

WILLEM DE KOONING, *WOMAN SERIES I-VI* 1952-1953



ROY LICHTENSTEIN, *COW GOING ABSTRACT I-III TRIPTYCH*, 1982



DAVID SMITH, *TANKTOTE' SERIES I-III*, 1952-1953



JEAN CLAUDE MONET, *ROUEN CATHEDRAL SERIES*, 1892-1894

PROJECT
HOUSE [x3]

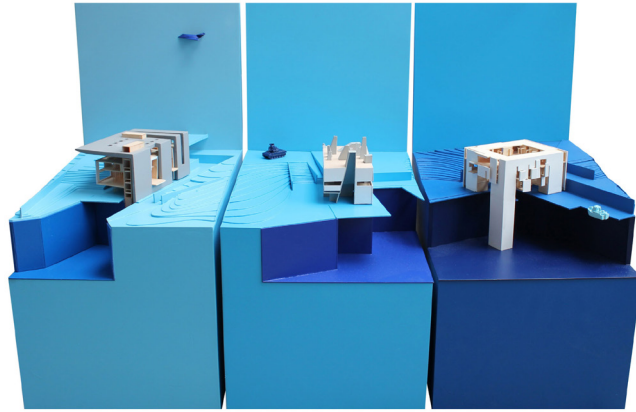
TYPE
NEW CONSTRUCTION

LOCATION
JINHAI LAKE, CHINA

DATE
2012-2013

The opportunity for seriality and iteration through multiplicity requires the production of a series of commonalities. Rooted in site [as both a physical and cultural context] and the fundamental relationships of light, view and space, these three villas emerge as a family. Their resulting design process as much as their final design was an essentialist project, requiring a “built in diagram” that would prevent the corruption of the intention despite the remote nature of the project. Designed in response to a Chinese developer’s request for multiple villa designs for a resort development on Jinhai Lake and hour northeast of Beijing, the architectural response necessitated a strong diagram that embedded environmental response, material decisions and construction technologies and programmatic responsibilities innately within its form. The distance of the project and the scenario of client as owner, developer and contactor required the production of a new methodology of project design and delivery. One where the form innately sponsored larger design responsibilities so that their embedded qualities of space and performance could not be value engineered out, or compromised through the detailing of construction. The Umbrella House, Light Funnel House, and Cellular House emerged as a triad that both individually and iteratively address the conditional context. Singularly, each residence calibrates a response specific to its own site. As a triptych, however, the three residences visually map the design metamorphosis in their form.

PROJECT
HOUSE [x3]





The Umbrella House envelops the house with a canopy, a super-structural folding move that shields the interior from exterior elements [resolving climatic concerns and providing privacy on the dense lots] while simultaneously changing the morphology and detailing possible on the suspended pavilions below. Sectionally laminating interior and exterior spaces, they are collectively protected by the primary move of the roof. Views and light are mediated by surgical removals within the folding perimeter.

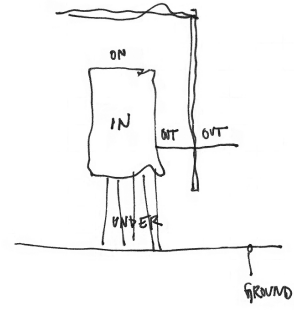
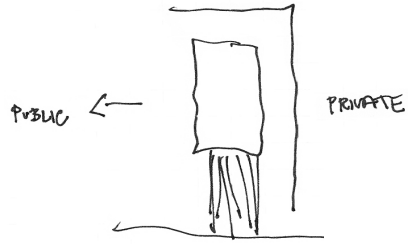
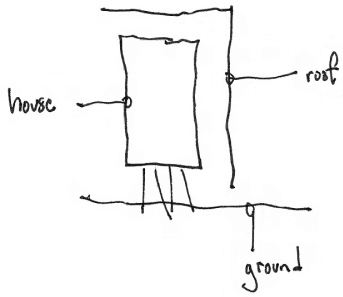


The Light Funnel House illuminates strategically the interior spaces through orchestrated placement of a series of bundled top lit light funnels. These figures synchronously function as volumetric organizers, spatially subdividing the house and generating experiential spaces, governed by natural light and activated by their tracking of the sun's movement during a course of a day and through the changing seasons. The skin reveals the spatial bundles as they are clipped by the perimeter envelope.



The Cellular House continues the exploration while rationalizing and ameliorating the findings from both the Umbrella and Light Funnel House. Focused on the central subtractive core, the void creates a central courtyard. The interstitial elements are connected by the peripheral glass gallery that objectifies the inner privatized realm. The lake itself establishes the lowest level allowing a subdivided and owned moment within the collectively share whole. The external walls protect privacy by transposing direct views to the lateral vista of moments that break the surface plane. The program is aerosolized and then collectively aggregated around the open courtyard. The gapping between each of the individually articulated spaces allows for intense indoor outdoor operability and spatial layering that creates complexity of both internal and external views and funneled light.

PROJECT
HOUSE [x3]



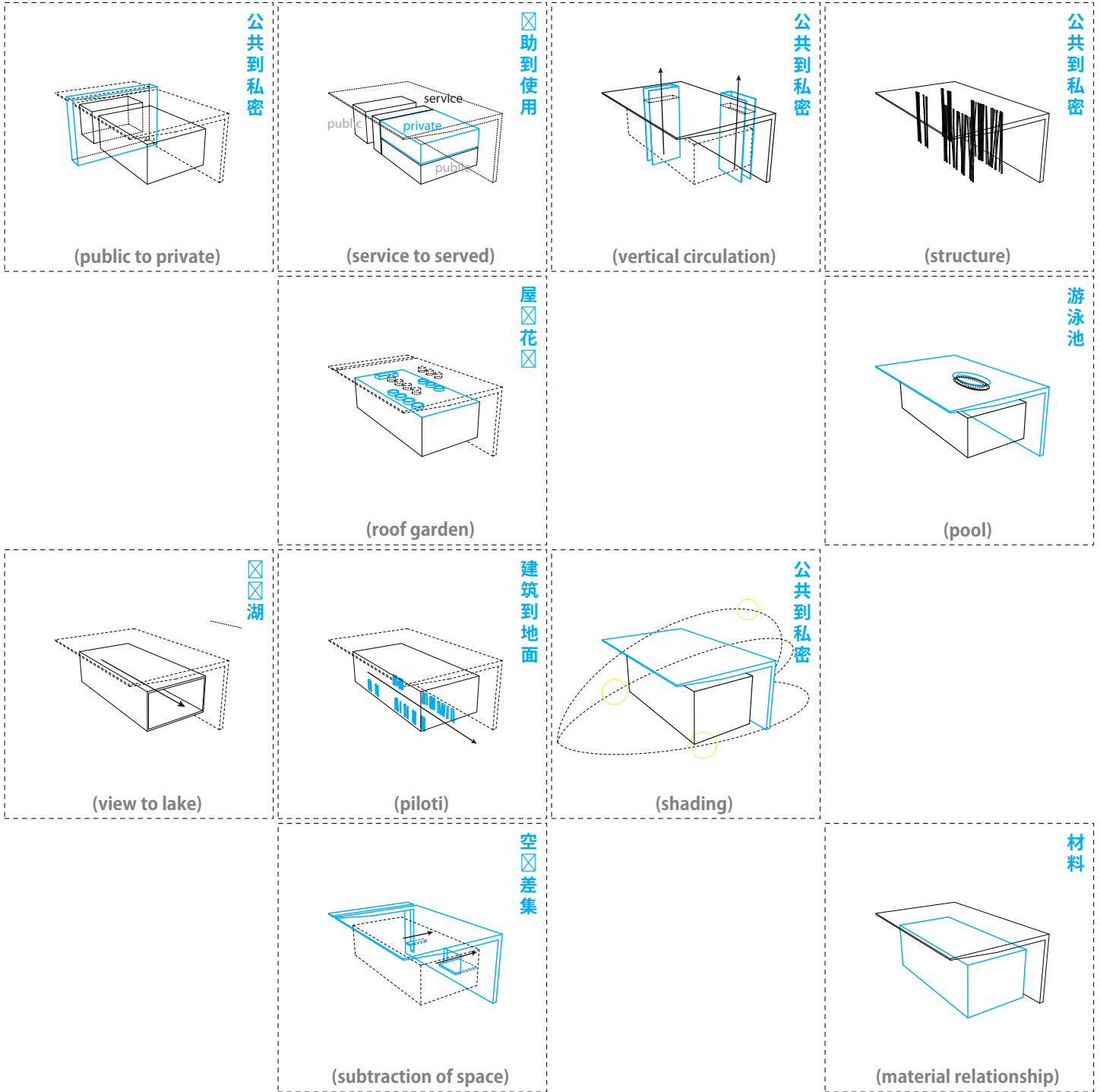
Umbrella House

The Umbrella House is defined by its protective canopy. A heroic stone wall folds over the villa as a shielding but disengaged roof plane. It provides an external shield of privacy and protection against the elements. Creating a directionality in a densely populated neighborhood, the canopy provides privacy, shade and a discrete boundary between the house and its surroundings. The umbrella is the primary move of the house. The interior spaces discretely huddle beneath - shielded from weather allowing them to act like furniture. As two linked boxes, the spaces connect through cores of vertical circulation and indoor outdoor spaces between. Extended sleeves allow for balconies, roof gardens and porches. The top of the umbrella is occupiable being defined by the pool made as a belly depression in the surface.

傘屋

傘屋的特色定義在於其保護頂篷。包覆於別墅兩側，為一道作為屏蔽，且與屋頂平台分離的折式巨型石牆，對隱私以及氣候，提供了一個外部的庇護。其頂篷設計在人口稠密的鄰近地區裡創造了方向性，提供隱私、隱居及一道與其周圍環境區別的邊界。傘狀構造為此屋的主要舉措。屏蔽於天氣的影響使得獨立群聚於下端的內部空間有如袖子俱。作為兩相連的方塊結構，此空間以通過核心的垂直分配及室內外之間的空間連接。向外延伸的袖子預留了陽台、屋頂花園以及門廊的空間。傘狀構造的頂端具可佔空間，以游泳池在外觀上形成的中凹帶最為定義。





Umbrella House: Concept Diagrams

The Umbrella House is simply organized. Zoned with service and served elements front to back [plan] and public to private function bottom to top [section], the spaces are connected by two vertical circulation cores [one that engages the dogtrot porch between volumes, the other that engages the view over the lake]. The house is structured with two rows of columns that run through the house and organize its interior. The columns allow for the ground plane to remain untouched engaging the topography and synthesizing with the natural systems of the site. The roof garden is multi-level: one sandwiched atop the house box but below the umbrella roof, the second pool level being atop the umbrella with views in all directions. The short end of the house has the primary view to the lake and allows for full floor to ceiling glass that is operable and fully retractable. These operable walls are carried through the short layers of the house. Material reinforce the primary massing: the umbrella is stone while the box below is clad in wood furniture-like panels. The form and position of the umbrella is in response to the local position and performance of the house defining its siting and orientation.

傘樓：概念圖

傘屋的組織概念是簡易的。其區域劃分是採以用途及連接元素- 由前至後(平面)及由上至下的私人至公共功能(橫斷面)。空間的連接上, 是藉由兩垂直平分配的核心(一為建築間有頂的過道門廊, 另一為湖面景觀)。傘屋以兩列遍於全屋便組織其內部設計的支柱構成其結構。這些支柱使其地平面在保持不接觸的狀態下, 得以使用地勢並與此地點的自然系統保持同步連結。其屋頂花園為多層次的設計- 一以夾層的方式位於盒狀屋之上傘狀屋頂之下, 而第二層的泳池則位於傘端上方, 擁有全方位的景觀。在屋子較短的那端, 擁有主要的面湖景觀並允以全面縮回的落地窗。這些牆貫徹于屋子的低層。而材料加強了其主要的聚集- 傘狀屋頂的部分已石塊構成, 而下方的傘盒狀屋則以類木質俱板條為覆蓋。傘狀屋頂的形狀及位置, 對應於當地的位置與定義此地點和定向的房屋狀況。

PROJECT
HOUSE [x3]



Umbrella House: Longitudinal Section

The longitudinal section illustrates the shifted floor plate of the lower level of the lake side living space allowing for a slow descent into the space and grandiose ceiling heights opening to the water. The roof garden level illustrates the separate spa and entertaining areas while the deformation of the umbrella forms a rooftop pool.

傘樓：縱剖面

縱切面說明的轉移水平較低的湖邊居住空間允許進入的空間和宏偉的天花板高度開放的水緩慢血統的底板。而變形的傘，形成一個屋頂游泳池，屋頂花園的水平說明了單獨的水療中心和娛樂領域。





天空 sky

池 pool

屋頂花園 roof garden

私人睡 private sleeping

市民的生活 public living

景觀 landscape

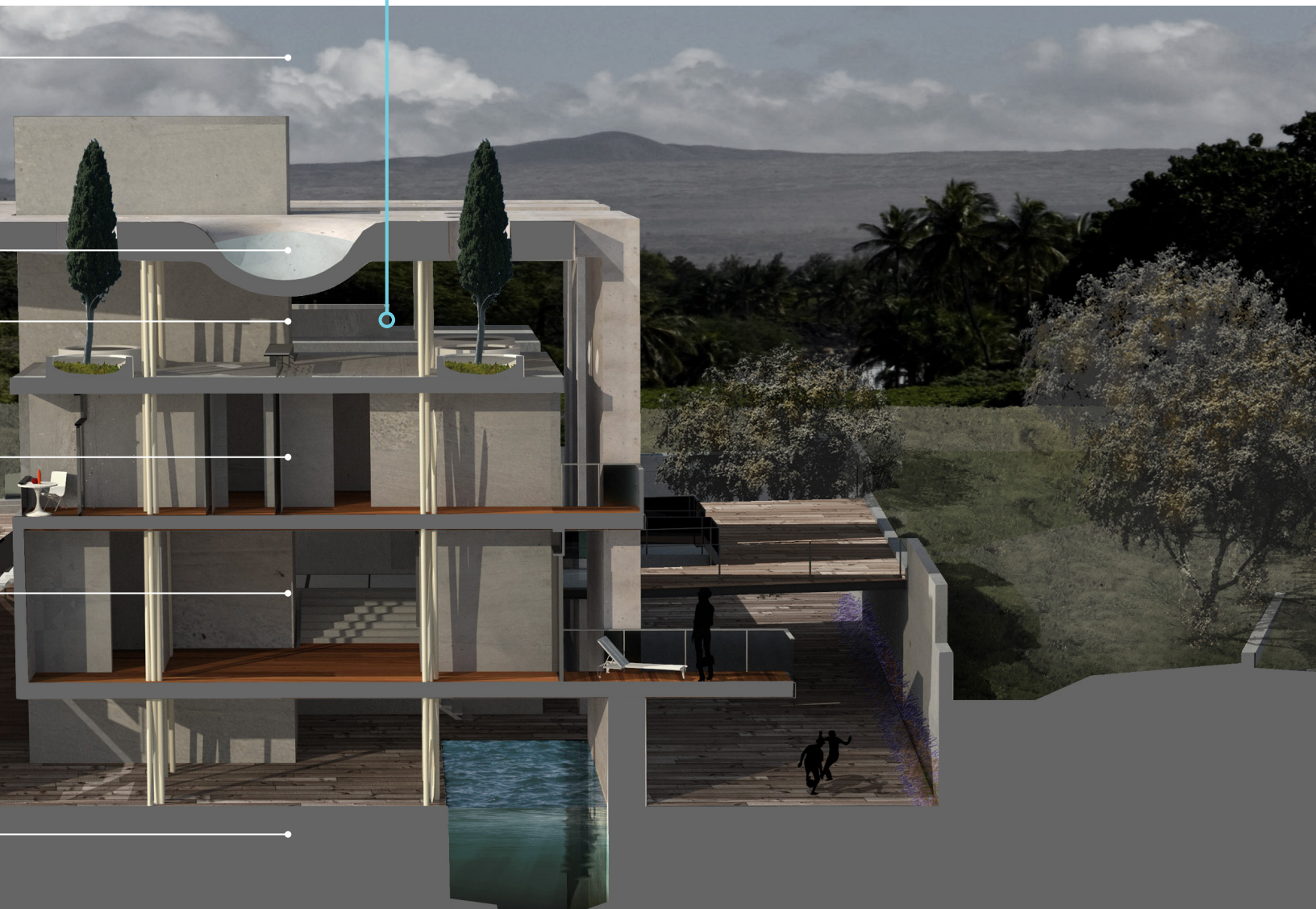
地面 ground

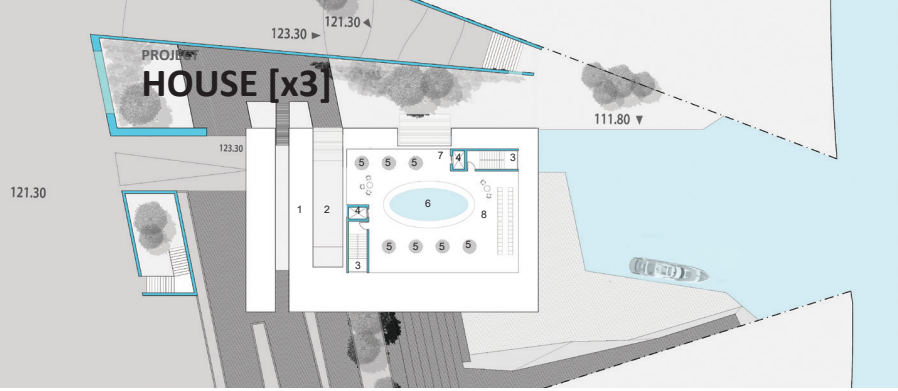
Umbrella House: Section

The section of the Umbrella House illustrates the protective layering of external skin to house. The interior spaces float as an elevated box. The disconnect from the ground allows for the house to calibrate to diverse contours while allowing for gardens and the natural landscaping to flow beneath. Floor plates slide through the shielding umbrella providing balconies and decks that create projective vantages that overlook the adjacent landscape and lake.

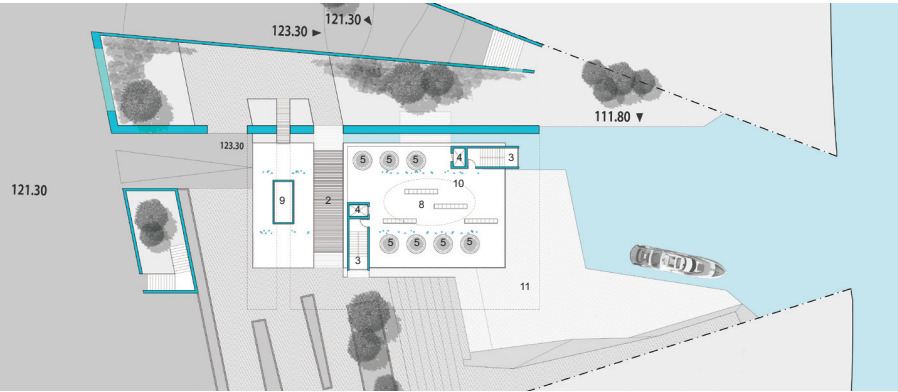
傘樓：第

傘樓的一節，說明房子外部皮膚的保護層次感。內部空間漂浮為高架框。從地面斷開允許的房子，以校準多樣的輪廓，同時允許花園和自然景觀流入下。樓板、陽台和甲板，創造忽視了相鄰的景觀和湖泊的投影vantages通過屏蔽傘的幻燈片。

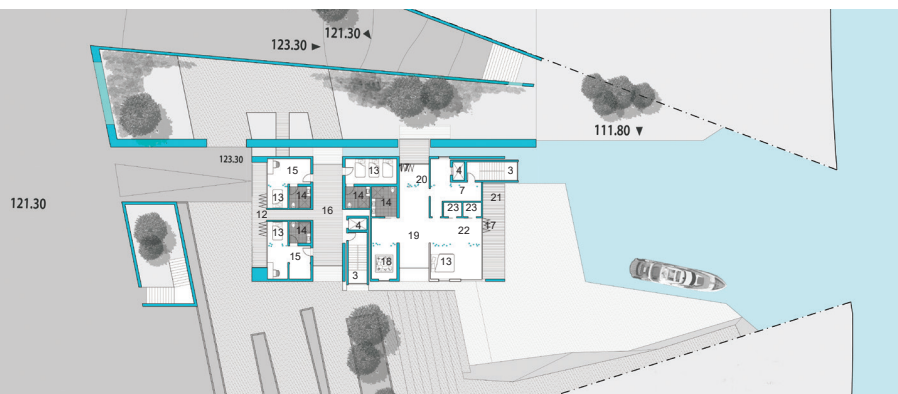




第三



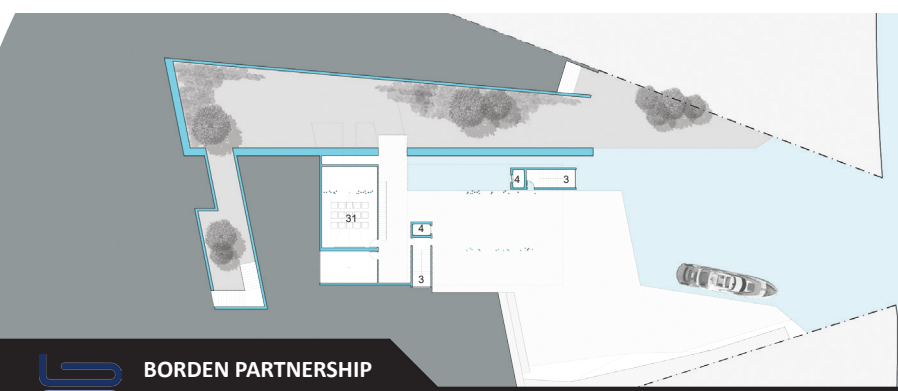
第二



第一



第零

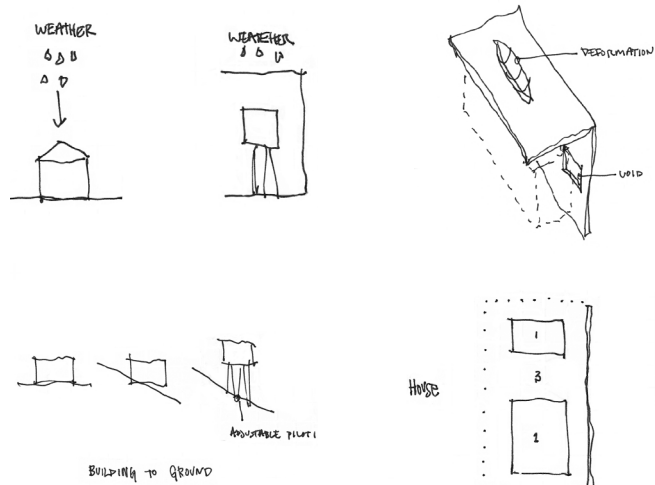


- 第一

Umbrella House: Plans

The disconnected umbrella roof allows for a roof garden level for outdoor living and a heroic view over the treeline. The outside of the umbrella allows for a full exposed pool level, formed by the deformation of the surface itself. Inside the house box itself, the two levels separate private from public. The external shield creates spatial layers while providing sustainable opportunities to protect against the climate.

斷開的傘狀屋頂可以為戶外生活的的屋頂花園水平和樹線以上的英雄觀。允許為一個完整的暴露池表面本身的變形形成的水平，傘外。屋內框本身，兩級公私分開。外部盾創造了空間的層次，同時提供可持續發展的機會，以防止氣候。

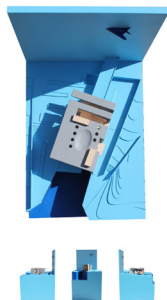
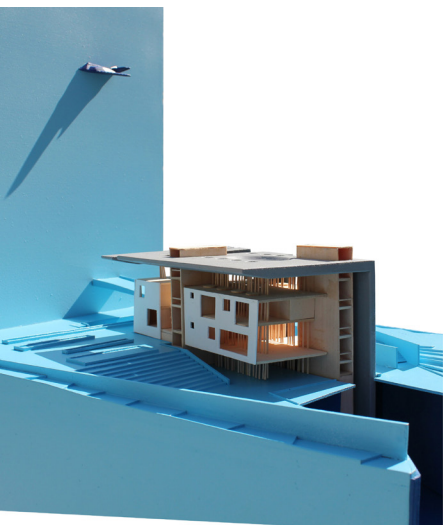


Umbrella House: Plans

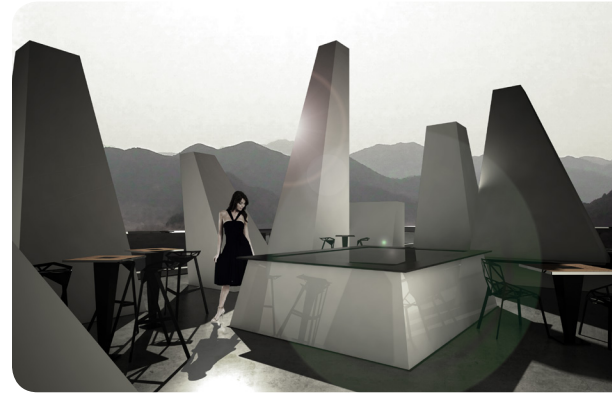
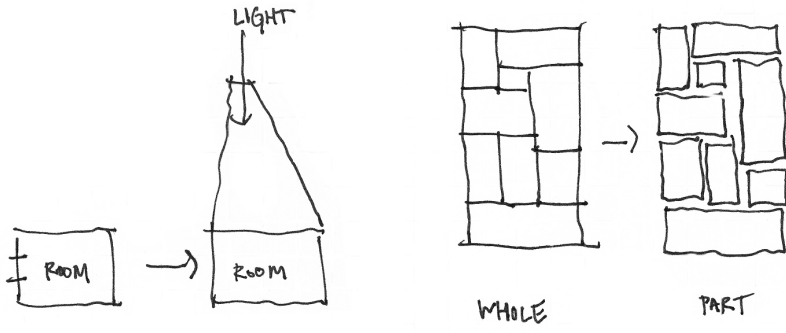
01. Roof
02. Open to Below
03. Stair
04. Elevator
05. Cypress Tree
06. Pool
07. Entry
08. Roof Garden
09. Service Room
10. Belly of Pool (above)
11. Roof Outline
12. Balcony
13. Bedroom
14. Bathroom
15. Guest Room
16. Porch/Breezeway
17. Operable Glass
18. Spa
19. Private Living Room
20. Sitting Area
21. Deck
22. Master Bedroom
23. Dressing Room
24. Garage
25. Kitchen
26. Main Entrance
27. Pool Table
28. Living Room
29. Dining Room
30. Bar
31. Theater

傘樓:計劃

01. 屋頂
02. 挑空
03. 樓梯
04. 電梯
05. 柏樹
06. 游泳池
07. 出/入口
08. 空中花園
09. 服務室
10. 游泳池底(上方)
11. 屋頂輪
12. 陽台
13. 連接式陽台
14. 臥房
15. 客房
16. 走廊/通風廊
17. 折疊式玻璃牆
18. 三溫暖
19. 私人客廳
20. 起居室
21. 連接式陽台
22. 主臥房
23. 更衣室
24. 車庫
25. 廚房
16. 大門
27. 台球
28. 客廳
29. 餐廳
30. 酒吧
31. 影視空間



PROJECT
HOUSE [x3]

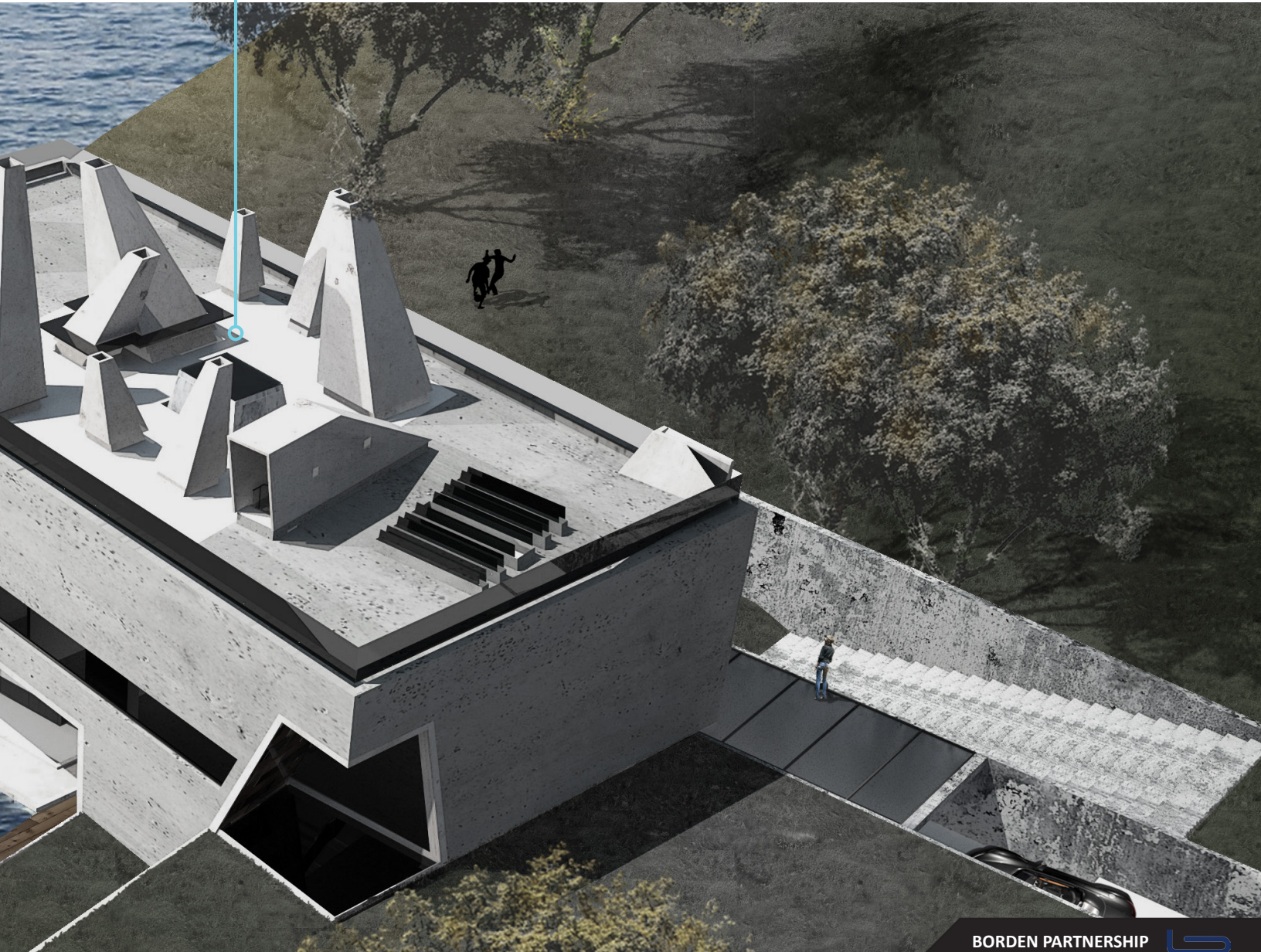


Light Funnel House

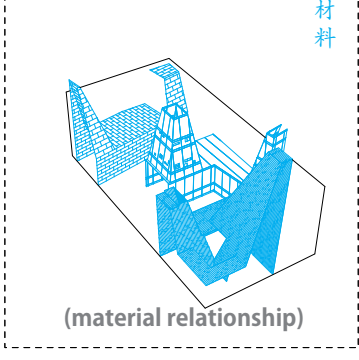
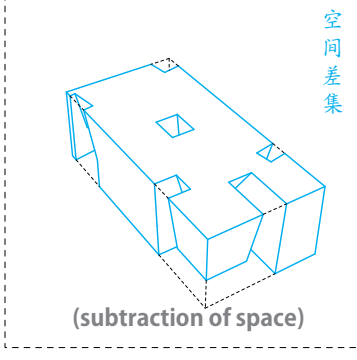
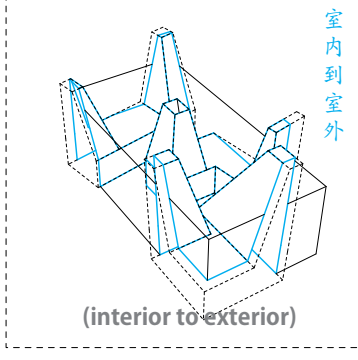
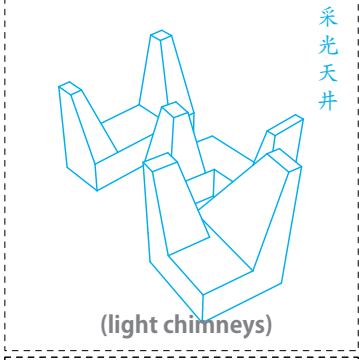
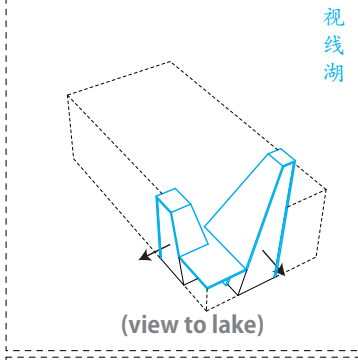
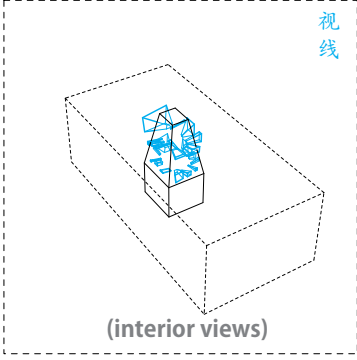
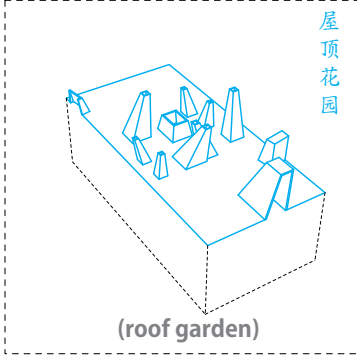
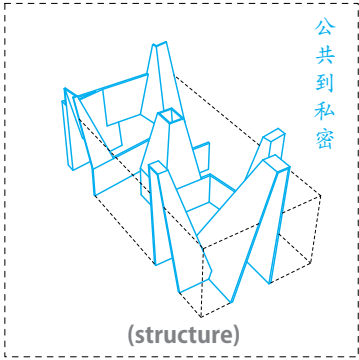
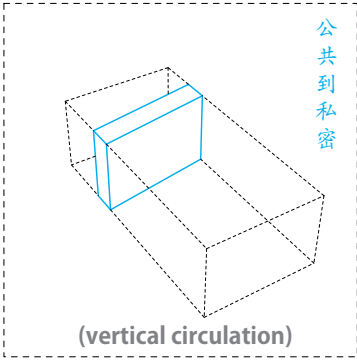
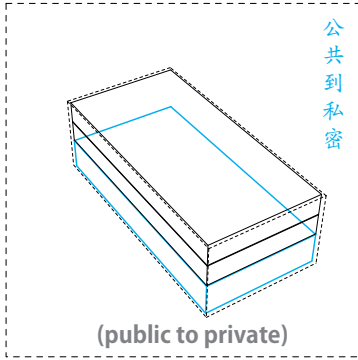
The Light Funnel House is defined as a series of bundled chimneys that allow for natural light to sectionally wash through the multistory villa. Their composition allows for an orchestrated natural illumination to each of the primary spaces of the home. Light as the mediating factor engages the figured section of the building form to allow for a spatial and experiential individuation to each function.

光漏斗樓

煙光照屋的特色定義在於其一系列大量的煙構造，使得自然光得以區域塊地通灑於多樓層別墅。其組成設計，使自然光照得以和諧地分於家裡的各個主要空間。作為調節因素的光照，涉入了建築形狀的評估部分，使每項機能得以有空間及體驗上的個別化區別。



PROJECT
HOUSE [x3]



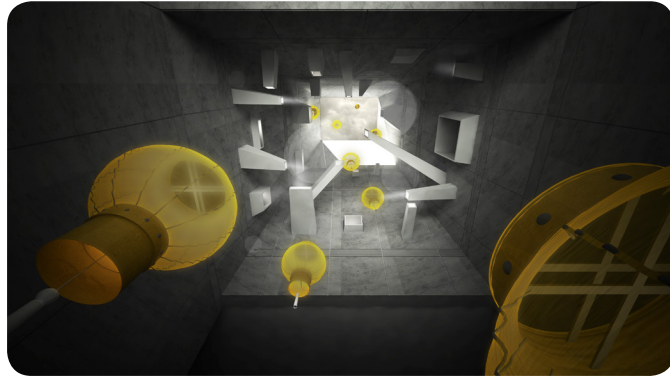
Light Funnel House: Concept Diagrams

The Light Funnel House is about the choreography of illumination to define the shape and quality of each functional space. Striated sectionally from public to private, the house is largely governed by the primary six funnels. Creating defined volumes, figured spaces and experiential forms, these collective moves make the house. The delicacy of time and place create a movement through a static form that calibrates the activities of daily life against the natural cycles of the day and season.

光漏斗樓：概念圖

煙光照屋是以關注照明編排的方式，來定義每個功能空間的形式及品質。以區域性地條紋劃分私人至公共空間，此屋主要受制於六個主體煙。這些整體的設計用以定義數量、評估空間以及體驗形式，也正是此屋的特色之處。其時間和地點的精巧處理，透過穩定的形式，創造了一個對自然日間及季節循環的日常活動之標定關鍵。

PROJECT
HOUSE [x3]



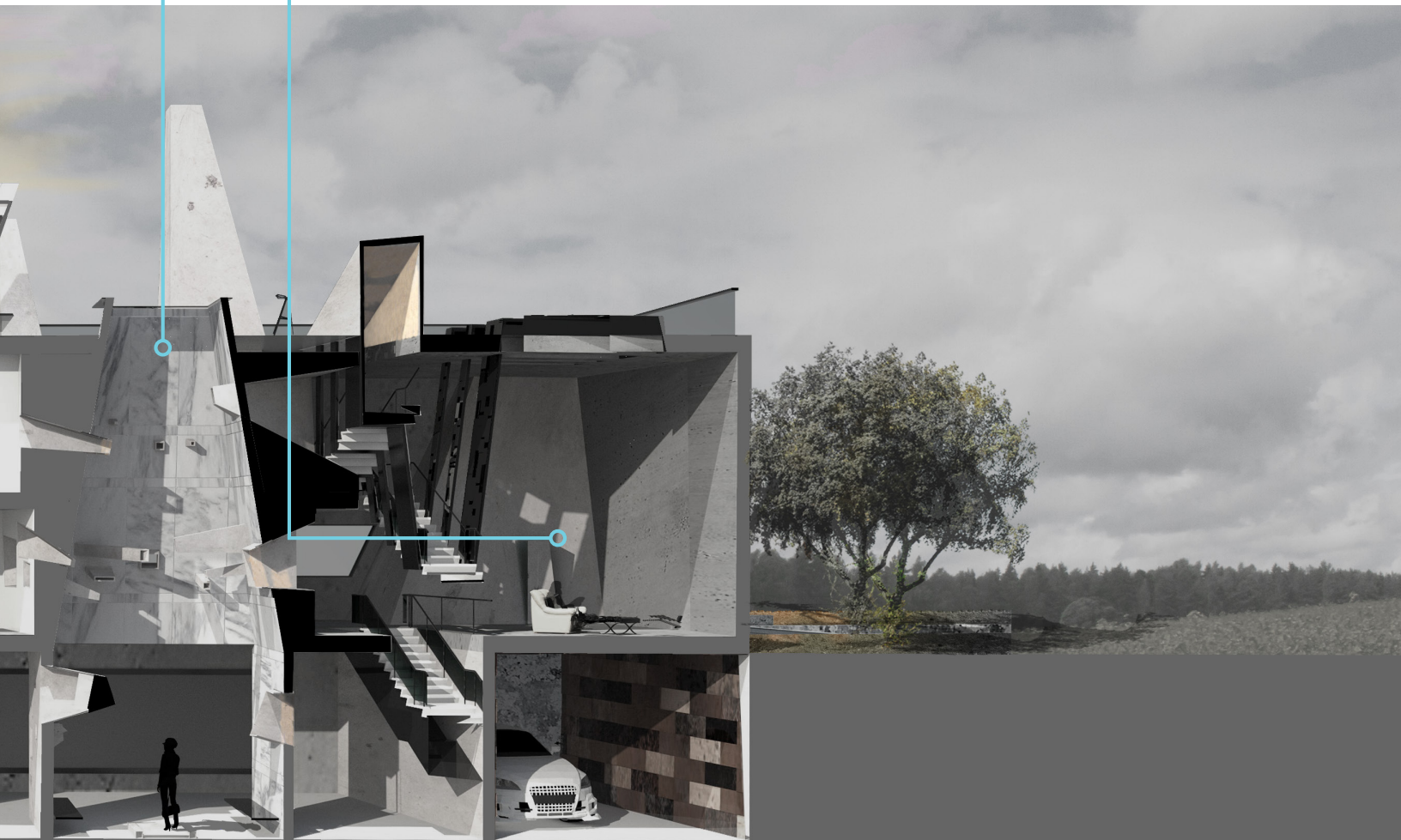


Light Funnel House: Longitudinal Section

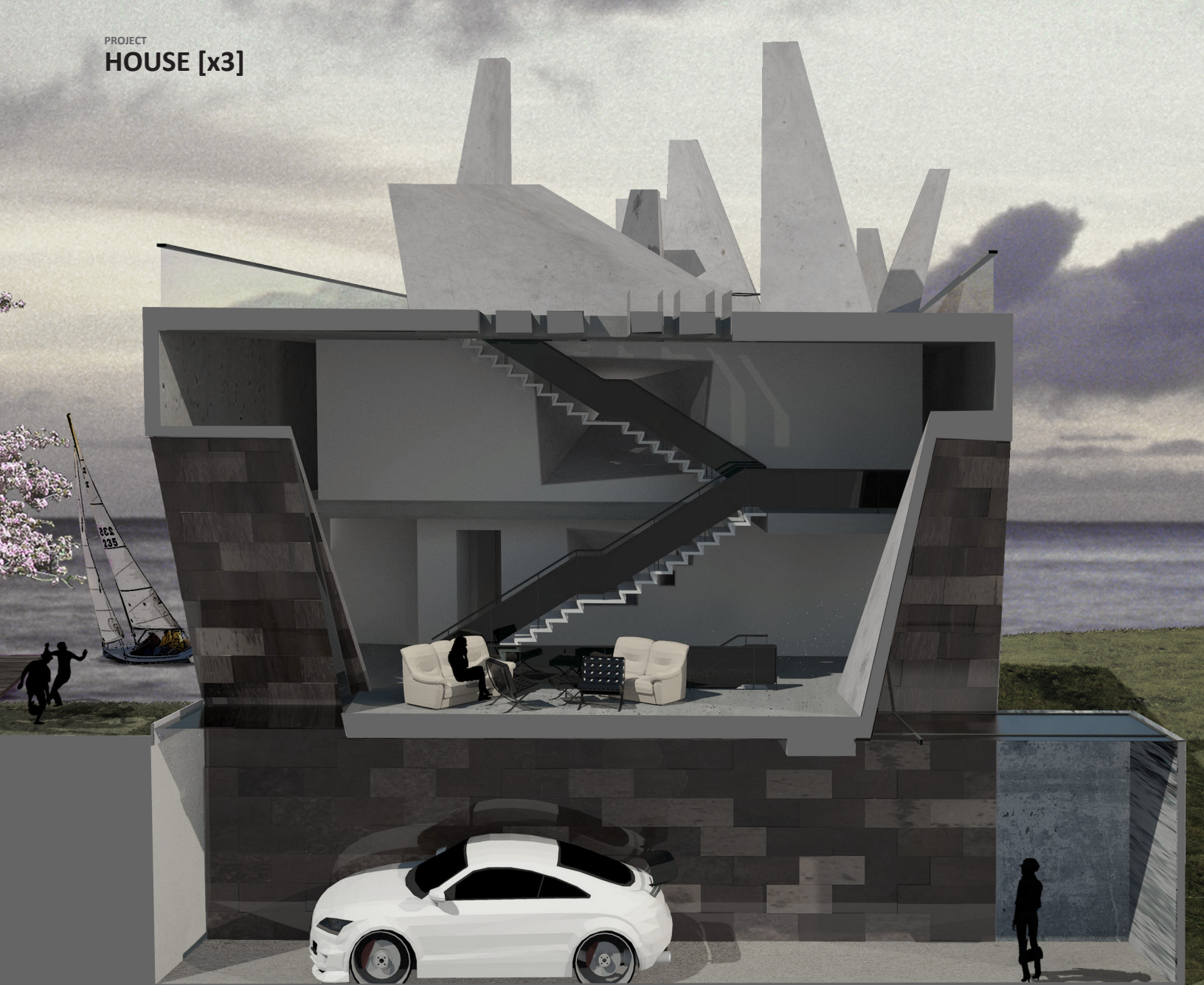
The longitudinal section illustrates the hierarchy of spaces. The funneled light focuses the scale and experience of the primary functions: the wood lined dining funnel, the central courtyard over the entry and the sleeping and bathing spaces [behind the current section cut].

光漏斗樓：縱剖面

縱切面說明了空間的層次結構。漏斗光聚焦的主要職能的規模和經驗：木內襯，當前的剖切[背後餐飲漏斗，在條目的中央庭院，睡覺和洗澡空間。



PROJECT
HOUSE [x3]



BORDEN PARTNERSHIP

1918 LAUDERDALE STREET
HOUSTON, TEXAS 77030

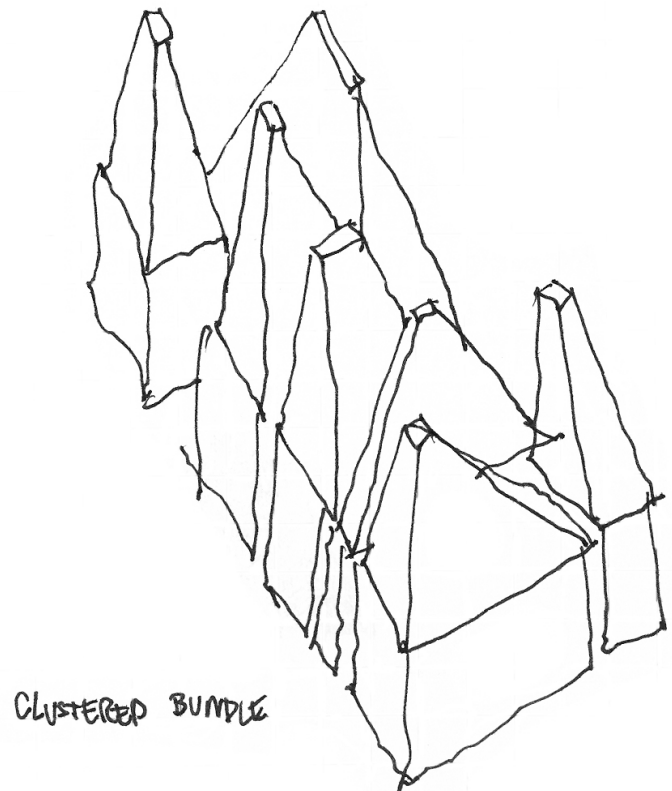
www.bordenpartnership.com

Light Funnel House: Section

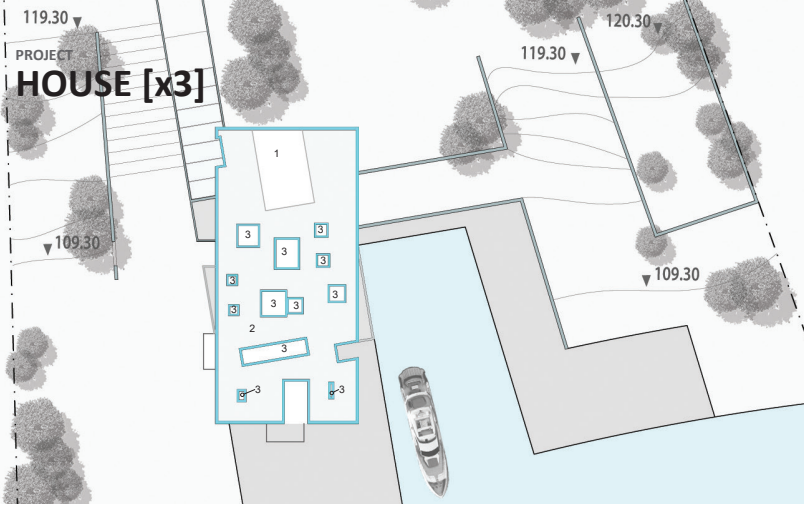
The lateral section of the Light Funnel House through the carport reveals the sectional dynamism of the interstitial spaces between the funnel chambers. Delicately controlled through light, the chambers and spaces define their quality and experience through their formal exposure. Here the vertical circulation stitches into the banding of the roof plane to reveal gaps and movement as connected relationships.

光漏斗樓：第

光漏斗樓通過的車棚橫截面，揭示漏斗室之間間隙分段活力。嬌柔通過光控，分庭和空間定義自身素質和經驗，通過其正式曝光。在這裡，到屋頂平面，揭示關聯關係中存在的差距和運動條帶垂直環流拆線。



PROJECT
HOUSE [x3]



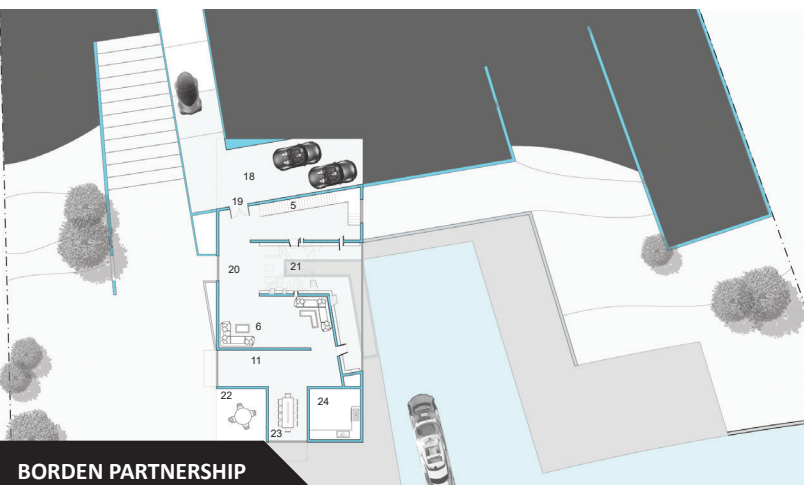
第二



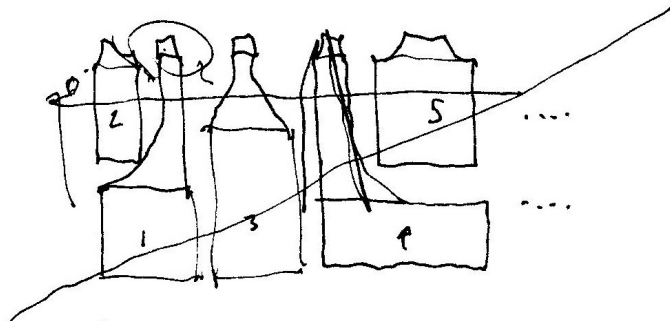
第一



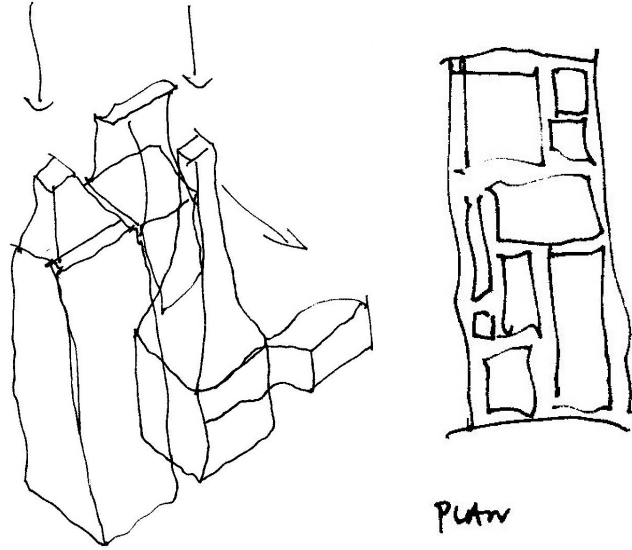
第零



- 第一



LIGHT FUNNEL HOUSE: PLANS

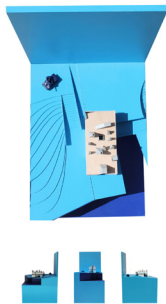


Light Funnel House: Plans

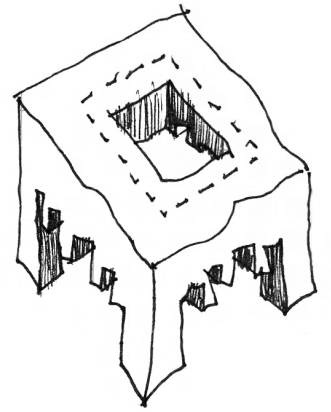
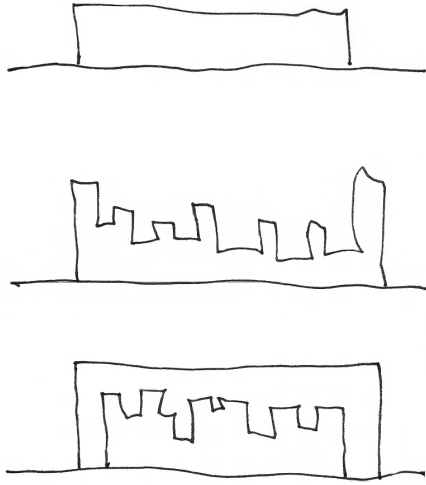
光漏斗樓：計劃

- 01. Open to Below
- 02. Roof Garden
- 03. Light Well
- 04. Overlook
- 05. Stair/Elevator
- 06. Hallway
- 07. Bedroom
- 08. Bathroom
- 09. Sitting
- 10. Living
- 11. Library
- 12. Living Room (private)
- 13. Main Entrance
- 14. Niche
- 15. Office
- 16. Storage
- 17. Spa
- 18. Garage
- 19. Entrance
- 20. Entertainment Space
- 21. Courtyard
- 22. Balcony/Exterior Dining
- 23. Dining Room
- 24. Kitchen

- 01. 挑空
- 02. 空中花園
- 03. 光井
- 04. 俯瞰橋
- 05. 樓梯/電梯
- 06. 走廊
- 07. 臥房
- 08. 浴室
- 09. 光井
- 10. 副客廳
- 11. 藏書室
- 12. 主客廳
- 13. 大門
- 14. 壁龕
- 15. 書房
- 16. 儲藏室
- 17. 三溫暖
- 18. 車庫
- 19. 入口
- 20. 娛樂/影視空間
- 21. 中庭
- 22. 陽台/餐廳(室外)
- 23. 餐廳(室內)
- 24. 廚房



PROJECT
HOUSE [x3]

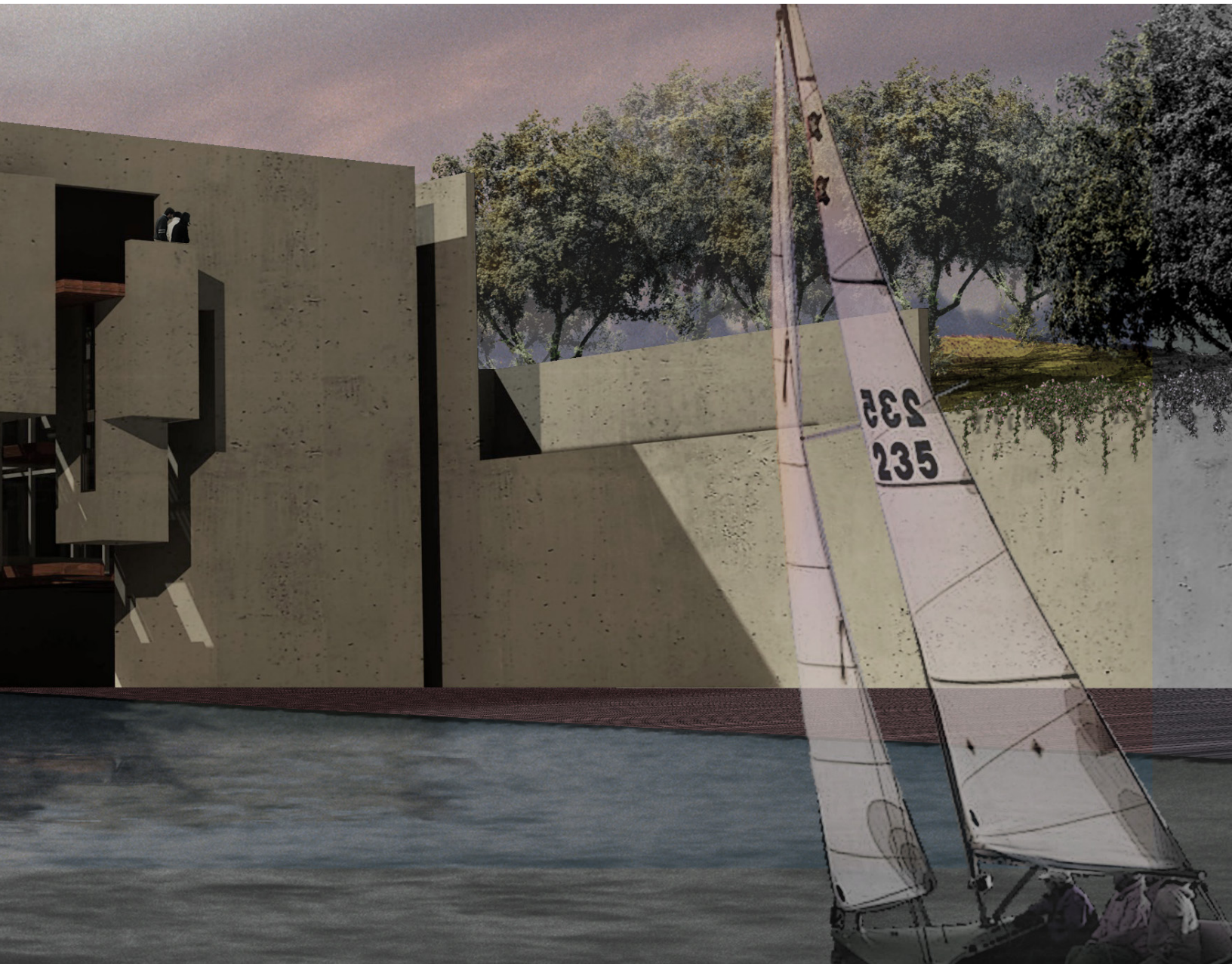


Cellular House

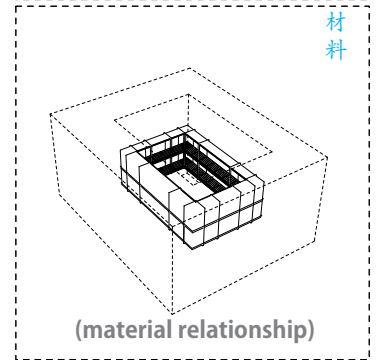
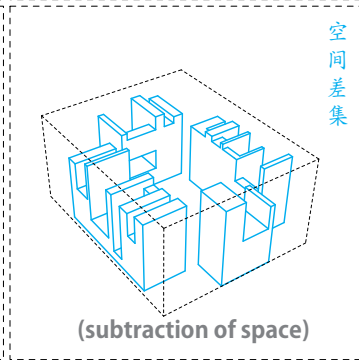
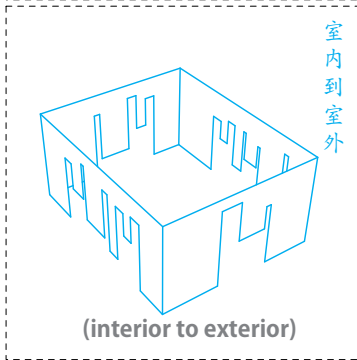
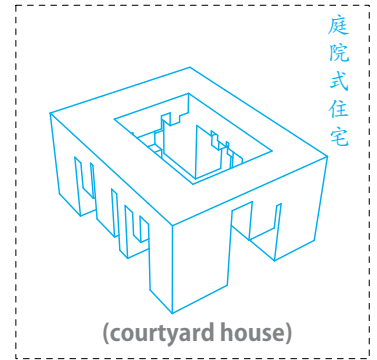
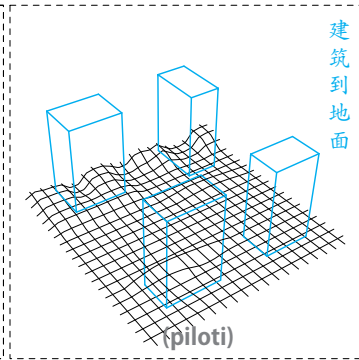
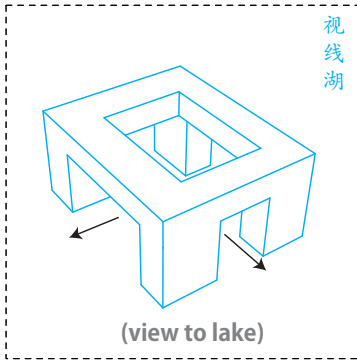
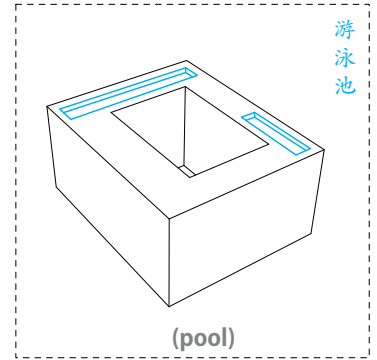
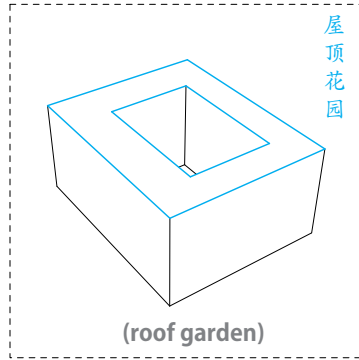
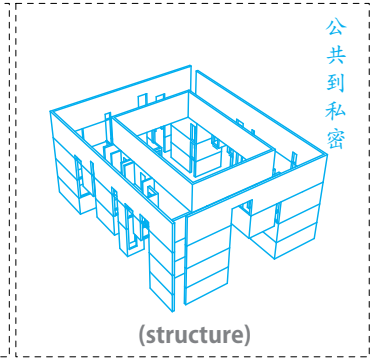
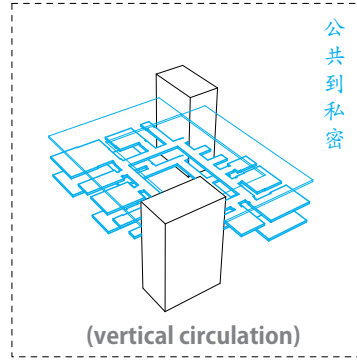
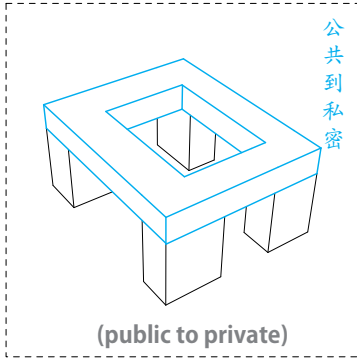
The lake elevation of the Cellular House illustrates the sectional inversion. Densifying at the uppermost level, the house diffuses as it descends allowing the ground plane to remain minimally impacted and permitting the house to set into the terrain and lake alike at will. The individuation of the specific programmatic elements, sectionally stacked allows for a stalagmiting of the functions. The grouping allows for individuation and specialization as well as full interior to exterior connections within in each space and a layering across the interstitial but unoccupiable courtyards. The stone perimeter opens to glass inner walls providing maximum openness while maintaining privacy from adjacent neighbors.

蜂窩樓：湖面海拔

湖面海拔的蜂窩樓說明了分段反演。在最上層緻密，內部擴散，因為它下降使地平面保持最低限度的影響，並允許房子的地形和湖泊都隨意設置成。具體方案分段堆疊的元素，個性化，允許懸掛的職能。允許個性化和專業化，以及完整的內部外部連接，在每個跨間庭院空間和一種分層分組。石外圍打開玻璃內壁上提供最大的開放性，同時保持相鄰的鄰居的隱私。



PROJECT
HOUSE [x3]



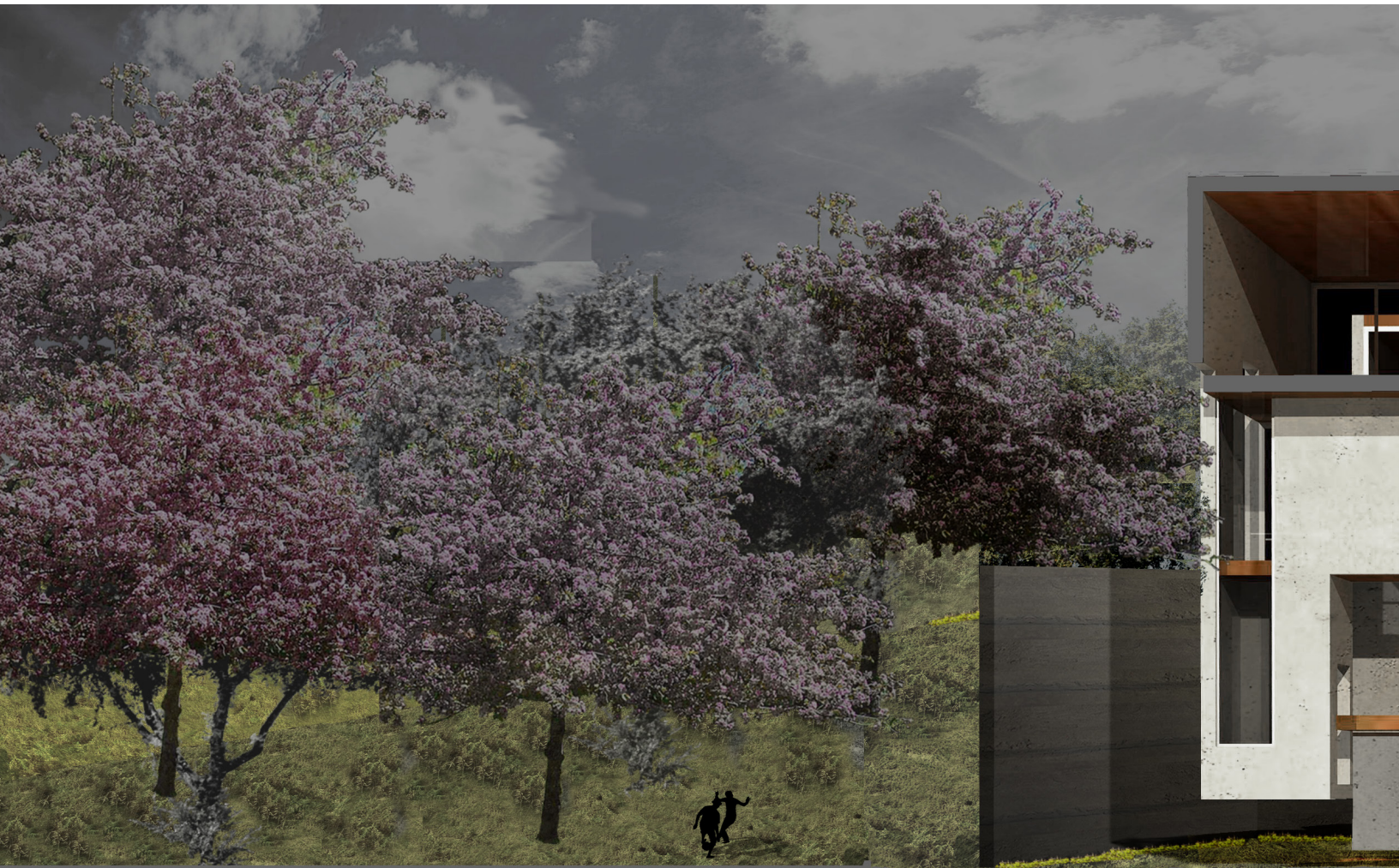
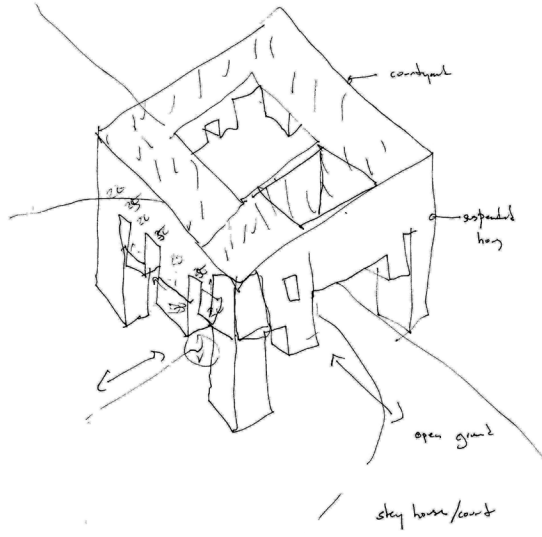
Cellular House: Concept Diagrams

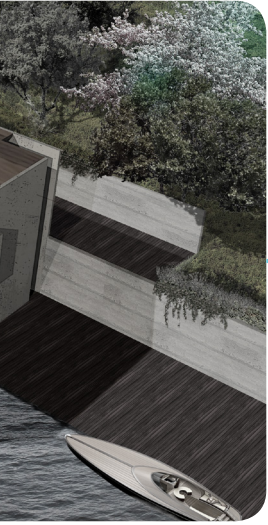
The Cellular House is formed through the aerosolization of programmatic pieces. Each function is individually celebrated allowing for a spatial and functional heightening of the discrete ritual. The gapping of spaces allows for the lateral operability to engage interior and exterior spaces. Gathered around a singular central courtyard, the void allows for a peripheral gallery to link the individual components. To maintain the continuity of the ground plane, the building starts fully formed at the top most level and then diffuses as the house descends and views become more limited. The Cellular house floats on four corner legs setting into the hillside, walking into the lake and allowing the land or water to slide below.

蜂窩樓

細胞樓通過的綱領性件霧化形成。每個功能單獨慶祝為離散儀式的空間和功能加高允許。氣隙空間允許從事室內和室外空間外側的可操作性。一個單一的中央庭院周圍聚集，無效允許外設庫連接的各個組件。為了保持連續性地平面，建築開始在頂部最水平完全形成，然後擴散的房子下降，並認為更為有限。蜂窩房子漂浮在四個角落腿設置到山坡上，步行入湖，並允許土地或水下面滑動。

PROJECT
HOUSE [x3]





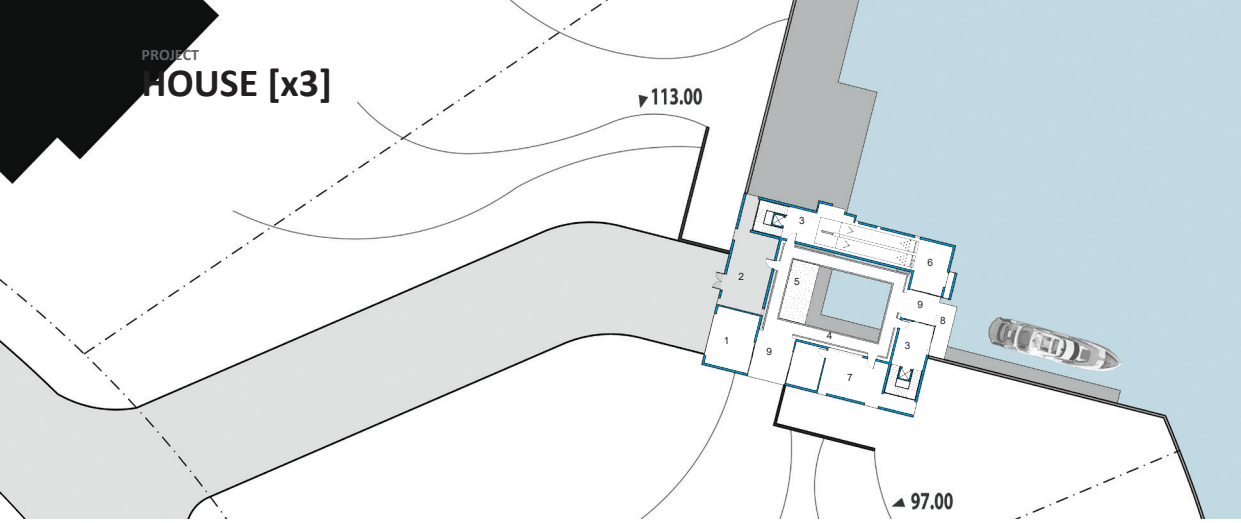
Cellular House: Section

The lateral section of the Cellular House reveals the functional individuation and layering of the programmatic functions of the house.

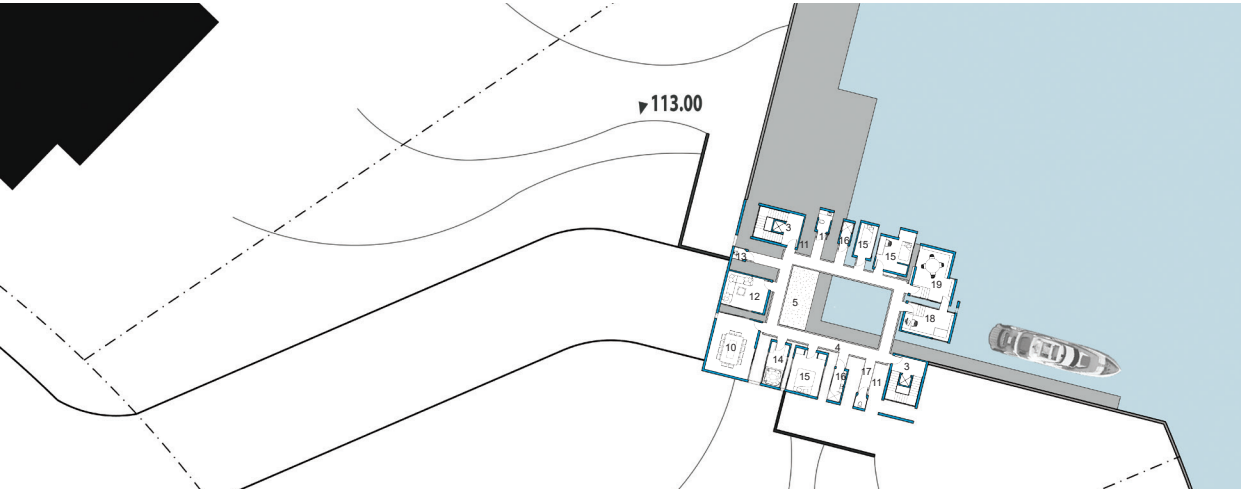
蜂巢樓：第

蜂巢樓的橫截面顯示功能的個性化的房子的綱領性功能和層次感。

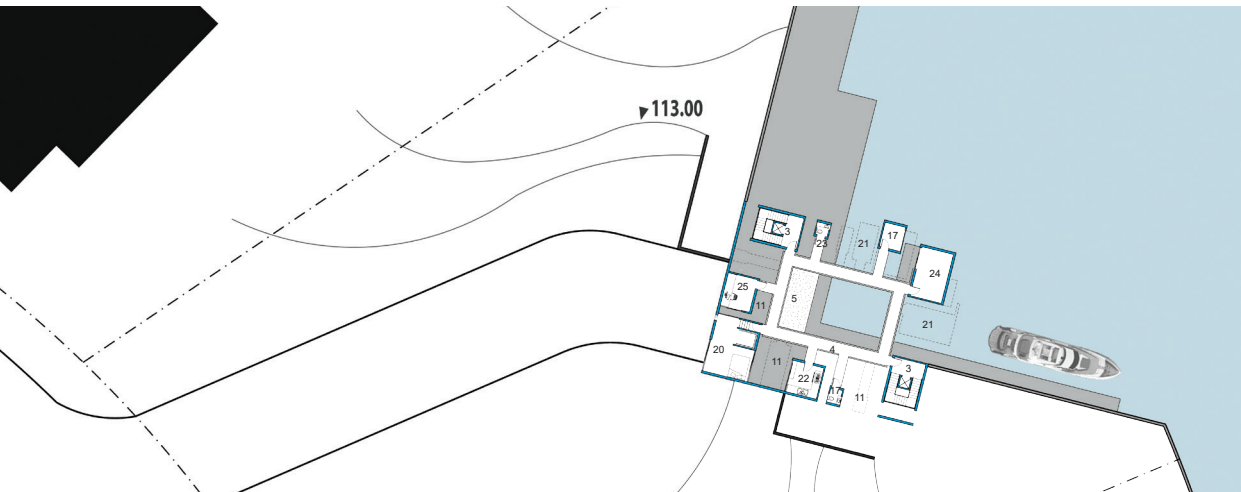




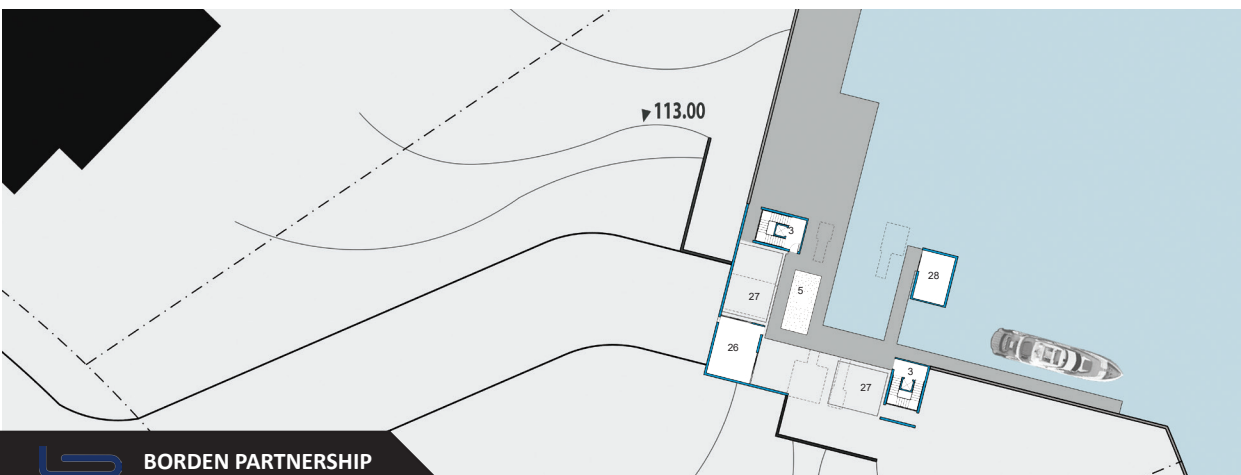
第三



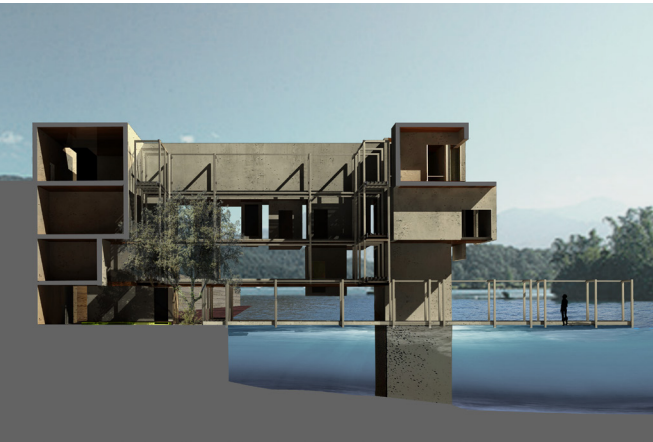
第二



第一



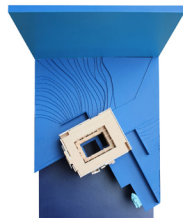
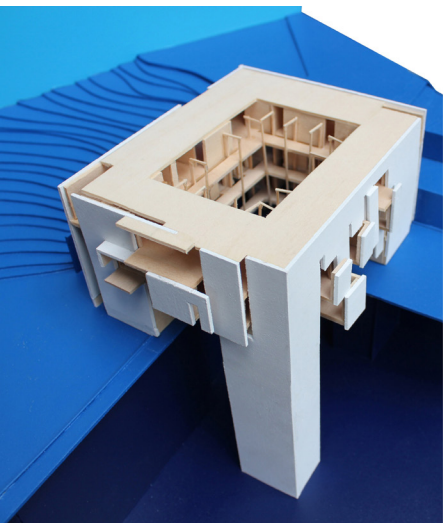
第零



Cellular House: Plans

Gathered around the central void at the heart of the house, this internal courtyard gathers with a connective transparent gallery. The direct connection of specific action to dedicated space connects ritual to architecture dedicating each part of the house to a distinct action allowing for a heightened spiritual interaction with the individual activity at hand. Bathing, sleeping, working, etc. are each locally articulated and formed. Each connects visually and physically to the exterior: both the exterior of the surrounding landscape and lake, but also the exterior of the internal courtyard, variably planted but here illustrated full of specimen bamboo.

周圍聚集在房子的心臟中心空白，這與結締組織透明畫廊內部庭院集。直接連接到專用空間的具體行動連接架構奉獻每一個獨特的行動，讓在手的個人活動的精神更加互動的房子的一部分的儀式。沐浴，睡覺，工作等各本地掛接和形成。每個視覺和身體連接到外部：外部周圍景觀和湖泊，而且內部庭院的外觀，多變的種植，但在這裡說明標本竹。



Cellular House: Plans

01. Garage
02. Main Entrance
03. Stair/Elevator
04. Courtyard Gallery
05. Courtyard
06. Bowling
07. Living Room
08. Balcony
09. Roof Garden
10. Dining Room
11. Open to Below (exterior)
12. Study
13. Washroom
14. Spa
15. Guest Bedroom
16. Shower
17. Bathroom
18. Office
19. Library
20. Master Bedroom
21. Open to Below (Lake)
22. Kitchen
23. Servant's Bathroom
24. Servant's Bedroom
25. Office Space
26. Garden
27. Courtyard Pathway/ Deck
28. Storage

蜂巢樓：計劃

01. 餐廳
02. 大門
03. 樓梯/電梯
04. 四合苑畫廊
05. 庭院
06. 三溫暖房
07. 客廳
08. 陽台
09. 空中花園
10. 餐廳
11. 挑空(室外)
12. 書房
13. 洗手間
14. 三溫暖房
15. 客房
16. 浴室
17. 洗手間
18. 辦公室
19. 圖書房
20. 主臥室
21. 挑空(湖)
22. 廚房
23. 僕人浴室
23. 僕人臥室
25. 辦公
26. 花園
27. 戶外走廊/棧橋
28. 存儲室