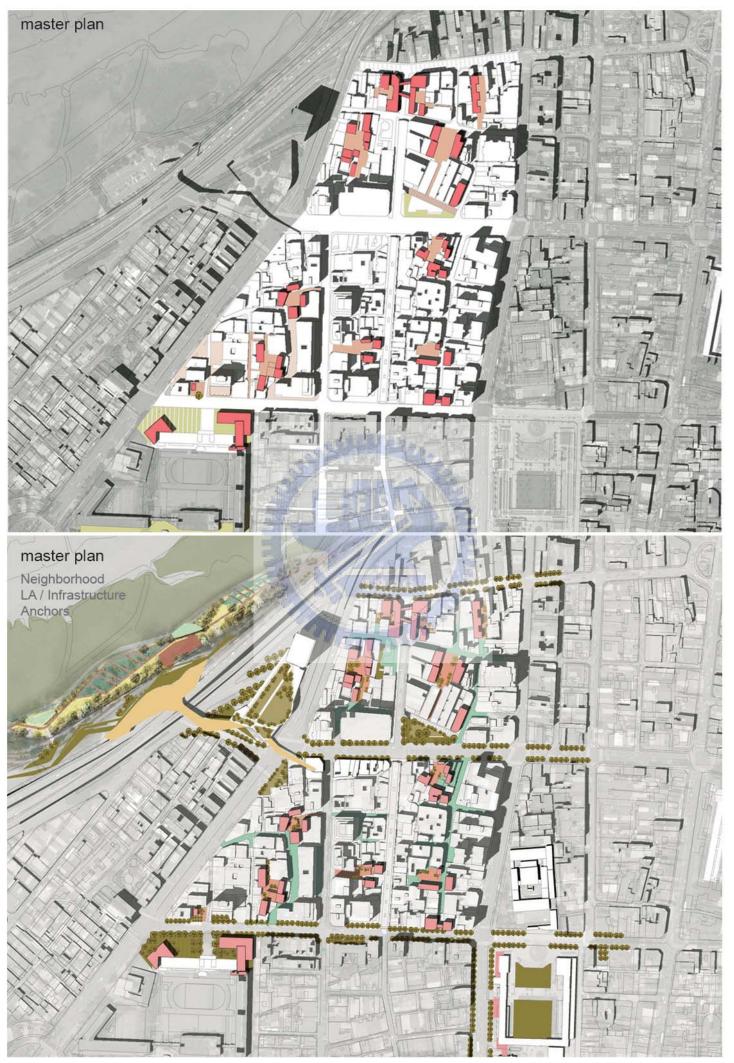
public/ commercial anchor

Mixed-Use Commercial Activity
PODIUM
Mangka interactive museum
Retail / F&B Shops (3 Floors)
PUBLIC DECK LEVEL (+12m – Above Freeway)
Event plaza
Rootop F&B/Restaurants (Plaza Level)
TOWER
residential
boutique hotel









經歷

陳紫楓

2005/09~2009/06 成功大學建築系 2009/09 交通大學建築研究所 設計組



2009/09/11~17	WORKSHOP: Carlos Arnaiz Design Workshop	學員
2009/10/24	2009 建築教育國際研討會	工作人員
2010/02-06	交大建研所 都市設計專題(二)	助教
2010/04/21-22	$\hbox{WORKSHOP [GIA AA]: The Architecture of Innovation: Governance. Design, and}\\$	學員
	Infrastructure for Konwledge Cities	
2010/07~08	EXHIBITION: 結構 巢 Body, Nest and Computation	參展
	@台北 MOMA 地下展場	
2010/07	NANGANG 2050 URBAN REGENERATION FORUM 國際論壇	助理
2010/08	WORKSHOP: AECOM 亞洲區設計訓練營	學員
2010/08	INTA[創新治理、設計、與基礎設施]高雄圓桌會議	助理
2010/07~11	[創新區域與創意嘗試 台北市南港發展願穎與都市設計策略] GIA AA 出版	編輯
2010/09	[創新區域與創意嘗試 台北市南港發展願穎與都市設計策略] GIA AA 展覽@華山	助理
2011/02~07	NCKU GIA AA Tainan workshop	助教

學術參與

2011/03~06

建築設計



2009/09~01 建築設計 建築設計專題 數位專題:新媒材基礎 建築史論專題 2010/03~06 建築設計 建築設計專題:建築典例 都市設計專題(二) 2010/09~01 建築設計 都市設計專題(三)

侯君昊老師 林楚卿老師 龔書章老師 豐田啟介 洪大為老師 曾成德 龔書章 張基義老師 林欽榮老師 黃明威老師 林欽榮老師 韓書章老師

曾成德老師 謝宗哲老師

漆志綱老師



