

# 工作空間類/辦公室 TID 獎 The TID Award of Working Space/ Office Space

## 主動房

## Active House

#### 青埕建築設計

Clearspace Design & Researchh

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「雖然是一個工作空間,我希望給人們回到家中,溫暖、回歸的初衷般,建構人與人、人 與環境的密切關係。」經過翻新的建築,最大限度減少能源浪費。斜屋頂延伸出的外觀造 型,與家的型態相似。這是個從住家延伸到工作室的概念,工作也可以和家一般,人在此 可以產生密切的情感。 紅磚牆是東方古樸的氛圍,原本舊的紅磚牆外,建築師再新砌一 層新紅磚牆,兩層紅磚牆中間,保留中空,中間的空氣隔絕了室外的熱傳導,形成有效的 高冷溫斷橋效應。同時特別在西曬的西面,運用德國蓋柯板(KAINKER),保留室外與室 內的互動光影,一方面阻斷空氣與輻射熱的傳導,一方面在古樸中添加一點想像力。窗戶 運用來自丹麥的威魯克斯主動式綠能窗,以頂掀側開式的設計,配合遮陽捲簾隔絕刺目的 日光。 新鮮的空氣以及景色,是周邊設計的重點。景觀上希望延續家的感覺,稻田才是 上海徐滙江南,該有的記憶。每年四季,從播種至收成的過程,是我們和土地早已脫離的 美好關係。但是這些記憶,仍存在我們的基因裡,春天播種,秋季收割,冬季休眠肥土。 人跟著節氣,一起生、長、成、讓。這些生活的理念,不必回到家鄉大田,就在辦公室外 發生。人們看著稻子一天一天成長,接著稻穗成熟了,頭卻低下,風吹徐,搖曳生姿-----愈 飽滿的生命,愈謙誠,愈美。 一年四季,無論稻田、雲雨、陽光,變幻莫測的氣候及秧 苗生長,因為建築的材料與設計巧思,建築本身也會有不同的風貌。建築空間裡頭的人, 在最合宜的溫度及濕度下,自在生活。讓工作的狀態,也可以保有「家」的溫度與氣味。 而我們永遠離家不遠。 ------- 舒適 光線是這座建築的主要設計特色。 設計中 不僅採用外立面窗戶,還在中庭加裝天窗,藉此加強了白天室內的光線。 在西面日曬較 多的牆面和室內隔離牆上加裝 GAINKER 樹脂窗簾,用以阻隔強烈的日光使室內光線較柔 和。如此的設計讓辦公區域的光線獲得運用最多的日光資源。 平均日光係數大於 4.2%。 天窗和窗户装了窗簾,不只可調節日光並可以避免刺眼。 可開式窗戶和天窗不僅使室內 在平常季節也能自然通風。 在特別季節時時也能使室外的新鮮空氣降低室內的二氧化碳 量和濕度 節能 經過翻新的建築將能源需求降到最低。 設計上採用高優質的絕緣建築材 料,加上朝南的坐向大大提高了建築圍護結構保持熱能的能力。 手動式窗戶和智能開啟 天窗不僅可以保持室內舒適度,同時也可以減少能源的需求。 冷暖器系統是由兩個 3.0 COP 的熱泵系統所組成。 太陽能板和風扇盤管是機械系統的終端系統。 設計使用節能 燈和自動照明系統以節省電源。 根據計算,此棟翻新後的建築一年能源使用於冷氣,暖 氣,通風,管線和照明一共預計只需 43kwh / m2a。 環保 此建築按照 3R ( 減少,再利 用和回收再循環 )原則進行翻新。舊結構是它的一部分,原有的牆壁也被小心地保留下來。 被拆除的磚和水泥也不浪費的應用回到新建築。 設計中大量採用回收材料,如軸承鋼框 架結構,金屬屋頂,玻璃幕牆等。 同時,此建案偏向使用環保建材,例如 FSC 木材, GAINKER 建築樹脂,低 VOC 塗料等。設計中更考慮到如何節省使用水資源以及裝置衛 生設備。建築物前面的一個小農場為員工提供了一個愉快和諧的生活空間。無形中顯示了 人與建築之間的共處關係,實踐"節氣生活"的基礎想法。

#### **Active House**

Although It is a work space, I hope to bring people a home feeling-feeling warm and safe. This allows one to build a close relationship between people, and between people and the environment. Part of this is concern for the environment. We want to renovate buildings in way that minimizes energy waste. To the first goal, the appearance of the sloping roof is like a home. This is a concept that extends from home to a work place. Work can be like home where people can generate close relations. Building on this, the red brick walls demonstrate a quaint, traditional Chinese atmosphere. Outside the old red brick wall, the architect decided to build a new layer of red brick wall. The middle of the two red brick walls remains hollow. The air in the middle isolates the outdoor heat conduction and forms an effective isolation with benefit for the building. Meanwhile, using German KANEKER technology, the west side wall was kept to preserve the interaction between the outdoor and the indoor. It not only blocks the conduction of air and radiant heat, but also adds a clever spin to a traditional design. Our windows are from VELUX from Denmark. The window is designed to have a top-opening. Combined with the window blinds to separate the glaring daylight, the building interacts with the external environment in an important, and unique, way. Fresh air and scenery are the focus of the surrounding design. The windows help us meet this goal. For the landscape, we consulted with Zongyong Ling, and hoped to continue the internal feeling as we moved external. In a twist, when everyone was following Frank Gerhy and planting reeds, this project followed its unique cultural origins and planted riced. Rice field is in the memory of Shanghai Xuhui Jiangnan. Humans have transitioned. We are far away from the beautiful yearly cycle where we follow the season while we go through planting and harvesting every year. But our collective memory remembers those efforts and time. We want to sow in the spring, harvesting in the autumn, and lay fallow in the winter. People follow the same pattern – we live, grow, accomplish, and yield. People watched the rice grow up every day. Once the rice ripped, we saw the tip drop low. The wind blew, the rice plants swayed. The more fulfilled life, the humbler and more beautiful it gets. Throughout the year, regardless of rice fields, cloud rain, sunshine, unpredictable climate and seedling growth, the building itself will have different styles because of the materials and design. People comfortably live in the building with the optimum temperature and humidity. And this gives them space to reflect on the passage of life. Provide work places with Home"feel and "Ambience". Then we are never far away from home. ------ Comfort: Daylight is the main design feature of this building. It employs not only façade windows, but also skylights in the atriums, which improve the daylight environment at the inner area. The GAINKER resin curtain walls are applied to the west facade and interior partitions, which make daylight more gentle and indoor seeming. The curtain wall towards east maximized the daylight level of the office area. The average daylight factor is above 4.2%. The skylights and windows mounted on the flexible shades, which adjust the daylight and avoid glaring, are key to this. The open able windows and skylights make natural ventilation possible in the colder seasons. The outdoor fresh air system can keep the CO2 level and humidity low indoor during conditioned seasons. Energy: The renovated building minimizes its energy demand. It enhances the thermal performance of its envelopes by adopting high quality insulation materials and low air leakiness glazing. This is along with a southern orientation. The manual opening windows and intelligent opening skylights keep the indoor comfort while reducing energy demand. Two heat pumps with COP of 3.0 are employed as the cooling and heating source. Radiation panels and fan coils are provided as terminal system for mechanical system. Energy saving lamp and automatic lighting system are used for saving light energy. As calculated, the energy consumption of the building is expected to reach 43kwh/m2a for cooling, heating, ventilation, plumbing and lighting annually. Environment: This building is refurbished following the 3R (Reduce, Reuse and Recycle) principle. It is part of old structure and walls are conserved. The demolished bricks and concrete are applied to the construction. The recycled materials, such as bearing steel frame structures, metal roof, glazing curtain walls are used in the project. At the same time, this project wants to use environmental friendly materials. For instance, this inclues FSC wood, the GAINKER building resins, low VOC paint and so on. The water saving, and sanitary appliances are used in the project. A small farm in front of the building makes a joyful and harmony living space for the employees. It implies the concept of the building.