

MODIFYING EARTH AND SKY: THE ARCHITECTURE OF SOO CHAN

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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

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.

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.

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.

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 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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

[Raymund Ryan]