

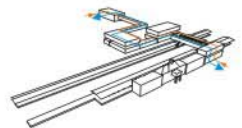
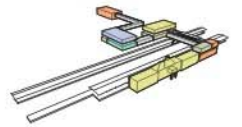
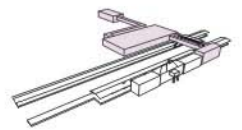
## NODE & CONNECTION

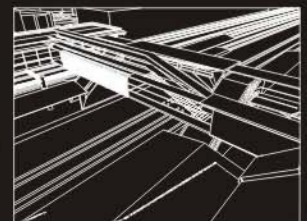
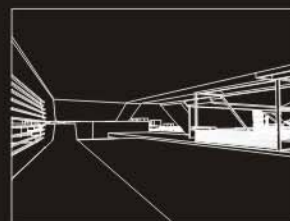
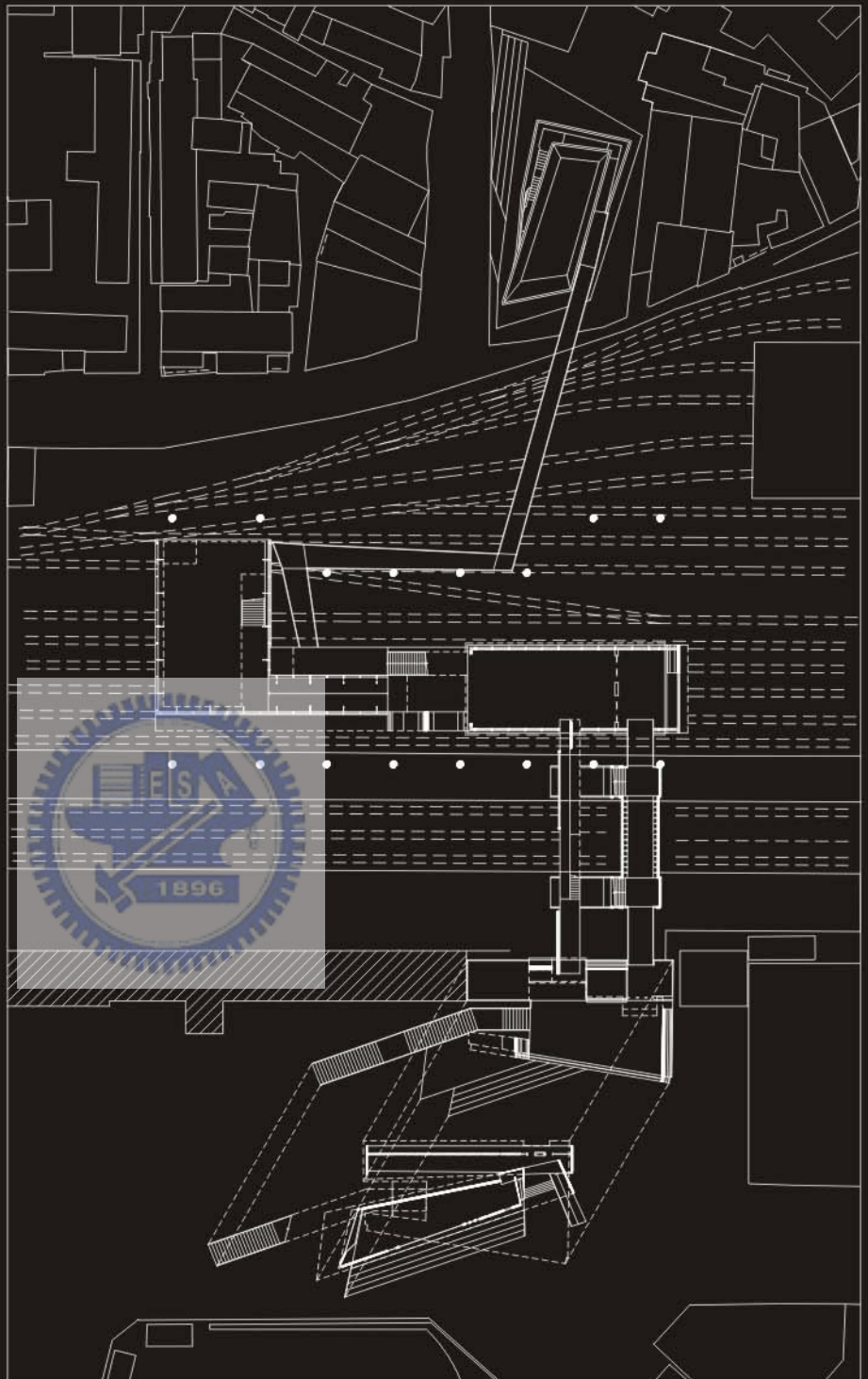
觀察新竹的歷史發展，發現了一條不明的軌跡毫不留情的穿越一座城市，造成了都市空間上的差異，一座漂浮在原本軌跡上的房子和一條企圖重新聯繫兩旁空間的廊道都在試圖修補這之間的差異。



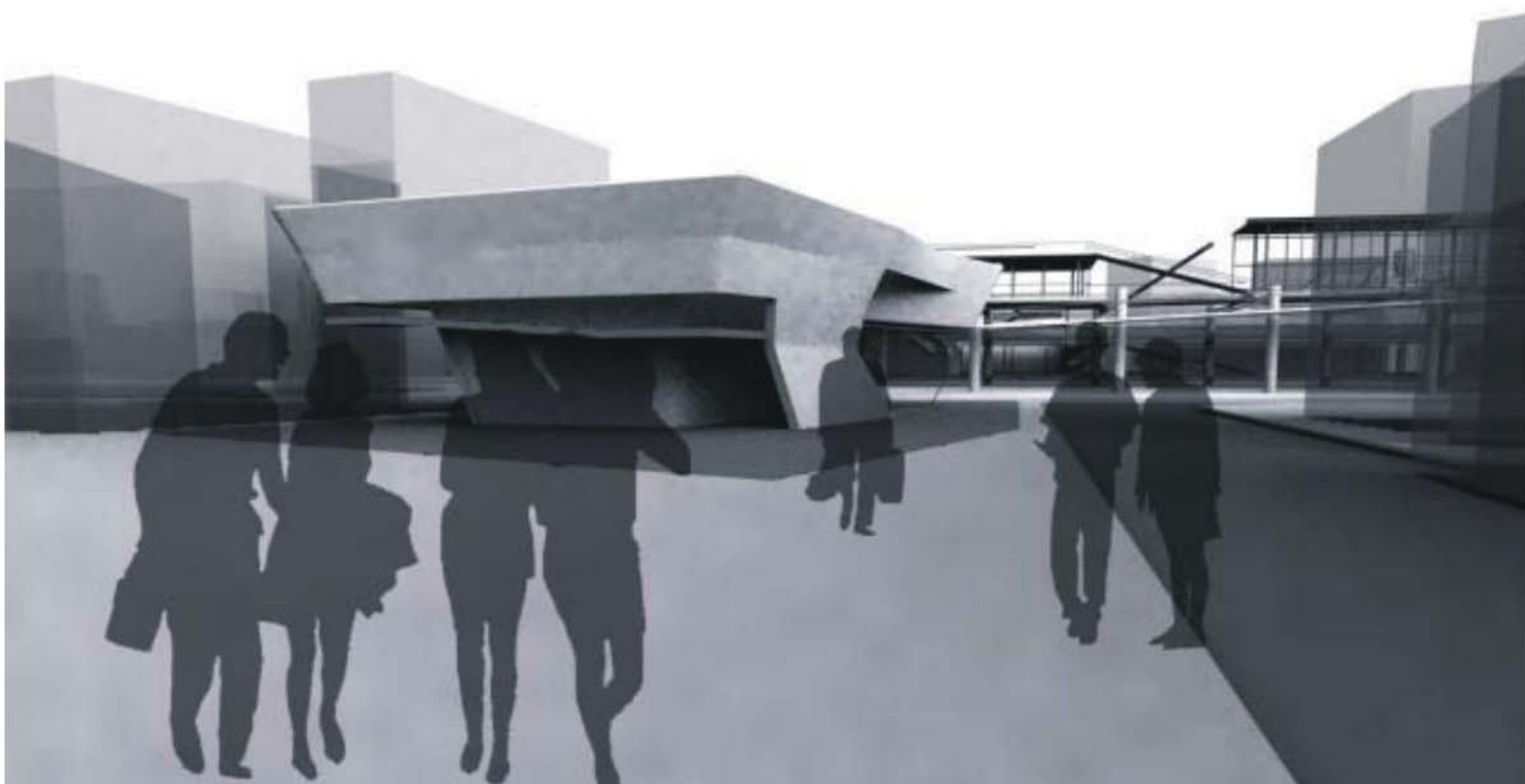


CONCEPT











## **Evolution of The Natural Community: Nexus betwixt natural and artificial environment**

**This project not only aims to learn from nature but also attempt to define the prototype according to the parametric alterations; therefore, the potentiality would be stirred up and further expanded by means of infusing the computational capacity.**

本設計案的目的除了反應在大自然的形態學外,思考是否能用清晰的數學結構模型來定義形態的原型(prototype) 透過參數化的調整,繁衍來顯露數位與建築潛能的相互聯繫性。



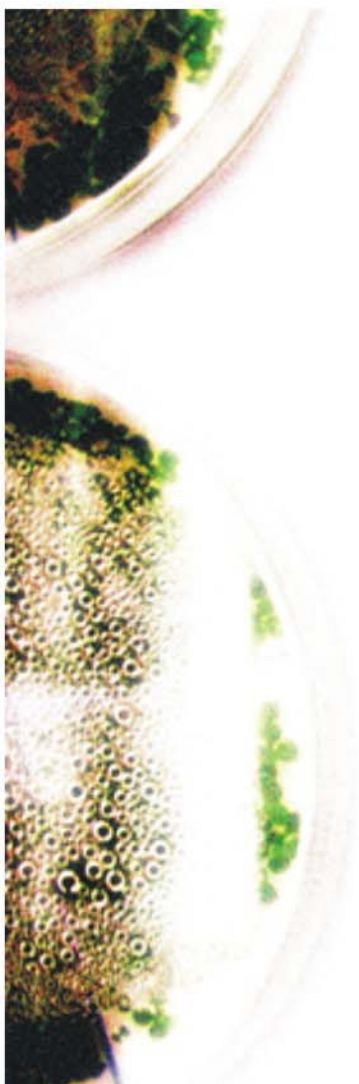
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**How does mathematics control  
the growth of organism is  
another mystery ( or you can  
call it the second mystery).  
Without the norm of  
mathematics, we will never  
reveal the mystery of the  
incredible life world... Life is  
not only related to gene.....**

數學如何控制生物體的生長是生命的另一個奧秘  
(或第二個奧秘,如果你願意這樣稱呼的話)...沒  
有了數學的規範我們絕對解不開生命世界的不可  
思議.....生命不只是基因而已.....  
.....史都華



**Concept**  
**Learning from nature**

地球在形成之時上帝就創造了各種生物,而且每種生物自始自今沒有改變,達爾文不是無神論者,他得倒劍橋的神學位,但是他所見到的多樣生物形態已經開始困擾他了.....  
.....大衛.艾登堡



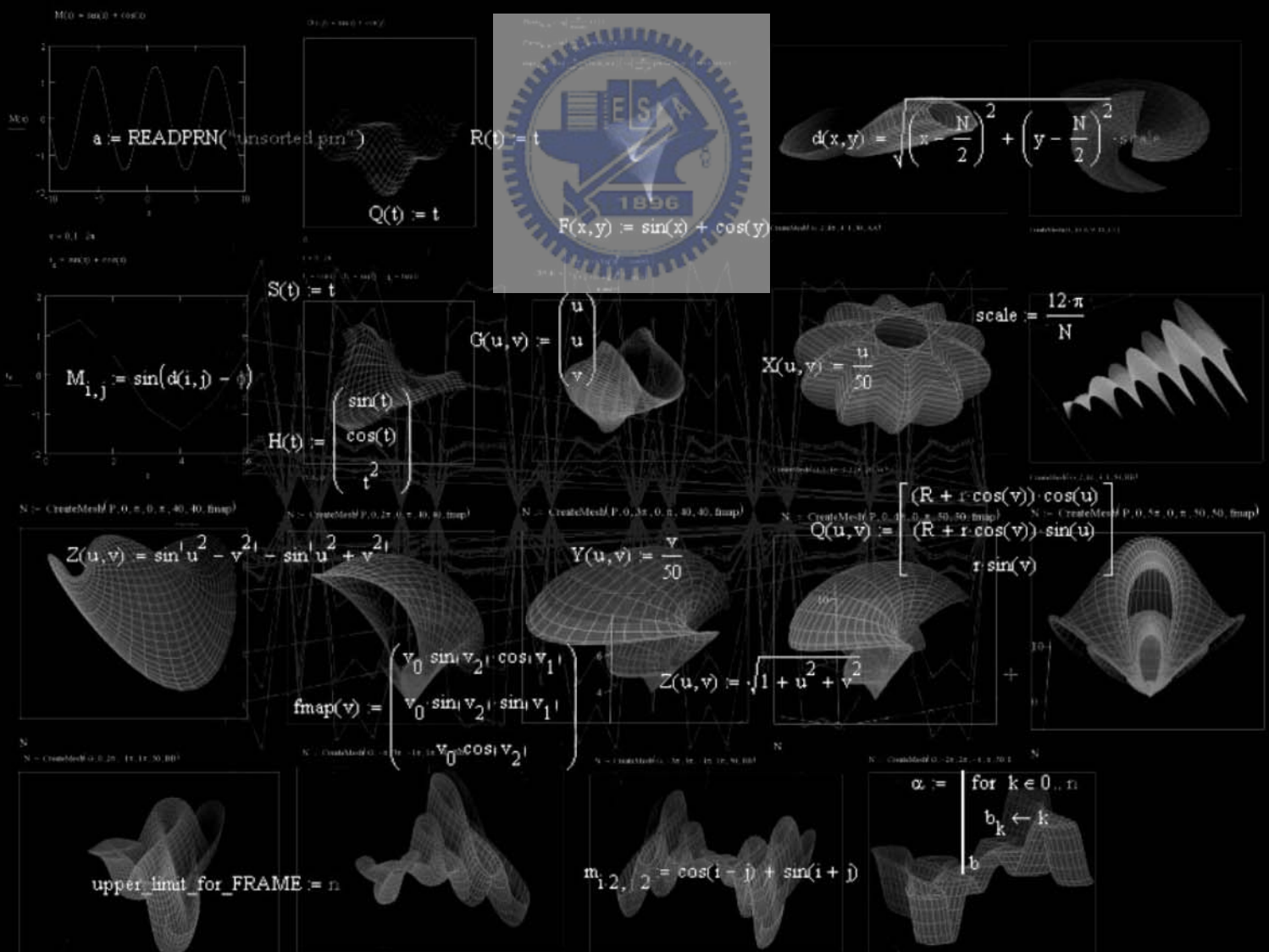


## Natural Evolution

### Prototyre

The initialization of the prototype was defined through certain distinct algebra and formulae.

By means of these prototypes, regulations for the evolution are articulated. Notwithstanding the identical prototypes, these individuals could still generate diverse offspring respectively.





**Domicile/Playhouse**  
**/Music-house**

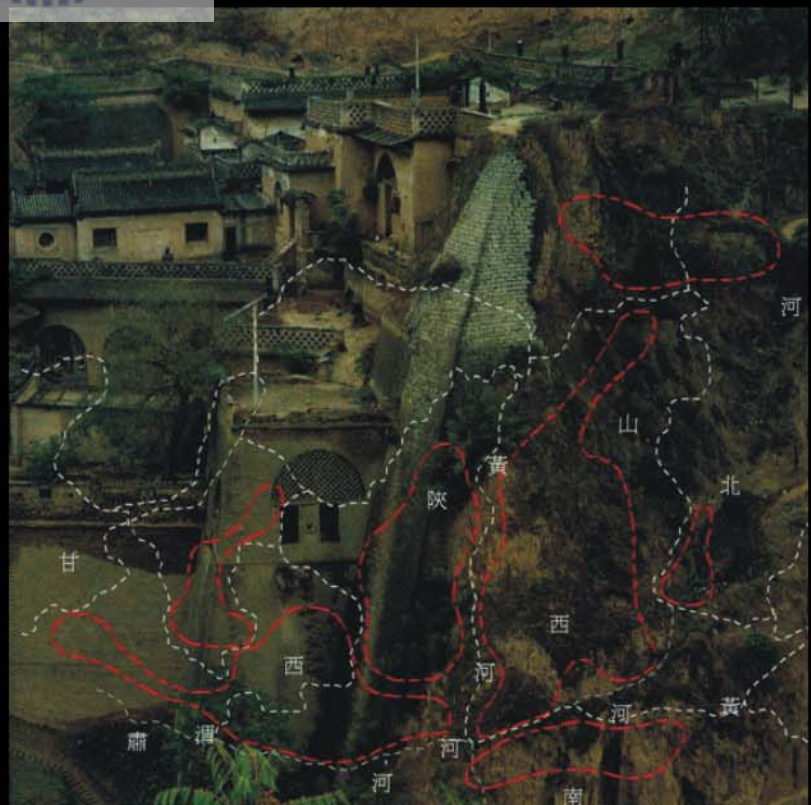
**site : Cave dwellings in**  
**northwest CHINA**

舊窯洞 黃土高原 中國大陸



**Process**

Regarding the nexus betwixt inhabitants and the residential environment, an entirely novel form would be generated from the interaction of globalization and regionalization on this distinctive site. More specifically, such a scheme is manipulated as a complex system, which integrates all the relevant circumstances, rather than a pure totem.



## Process

The attributions of every unit in this project are first determined from the original spatial characteristics of cave dwellings and the regional climate circumstances. Subsequently, these bases are utilized and mixed as specific parameters to evolve the post-cave-dwelling landscape in this project.

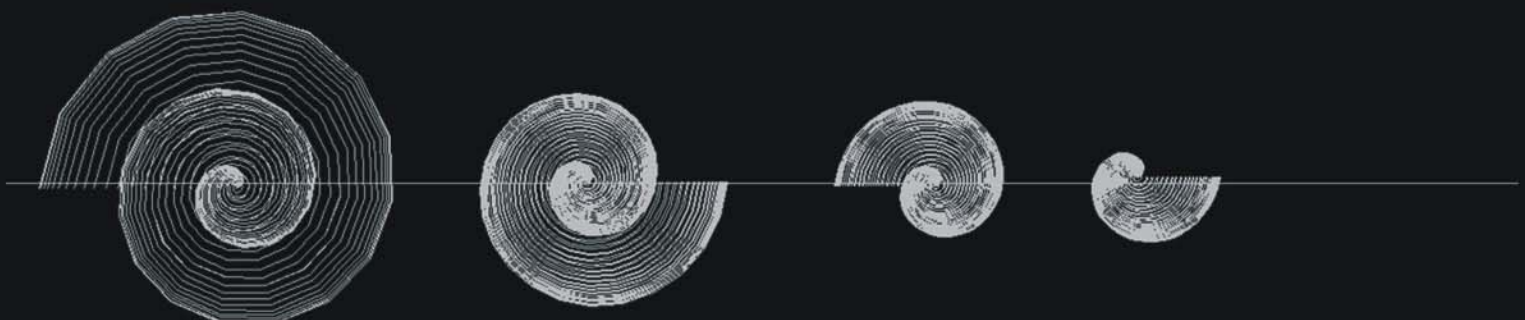
Prototype



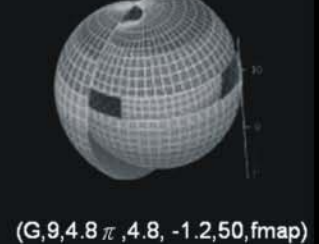
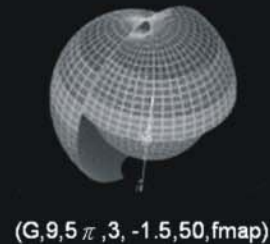
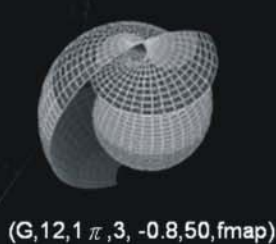
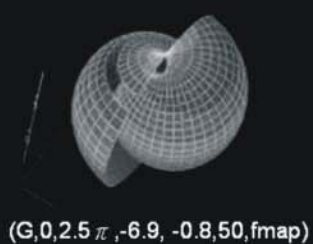
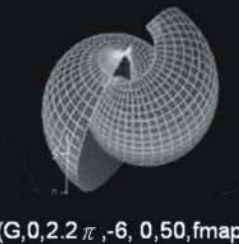
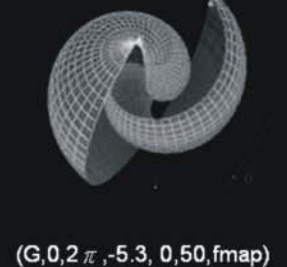
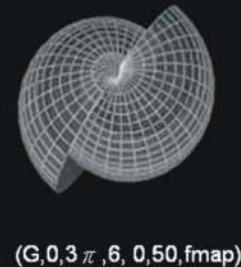
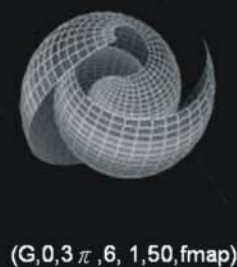
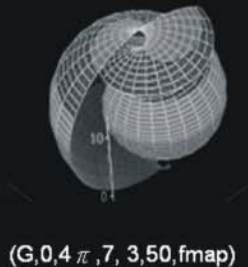
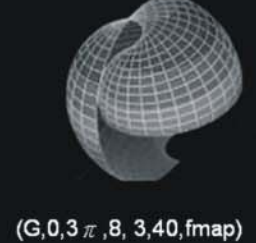
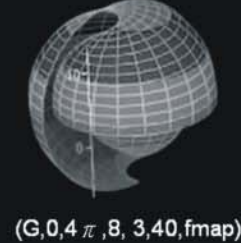
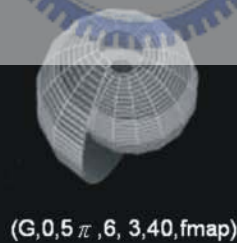
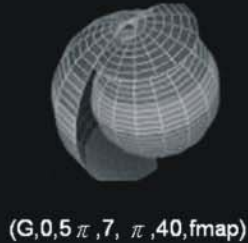
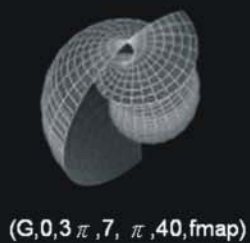
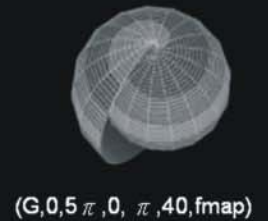
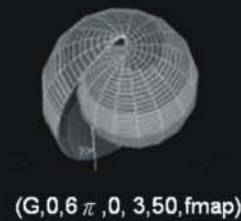
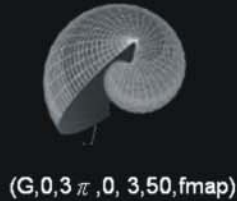
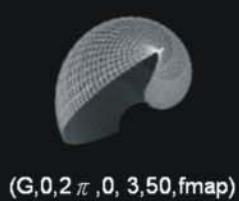
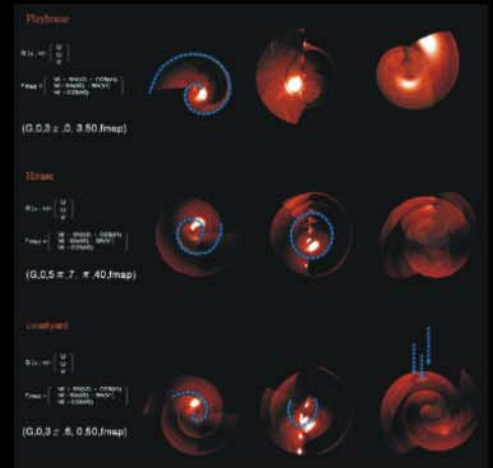
$$G(u, v) = \begin{bmatrix} U \\ U \\ V \end{bmatrix}$$

$$Fmap = \begin{bmatrix} V0 \cdot \sin(V2) \cdot \cos(V1) \\ V0 \cdot \sin(V2) \cdot \sin(V1) \\ V0 \cdot \cos(V2) \end{bmatrix}$$

$$N = \text{createmesh}(G, 0, 5\pi, 0, \pi, 40, fmap)$$



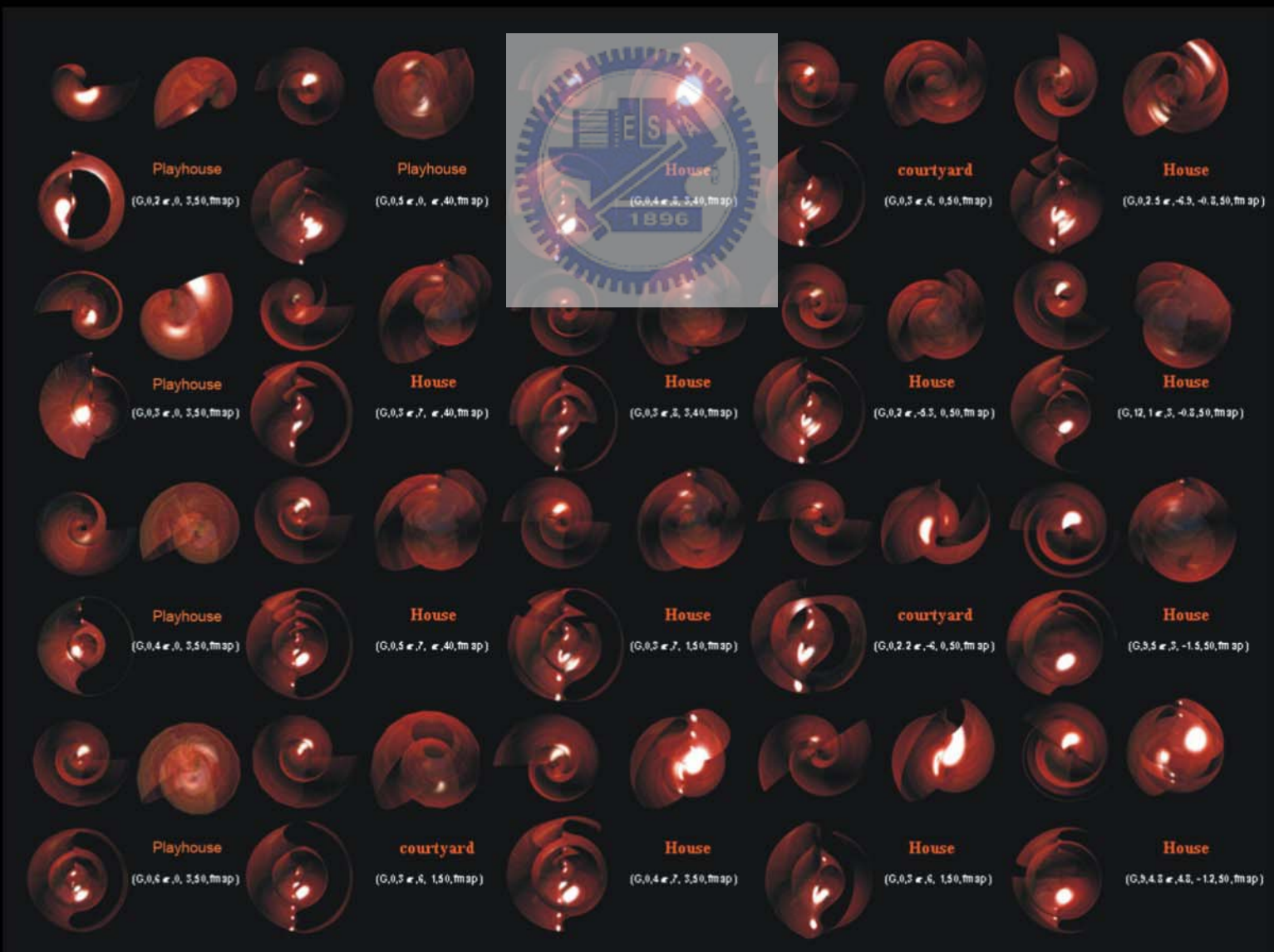




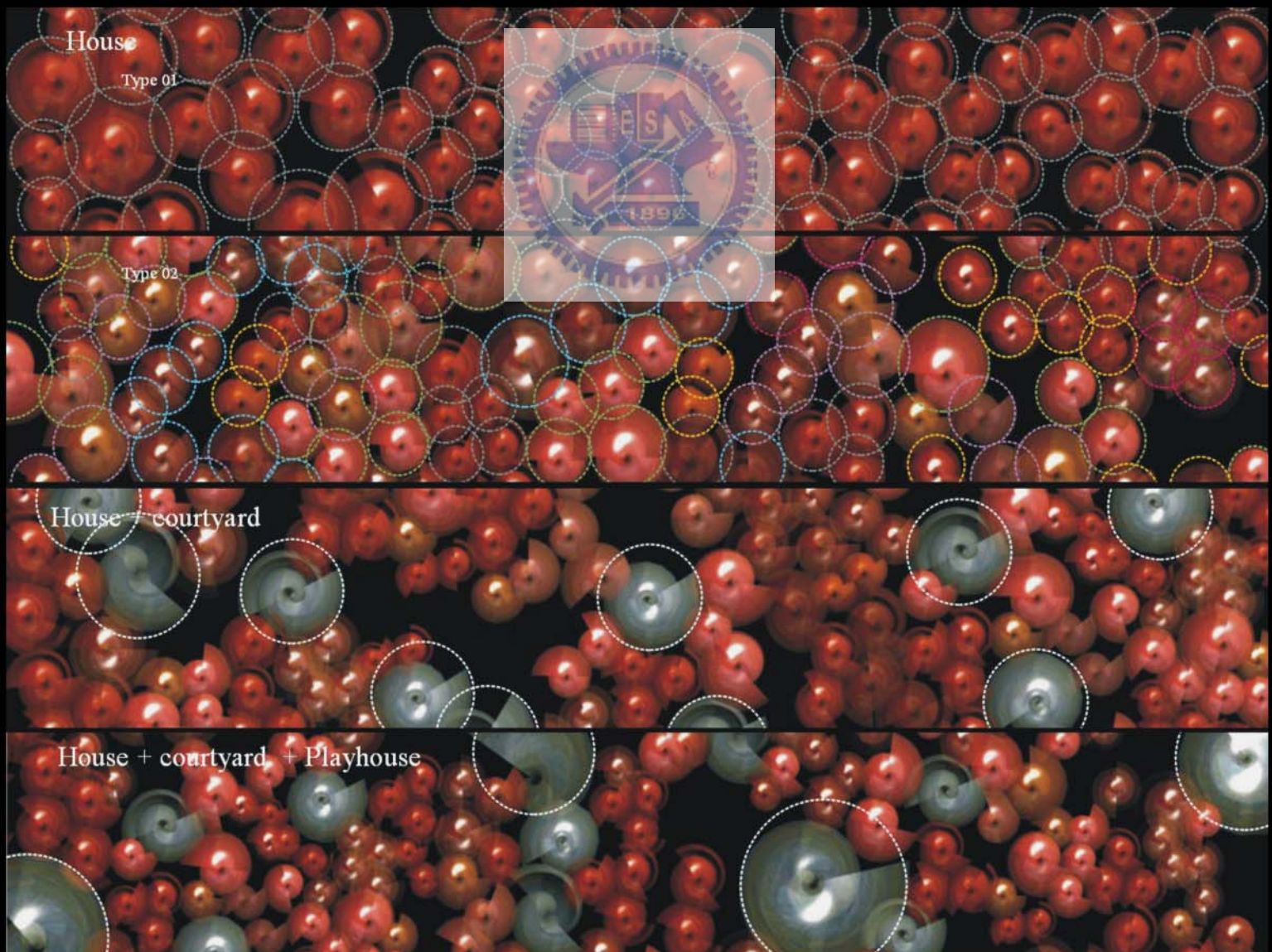


## Process

By preserving these cave dwellings for a start and then infusing new functions, architecture is no more an extraneous individual but a further evolution and extension of the current environment.



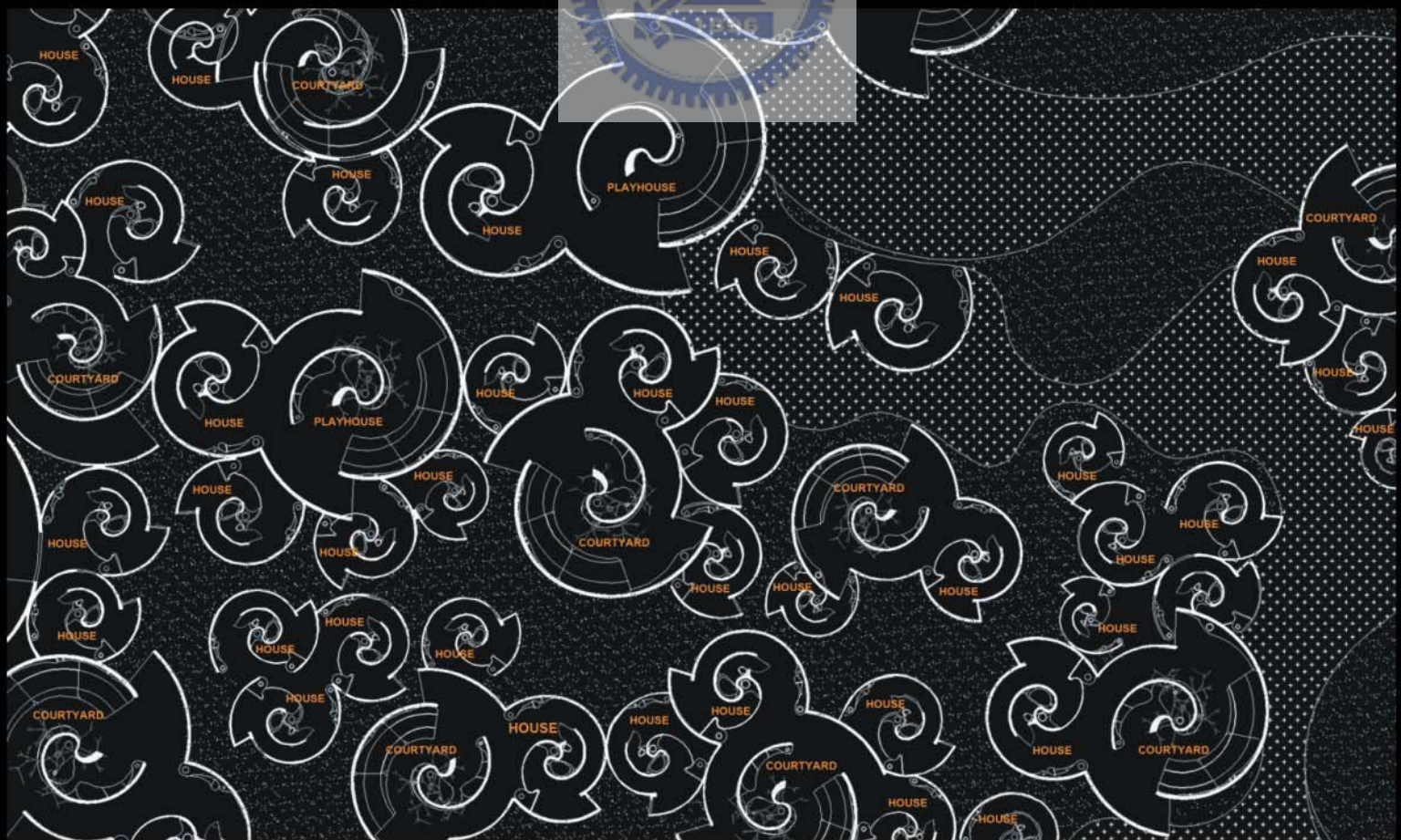
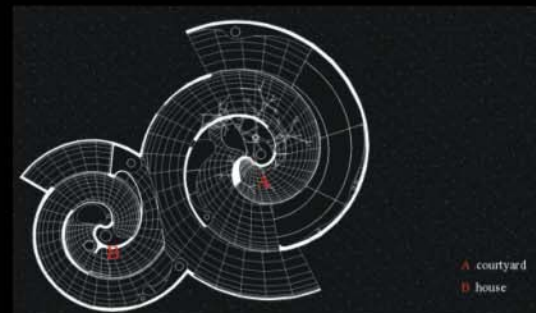
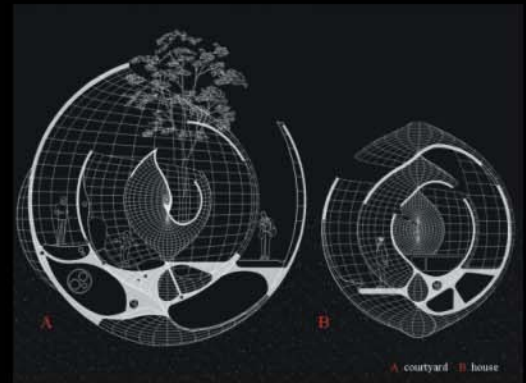














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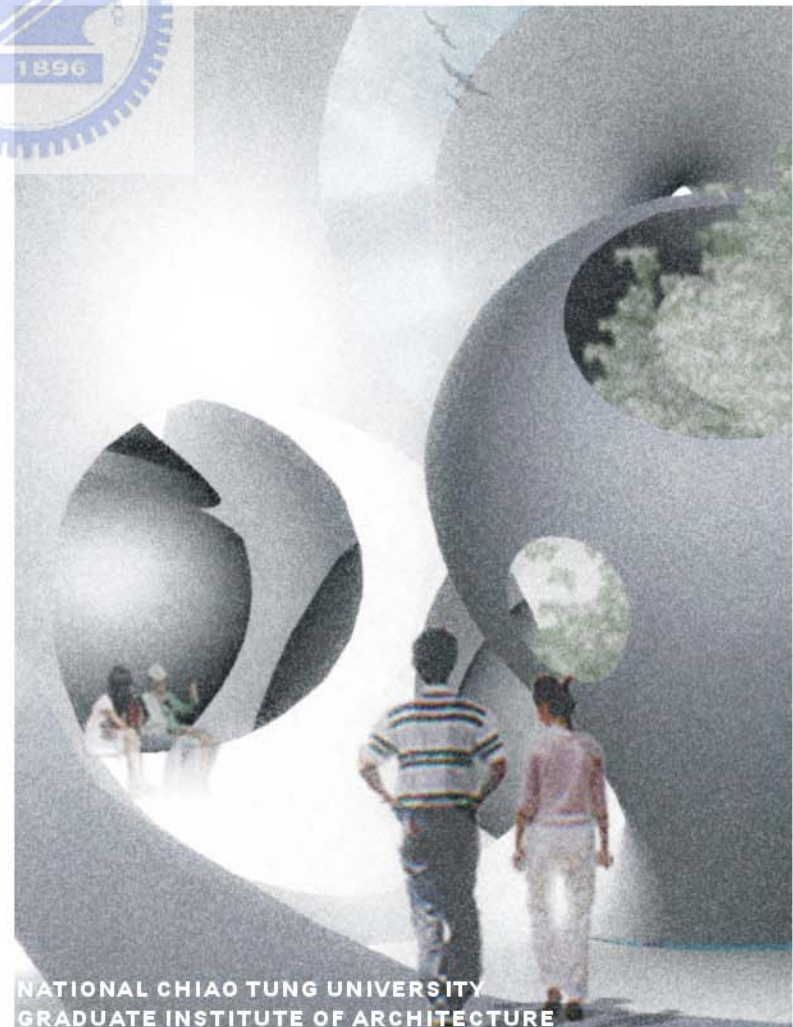
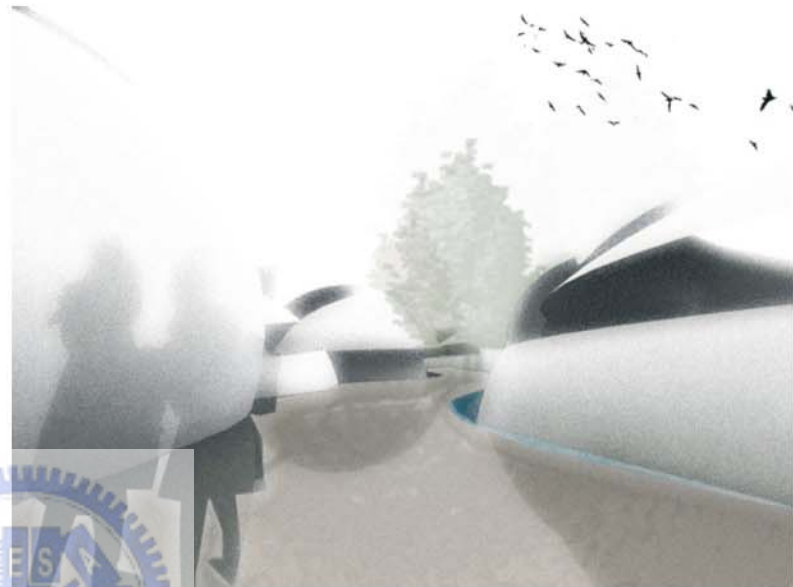
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