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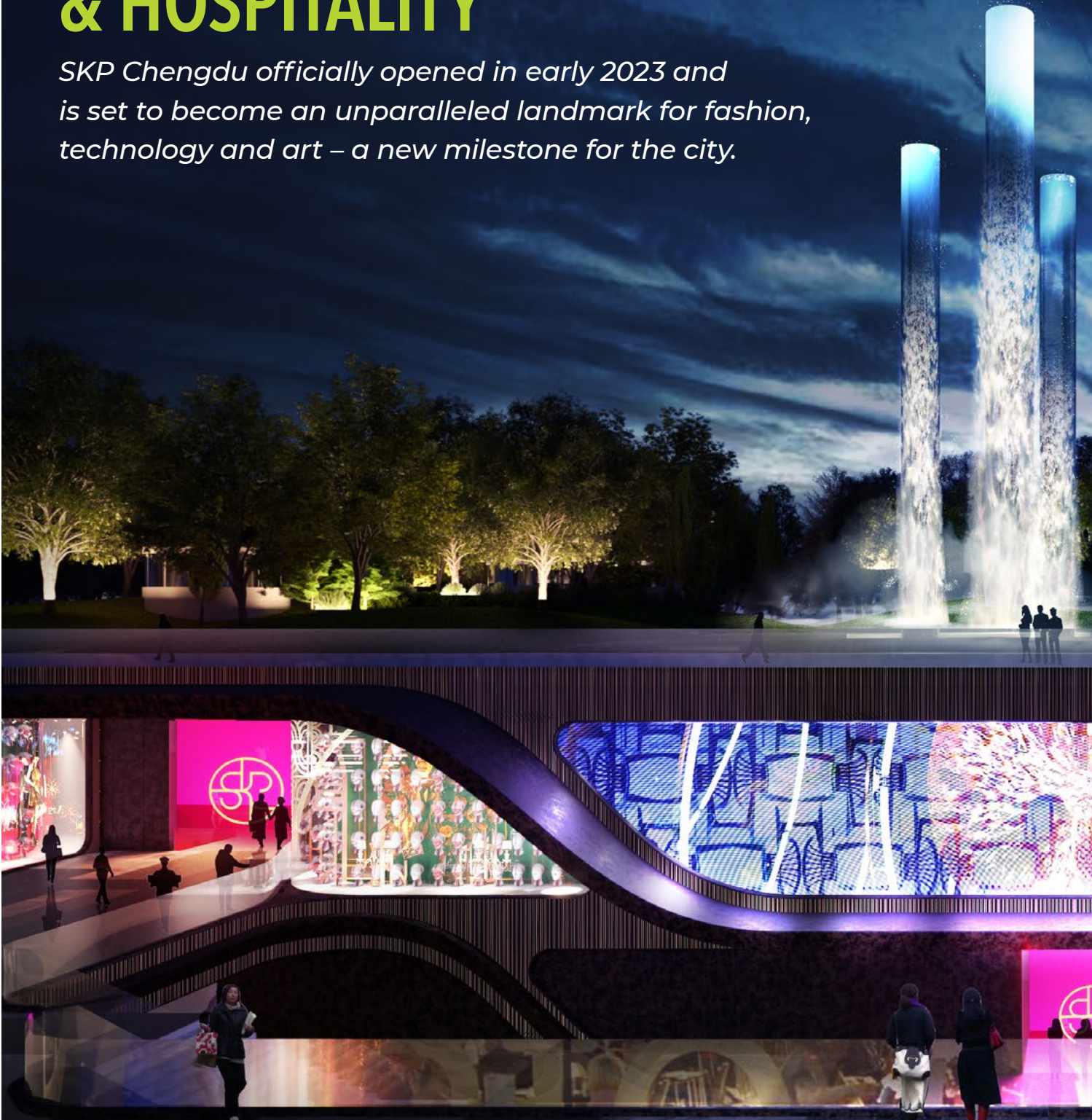
Hong Kong **FAÇADE** Association  
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# ENGINEERING A NEW PARADIGM FOR CONTEMPORARY RETAIL & HOSPITALITY

Text: EOC Images: Sybarite

*SKP Chengdu officially opened in early 2023 and is set to become an unparalleled landmark for fashion, technology and art – a new milestone for the city.*







Located in Chengdu, Sichuan Province, China, the development is part of the SKP chain of high-end shopping centres, which also includes locations in Beijing and Xi'an. Featuring a wide range of luxury brands and designer stores, it also offers a plethora of dining options, a cinema and a series of different parks atop the structures, described as a "botanical patchwork quilt". In addition to its luxurious shopping experience, SKP Chengdu is garnering a reputation for its unique architectural design, establishing itself as a recognisable landmark in the city.

Comprising half a million square metres of retail space, this biophilic masterplan is a holistic and collaborative design, realised by Sybarite with SKP Operators, James Corner Field Operations, Eckersley O'Callaghan, Arup, Speirs Major, Buro Happold and The Fountain Workshop over a three-year period.

## A NEW BLUEPRINT FOR LUXURY RETAIL

Conceived as a place with an undeniable sense of interconnectedness – a combination of urban parks, sunken spaces and shopping avenues – SKP Chengdu is a TOD (Transit Oriented Development) and as such creates dense, walkable, and mixed-use spaces near transit hubs that support the development of vibrant, sustainable and equitable communities. With 99 percent of the buildings below ground level, the store is divided into four main areas: Chengdu SKP, Chengdu SKP-S, K Avenue and G Avenue. At ground floor level, only a few pop-up stores are visible interspersed amongst 33 crafted landscapes and scenic spots.

The multi-level store is anchored by the SKP department store at the north and the future-focused SKP-S department store at the south, which is topped by six towering water-fountains, known as 'The Towers of Life', that reach up to 36 metres high.

A sequence of pavilions, which house key luxury brands, is flanked by these two anchor stores, and separated by canyon-like walkways that are crossed by angled pedestrian bridges. At the centre of the park is a bamboo garden contained within a glazed Central Cube, which provides light and access to the shopping levels below ground.

Eckersley O'Callaghan, an award-winning firm with an international reputation for its creative yet rigorous approach to engineering structures and facades, worked in close collaboration with Sybarite to develop and design the intricate facade elements, structural glass features and advanced engineering of many structures around the development – crafting an environment that is both visually stunning and highly functional.

## BENEATH THE SURFACE

The design of the facades plays an important role in alluring visitors and act as a visual signifier embodying the values of the SKP brand. Distinctive and complex, they are characterised by a unique mix of materials (brushed brass, pearlised aluminium, fritted glass) and coded motifs (curves, canopies and façade 'origami' back walls).

This was the second time Eckersley O'Callaghan worked with Sybarite for SKP after their successful involvement in SKP Beijing. For SKP Chengdu, they engineered the facades and canopies in the main entrances of the two department stores (SKP and SKP-S), the glazed Central Cube, the SKP glass box, the circulation boxes and the Y-shaped pedestrian bridge.

One the most challenging aspects of the project, was the development of the Central Cube which sits at the heart of the site and acts as a gateway into the shopping areas below. The cube consists of a central steel structure that cantilevers out to support the roof build up. A nine-by-nine metre skylight sits between the four main columns to provide light to the lower ground floor level. The cube is enveloped by a fully glazed facade, with a nine-metre opening on the front face to facilitate circulation.

The roof structure of the cube is supported through the four tapered steel columns that are fixed back to the underground level. It has been designed to integrate a water feature at its crown, creating the illusion of a linear glass waterfall which offers an experiential route for visitors, as they walk through surrounded by the calming water. Ensuring the steel structure could accommodate the necessary services, whilst remaining lean and refined, required a considered approach.

Stability for the Central Cube from unbalanced horizontal winds and seismic loads was a strict requirement – to avoid torsion. A traditional approach to tackle this would have been to introduce concrete shear walls, cross braced steel bays, or heavy moment frames – all of which would have detracted from the desired simplicity and transparency.

Ian Langham, Director at Eckersley O'Callaghan, comments: "To lessen the structural demand of the central core columns, we utilised the glass to perform this function. This required detailed analysis and an in-depth understanding of the interaction between the steelwork and glass system, as well as careful envelope detailing to transfer horizontal loads whilst at the same time facilitating vertical

releases at the glass roof interface. This proved to be challenging within the limited space available to create the slender roof edge in order to achieve the architectural intent."

Along with the Central Cube, the canopies, circulation boxes and pedestrian bridges all entailed complicated, non-standard, bespoke designs and required sophisticated, detailed analyses, studies and assessments to help realise their vision.

Ian continues: "Translating Sybarite's concept into reality required a process of research and working collaboratively with the client, architect, fabricators and other consultants to overcome the never-been-done-before aspects of the design. Drawing from our extensive experience of projects in China, we were able to quickly adhere to strict design codes and regulations. This meant we were able to take a sensitive approach to design, with each innovative aspect having to prove its structural capabilities from first principles and by rigorous testing before approval."

## ARCHITECTURE IN MOTION

Torquil McIntosh, Co-Founder of Sybarite and spokesperson for SKP Chengdu, comments: "The approach to facades is layered to create a depth and three dimensionality which conveys a sense of architecture in motion. Sculpted entry canopies extend and cantilever up to three-metres beyond. A system was proposed for a curtain wall with glass panes and spandrel panels with all the solid cladding as ornamental attachments.

"The layers themselves encourage pattern, silhouette and a subtle play of light throughout the day. At night, facades pulsate with light and colour. The addition of digital panels within the facade allows the opportunity for dynamic content collaborations that are ever-changing and present a constant sense of newness. Sybarite did away with the traditional logo inscribed on the building, opting to integrate the SKP logo as a piece of the facade itself. This brand marque is underplayed in a way that the facades and architecture become an extension of the brand itself."

SKP Chengdu challenges every expectation, standard and rule of luxury retailing in terms of craft, quality, innovation, entertainment, engineering and sustainability. Its use of high-quality materials and innovative design techniques has helped to create a unique and memorable destination.







# 為當代零售及款待業訂下的新範式

成都SKP於2023年初正式開業，成為集時尚、科技及藝術於一身的地標建築，亦為這座城市立下新的里程碑。

位於中國四川成都的成都SKP是大型連鎖購物商場品牌SKP的最新一員，其他分店位於北京和西安等地。購物商場主打各式各樣的奢侈品牌及設計師名店，提供各種餐飲選擇、電影院及被譽為「植物拼圖」的空中生態花園。除了奢華的購物體驗之外，成都SKP以獨特的建築設計聲名大噪，成為當地一座標誌性地標。

這座50萬平方米的零售空間採用親生物式總體規劃，講求整體及協作設計，由Sybarite與SKP營運，並由James Corner Field Operations、Eckersley O'Callaghan、奧雅納、Speirs Major、標赫及The Fountain Workshop以三年的時攜手策劃。

## 嶄新高級零售藍圖

成都SKP被定位為互聯互通的起點，結合城市景觀、下沉式空間及購物街，成為一個步行友善、擁多用途空間的交通導向發展項目，支持社群起動、可持續性及公平發展。

99%的建築空間設在地下層，商場分為四個主要區域：成都SKP、SKP-S、K大道及G大道，在地面則有少數期間限定店散落在為數33個精心打造的景觀區及景點之中。







多層商場由北面的 SKP 百貨商店及南面以聚焦未來的 SKP-S 百貨而組成，後者由六座高達36米的景觀水柱組成，被稱為「生機之塔」。一連串的亭子容納一線奢侈品牌，被兩所大型旗艦店包圍，行人路如峽谷般被分隔，穿越傾斜的天橋。公園中央是一個玻璃立方竹園，為地下街提供光線及通道。

Eckersley O'Callaghan 是一所獲獎無數的工程公司，以嚴謹卻又破天荒的結構及立面設計而享負盛名。他們與 Sybarite 密切合作，為發展項目研發及設計周遭的複雜立面元素、結構玻璃及先進工程技術，創造一個引人注目但又非常實用的環境。

## 風光的背後

外牆設計對吸引遊客而言非常重要，更為 SKP 品牌價值立下註腳。它們以獨特的材料（刷磨黃銅、珠光鋁及點狀玻璃）和編碼圖案（曲線、檐篷和立面「摺紙」後牆）為特色，同時保持 SKP 標誌性的黑色和白色色調。



SKP 成都是 Eckersley O' Callaghan 與 Sybarite 繼 SKP 北京後再度合作，為工程提供設計服務。在項目中，他們負責兩間百貨公司（SKP 及 SKP-S）的主要出入口的外牆及上蓋、玻璃中央立方體、SKP 玻璃盒、通風盒和 Y 形人行天橋的工程設計。

項目最具挑戰的工作之一非中央立方體發展莫屬，該立方體位於中央地帶，被玻璃幕牆包圍，正面有九米闊的出入口，可通往地下購物區。立方體由中央鋼結構支撐，懸臂支撐屋頂結構。九乘九米的天窗位於四根主力柱之間，為下層提供光線。

立方體的屋頂結構由四個錐形鋼柱支撐，被固定在地下層。高處水景營造出玻璃瀑布的效果，為遊客提供沉浸式體驗。因此團隊需要考慮周全，需確保鋼結構可負荷，同時保持簡潔、精緻的設計。團隊必須確保中央立方體即使因強風及地震而失衡仍表現穩定，如採用傳統的解決方案如興建混凝土剪力牆、交叉支撐的鋼構間隔或沉重的力矩框架，或會削弱簡約及透明度。

Eckersley O' Callaghan 的主管 Ian Langham 說：「我們利用玻璃減少對中央核心柱的需求，這需要進行詳細分析和深入了解，包括鋼結構及玻璃系統間的相互作用，以及仔細設計外殼細節，在玻璃屋頂表面平衡負荷並垂直呈現。在有限空間內創造細緻的屋頂邊緣用作建築用途，乃一重大挑戰。」

除了中央立方體外，雨篷、簷篷及行人天橋都涉及複雜、非標準的定制設計，需要先進詳盡分析、研究和評估，以實現其設計理念。

他補充說：「將 Sybarite 的概念實現，需要進行研究並與客戶、建築師、製造商共同合作，以克服設計中從未遇上的難題。憑藉在國內豐富的經驗，我們能夠迅速及嚴謹地遵循設計規範和法規，為項目度身訂造，而每個創新設計也必須通過嚴格測試及結構評估。」

## 建築在動

Sybarite 聯合創始人兼成都 SKP 發言人 Torquil McIntosh 表示：「分層的立面設計可創造出深度和三維感，帶來動感建築氛圍。雕塑般的入口雨篷向外延伸和懸垂長達三米，玻璃板及拱上空間在幕牆系統上，可當作實心裝飾。」

「這些層次呼應紋理、剪影及日間微妙的光影變化。立面在晚上會閃閃生輝，數碼屏幕播放層出不窮的動態內容，不斷更新。Sybarite 沒有將傳統標誌刻在建築上，反而選擇將 SKP 的標誌融入立面當中，低調地呈現品牌，使建築及其外觀成為品牌的延伸。」

SKP 成都在工藝、質量、創新、娛樂、工程及可持續性方面提升了大眾對高端零售的期望、行內標準及規則，並以高質量的建材及創新設計技術，創建出一幕獨特而令人一見難忘的城市風景。

**Eckersley  
O'Callaghan**