

MODIFYING EARTH AND SKY: THE ARCHITECTURE OF SOO CHAN

“惊天动地”：SOO CHAN 的建筑世界

In satellite photography, Singapore is seen as a fan-shaped island strategically located between the Malayan peninsula, that appendix to the vast Asian landmass, and the complex archipelago that comprises Indonesia. Singapore is also, famously, a ‘city state’, a term that may conjure up fiefdoms of the Italian Renaissance, yet Singapore is a new state, independent only since 1966. Today it is one of the world’s most successful nations in terms of health and education, disposable income and rapid economic growth.

看卫星图片，新加坡是个扇形小岛，地处战略要地：一边是马来半岛，仿佛广袤亚洲大陆的阑尾；一边是错综复杂的群岛，组成了今天的印度尼西亚。同时，新加坡也是闻名世界的“城邦国家”，虽然这个称呼难免令人想起文艺复兴时期意大利领主的封地，但是，新加坡是一个新生国度，1996 年才独立建国。今天，新加坡经济增速迅猛，可支配收入雄厚，在教育和医疗领域处于世界前列。

Five million people live on an island with remarkably few natural resources. They share a plot of land where space is at a premium: space in its most abstract sense as global environment; space in an intimate, ergonomic sense as square metres per person; and space as the communal space shared by family, neighbours and fellow citizens.

五百万人口共同生活在一个自然资源极为贫乏的小岛上。他们共享一小块土地，在那里空间实属稀有资源：在抽象层面，它是全球环境；从个体和人体工程学角度，它是人均平米数；作为公共资源，它是家庭、社区和国民的共享空间。

Soo Chan established his practice, SCDA, in Singapore after several formative years in the United States, first at architecture school and subsequently in some well-known professional practices. His fecund output – houses, apartment buildings, resorts – is situated not only in Singapore but across Southeast Asia and increasingly the wider world. Yet the realities of Singapore, its benefits and challenges, infect the work of SCDA, fusing close attention to personal space with a concrete concern for communal experience.

Soo Chan 早年在美国的建筑学校学习建筑，随后就职于多家著名的建筑工作室。在多年的实践之后，他在新加坡成立了自己的事务所 SCDA。他丰硕的设计成果——别墅、公寓楼、度假村——不仅位于新加坡，也遍及东南亚，且有向全球扩展的趋势。然而，新加坡的现实，优势也好、挑战也罢，都在感染和影响着 SCDA 的作品，令其在密切关注个人空间的同时，也切实关怀公共空间的使用体验。

I

Throughout Soo Chan’s work, one notices certain key characteristics, whether the projects be private and domestic or high-rise and in public view. There’s attention to geometry, a sense of architecture as the composition of discrete vertical and horizontal planes. This attention is devoted to structural elements such as retaining walls and roof slabs yet also to smaller components of construction such as the threads of dramatic staircases and the fin-like louvers that filter the strong Singapore light.

纵观 Soo Chan 的作品——不论是私人和家庭住宅，还是公众视野下的高层建筑，我们可以注意到，他的作品重视几何学的运用，利用分离的纵横平面来构造建筑意识。这不仅应用于挡土墙和屋顶板等结构性元素中，也同时在施工细节中有所体现，比如夸张楼梯上的螺纹，遮挡新加坡强烈日照的鱼鳍状百叶窗等等。

There’s a sense of architecture not only as formal composition, what Le Corbusier called ‘the learned game, correct and magnificent, of forms assembled in the light’, but also as a sensory mechanism, an invitation to linger, to dwell in these interior and exterior spaces. Many, if not all, components of construction are seemingly in play, creating patterns and texture. If the finish of

natural materials and the repetition of components appeal to our human senses of touch and sight, water introduces a third human sense, sound.

在这里，建筑意识不仅是一种正式构图，如勒·柯布西耶（Le Corbusier）所说的“由光线下各形式组合成的准确而壮丽的学术科目”，也是一种唤醒感官的机制，吸引人们来这些内外空间中逗留乃至居住。大部分、甚至全部建筑元素似乎都通过创造模式与材质的方式起到了这样的作用。若自然材料的光洁和元素的重复吸引着人类人类的触觉和视觉，流水则满足了人类的第三种感觉——听觉。

This evocation or harnessing of nature is particularly germane in the context of Singapore. Land there is expensive; every square centimetre counts. Furthermore Singapore is tropical, blessed with extraordinary flora and lush foliage. A central tenet of Chan's architecture is to prioritise the ground plane, to hold the earth's surface, or a carefully balanced facsimile of it, as the focus of design intent. This is evident in the many elegant villas with their axial pools and shaded terraces. More startling, and more radical, is Chan's replication of these conditions in high-rise apartment building.

如此对自然的呼唤和掌控与新加坡的特定环境尤为相关。新加坡寸土寸金，连一平方厘米都不能放过。另外，新加坡属于热带气候，养有各类奇花异草。Chan 的建筑的一个核心原则就是把地平面放在首位，将地表或其精细的复制品作为设计意图的关键。这一理念在诸多拥有轴心池和遮荫露台的优雅别墅中尤为明显，而 Chan 在高层公寓楼中对这些环境的原景复制，则更是惊世骇俗、令人称奇。

The architecture of SCDA pushes the boundaries of normative construction, testing ideas at the scale of the individual house and applying this information, this sensory knowledge, to much larger projects – buildings of metropolitan consequence.

SCDA 的建筑推动了标准式结构的发展，测试了关于个人房屋规模的想法，并将这一信息和对感官的理解应用到更为庞大的项目上——国际化的都市建筑。

Chan's manipulation of, and delight in, geometry is apparent in several of the villas. At 9 Ridout Road, for instance, we see the characteristic interplay of vertical and horizontal, opaque and porous planes. 'Vertical and horizontal planes' is of course a sculptural, plastic way of thinking about walls and roofs. The entry façade of 9 Ridout Road includes white monolithic walls that fold to become roofs, walls of horizontally striated grey stone, and a long horizontal façade of dark vertical louvers.

Chan 对几何结构的操控及兴趣表现在了一些别墅设计中。例如，在里道特路 9 号（9 Ridout Road）的住宅，我们看到了垂直或水平、不透明或多孔平面之间独特的互动。当然，“垂直和水平平面”是指从雕塑性、可塑性角度看待墙壁和屋顶。里道特路 9 号（9 Ridout Road）的入口正面包括弯折成为屋顶的巨大白色石墙，条纹灰色石头组成的水平墙壁，以及装有深色垂直百叶窗的横向长条立面。

Observe how these various planes meet, sliding past each other to evoke continuous space or held by bracketing walls so as to reveal, in sharp outline, the section profile. Here a single tree rises through a square aperture in the extensive canopy that hovers almost magically in space. In Chan's world, specimen trees are talismanic elements, the focus or origin of plans. On occasion, trees mysteriously emerge from cubic incisions in dark reflective pools. Elsewhere, trees are held high above ground level as symbols of nature many storeys in the air.

观察这些不同平面，它们交汇时彼此相错，时而创造贯通的空间，时而利用围墙展示剖面清晰的轮廓。宽阔的顶棚神奇般地悬于空间之上，方孔中伸出一棵独树。在 Chan 的世界里，园景树是其设计的支柱，是建筑方案的重点甚至发端。有时，树木在深色观赏水池的方形切口处神秘出现；还有时候，树木被抬升到距地面几层楼高的空中，作为自然的象征。

As one moves into the more private zones of these houses, walls lighten to become colonnades, an idea of architecture as pavilion that has resonance with both such European Modernist prototypes as the pavilions of Mies van der Rohe and indigenous, often ceremonial structures across Southeast Asia, structures that offer protection from direct sunlight and frequent downpours of rain.

走进这些房屋的私人区域，墙壁逐渐变亮，形成列柱。这其实是阁楼的建筑理念，既与欧洲现代派原型呼应，比如密斯·凡·德·罗（Mies van der Rohe）建造的阁楼，也与东南亚当地建筑的结构有所共鸣，这些结构多用于举行仪式，保护人们免受日晒雨淋。

The resolution of thin canopy roofs is a critical detail in Chan's pursuit of an elegant geometric ideal. Their fascias are super-thin sandwiches or superimposed strata of building material. In the unusual case of the Singapore High Commission in New Delhi, the soffit or underside of the great ceremonial canopy slopes down from a razor-like perimeter.

纤薄的顶棚屋顶是 Chan 在追求的优雅几何的设计时极为关键的细节，它们的封檐板是超薄的三层或多层叠加的建筑材料。在位于新德里的新加坡高级委员会这一特殊项目中，拱腹，即大型仪式用顶棚的下侧由锋利的边界向下倾斜。

And then there's water, extensive pools that are ornamental, that are planned for exercise and leisure, and that cool the ambient temperature.

此外，还有水元素。巨大的装饰性水池可用于休闲和运动，同时也使周边空气更加凉爽。

At Harbourview House, the refinement of walls as either opaque planes or almost invisible membranes results in an extraordinary composition that is in places transparent like an x-ray (another Modernist trope), and in other places screening interior spaces from unwarranted exposure. Some prominent façades are incised with horizontal fenestration slots – Le Corbusier's *fenêtres en bande* – that retain the primacy of the planar element yet allow panoramic views out from the interior.

Harbourview House（住宅）的墙壁装饰或为不透明平面，或为近乎隐形薄膜，使得一些地方如 X 射线般透明（又一现代主义装饰手法），另一些空间则不会被无端暴露，进而生成这种特别的构成。一些主要的立面嵌有横向开窗槽——勒·柯布西耶（Le Corbusier）用法语称其为“带状窗”（*fenêtres en bande*），它们既保留了平面元素的精要，也使从室内欣赏全景成为可能。

Especially noteworthy at Harbourview House is the seeming elevation of these façade elements up into the air. They exist as hovering planes suspended in space, defining space, meticulously detailed players in a multi-dimensional collage. Although much of Chan's work appears chthonic, to emerge from the earth, and to devote close attention to ground surface, there can also be the perception of suspension, both of primary elements of construction and of what we might consider secondary elements, in particular stairs.

尤其值得注意的是，Harbourview House（住宅）似将外墙元素提至空中。它们仿佛悬停于空间中的飞机，定义着空间，好似多维拼贴画中细致刻画的人物。尽管 Chan 的许多作品扎根于土地，对地表极为关注且形成于大地之上，但我们依然可以从作品中体会漂浮之感，它不仅存在于主要的建筑元素之中，也显露在一些我们认为较次要的地方，例如某些楼梯。

Indeed, as at the Botanika apartment building, staircases are typically a spectacular feature of interiors by Soo Chan. At Botanika, a spiralling open-riser stair is held by an outer swoop of delicate tubes; this most generous staircase is inserted into space as a kind of kinetic ornament. These are 'specials' with some of the glamour of 1950s Italy (Carlo Scarpa, Franco Albini) and of Eero Saarinen's interior architecture for General Motors near Detroit.

的确，Botanika（公寓楼）的楼梯就是 Soo Chan 室内设计的一个典型且令人惊叹的特色。它的螺旋式上升阶梯由外部俯冲向下的精致圆管支撑；这个宽敞而富丽的楼梯以一种动感的姿态装饰于空间中。这些“特殊的内部设计”带着一些 20 世纪 50 年代意大利建筑（Carlo Scarpa, Franco Albini），以及底特律附近的通用公司建筑之韵味（Eero Saarinen）。

In several of Chan's residential buildings, double-height units are linked by tauter spiral staircases,

devices reminiscent of those in Le Corbusier's Paris interiors of the 1920s – these are sculptural elements inside purist, orthogonal volumes. Le Corbusier's famous description of the house as 'a machine to live in' is often interpreted as a reduction of the domestic world to crude functionality. In fact, Le Corbusier may have been thinking in a much more holistic way, considering the full life and human use of architectural interiors.

Chan 的数个住宅楼和双层单元均由结实的螺旋阶梯连接，令人不禁想起勒·柯布西耶(Le Corbusier)在 20 世纪 20 年代的巴黎所设计的室内建筑——雕塑元素被置于纯净的垂直空间中。柯布西耶对那房子有个很有名的描述——“供人居住的机器”，它通常被解读为将家庭功能缩减至简单实用的状态。实际上，柯布西耶的思路可能更为广阔，考虑到室内建筑的完整寿命和人类对其的使用。

Chan knows his history, the story and examples not only of High Modern architecture but also such slightly earlier manifestations of integrated design as the Wiener Werkstätte whose architect members designed candlesticks, plates and cutlery. It is in part Chan's attention to intimate details and finishes that seems, paradoxically, to have allowed SCDA to jump in scale from individual houses to skyscrapers.

Chan 熟稔历史，不仅对高端现代化建筑的典故和范例了然于心，对更为早期的一些整体设计作品也了解颇多，比如设计烛台、盘子和道具的维也纳工作室（Wiener Werkstätte）。尽管这听起来有些矛盾，但似乎正是 Chan 对微小细节和完成度的关注，才在一定程度上让 SCDA 的设计规模从独立住宅一跃至摩天大楼。

II

This Singaporean architect is drawn to the culture of inter-war Paris and the work of designers such as Émile-Jacques Ruhlmann, Jean-Michel Frank and Pierre Chareau. Ruhlmann and Frank are renowned for interiors with luxurious yet minimal furniture within a balanced architectural vision. Chareau is best remembered today for the radical Maison de Verre in which bathrooms, storage elements and electrical switches all play a role in the total ensemble – he has been categorised as an *architecte-meublier*, raising the profession of cabinet maker and interior designer to rarefied heights.

这位新加坡建筑家倾心于两次世界大战之间的巴黎文化，以及诸如艾米力·雅克·鲁尔曼（Émile-Jacques Ruhlmann）、让·迈克尔·弗兰克（Jean-Michel Frank）和皮埃尔·夏洛（Pierre Chareau）等设计师的作品。鲁尔曼和弗兰克的室内作品以奢华且极简的家具闻名于世，凸现了其平衡的建筑视角。在夏洛至今最为人称道的作品“玻璃之屋”（Maison de Verre）中，浴室、储物间和电开关都为整体效果的成形发挥一定作用。一直以来，夏洛被定义为一个“建筑兼家具师”，他将橱柜制造和室内设计这些职业提升到了新高度。

Chan also attends, even obsessively, to the key contents of his interiors. The chairs and tables. The light fixtures. The bathtubs. These are invariably both minimal and sensuous; they are geometric yet exhibit innate qualities of the natural materials used. This notion of what the Viennese termed *gesamtkunstwerk*, the total work of art, appeals to Chan's aesthetic interests. Furthermore it serves a very useful role in the growth of his practice, allowing SCDA stretch in scale from residential work to major commissions for hotels and resorts where comfort and distinctive imagery are highly valued.

Chan 对构成室内空间的关键内容——椅子、桌子、灯饰、浴缸等，也近乎痴迷般地关注。这些元素极简又迷人，他们呈几何图形摆放，仍散发出所用自然材料的内在气质。维也纳人称这种理念为 *gesamtkunstwerk*，即“整体艺术”，而 Chan 的美学兴趣正在于此。该理念也在他的工作中发挥了卓有成效的作用，SCDA 借势将其规模从住宅房屋扩展至酒店和度假村，在这种大规模项目中，舒适度和别具一格的视觉效果备受推崇。

This characteristic pleasure in detail, in the assembly and display of components, hits a particularly high note in the façade and interiors of the Mint Museum of Toys. The façade consists of vertical glass fins each with a curving outer rim such that the building expresses itself to the outside world as a crystalline wave, at once calibrated like a machine and playfully reactive to

light. The interior is also about light and lightness. The collection of toys is arranged on minimal shelves suspended in space and artfully illuminated.

这种对细节、对建筑元素的组合和展示形态的特殊追求，在他设计的玩具博物馆的外立面和内部空间中充分地发挥出来。外立面由众多垂直玻璃肋组成，加之弧形的外延，建筑就如水晶波浪一般，同时，它们既如机器精确，又与光嬉戏互动。博物馆内部同样关注光线和明亮度，玩具藏品都摆放在在悬于空间中那风格极简的展架上，照明极富艺术感。

Off Orchard Road in Singapore, The Luxe also boasts an artistic glass façade. The lower box-like protrusion is sealed in a flush, contiguous skin of glass etched in a white abstraction of trees in silhouette. It's an unusual project for SCDA; nevertheless it incorporates the practice's characteristic concerns for fabrication, light and nature; albeit nature, in this case, as metaphor.

在新加坡乌节路附近，The Luxe（公寓）同样拥有艺术气息浓厚的玻璃立面。底部突起的盒状结构被大量彼此相连的玻璃包裹，其上蚀刻有白色的树木抽象剪影。该建筑在 SCDA 的各类作品中并不典型，但它一如既往地整合了事务所对制造、光线和自然等方面的考量，尽管在这一项目中，自然仅仅是隐喻。

At many of the villas and inside many of the apartment complexes, nature is highly organised, manicured and artfully presented. The communal garden at Nassim Park Residence is an attractive mix, on subtly differentiated levels, of paths, terraces, pools, trees and precious patches of grass all caught between low parallel walls. To this first-time visitor, the ensemble seems to be not simply a question of accommodating program but to have symbolic resonance amid the towers and traffic and infrastructure of Singapore.

在许多别墅和公寓的内部，自然的元素井井有条、修整有序，以艺术形式展现。Nassim Park Residence（住宅）的公共花园就是一个魅力十足的混合体，层面略微错开的小径、露台、水池、树木和珍贵的片片草坪均置于低矮平行墙之间。初次到访的来客，会觉得该建筑在作为一项住宅项目的同时，更与新加坡的基础设施、交通和塔楼产生了象征性共鸣。

From the terraces above (some have private lap pools), the layout of the communal space below is like a striated verdant carpet. There's an echo, perhaps unintended, of Frank Lloyd Wright and the way he enticed the users of his architecture to slip between walls, to take momentary detours (left, right, up, down) before the revelation of primary spaces. Wright also of course loved natural materials – stone and wood – and the benefits of planting.

从顶部平台望去（有的平台建有私人小型游泳池），下方公共空间的布局好似一条青翠的地毯。也许该作品无意间向弗兰克·洛伊德·怀特（Frank Lloyd Wright）进行了致敬，这位建筑师喜欢“诱使”其建筑使用者在墙壁间穿梭，让其在到达主要空间之前，先走一段短暂的弯路（时左时右、时上时下）。怀特当然也喜爱自然材料——石头和木头，并享受植被的益处。

Soo Chan does not settle for plants at ground level only. Many of his mid-rise and high-rise residential buildings are marked by the presence of private gardens on all levels. This was a modernist dream: casting small plots of paradise high in the air. Chan goes further by integrating not only gardens but small swimming pools up through several of the buildings – BLVD Residence, for instance, in Singapore and One KL in Malaysia. At One KL, pools are perpendicular to the façade with a single pane or window at each outer end, thus creating an exterior checkerboard of aqueous screens.

Chan 并不满足于仅在地面上放置植物，各个楼层的私人花园也是他诸多中高层住宅楼的特色。其实这是一个现代主义者的梦想：把一片片小型天堂置放空中。而 Chan 不仅把花园建在了高楼里，还在多个高层住宅中开辟了小型泳池，比如位于新加坡的 BLVD Residence 和位于马来西亚的 One KL。在 One KL 项目中，泳池与四角分别开有一扇窗户的建筑立面垂直，创造出一种水面棋盘的建筑外景。

The elevations of One KL reveal an architectural strategy of stacking solids and voids. With the Katana building, also in Kuala Lumpur, and with the soaring towers of Dawson Estate, apartment

units are not only stacked but interlocked. This allows for a range of unit sizes and, on occasion, for dramatic double-height spaces high above the communal ground below.

One KL 的立面图展示了这种叠加“有”和“无”的建筑策略。在同样位于吉隆坡的 Katana 大楼，以及 Dawson Estate（地产公司）的两座高层建筑中，各间公寓不仅彼此堆叠，还交错相扣，各种规格的公寓得以形成，偶尔还有高耸于公共地面的双层公寓，十分引人注目。

If the interlocking section is again reminiscent of Wright (think of the subtle modulation of roof planes at Fallingwater), Chan's proposal for a prismatic monolith at Angullia Park is a truly radical vision. The tower is made from five cubic elements stacked one above the next within a sleek perimeter. The monolith is eroded to reveal multi-storey voids that function as vertiginous terraces or eyries with extraordinary views of the Singapore skyline. These open rooms are like garden pavilions enlarged and raised into the clouds.

如果说交错相扣的部分再次让人想起怀特（为“Fallingwater”设计的精巧屋顶平面），那么 Chan 打算为 Angullia Park（公寓）设计棱镜巨石柱的方案就是真的激进而大胆。这个高层建筑由五个立方体在线条流畅的边界内叠落而成。这块“巨石柱”被打空，留出几层楼高的空洞，以此作为高深莫测的瞭望台或“鹰巢”，尽享新加坡的城市天际线。这些开阔的房间犹如花园里的亭台，扩建后被抬至云间。

Back at ground level, in the busy centre of Singapore, the diaphanous structure in the linear garden known as Dhoby Ghaut is an unusual work, functionally speaking, in Chan's oeuvre. It's a pavilion intended for public gatherings sheltered by an encircling, basket-like wall and partial roof. Like much of Chan's work, however, the ground is moulded, dipping in this case down into the earth, screened by a wall of woven aluminium ribs and topped by a halo of sensuous hardwood.

回到地面，位于新加坡繁华中心的线状花园 Dhoby Ghaut 也是非比寻常的杰作，其半透明结构的功能皆为 Chan 的设计。作为一个为公众集会设计的亭台，它被篮子状圆形墙壁和部分棚顶所围绕和遮盖。但是，和 Chan 的许多作品一样，建筑底层深陷土地中，其上摆放着一圈赏心悦目的硬木，并由铝质肋条编织的墙面所环绕。

The understanding of wall as fabric, as weaving, was critical to the theories of Gottfried Semper a century and a half ago (Semper's other categories included masonry for the ground plinth and carpentry for roofs). Similar attention to skin has manifested itself since in the work of architects as diverse as Frank Lloyd Wright and Cesar Pelli. Pelli is best known for his high-rise buildings, notably the Petronas Twin Towers in Kuala Lumpur, and their calibration of membrane detailing. Conversely Wright's strategy was almost always horizontal, extending laterally to embrace the landscape.

将墙壁看作布料施以编织，是一个半世纪之前歌特弗莱德·森坡（Gottfried Semper）理论的核心概念（森坡的其他理论课题还包括建筑基座的石工技术和屋顶的木工手艺）。其他建筑师也很关注外观，比如弗兰克·洛伊德·怀特和西塞尔·佩里（Cesar Pelli）。佩里以他的高层建筑闻名，如位于吉隆坡的双子塔（Petronas Twin Towers），该建筑在校准膜结构时采取的细节处理也为人称道。与之相反，怀特的建筑策略总是着眼于横向的延展，以融合风景。

With the Alila Villas Soori on the southwest coast of Bali, Soo Chan has realised a remarkable synthesis of domestic pleasures, evident in so many of his houses, and the bravura pragmatism necessary for the many mid-to-high-rise structures realised by his practice. The complex is laid out like a three-dimensional carpet, descending gently with the contours towards the sea. That occasionally staggered, axial relationship with the horizon line is interwoven with a perpendicular series of walls and lanes, one of which connects everyday village life with a small temple on a nearby promontory.

在巴厘岛西南海岸的阿丽拉苏里别墅酒店，Chan 既保留了他住宅作品中一贯的居家乐趣，又融合了中高层结构中需要的华丽实用主义。整个别墅区如三维地毯展开，外轮廓向着海洋缓缓下降。这些线条时而错列开来，一排排垂直墙面和走道与横轴交织，其中一条将乡村的日常生活

活和附近海岬上的庙宇连通。

The resort is in many ways a little city. It lies several hours travel time from Singapore; nevertheless it is not, I think, an exaggeration to suggest that this and other resort projects by SCDA manifest lessons waiting to be applied in Singapore and in other dense and complicated urban conditions. These are projects that pay homage to nature and the earth's surface even when they pierce the sky.

这个度假村从很多方面讲都是一个小型城市。虽距新加坡只有几小时车程，然而我认为，可以不夸张地说，SCDA 的诸多度假村作品将会为新加坡和其它拥挤而复杂的都市建筑设计提供标杆。这些设计作品即便刺破了苍穹，仍显露出对自然和土地的崇敬。

[Raymund Ryan]

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