2006.09-2008.06

Re-order_reconstruction of deductive organization

Re_Modulor Re_combine stacks Re_Grille

9547501 林柳吟 Liu-Yin Lin

01 Re-order_reconstruction of deductive organization

Re_Modulor
Re_combine stacks
Re_Grille

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9547501 林柳吟 Liu-Yin Lin

was born in Miaoli, Taiwan. Master of Architecture, NCTU and Bachelor of Arch., NTUST. Entry awards of international competitions, TOP 30, 2006 FEIDAD. take part in "NEXTGEN 20" project design team in AleppoZone. Discover that architecture is not merely purified connection between form and space but thinking transition deriving from life and logics. Superficial physics influence my awareness of aesthetics and relatively change my narration of all kinds of "condition".

Re-order_reconstruction of deductive organization

＂再秩序＂_重構演繹組織，是尋求舊有或已經實驗過的理論與形式的規則裡，＂再＂整理出另一種詮釋方法，加以變形與組織，賦予新的面貌在新與舊之間衍生出新的用法。演繹的過程中分爲三個個案，＂Re_Modulor、Re_combine stacks、Re_Grille＂，在＂Re_Modulor＂，是尋求數位形體裡是否有新的模矩隱藏與存在，試圖從早期柯比意的自由形體”廊香教堂”裡分析出模矩與規的可能，再加以演化與應用於新的自由形體裡；＂Re_combine stacks＂是探討下世代圖書館知識的需求與搜尋方式已經被網路的搜尋引擎依照個人的需求鍵入關鍵字所取代，書架也會隨著人類的需求重新組合群組，把建立過後的秩序，因爲行爲的改變，＂再＂變化與組合；＂Re_Grille＂是藉由觀察都市的都市物件＂菜市場頂棚＂後，將所測繪的頂棚圖中抽象成另一種圖像，經由圖像演繹，形成空間置入真實的案例，發展出空間的另一種解讀方法。這三種的空間實驗方法，都是循著秩序的線索在重新整理出一套實驗性的方法，運用新的邏輯推演＂再＂秩序。

論文最後加入”編織參數曲面”的學習成果，發現複雜的自由形體裡可以簡化成簡單的數學公式以代數代換出不同的形體，以及學期間參予了Jaakko workshop，對於荷蘭的水岸城市有新的觀察與扮演不同角色介入河岸，尋找新的水岸的解決辦法，最後再＂修習完”Digital library project”後在圖書館舉辦了”nextgen”的展覽，回應進入web 2.0 時代擷取知識資訊是反應個人需求與使用搜尋知識的個人化，概念性的呈現我們那學期的學習心得。

“Re-order”reconstruction of deductive organization is to observe old or experimented theory and rules. “Re-“ concludes the other way to interpretation and when we change its shape and reorganize, give the new appearance that extends the new way between new and old. The process of deduction is divided into three programs including Re_Modulor Re_combine stacks and Re_Grille. Fist one, Re_modulor is to find a new Modulor if it exists or hides in the digital freeform. “Re_combine stacks”is to research the next generation needs in the library. The way is to find a book and knowledge in the library instead of internet search engine entering the keywords according to your personal need. When you enter the keywords, the active shelves will reorganize in accordance with people's needs. The active shelves will be reorganized and changed by changing behaviour.“Re Grille” is to observe the “the ceiling of the food market” in the city and design. Through the deduction of picture, it places this idea into the real case and develops the others spaces. These three experiments on spaces are the way to reorganize and find a new logic following a new idea and rules. On the new logic our research deduce that the concept is “Re-“rules.

In my research, I added learning results about “Weaving Parametric Surfaces”. It is to simplify a complex free form to math formula instead of different forms. I also joined the Jaakko Worshop program to observe water city and try to find a new way to solve problems in Netherlands. Finally, when we finished the “Digital library project”, we held and exhibition called Nextgen in the library. The purpose is to catch information knowledge to replay the personal needs in web 2.0. that's all what we learn in this semester.

Re-order_reconstruction of deductive organization

Re_Modulor

Digital Modualization

林柳吟 Liu-Yin Lin
05

Entry awards of international competitions, TOP 30, 2006 FEIDAD
"Digital Modualization"

2006.09-2007.01

Re-order_reconstruction of deductive organization

Corbusier published the concept of the modulor during 1945 to 1955. He used the concept of the mathematic ratio and the massilia a lot in his own design case.No matter his dimension OR the ratio of the space, it stands on the modulor.

On the other hand, we cannot find the modulor in the La Chapelle de Ronchar that he designed FROM 1950 to 1955. It is one of the special creations, which is different from others. Because of this, the later generations try to analyze some relationship of its ratio.

Now, in our dissuasion, we try to find and experiment on this kind of situation. We try to see if it exits some kinds of the mathematic ratio or not, and then display the concept of themathematic modulor further. In the future, the digital architecture can be made and produced enormously but it still can keep its personal characteristic.

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The module
The La Chapelle de Ronchamp

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Find the model of module
Test 1
Test 2
Conclusion

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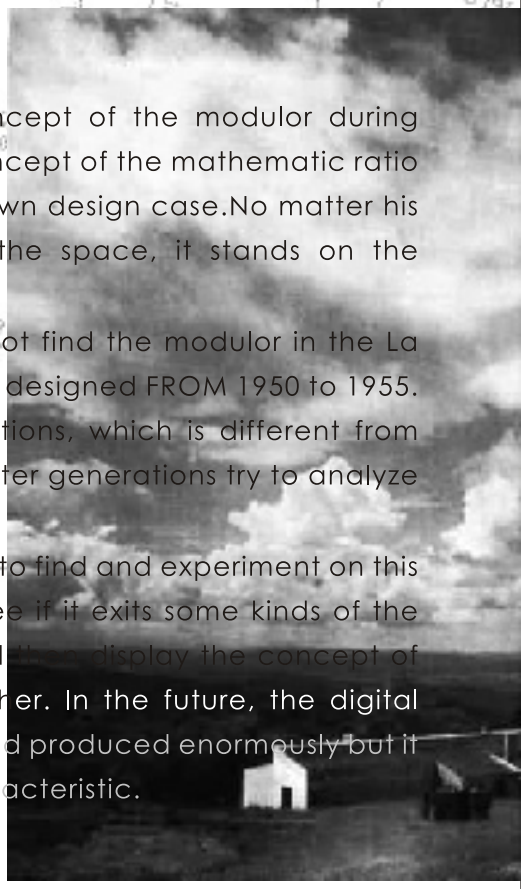
Design
Site
Analyze
3d perspective
Physics model



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The concept of Digital Modualization

La Chapelle de Ronchamp

Le corbusier

- 1945-1955 modulor
- 1945 Massilia
- 1950-1955 La Chapelle de Ronchamp

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Project overview

The concept of Digital Modualization

The module

The La Chapelle de Ronchamp

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Find the model of modular
Test 1
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Le corbusier

the Modulor of Digital.

- The digital architecture is without module.
- Does it exist the relationship of module on the free form of La Chapelle de Ronchamp .
- If it can conclude some relationship of the ratio, does the digital architecture have the Ratio in mathematics or not?
- Substantially, it is economic and tangible.

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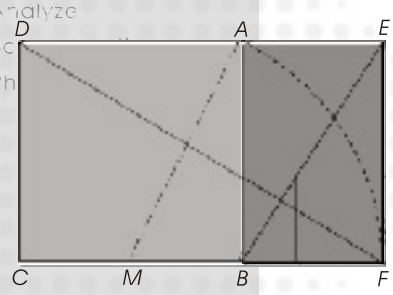
Le corbusier MODULOR.

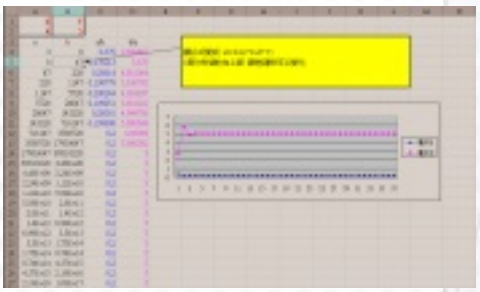
Design
Site
Analyze
Schematic
Phase

Modulor



a : b = b : a+b

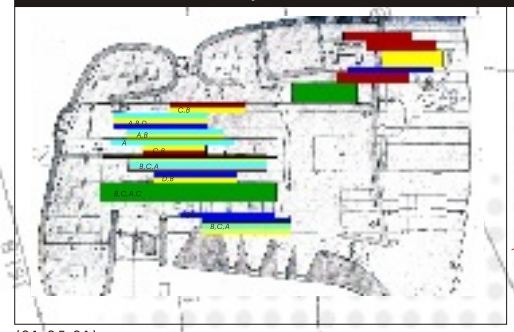
b : a = 1.618



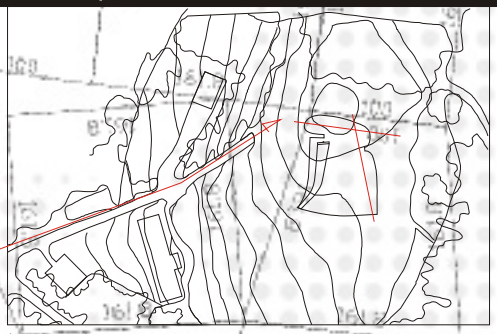
MODULOR

Series rouge	Series bleue
952 80	1177 73
588 86	727 88
363 94	449 85
224 92	278 02
139 02	171 82
85 92	106 19
53 10	65 63
32 81	40 56
20 28	25 07
12 53	15 50
7 73	9 58
4 79	5 92
2 96	3 66
1 83	2 26
1 13	1 40
70	86
43	53
27	33
17	20
10	13
6	8
4	5
2	3
1	2

The La Chapelle de Ronchamp



(01-05-01)



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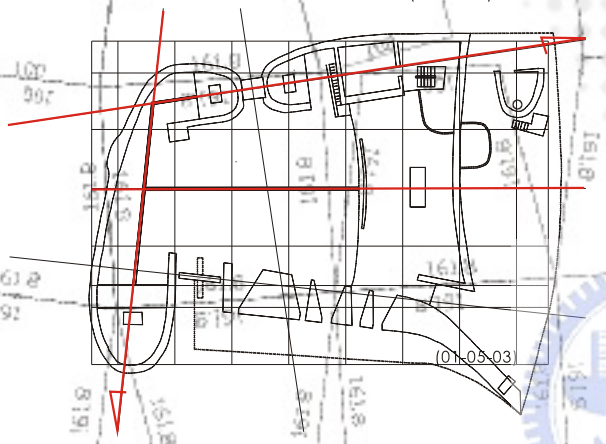


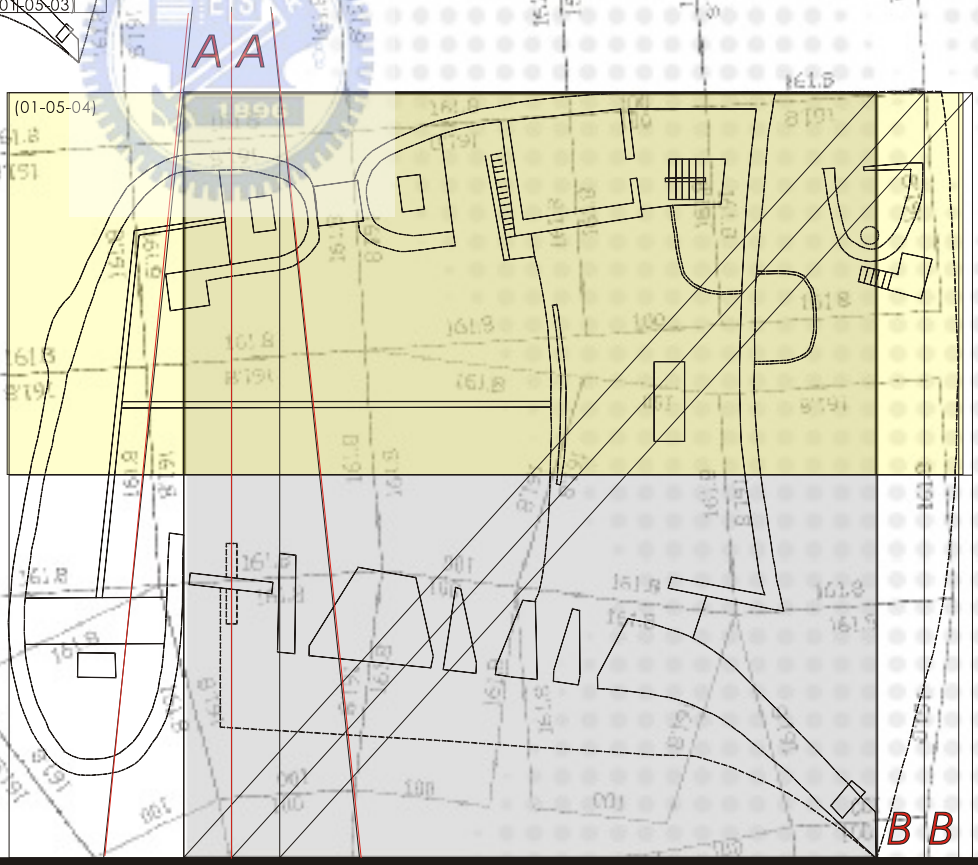
(01-05-03)

(01-05-01) modular division of floor

(01-05-02) the axis of site
Descendants also try to analyze the relationship of the mathematical ratio on the La chapelle de Ronchamp.

(01-05-03) Axis

(01-05-04) the relationship of the mathematic ratio



(01-05-04)

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Re_Modulor

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Design

Site

analyze wall according to the Golden Module in x, y, z axis

113 113 113

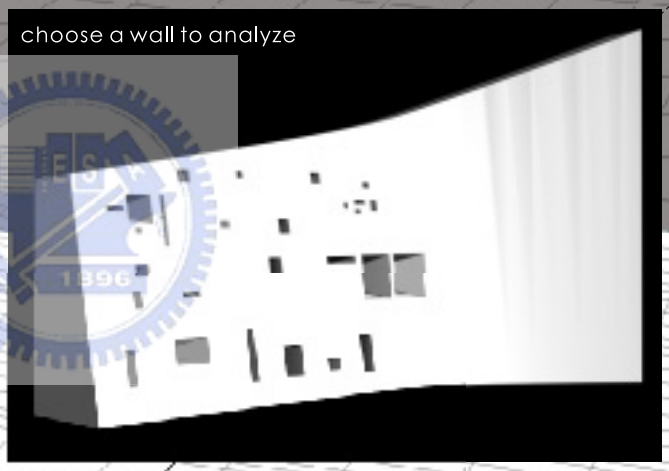
27

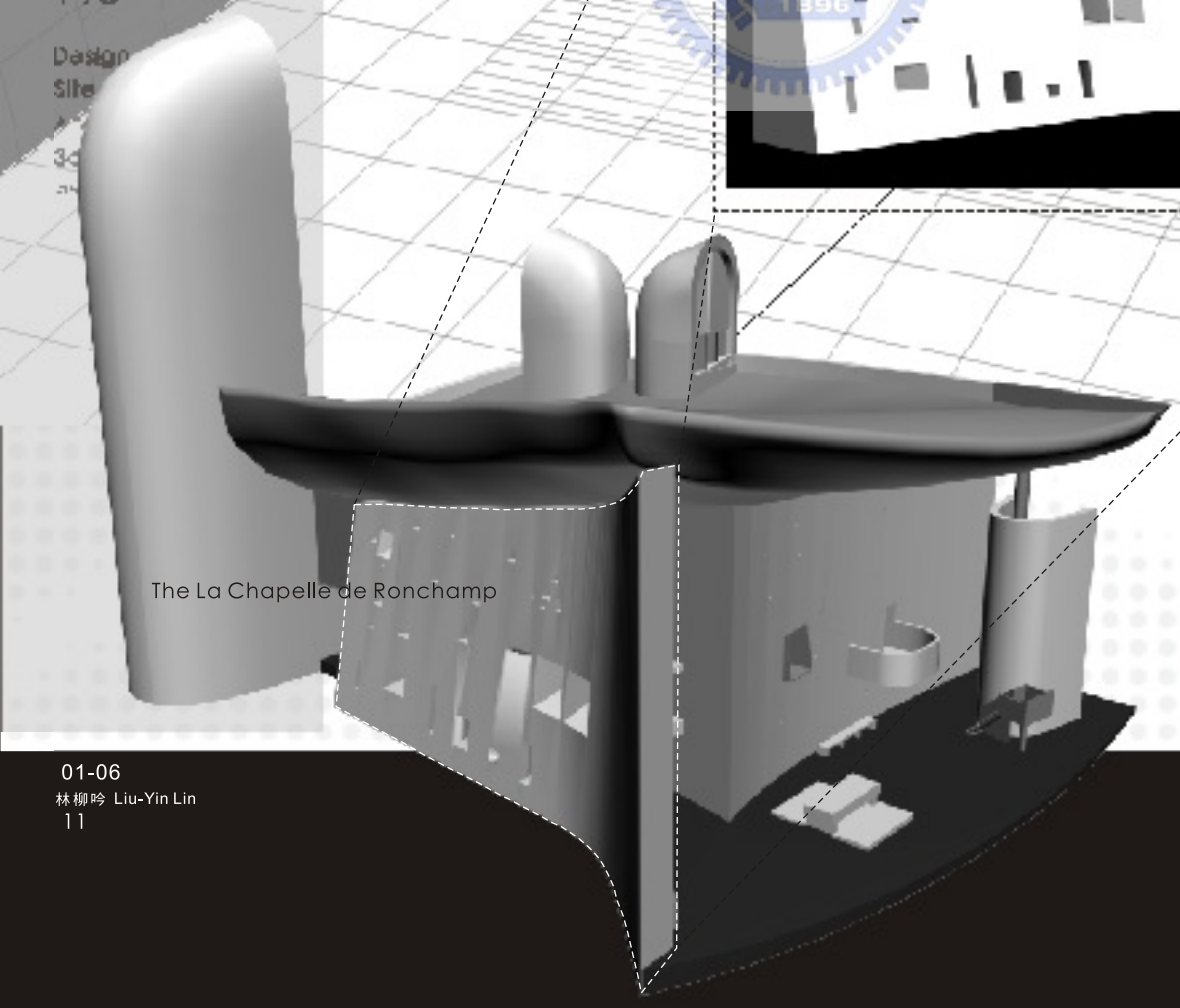
27

27

16

16





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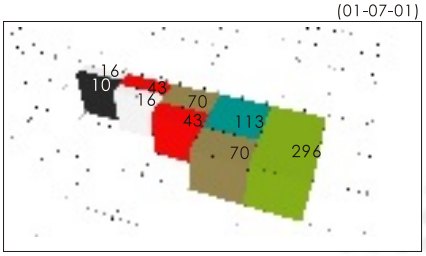

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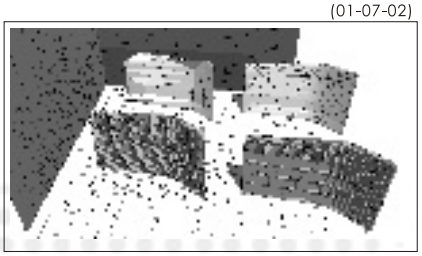

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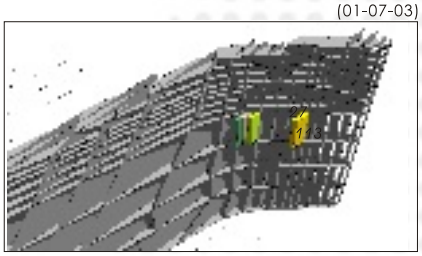
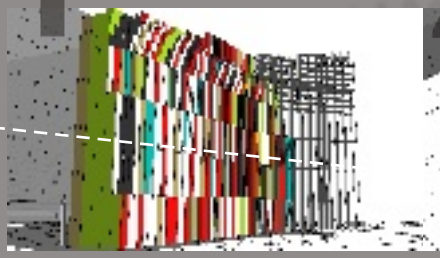
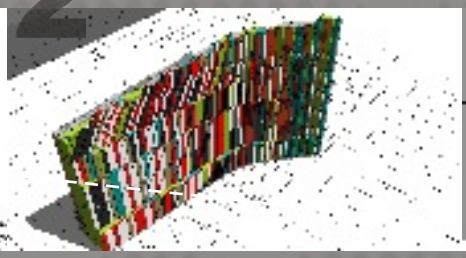
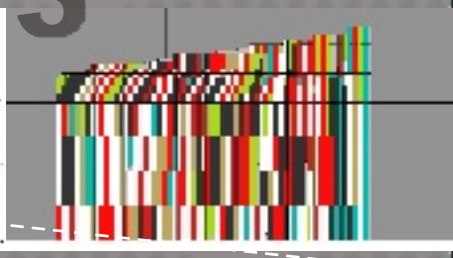


1 2 3

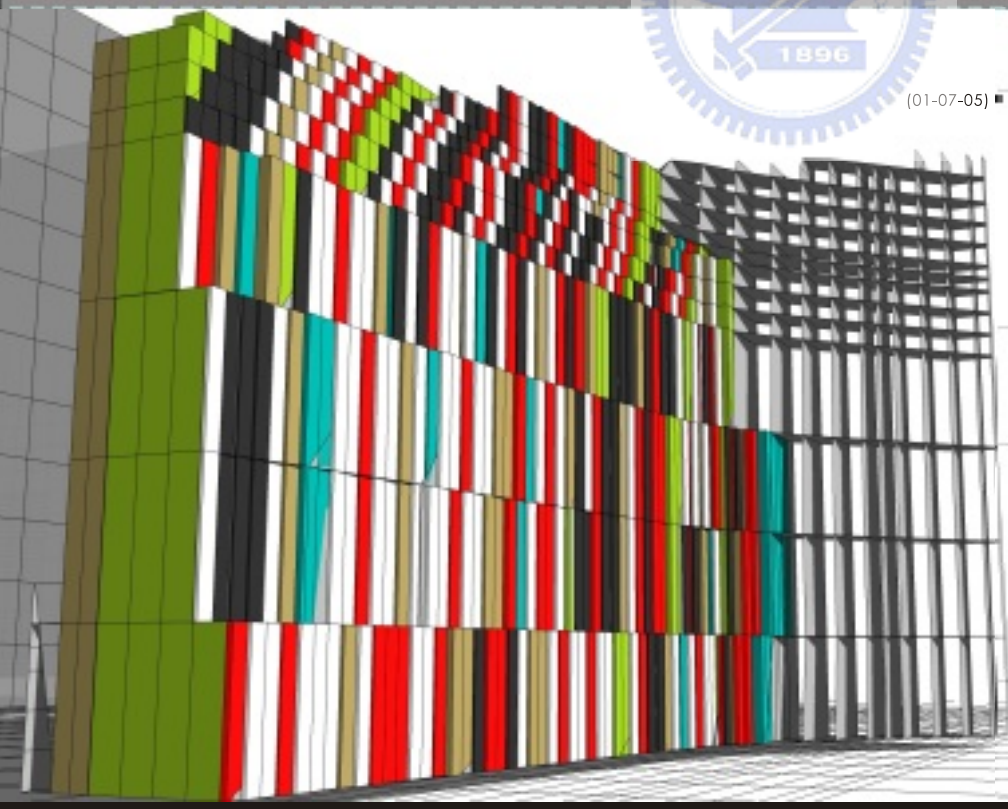
(01-07-04)







(01-07-05)



(01-07-01) unit composition

(01-07-02) Division

(01-07-03) Install unit

(01-05-04) Install unit
modulization of three-dimensional axises

(01-07-05) Mosaic
It's one of the ways to display the architecture.
Maybe it can show the digital architecture completely.

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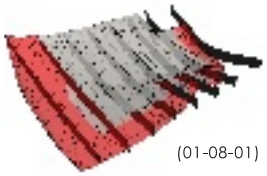
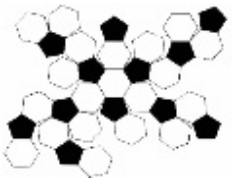
surface and circumference

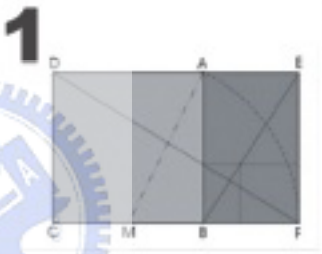


(01-08-01)



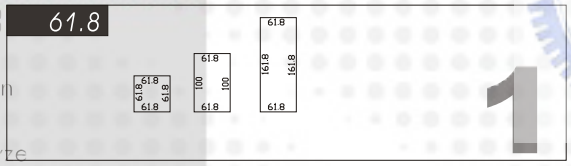
(01-08-02)

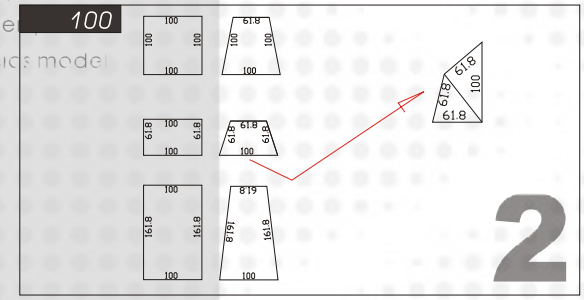
(01-08-03)

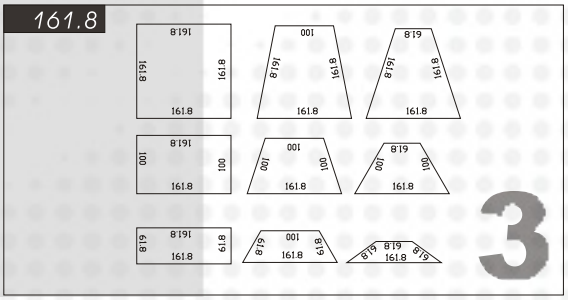


(01-08-04)

(01-08-05)







(01-08-06)

(01-08-01) back to mention surface and circumference

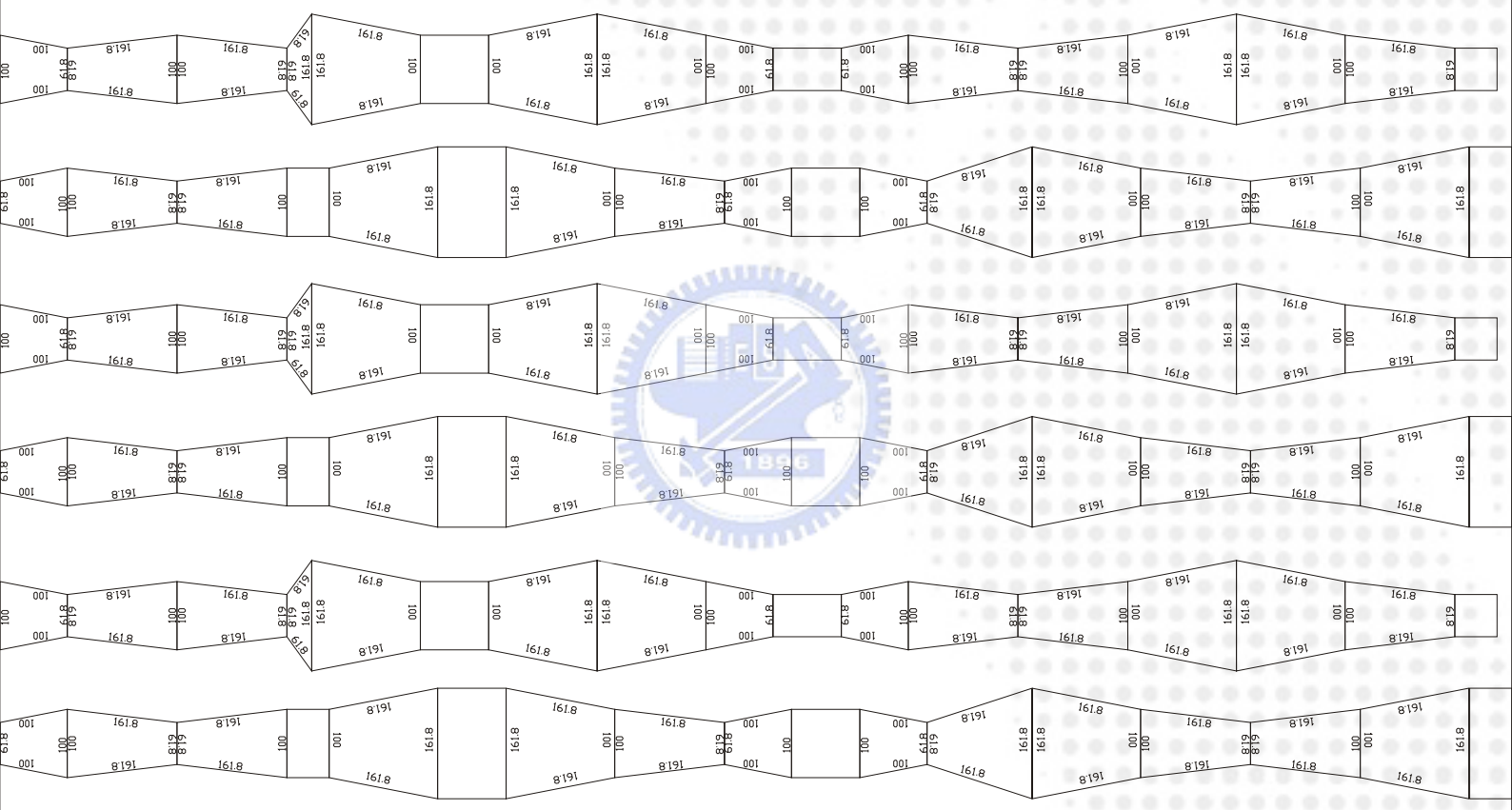
(01-08-02) _exist some proportionable relationship on surface, organization and its circumference

(01-08-03) _a regular pentagon of dodecahedron and a regular hexagon of twenty sides get thirty-two sides

(01-08-04) 1.first, use three assembly forms and let it conform the modulor

(01-08-05) 2. then use the relationship of mosaic to combine together

(01-08-06) when the angle is changeable, it can change much more different forms.



it can compose of the different kinds of forms by the same length of side.

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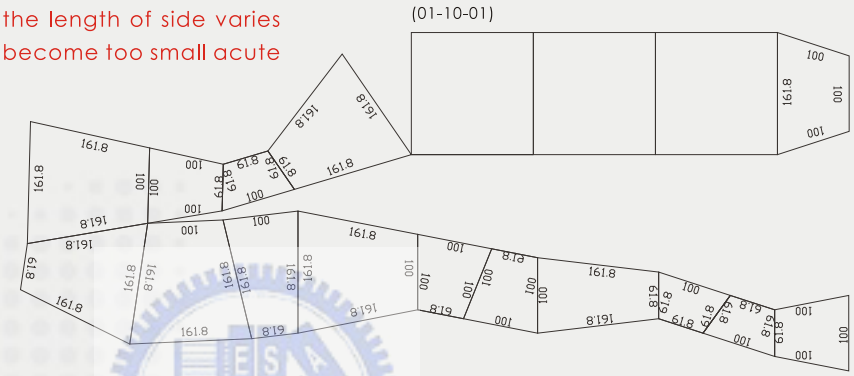
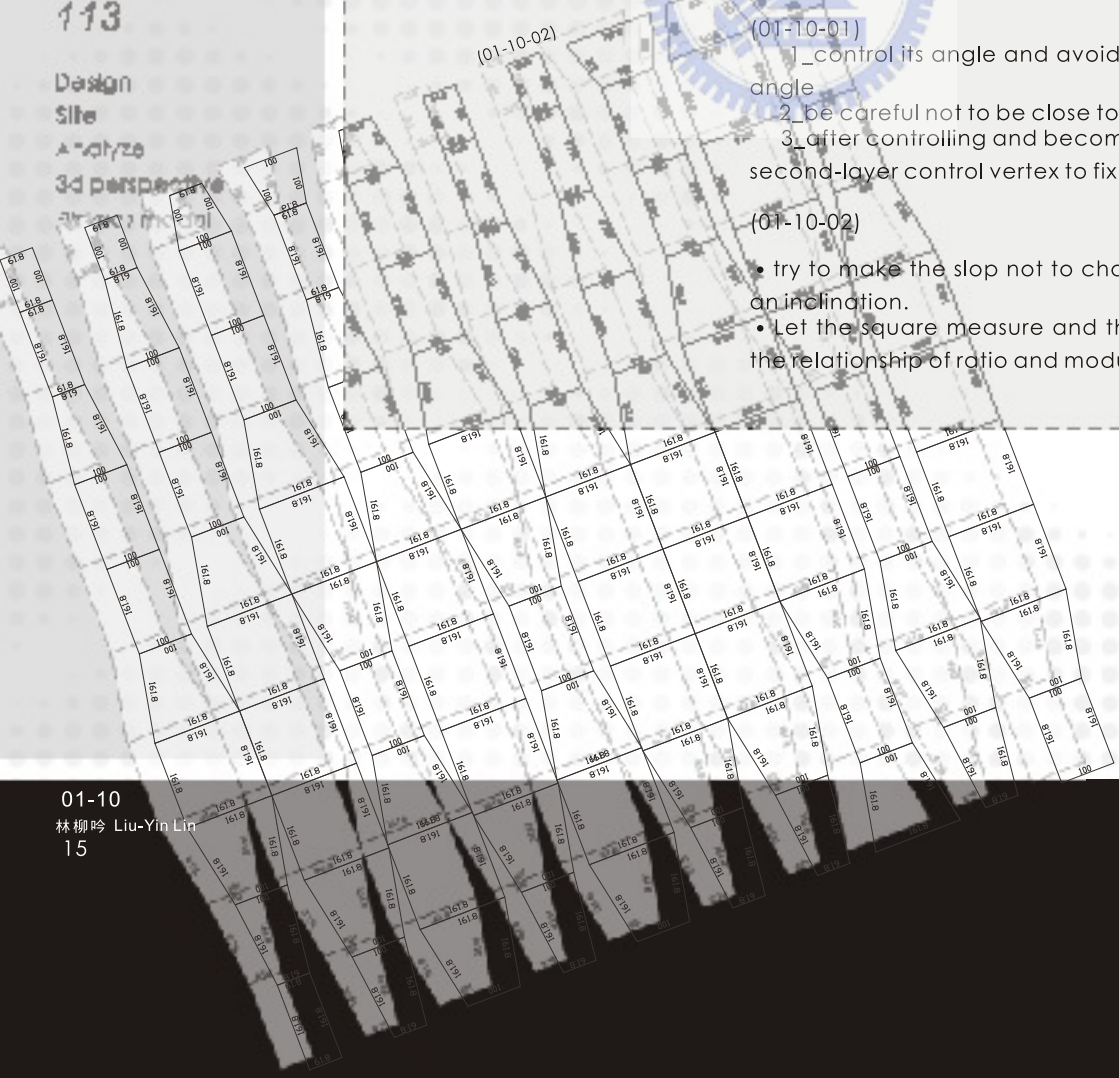
limitation ----- the observation of microcosmic and macrocosm In the microcosmic, if the length of side varies too much, it will become too small acute angle.

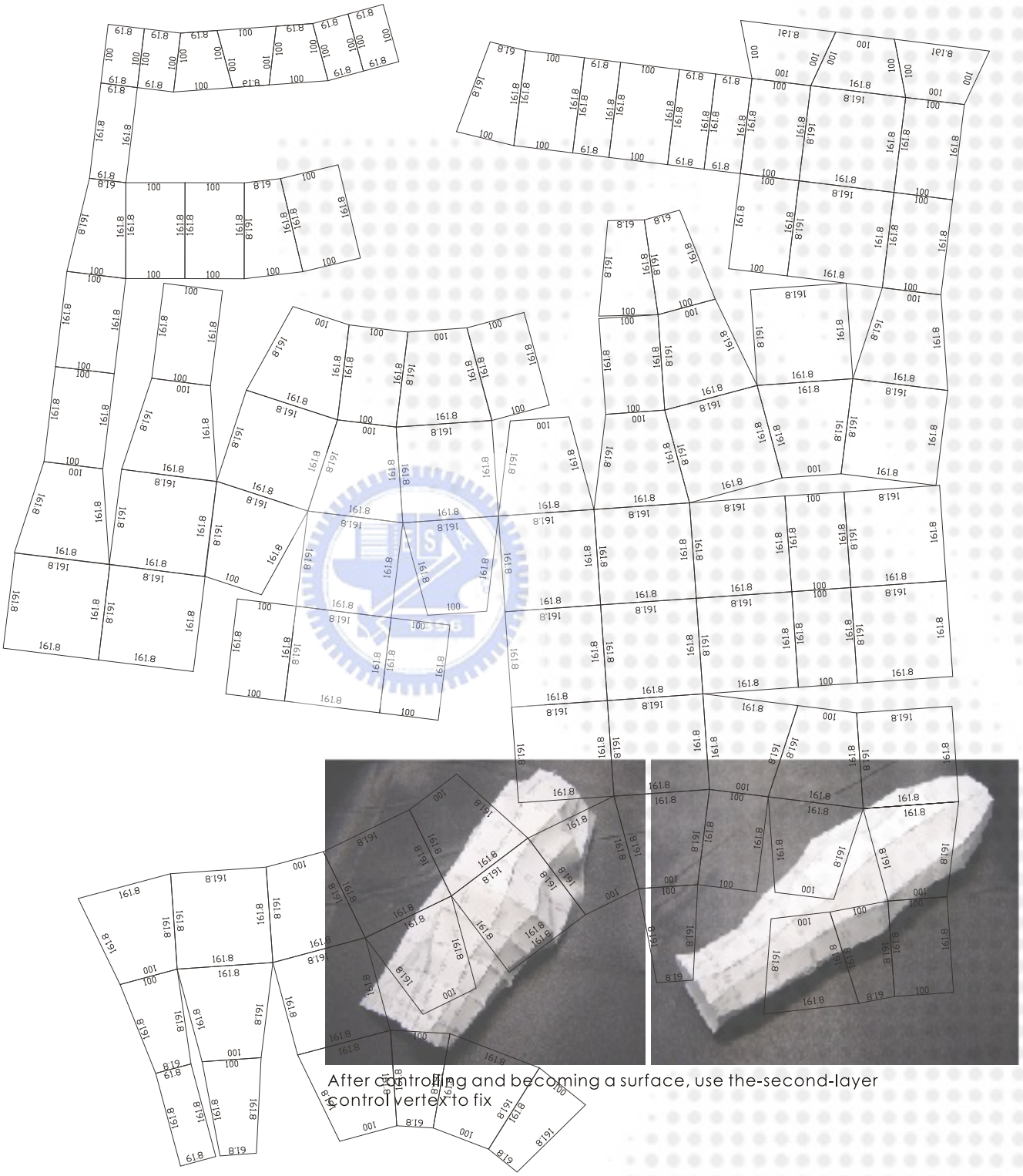




(01-10-01)
1_control its angle and avoid it to become a acute angle
2_be careful not to be close to the mosaic
3_after controlling and becoming a surface, use the-second-layer control vertex to fix

(01-10-02)

- try to make the slop not to change but still can have an inclination.
- Let the square measure and the length of side have the relationship of ratio and modulor.



After controlling and becoming a surface, use the-second-layer control vertex to fix

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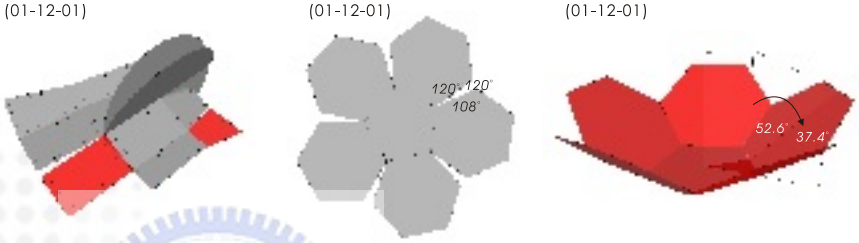
Find the model of module

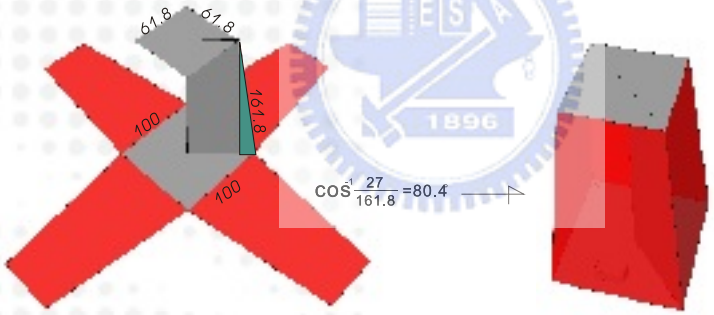
(01-12-01) (01-12-01) (01-12-01)



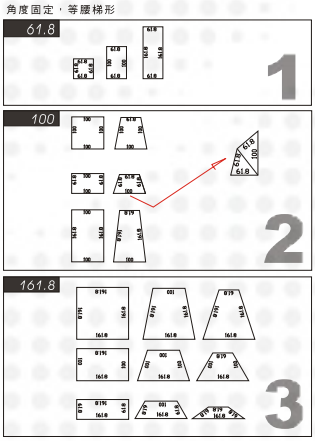
$120^\circ+120^\circ+108^\circ<360^\circ$

Relationship of ratio

(01-12-01)



角度固定，等腰梯形

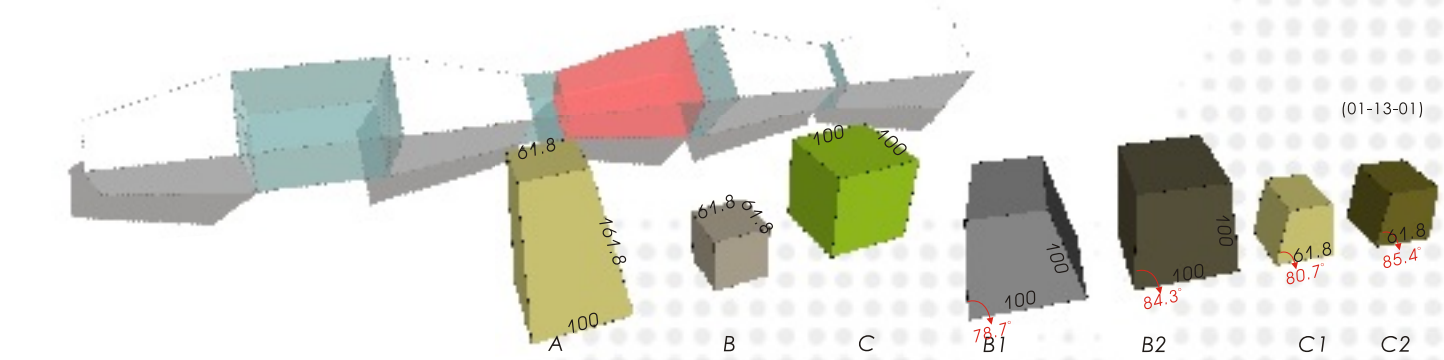


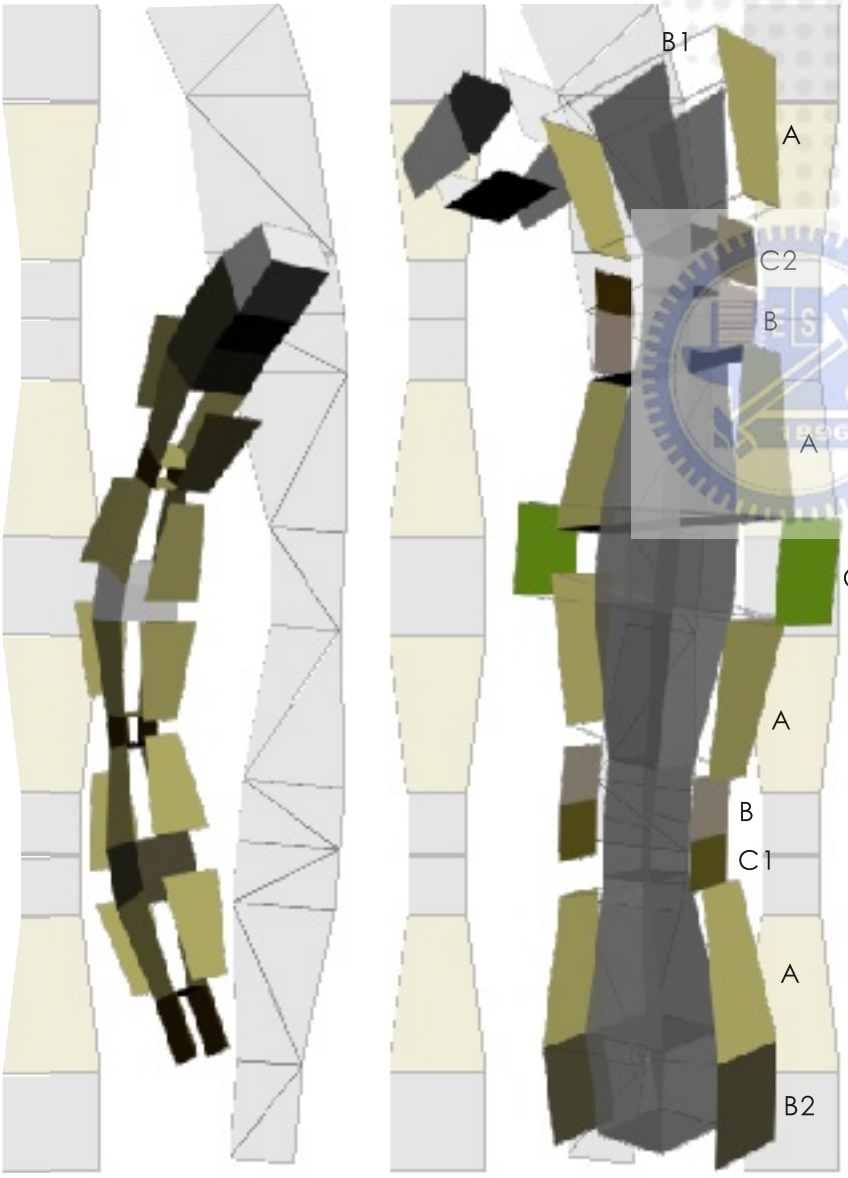
(01-12-01) 1.surface could be liberated, but angle could not e fixed

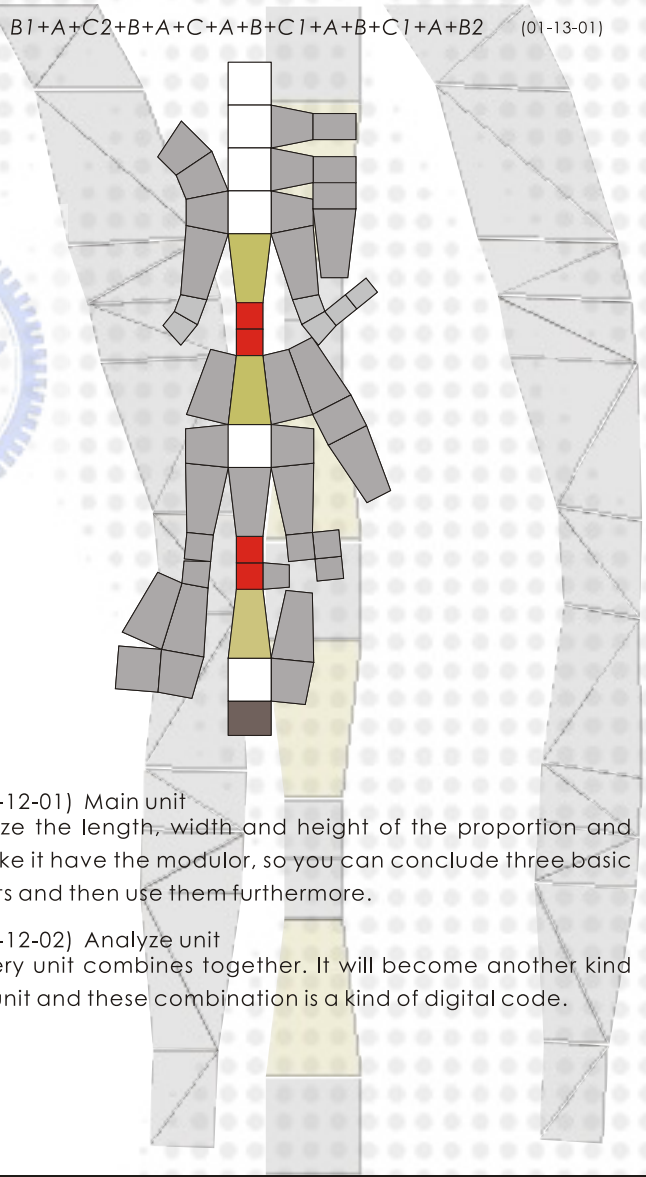
(01-12-02) 2.only becomes a volume

(01-12-03) 3.only become volumes in some peculiar angles

(01-12-04) only become volumes in some peculiar angles







(01-12-01) Main unit
utilize the length, width and height of the proportion and make it have the modulor, so you can conclude three basic units and then use them furthermore.

(01-12-02) Analyze unit
every unit combines together. It will become another kind of unit and these combination is a kind of digital code.

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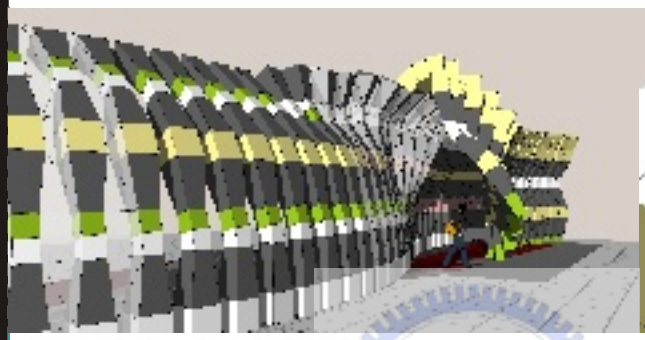

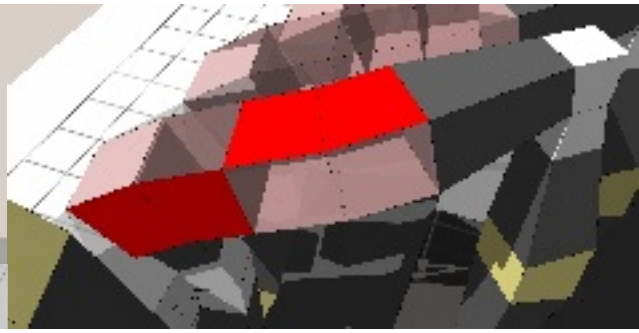

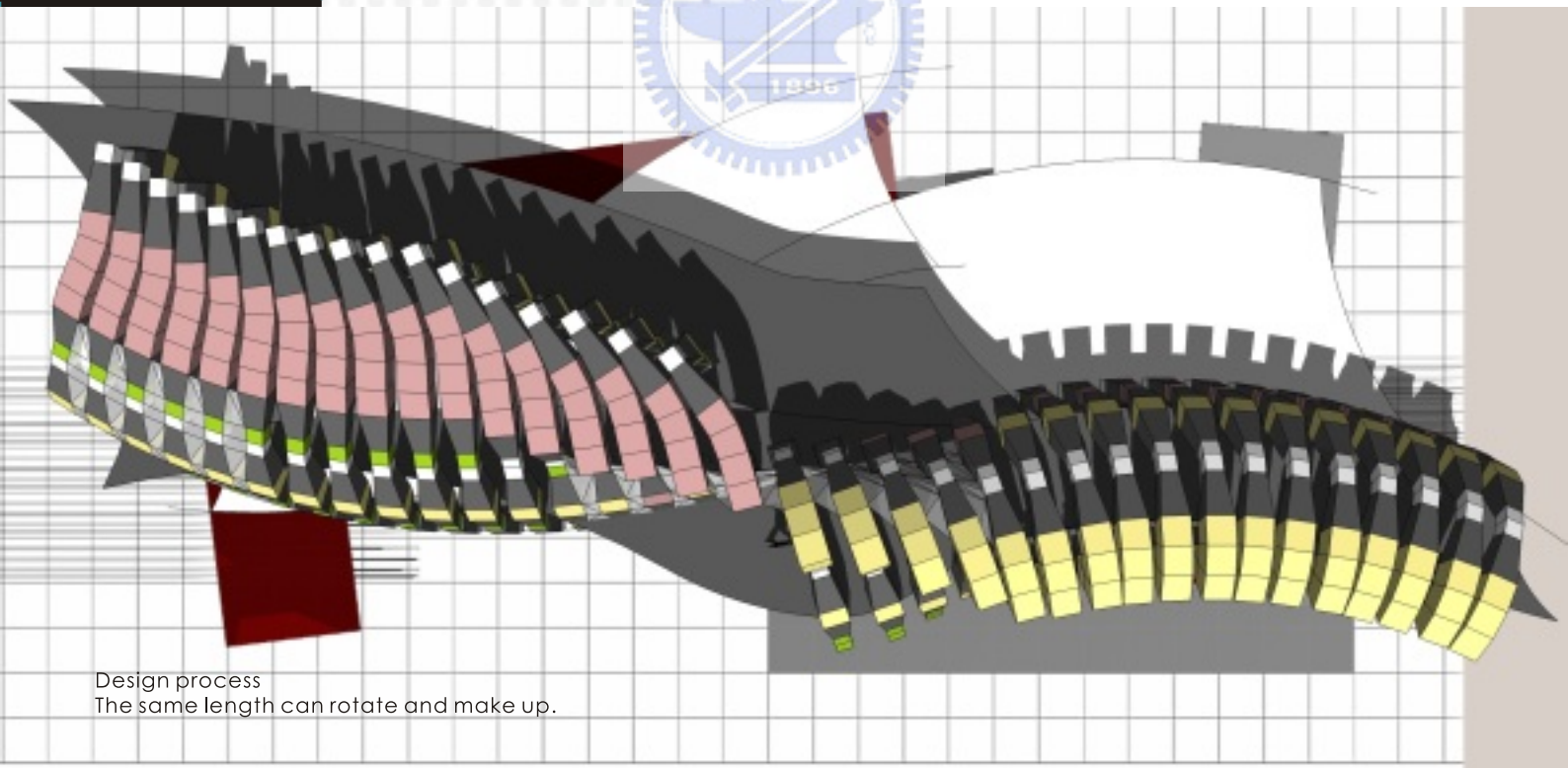

Design process
The same length can rotate and make up.

(01-15-02)

Site

(01-15-01) a convent
Try to rebuild a wall in pre-existing building to retrieve the La Chapelle de Ronchamp image

(01-15-02) Try to rebuild a wall in pre-existing building to retrieve the La Chapelle de Ronchamp image

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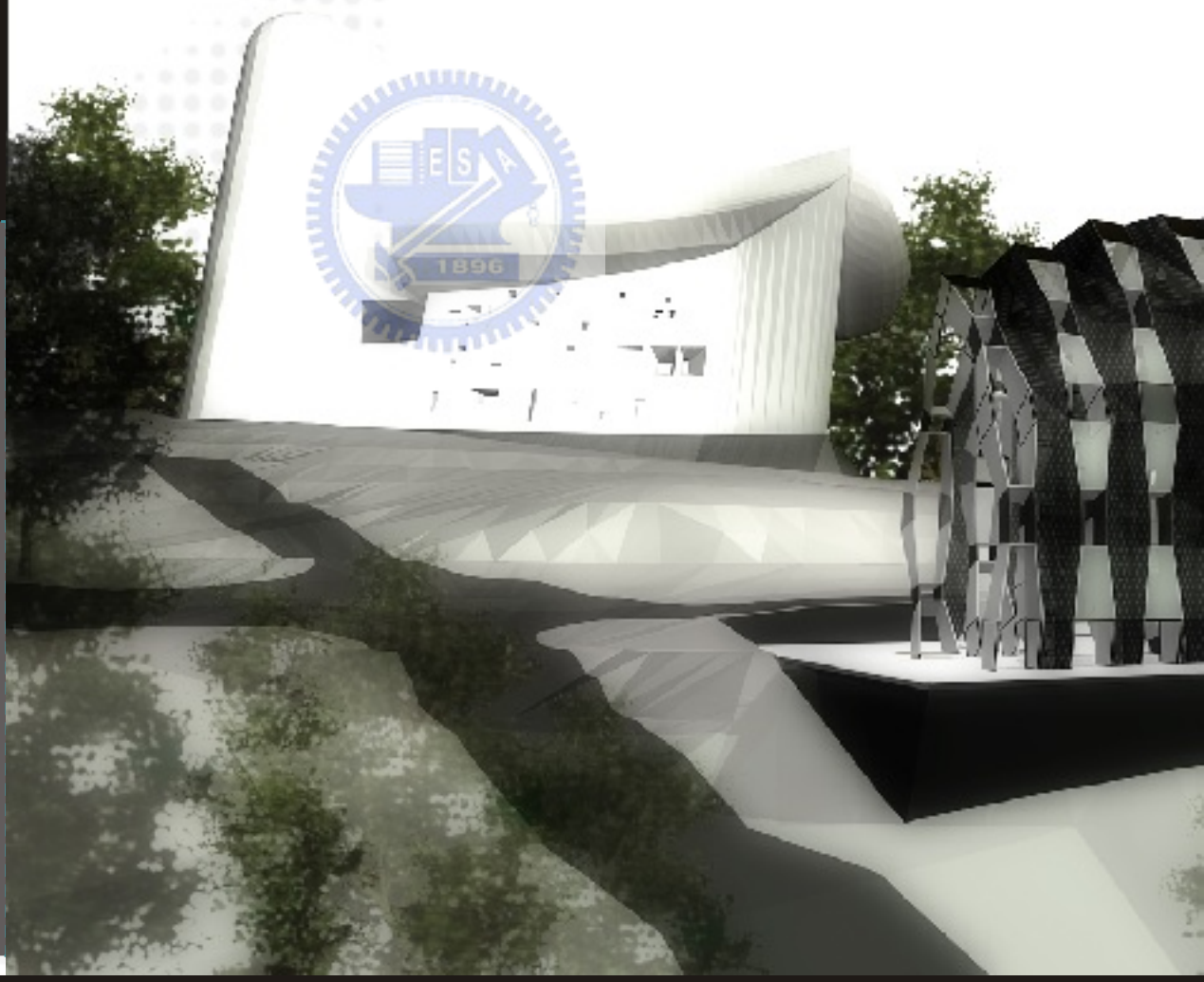
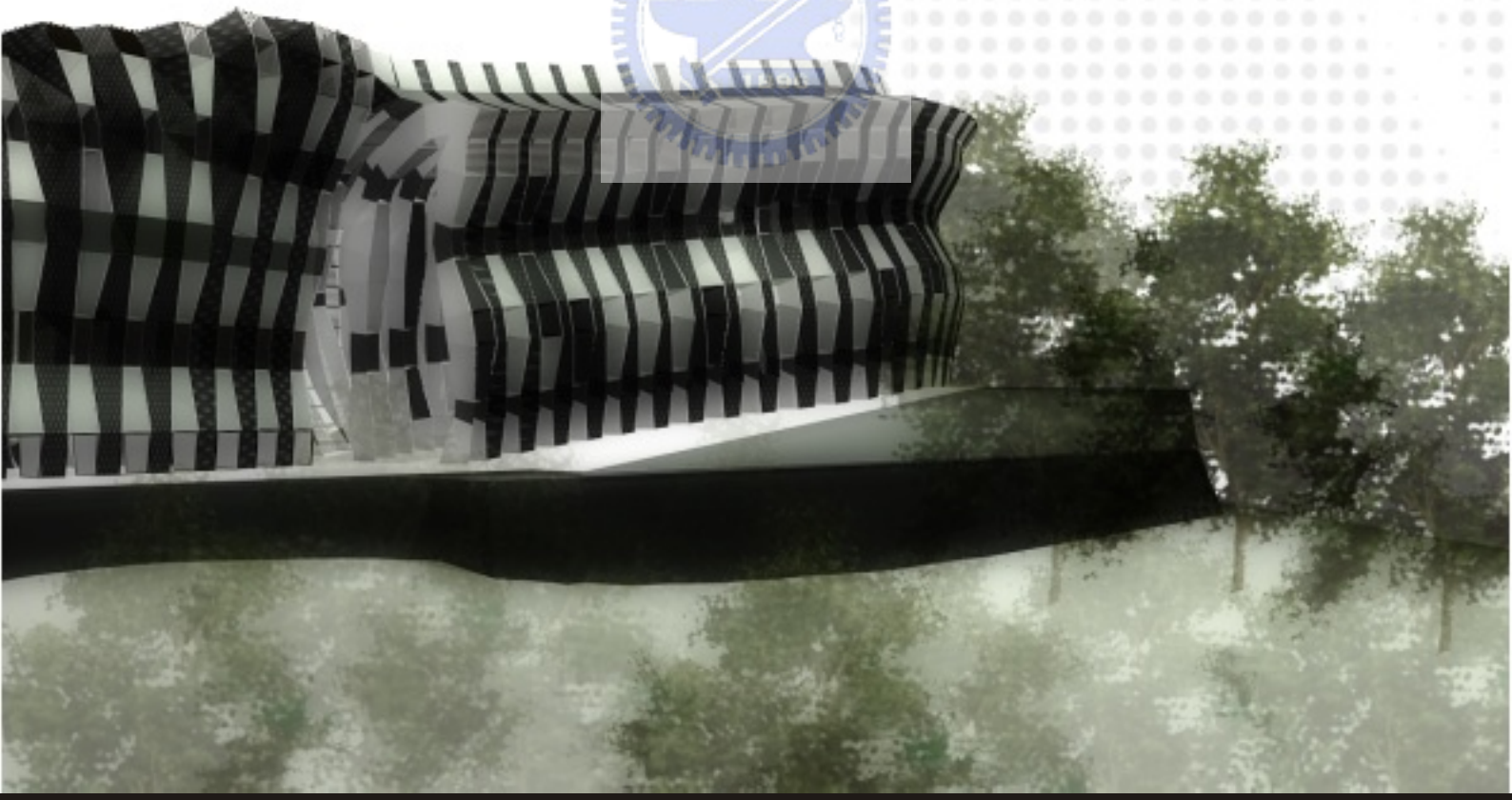
Site with The La Chapelle de Ronchamp
liberated from the module of Le Corbusier's ...
Digital Modualization





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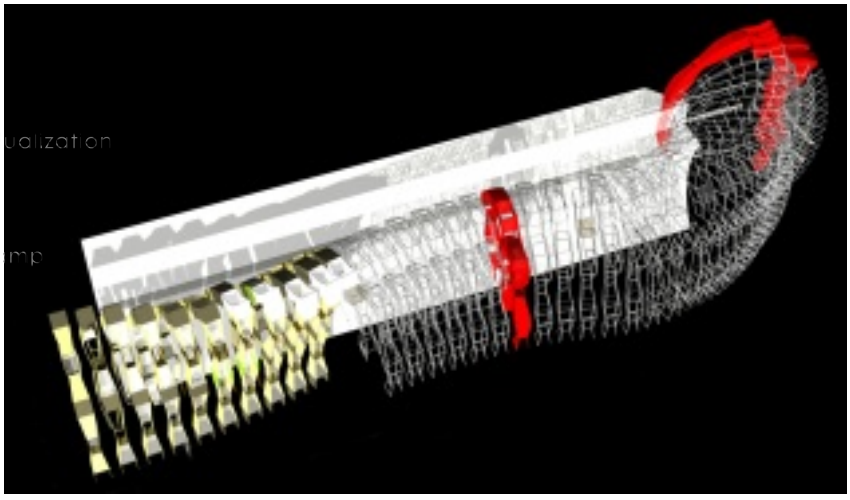

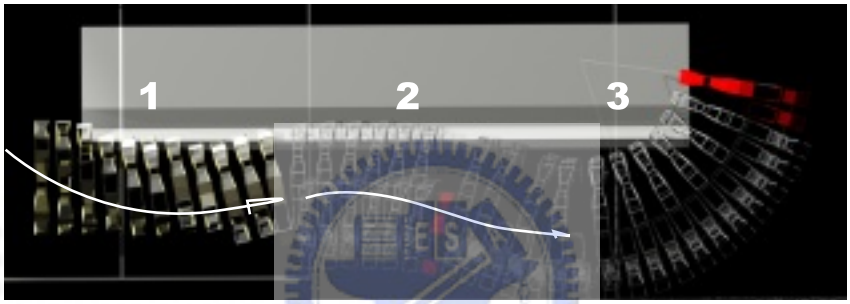

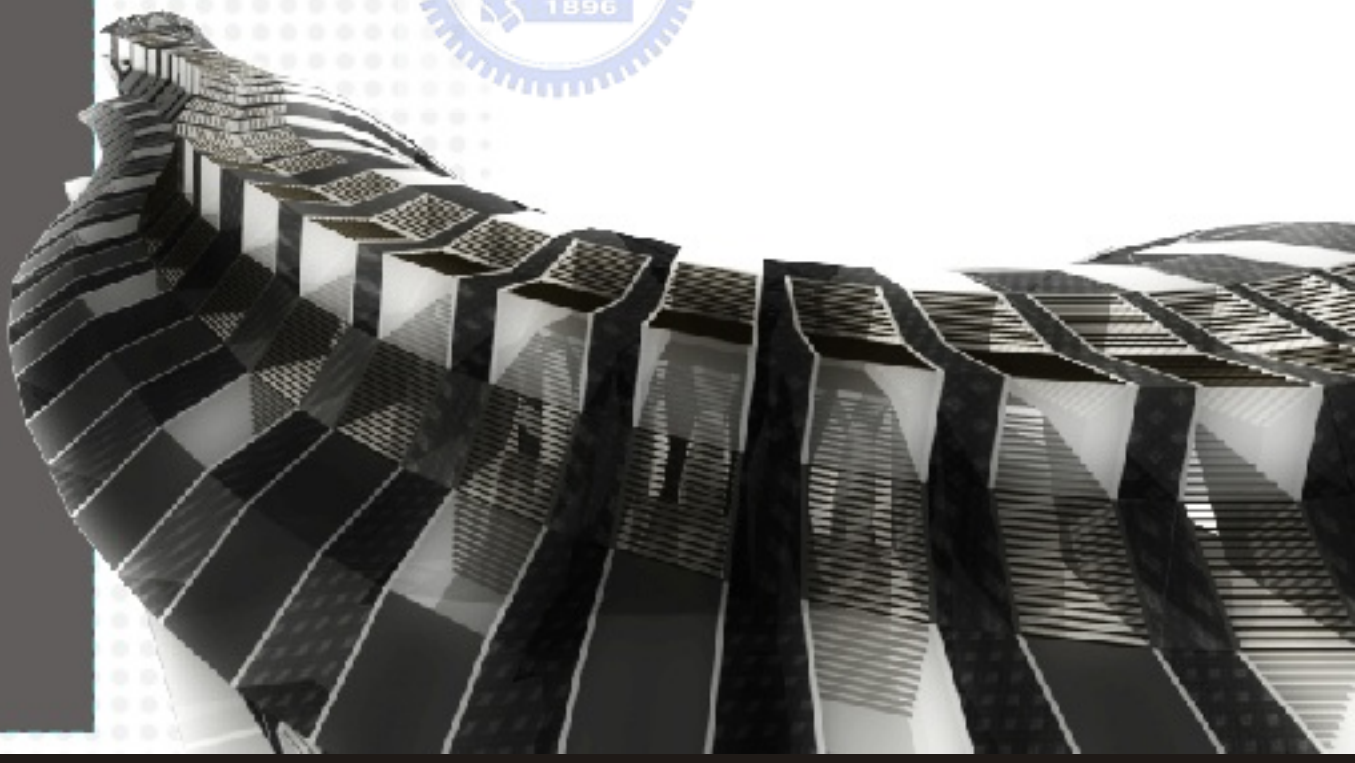

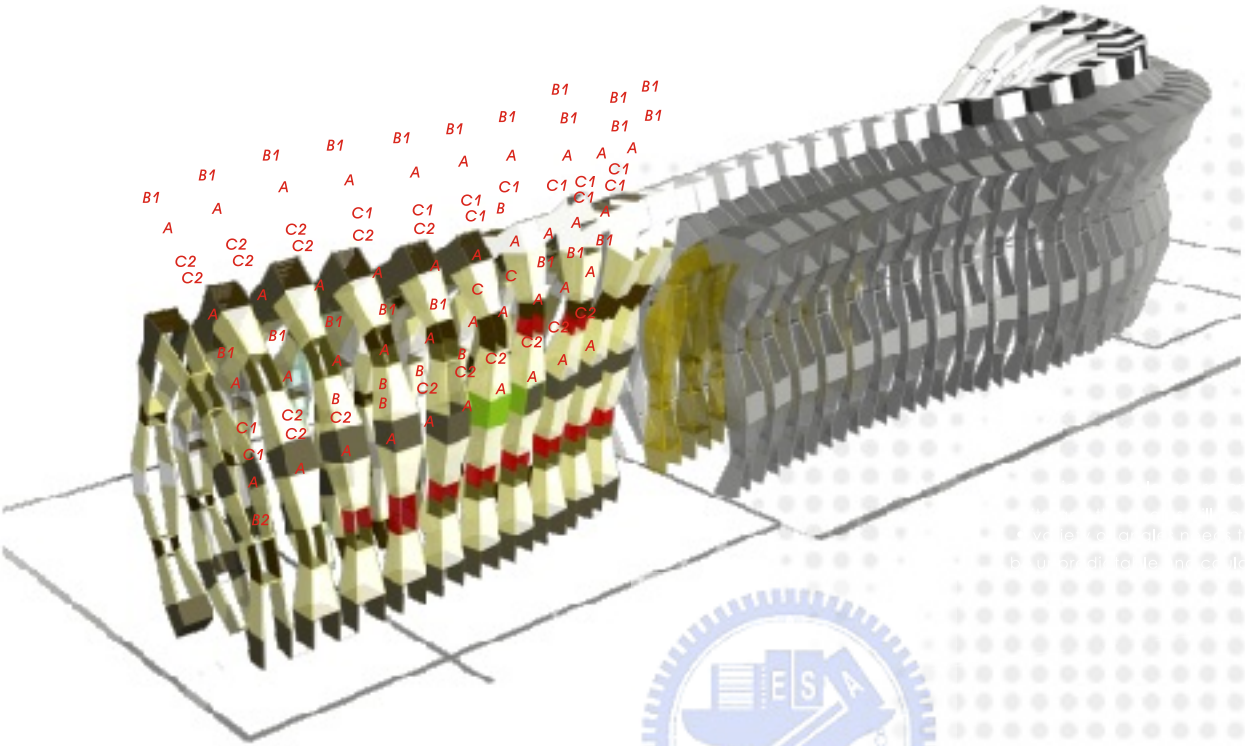

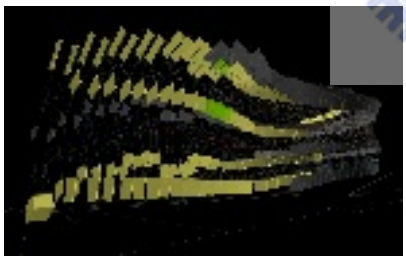

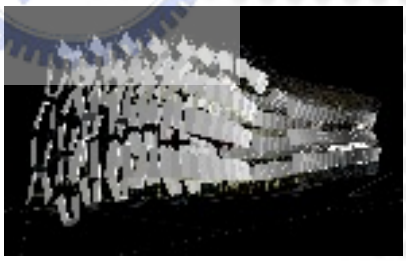

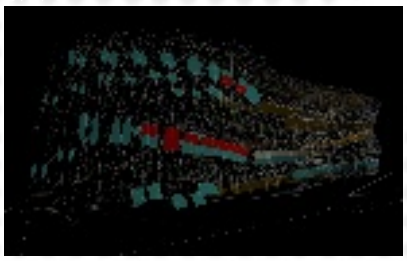

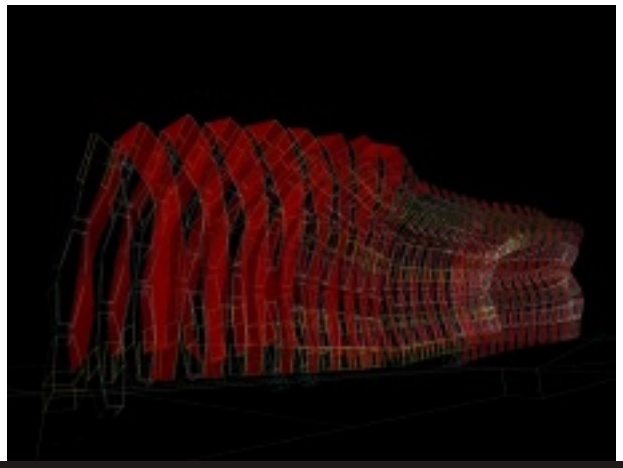

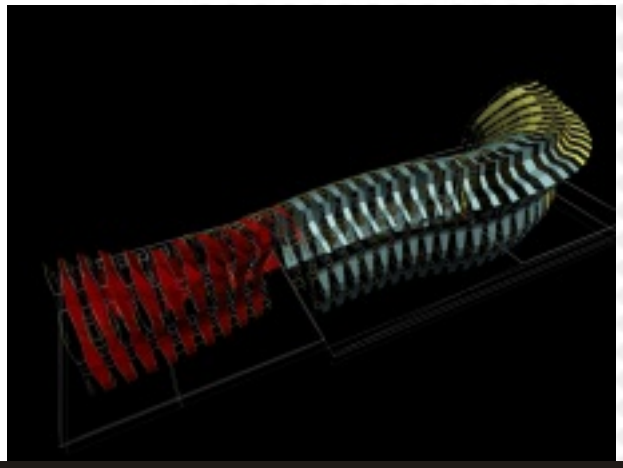

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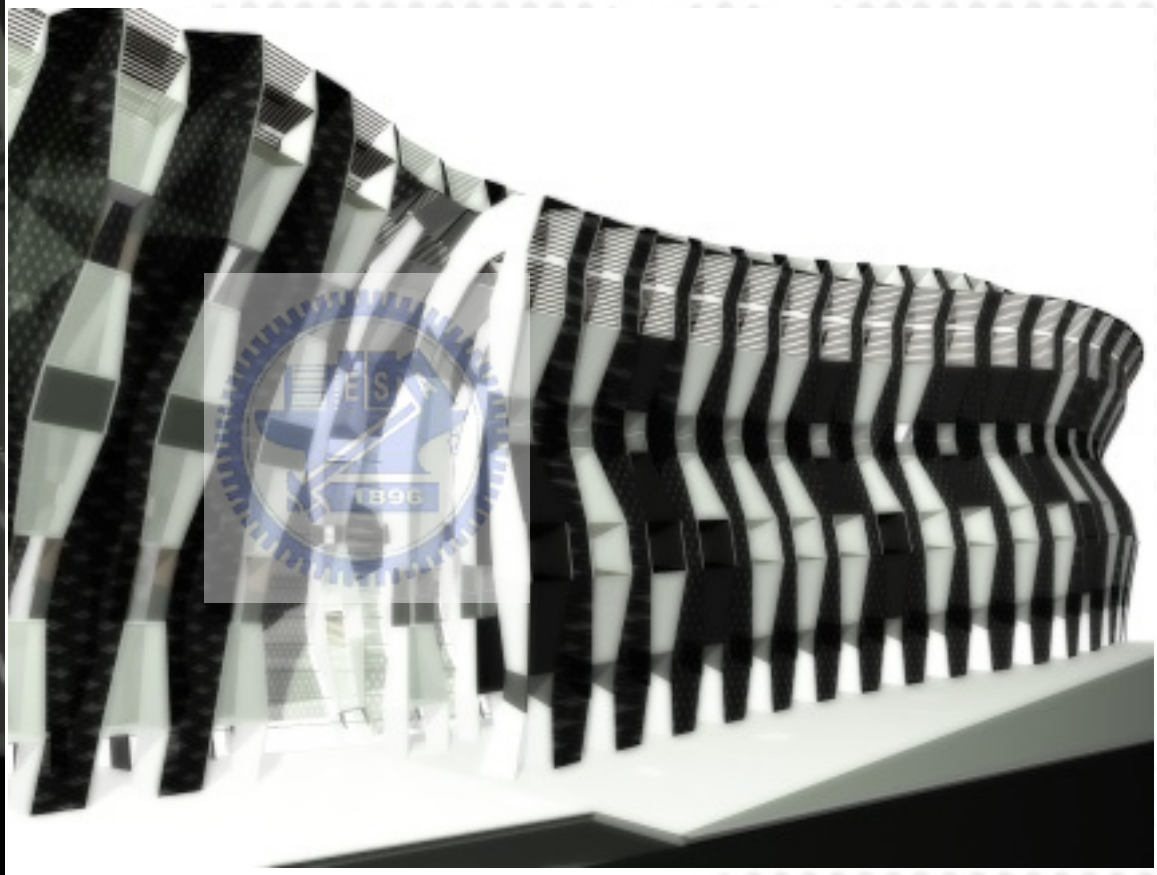

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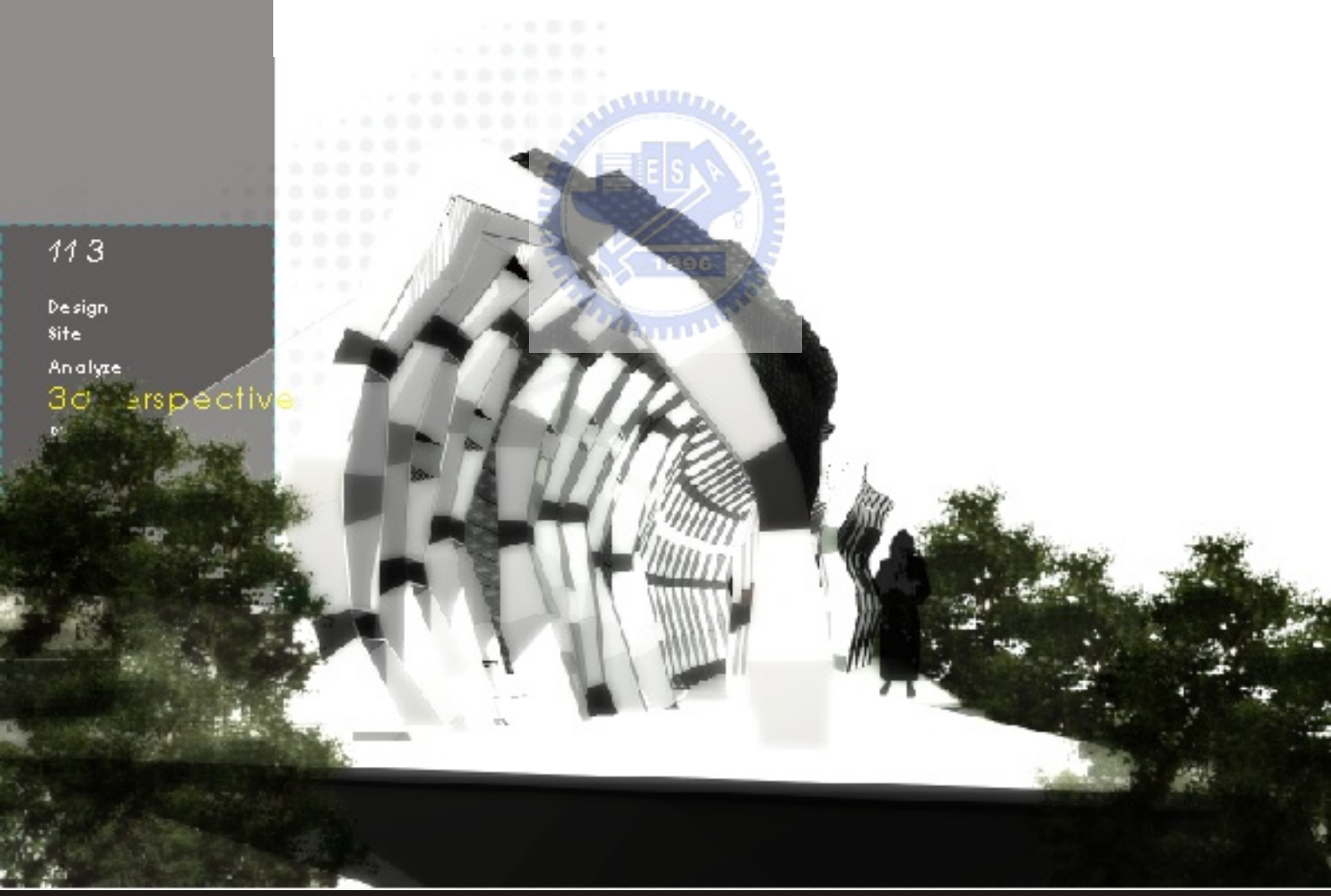
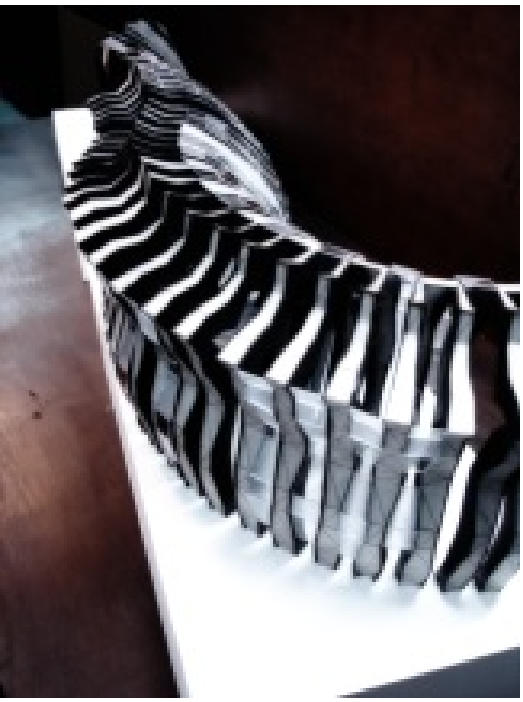
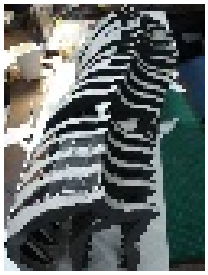




Physics model



Re-order_reconstruction of deductive organization

Re_combine stacks

Urban Library

2007.09-2008.01

Re-order_reconstruction of deductive organization

Urban Library

閱讀習慣的改變顯示不是因爲大家不讀書，而是因爲進入了web 2.0，網路搜尋知識的資訊化取代上圖書館閱讀實體書，而網路打入關鍵字的搜尋行爲反應了每個人需求不同的知識分類，這些需求反應在個大搜尋網站平台，形成需求爲目的的知識區塊。都市的活動分區因爲每個人的行爲而形成不同區塊活動分區，而這些分區會因爲城市中不同的活動改變而重新組合，反應新的活動區塊滿足人們需求的不同。

所以library 2.0將會因爲城市的行爲反應知識的需求與重組。

We will hunt for knowledge through Internet instead of going to physical library since we enter the time of Web 2.0.The activity of infilling keywords in the blank of Google reveals that, Internet platform give us a virtual key to unfold the extended coverage of online knowledge bank.

Consequently, library 2.0 represents redefinition and recombination of knowledge which is due to human activities in cities.

Re-order_reconstruction of deductive organization

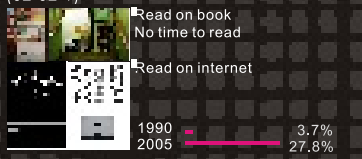
Re_combine stacks

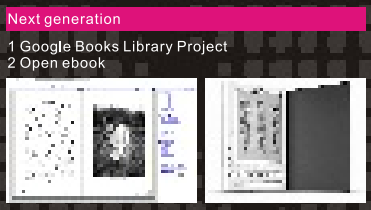
URBAN LIBRARY

City is composed of many different divisions which define how we consider the urban features. And these divisions will vary directly corresponding to consumption and requirement of city residents.

Library would become one part of living essences and would also stimulate the morphing progress of city when consumption awareness is prompted by living formation.

(02-02-1)





(02-02-1)Change

Ascending increase of reading rate on Web illustrates the adjustment of reading habits would not be tied down to a lack of reading time.

(02-02-2)Search Engine

There exists a huge difference between traditional and contemporary categorization of knowledge since digital age has arrived for decades.Internet search engine would precipitate the efficiency of how we grab and gain our desirable knowledge. And classification of library resource would be changed by the oncoming era of Web 2.0.

(02-02-2)

REQUIREMENTS

We will hunt for knowledge through Internet instead of going to physical library since we enter the time of Web 2.0.

The activity of infilling keywords in the blank of Google reveals that, Internet platform give us a virtual key to unfold the extended coverage of online knowledge bank.

URBAN PLANING

The classification of needs is showed on the portal site like library. It is a main search engine in accordance with action and their knowledge.

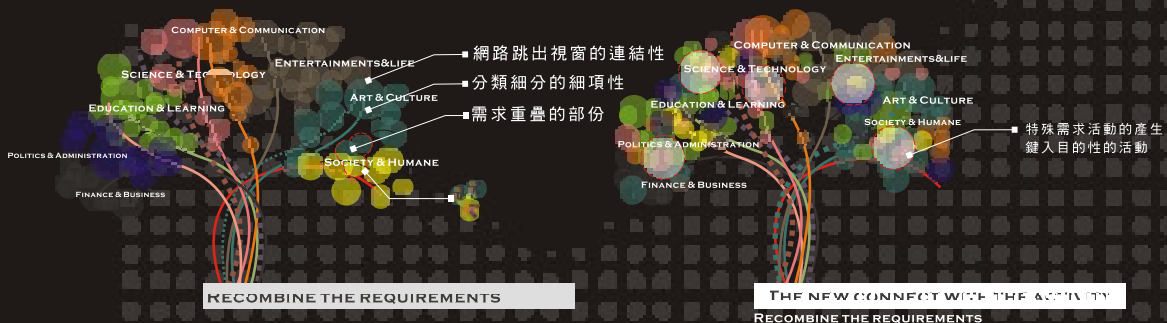
Recombine the requirements

・Life in city reacts on the needs of human. For example, knowledge will be regrouped to follow the action happened and it will be efficient to follow the needs of human.

・Urban zone = needs zone = knowledge needs to be divided but just like traditional classification.

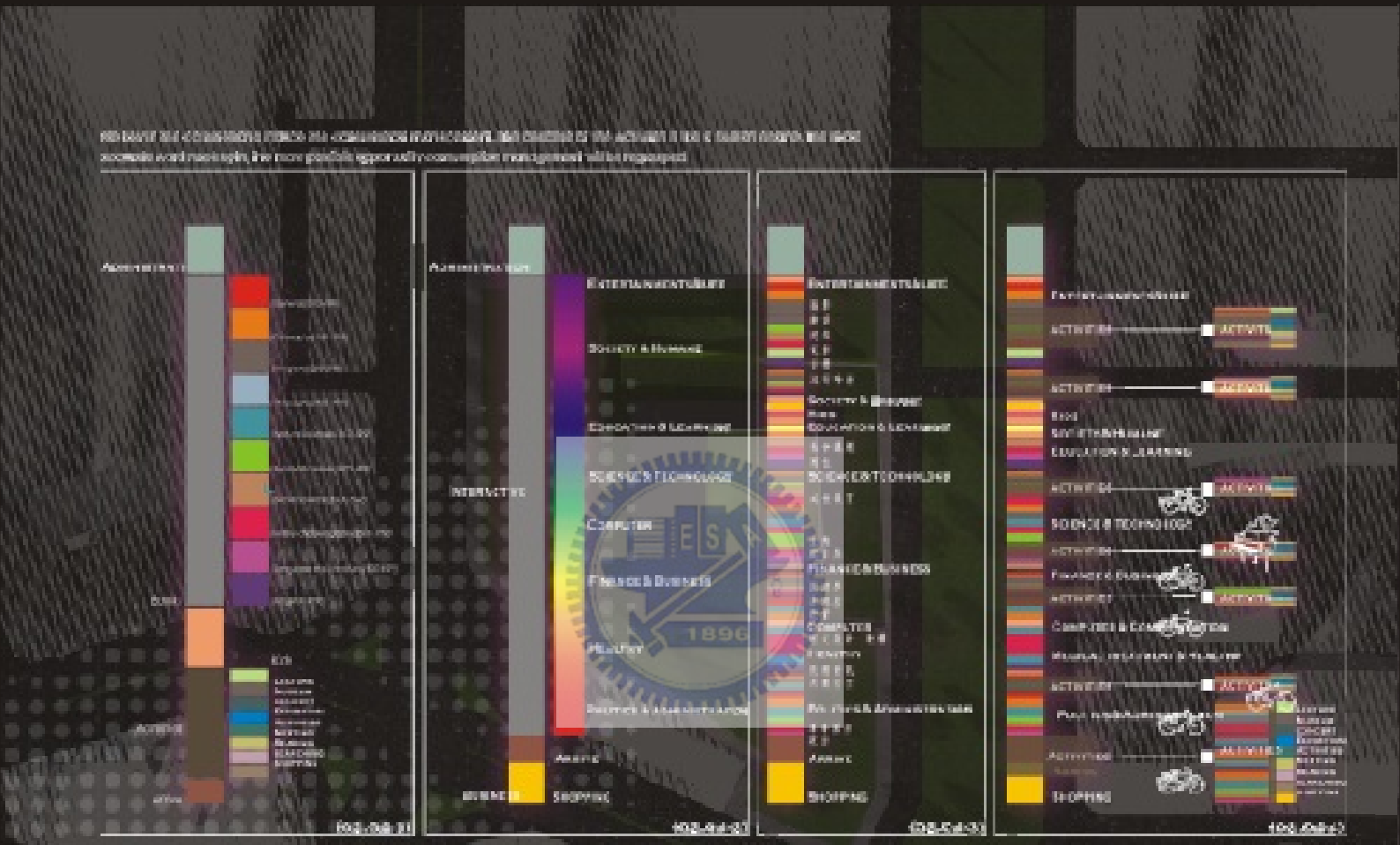
・Consumption behavior in the urban arises from the zone. Human consumption demand arises from the urban.

・How to consumer in my library is that when consumption knowledge becomes the human demand, I arrive my purpose people consuming in my library.



Re-order_reconstruction of deductive organization

Re_combine stacks



RECOMBINE THE REQUIREMENTS

(02.04-1) Traditional knowledge classification

(02.04-2) In accordance with needs, we will regroup the needs and become virtual internet into hypostatization like spectrogram which can't be divided very clearly.

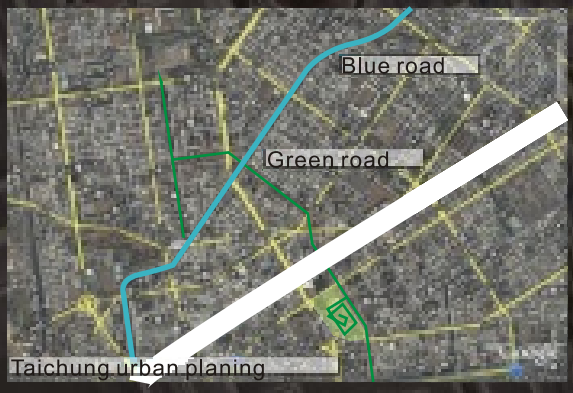
(02.04-3) In accordance with classification of living needs, they will be subdivided into more details and parts.

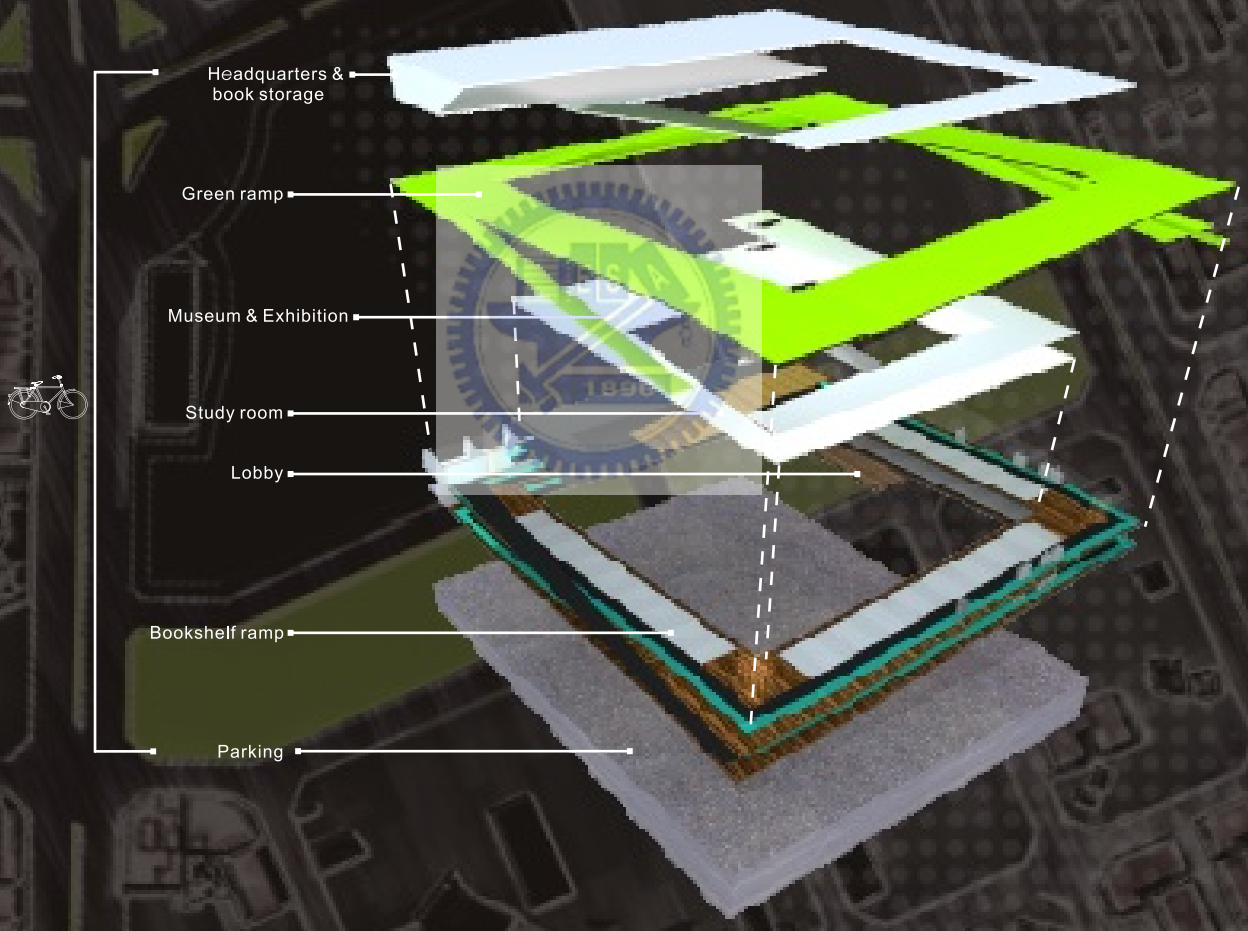
(02.04-4)We key in the activities and induce the consumption management. The concept of the Activities is like a search engine. The more accurate words we key in, the more possible opportunity consumption management will be regrouped.

URBAN

URBAN LIFE

For example, we bring the Green trails' concept into it and make the city life become a part of the knowledge in the library. When the knowledge in the library is regrouped with changes of the activities, it means people needs more knowledge and consume the knowledge further.





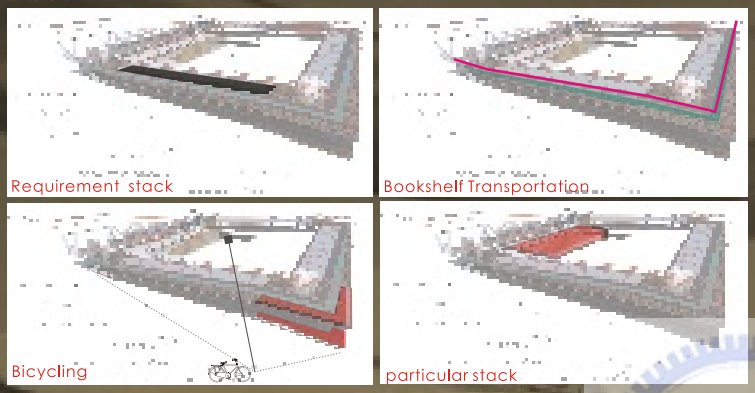
EXPLOSION

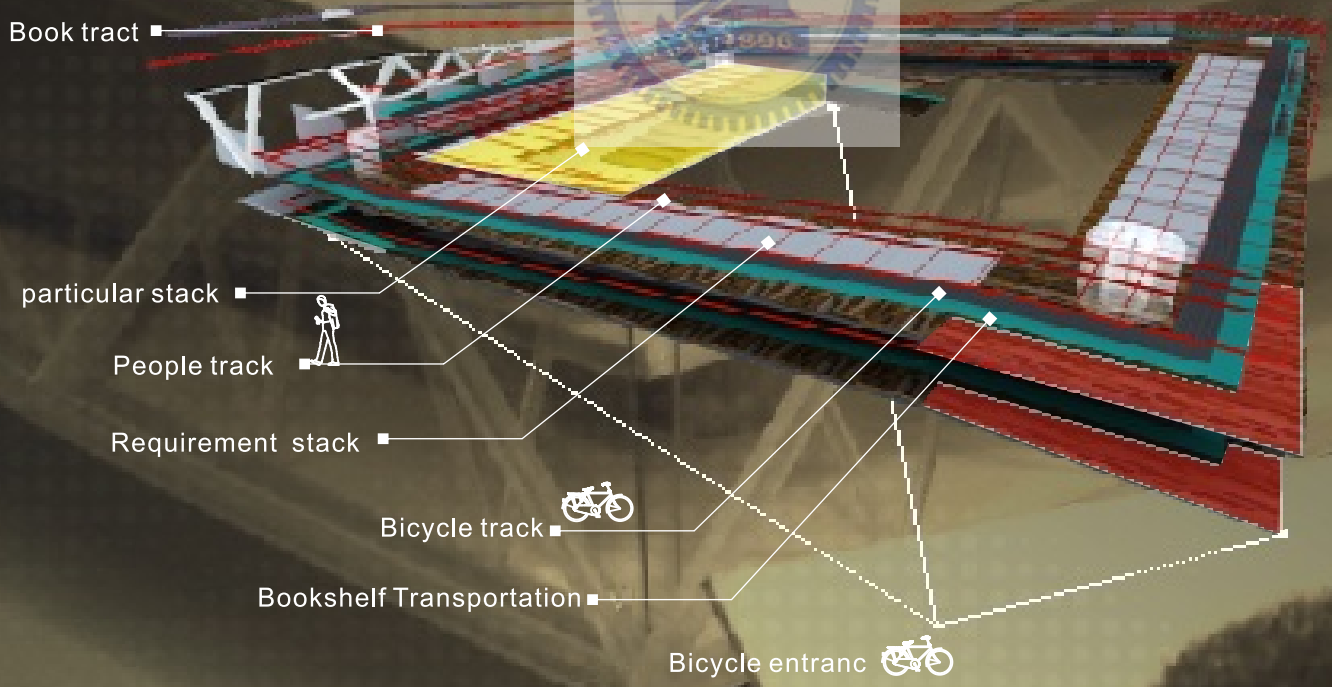
Life in city reacts on the needs of human. For example, knowledge will be regrouped to follow the action happened and it will be efficient to follow the needs of human.

Re-order_reconstruction of deductive organization

Re_combine stacks

MAIN

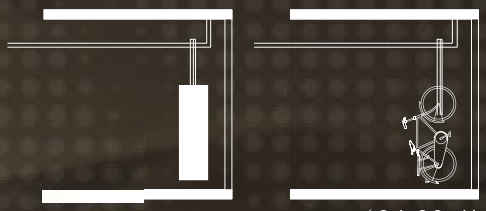




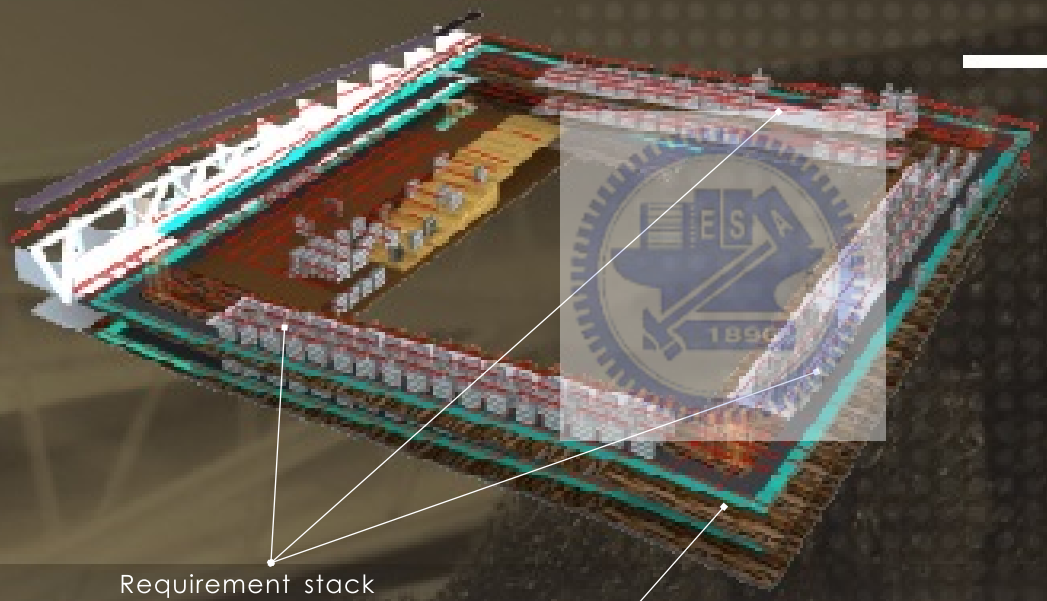
REQUIREMENT STACK

(02.07-2) Only when activities happen, bookracks would move and give up some spaces for activity requirement, and even mutate with different types of knowledge necessity.

(02.07-3)Bookracks would be hanged homogeneously in the library when no activities.



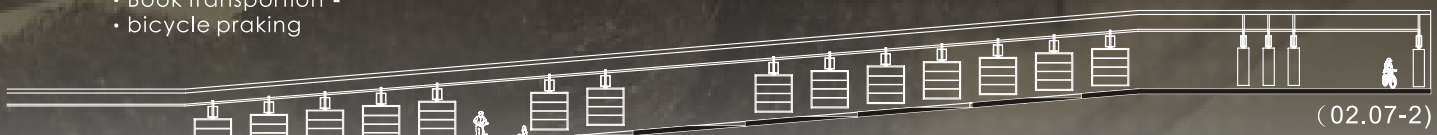
(04.09-1)



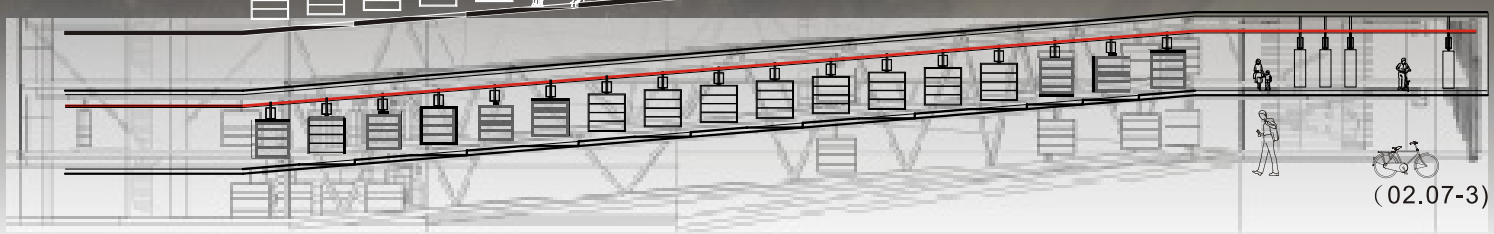
Requirement stack

ways methods

- Book transportion
- bicycle praking



(02.07-2)



(02.07-3)

Re-order_reconstruction of deductive organization

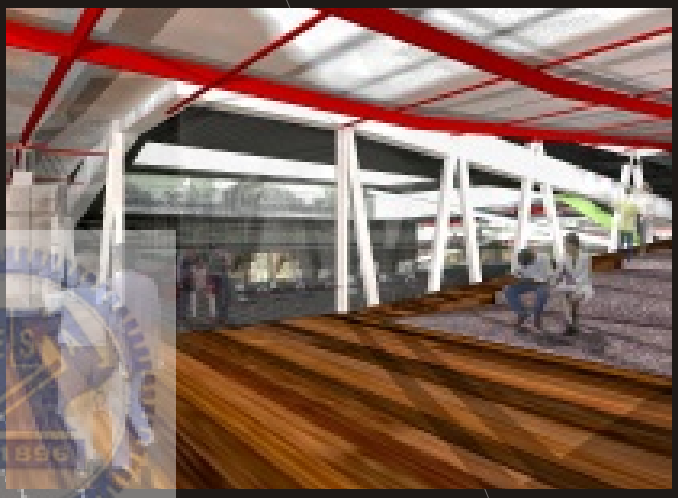
Re_combine stacks

IF FOOR PLAN

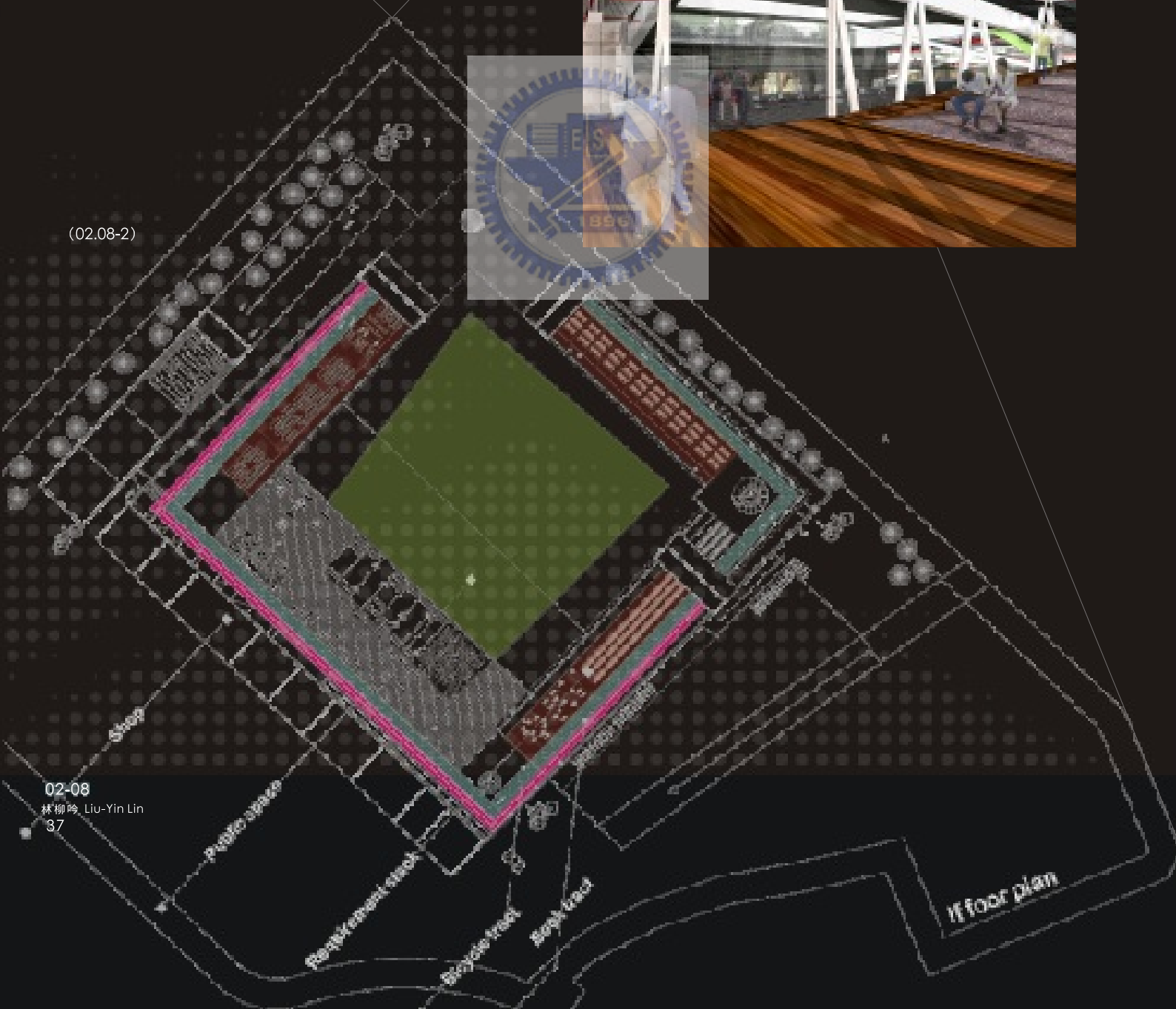
(02.08-1) The gentle slope in the library links first floor and second floor.

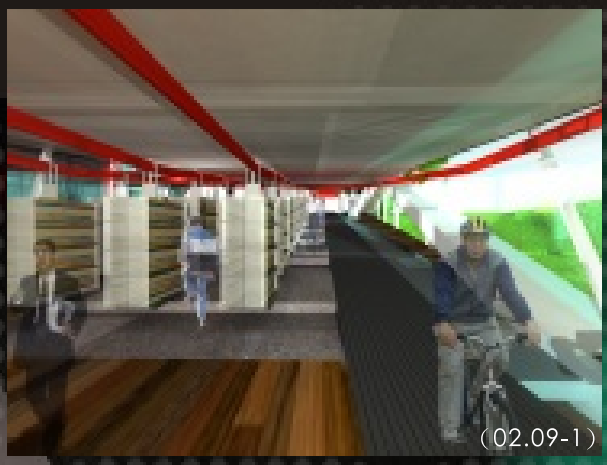
(02.08-2) Activities in the library extend to green trails which becomes a part of the library.

(02.08-1)



(02.08-2)





(02.09-1)

(02.09-2)

REQUIREMENT STACK

(02.09-1) If there is no activities happened, movable shelves are hung in the library equally.

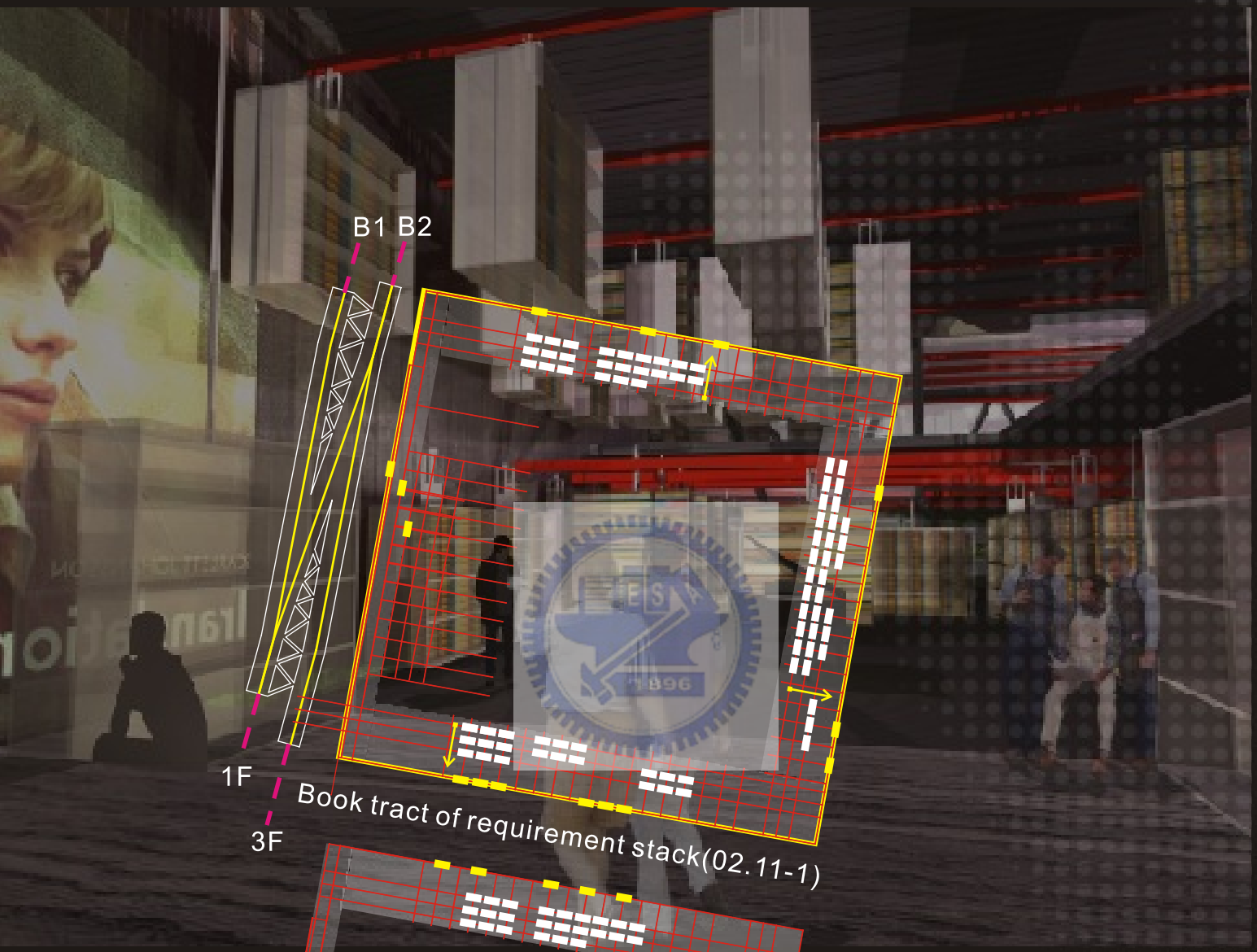
(02.09-2) When some activities happened, movable shelves will move and vacate .the sphere of activities that people needs. On the other hand, shelves will follow the knowledge needs and vacate enough spaces.

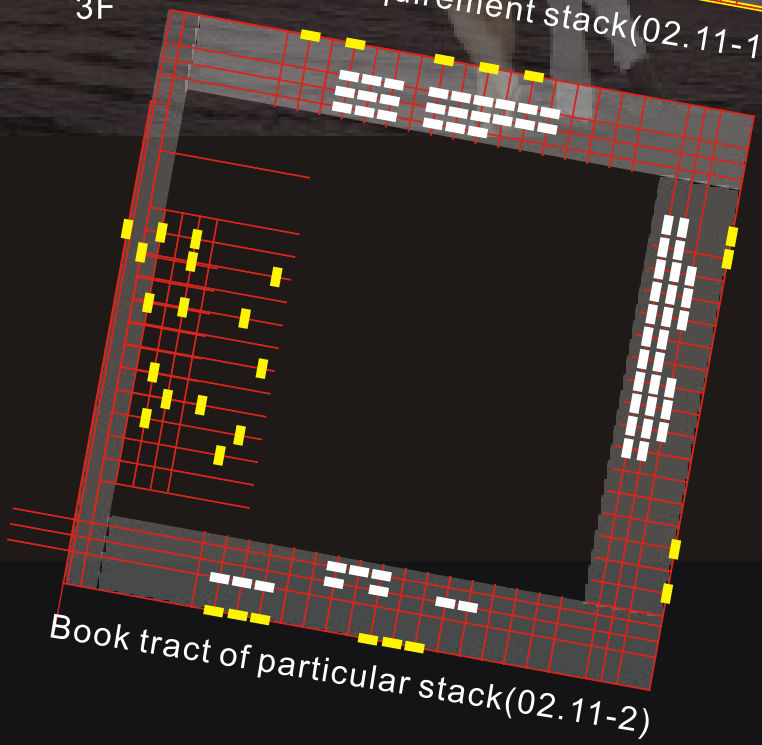
Re-order_reconstruction of deductive organization

Re_combine stacks

PARTICULAR STACK

When some activities are keyed in to the stack, knowledge will be found not only the activities you key in but also other related information.





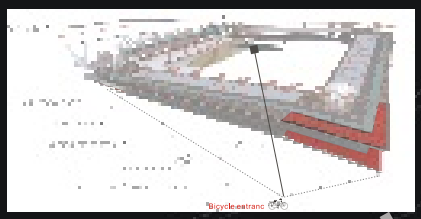
BOOK TRACT

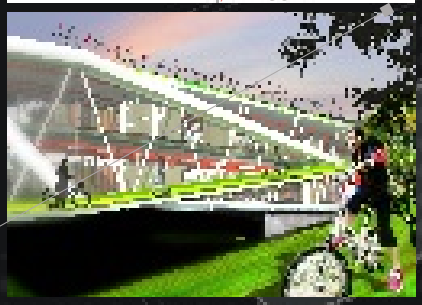
(02.11-2) The moveable shelves will move to the right places. The path of the movable shelves arise a loop to link all of the floors. Because of the movable shelves, knowledge will be regrouped with needs.

(02.11-2) The continuous slop will link with special stacks and will bring more knowledge exchange to satisfy more needs.

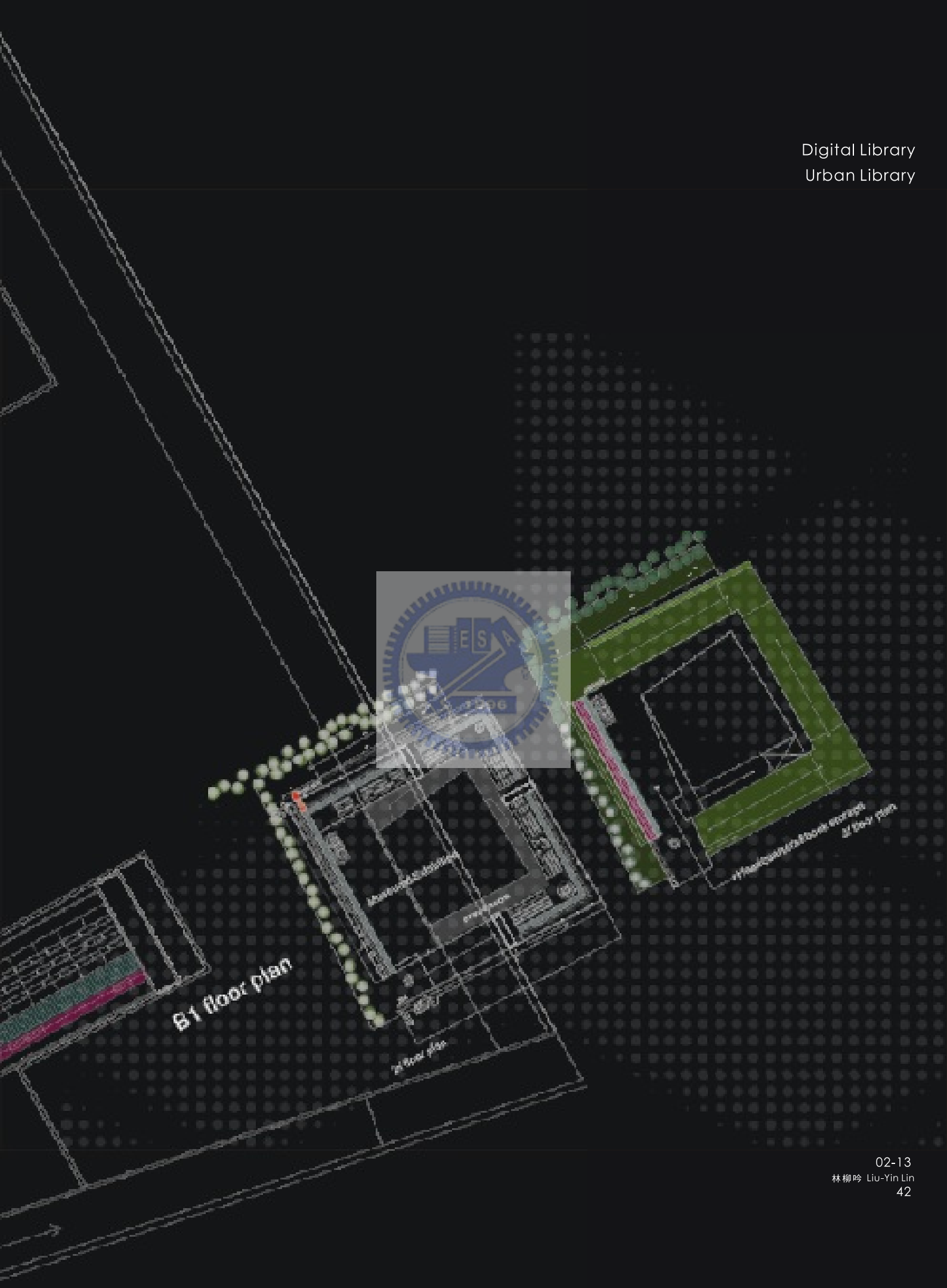
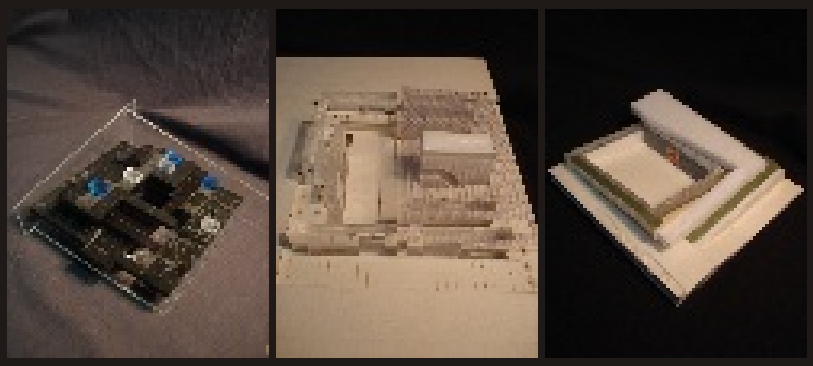
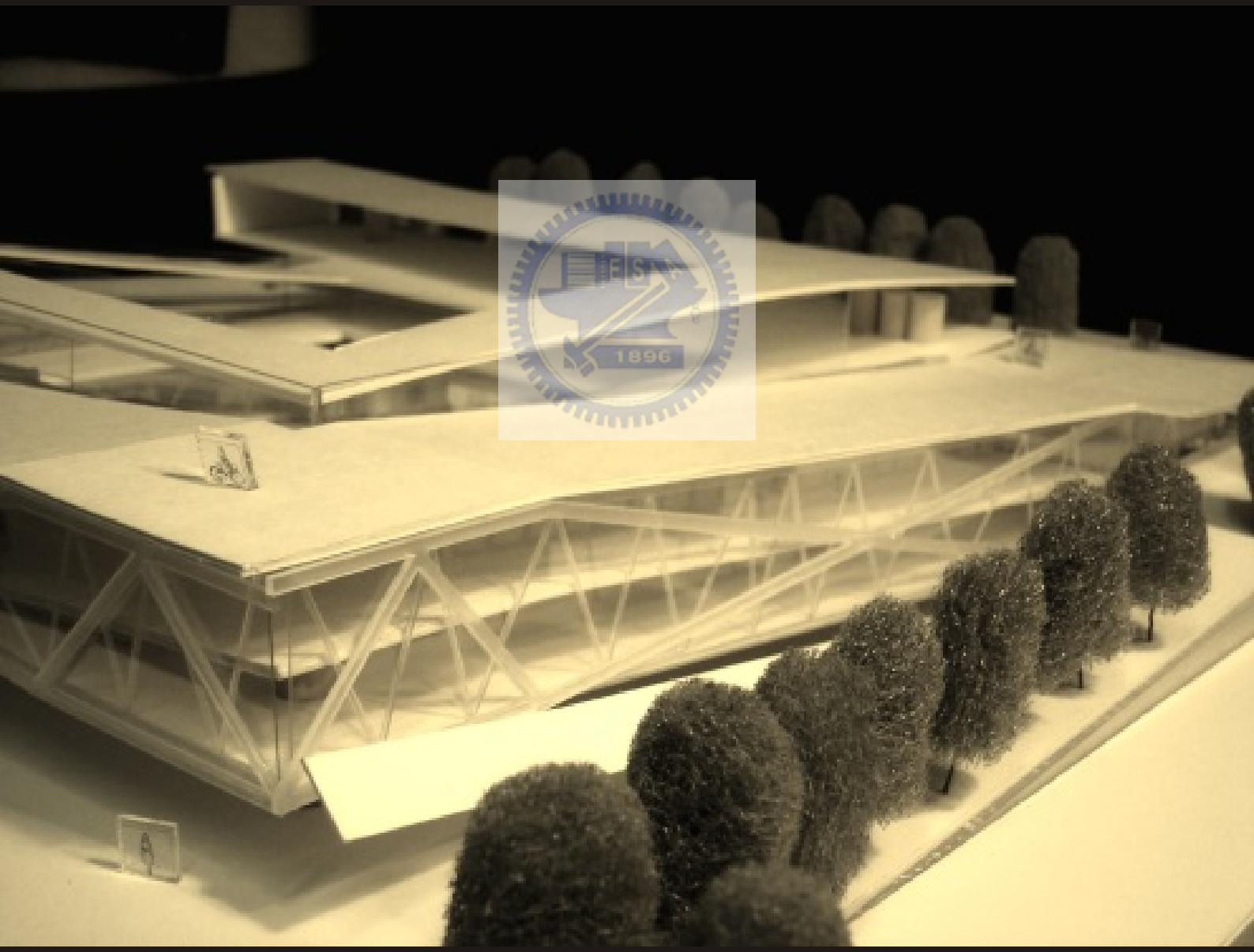
Re-order_reconstruction of deductive organization
Re_combine stacks

BICYCLING





Riding a bike is a part of the city life. You can ride a bike into the library without limitation.


B1 floor plan

Re-order_reconstruction of deductive organization
Re_combine stacks