The Singapore Architect

Be Agile

Be Agile — HASSELL · WOODS BAGOT · RSP · WYNK · META

SGD 15
GST INCL

9 770218 772808

Pure Freude an Wasser

GROHE

YOUR LIFE. YOUR RULES.

YOUR SHOWER. YOUR TURN.

GROHE SMARTCONTROL

www.grohe.sg

NOT ALL SHOWERS ARE MADE EQUAL

PART OF **LIXIL**

Photo Credits: Tiong Seng Group

Sloane Residences 17 Balmoral Rd, Singapore

Sloane Residences, a core city centre development in the heart of Balmoral Road, give residents convenient access to a wealth of amenities and leisure pursuits at every turn. Envisioned for those who aspire a life of luxury and style, comprising 2 unique tower blocks (3-storey & 12-storey) and only 52 select 2-, 3- and 4-bedroom apartments, this is an abode of urban chic and resort inspired sophistication, it is a vivid celebration of exclusivity.
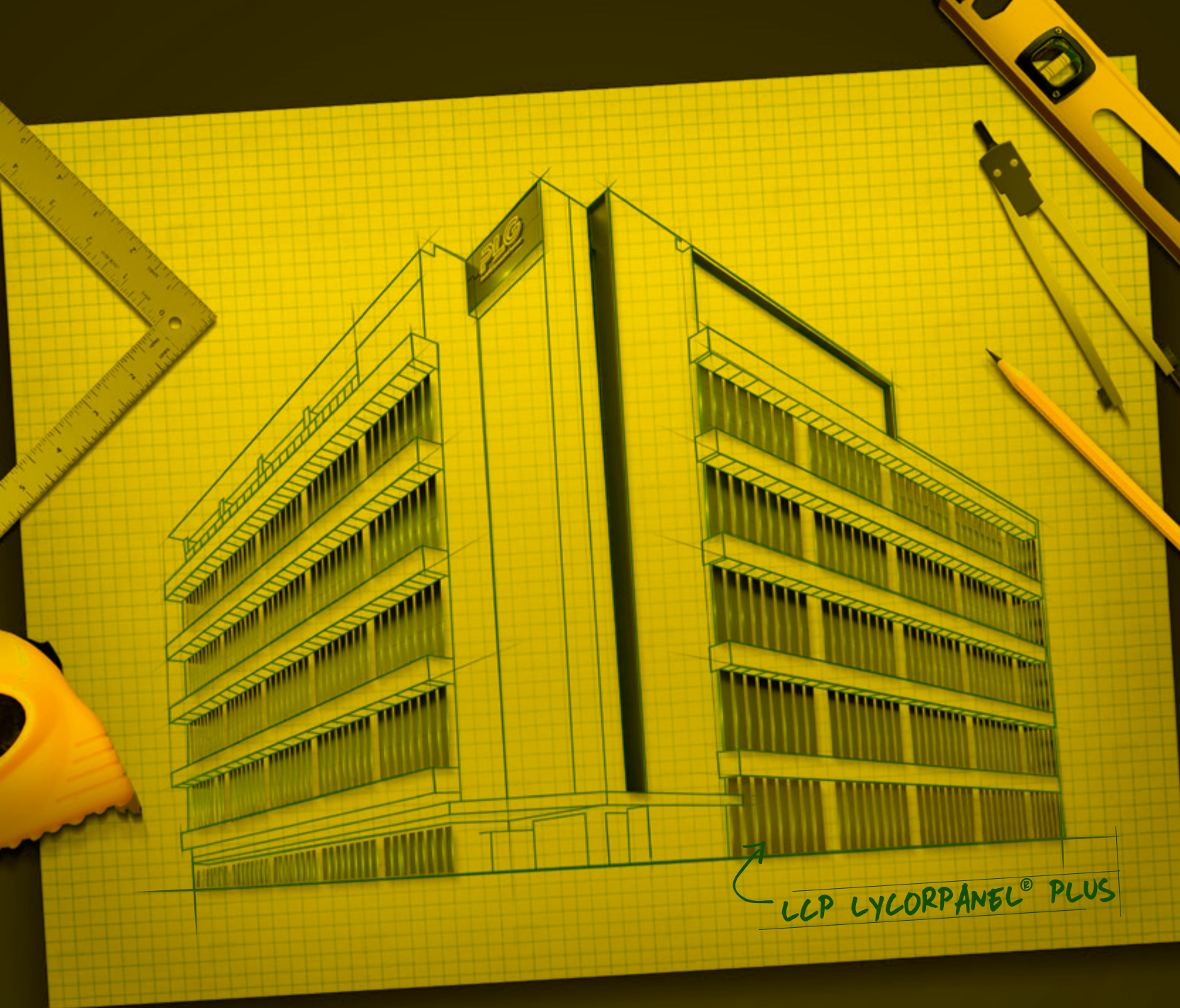
The bathrooms are furnish with GROHE Allure Brilliant Hard Graphite fixtures and GROHE SmartControl Concealed: Hidden technology installed behind the wall for a clean, minimalistic look and more freedom of space. Its elegant buttons are the perfect control for an individual shower experience.

On top of that, all 4- bedroom apartments are equipped with light, sound and steam modules known as the GROHE F-Digital Deluxe which offer residents the freedom to select their desired color of lighting, listen to their favorite music and enjoy a soothing steam at a touch of a button.

Furthermore, it is also equipped with GROHE Sensia Arena shower toilet known as the smart water closet, the perfect combination of normal toilet and bidet which offer residents automated cleansing, adjustable water temperature and sprays, odour absorption and other advanced features to ensure their personal hygiene and comfort.

Not forgetting the innovative technologies of the GROHE Minta Touch which offers resident to turn water flow on and off with a touch of their arm in the kitchen.

SIA 58TH COUNCIL 2018–2019

PRESIDENT
Seah Chee Huang

1ST VICE PRESIDENT
Catherine Loke

2ND VICE PRESIDENT
Richard Lai

HONORARY SECRETARY
Christina Thean

HONORARY TREASURER
Wu Yen Yen

IMMEDIATE PAST PRESIDENT
Ong Tze Boon

COUNCIL MEMBERS
Darren Benger
Chan Kok Way
Chan Seng Kee
Cheong Yew Kee
Ho Sock Yee
Kee Wei Hui
Koh Siew Lay
William Lau
Lee Wai Fong
Lim Choon Keang
Melvin Tan
Ronald Tan
Tan Szue Hann
Tiah Nan Chyuan

ADVISOR
Ashvinkumar
Chan Kok Way

DESIGN THRUST
Wu Yen Yen
Christina Thean

EDUCATION THRUST
Lim Choon Keang
Koh Siew Lay

INSTITUTION THRUST
Kee Wei Hui
Lee Wai Fong

PRACTICE THRUST
Catherine Loke
Richard Lai

THE SINGAPORE ARCHITECT EDITORIAL COMMITTEE

CHIEF EDITOR
Teo Yee Chin

NEWS EDITOR
Kenneth Koh

REVIEWS EDITOR (BUILDINGS)
Razvan I. Ghilic-Micu
Quek Li-En

ESSAYS EDITOR
Teo Yee Chin

PRACTICE EDITOR
Ronald Lim

REVIEWS EDITOR (BOOKS)
HERITAGE EDITOR
Chang Jiat Hwee

ART DIRECTOR
Melvin Keng

ART DIRECTION & DESIGN
ACRE Design Pte Ltd

COVER GRAPHIC
'How agile is your agile?'
Razvan I. Ghilic-Micu

The Singapore Architect

CONTENTS

18th SIA ARCHITECTURAL DESIGN AWARDS

A FLAGSHIP FOR THE INDUSTRIAL REVOLUTION 2.0 — THE GSK ASIA HOUSE

Ronald Lim investigates the future of the workplace in the age of a disrupted economy

THE FUNAN GUIDE TO SHOPPING

Can architecture be as agile and hip as an Instagram filter? Jia Xin Chum guides us through Funan

HABITAT BY HONESTBEE: A FUN PALACE?

Online shopping physicalized: fun palace, or cautionary tale? Fiona Tan reviews

A PRESENT HISTORY: THE KHONG GUAN BUILDING

Lua Jin Wei reviews the new Khong Guan as an alternative approach to conservation

...AND CO-WORKING FOR ALL

Razvan Ghilic-Micu demystifies the co-working phenomenon

ANTICIPATING THE ARCHITECTURE OF SHARING CULTURE

Participatory or predatory? Dr. Jeffrey Chan and Dr. Zhang Ye analyse the impact of Sharing Cultures

AGILITY IN EDUCATION — PART 1: SUTD

SUTD Professors Bige Tuncer and Eva Castro share their tips on fostering curiosity as a means to agility

AGILITY IN EDUCATION — PART 2: NUS

NUS Professors Lilian Chee and Erik L'Heureux speak about their mission of educating the agile intellectual leaders of tomorrow

6 × 3

Six creatives answer three salient questions on Agility

TOWARDS AN AGILE PROFESSION: A CONVERSATION WITH AR. SEAH CHEE HUANG — PRESIDENT, SINGAPORE INSTITUTE OF ARCHITECTS

Why must our profession transform

BUILDING DREAMS ARE MADE OF THESE... — PEI'S UNBUILT PROJECTS IN SINGAPORE

Shirley Surya takes us on a trip through I.M. Pei's Singapore that could have been
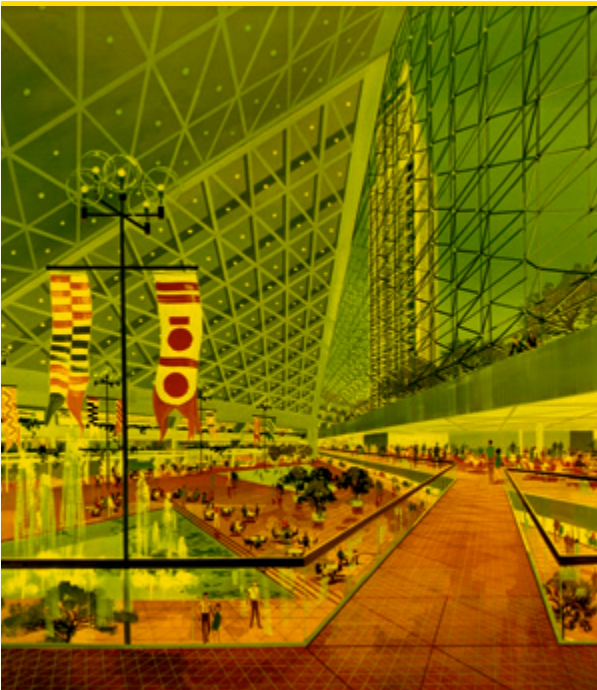
WE BUILD, YOUR INSPIRATION

We manufacture, supply and install pre-painted metal roof and wall cladding.

Your one-stop solution provider.

Colorlume®, your ideal choice.

Monomer House - designed by A D Lab
* all M Metal pre-painted materials certified with Class O rating

M METAL PTE LTD
9 Tuas Avenue 2, Singapore 639449
T: +65 6898 9637, F: +65 6558 7294, E: sales@mmetal.com.sg
W: www.mmetal.com.sg, FB: mmetalSg

You Inspire,
We Deliever.

INNOVATION DESIGNED TO PERFORM

Kalzip FC rainscreen system features an impenetrable and highly potent exterior shield that embodies efficient and light-weight flat rainscreen panels. The FC rainscreen panels gives you infinite functional advantages with design and performance.

Product Advantages
• Contemporary, visually stunning aesthetics
• Several different standard profile widths
• Simple and fast installation techniques
• Optimised panel geometry
• Variable acoustic and thermal insulation options
• A wide range of colour and surface finishes
• High structural performance

PLATINUM PARTNER OF

Kalzip®
A Tata Steel Enterprise

M METAL Pte. Ltd.: 5 Kian Teck Drive, Singapore 628822
T: +65 6898 9637, F: +65 6558 7294, E: sales@mmetal.com.sg
www.mmetal.com.sg

Kalzip Asia Pvt. Ltd. in affiliation with platinum partner, M Metal Pte. Ltd., has inspired the design of high-performance facade systems that offer solutions to curb challenges faced by the nation in engineering design. M Metal is associated with Kalzip projects in Singapore & Malaysia.

BE

AGILE

Razvan Ghilic-Micu and Ronald Lim
Guest Editors

Architects no longer write manifestos. Why?

We seem to have lost our intellectual edge and ability to project new visions for a better world by design, no longer ambitious for creating imaginative solutions to the challenges and questions that confront our zeitgeist. Instead, we are constantly on the back foot, playing catch-up with an accelerating market that our deep-seated habits can barely cope with.

A cursory glance at most firms in Singapore reveals a recurring pattern: of architects in a service economy discharging their duties with more method than imagination, in a milieu where ever-tightening building codes, stringent regulations and Darwinian market realities exert disproportionate pressure. Our response to uncertainty has been a perseverant Sisyphean embrace of methods we are familiar with.

This TSA issue begins with a provocation: that we the Architects may have lost our way.

In an era of relentless novelty, the world has passed us along, as we clung to our tried-and-tested ways. Our modes of practice need to adapt. Throwing our hands in the air when faced with this reality is not an option. Nor is embracing practice models that are glaringly inadequate for our times. We need to interrogate — and create — the circumstances that would allow us to innovate with agility, and shift the practice paradigm beyond unquestioned conventions of a legacy profession.

We believe that both architecture and practice can be more agile. TSA 16 attempts to tease out contemporary tropes, threats and opportunities, highlight examples of frontier-forming architecture design and practice, and gather the creative community in our joint pursuits. In doing so, we hope to identify positive affinities and ways beyond the current quagmire.

The question we ultimately seek to explore with you is: A world in an accelerated state of change requires us to Be Agile. Can we rise to the occasion?

The projects featured — The GSK Asia House, Funan and Habitat by Honestbee — reveal that typology as we know it is shifting. Programmatic hybridity lends intrinsic agility.

At GSK, HASSELL assembles the components of a bespoke workplace, for the contemporary intellectual. Funan by RSP Architects and Woods Bagot offers a supercharged experience of shopping as national favourite pastime. Designed by Wynk Collaborative, Habitat by Honestbee elevates the marketplace to a Web 3.0 physical manifestation of its eponymous online shopping application. Of all examples, Honestbee is a unique cautionary tale of market volatility, as between the time the review was commissioned and its printing, the business would have undergone restructuring, lay-offs and a fight for survival.

Ultimately, Agility is not about all things new. An immutable powerful architecture is hopefully able to change, adapt and survive, just like the Khong Guan Building has through its delightful renewal, designed by META Architects.

The Insight pieces critically tackle existing tropes like Co-working and a Sharing Culture, as well as the essential intellectual engine that drives our discipline forward: Education.

In conversation with the National University of Singapore (NUS) and the Singapore University of Technology and Design (SUTD), we uncover pedagogical approaches to reveal what each school brings in nurturing the future leaders of our profession.

As a counterpoint to Education, the Studio section asks six current leaders to answer three salient questions on agility from their varied perspectives. By taking a cross-section through practice (from small design firms to large architecture firms), we hope the answers will resonate and give an insight into the current state of affairs and zeitgeist of our contemporaries.

To better frame the question of professional challenges and opportunities, we discussed with Ar. Seah Chee Huang, the President of the Singapore Institute of Architects the ways our profession can find new relevance through agility.

Lastly, but definitely not the least, as we have recently lost another giant of our profession — I.M. Pei — whose visionary passion has also touched our country, we conclude with a beautiful excursion into the alternative Singapore that he envisioned.

Whether projective, polemic or retrospective, the current issue is not intended as a passive showcase of good Architecture, since no one is safe from challenge and the need to Be Agile.

TSA16 is essentially an optimistic issue, hoping that disruption will breed further excellence, old practices will reinvent themselves and new talents will emerge. Maybe architects will be relentless visionaries once again and write manifestos when spurred by progress.

Can Architects rise to the occasion? We believe so.

NEWS

SIA Architectural Design Awards 2019

Results of the SIA Architectural Design Awards 2019 are announced

The winners of the SIA Architectural Design Awards 2019 have been revealed and the recipients have been honoured SIA's Annual Dinner 2019 on 19 July 2019. A total of 6 Design Awards and 15 Honourable Mentions are awarded in 6 categories in the SIA Architectural Design Awards 2019. In addition, one project is awarded as the "Building Of The Year".

The judging criteria of the SIA Architectural Design Awards are:

○ Originality and innovation
○ Sensitivity to context
○ Sustainability
○ Response to climate
○ Response to users' needs and
○ Elegance of construction and detail

By a judging panel of industry professionals comprising:

○ Ar. Theodore Chan, Past President,
   Singapore Institute of Architects
○ Ar. Sonny Chan, Designer of the Year,
   President*s Design Award and Director of CSYA Pte Ltd
○ Mr. He Zhe, Principal and Founding Partner,
   People's Architecture Office
○ Prof Ho Puay Peng, Head of Department of Architecture,
   National University of Singapore
○ Prof Bige Tuncer, Associate Head of Pillar,
   Architecture and Sustainable Design,
   Singapore University of Technology and Design

Moderators:

○ Ar. Chin Kean Kok (SIA Awards Committee Chairperson/ Envelope Architects)
○ Ar. Wu Yen Yen (SIA Awards Committee Member / Genome Architects)
○ Ar. William Ng (SIA Awards Committee Member / Studio Wills + Architects)

World's Tallest Modular Building

The Clement Canopy is a feat in modular construction

Construction company Bouygues Bâtiment International, in collaboration with their modular construction laboratory Dragages Singapore, has celebrated the completion of The Clement Canopy, a housing project in the heart of Clementi, Singapore. Bouygues Bâtiment International claims the development in Singapore has set a new record for the tallest modular tower.

Previously the title had been held by George Street, a 135-metre tower built in Croydon, England, by Tide Construction. The first high-rise modular tower was built in New York in 2016 by SHoP architects.

At 40 stories tall, The Clement Canopy consists of two towers measuring 459 feet each — the tallest ever to be built in modular concrete. The building is made up of 1,899 modules and the majority of the project was manufactured off-site before the modules were assembled on-site, which was a challenge that combined technical, digital and aesthetic expertise.

The manufacturing of the scheme was divided into two steps. In Senai, Malaysia, module structures were precast, while in Tuas, West Singapore, technical and architectural works were carried out, such as plumbing, electricity, tiling, painting, and waterproofing. The modules were then transported to the site, and stacked according to a sequencing program to form the structure. Clement Canopy's concrete core was built at the same time as the modules were stacked and installed, in a carefully choreographed sequence

Clement Canopy houses 505 two-, three- and four-bed apartments, with a swimming pool complex at the base.

The team embarked on the challenge of modular construction due to the many potential gains. By industrializing and building 50% of the project offsite, loss of time due to poor on-site weather conditions are mitigated. Each module can also be manufactured under strict quality control, treatments, and defects can be managed prior to handover. The team estimates that using the method, on-site waste can be reduced by 70%.

The team now plans to continue their methodology in various projects across the UK, Australia, USA, and Hong Kong.

2019 INDE Awards

High-quality work that is complex in proposition

The winners of the 2019 INDE awards have been announced. This year, there is a record-breaking number of over 430 entries, from 14 countries in the Indo-Pacific, showing progressiveness and innovation in an enormous diversity of contexts.

The trophy winners and honourable mention recipients were celebrated in Melbourne on the evening of Friday 21 June 2019.

The winners from Singapore include an ingenious renovation to a 30-year old flat that examines the interface between the flat and corridor by Studio WILLS + Architects, and Produce, a design studio that redefines practice by bridging the gap between idea and construction.

WWW.INDEAWARDS.COM

The winners are as follows:

The Building

Winner
○ Maitland River Lin
   — | CHROF | with McGregor Coxall, Australia

Honourable Mention
○ Freycinet Lodge Coastal Pavilions
   — Liminal Architecture, Australia

The Multi-Residential Building

Winner
○ Short Lane
   — Woods Bagot, Australia

Honourable Mention
○ Arc
   — Koichi Takada Architects, Australia

The Living Space

Winner
○ PROJECT #13
   — STUDIO WILLS + Architects, Singapore

Honourable Mention
○ Family Holiday Structure, Imaduwa
   — Palinda Kannangara Architects, Sri Lanka

The Work Space

Winner
○ Space & Time
   — Russell & George, Australia

Honourable Mention
○ Piazza Dell'Ufficio
   — Branch Studio Architects, Australia

The Social Space

Winner
○ S Space
   — H&P Architects, Vietnam

Honourable Mention
○ Tingtai Teahouse
   — Linehouse, China

The Shopping Space

Winner
○ Usfin Atelier
   — George Livissianis, Australia

Honourable Mention
○ Caroma on Collins
   — Archier, Australia

The Learning Space

Winner
○ Green Square Library and Plaza
   — Studio Hollenstein with Stewart Architecture, Australia

Honourable Mention
○ Western Sydney University Liverpool Campus
   — Woods Bagot, Australia

The Wellness Space

Winner
○ Punmu & Parnngurr Aboriginal Health Clinics
   — Kaunitz Yeung Architecture, Australia

Honourable Mention
○ Perth Children's Hospital
   — JCY, Cox Architecture & Billard Leece Partnership with HKS, Australia

The Design Studio

Winner
○ Produce
   — Singapore

Honourable Mention
○ Edition Office
   — Australia

The Influencer

Winner
○ Hawker Reload: Hong Kong Street Market Urban Design and Hawker Stall Implementation
   — Groundwork Architects and Associates, Hong Kong

Honourable Mention
○ GRID Education
   — Carter Williamson Architects, Australia

The Object

Winner
○ OMNI
   — Tom Fereday for Earp Bros, Australia

Honourable Mention
○ UOVO
   — SUPERSTRUCTURE SG, Singapore

The Prodigy

People's Choice
○ Felicity Slattery & Sarah Cosentino
   — Studio Esteta, Australia

The Luminary

People's Choice
○ Budiman Hendropurnomo
   — Denton Corker Marshall, Indonesia

The Gold Mark

Winner
○ Arc
   — Koichi Takada Architects, Australia

The Best of the Best

Winner
○ Produce
   — Singapore

REVIEW

KLAF 2019 is a Beacon for TOMORROW

Many local architects may already be familiar with Datum:KL as the annual international architectural design conference in KL that is both a platform for discourse and also a showcase of exemplary works of architecture. Having missed the event for more than ten years, I had the opportunity to attend the event again this July. It was a rewarding trip, filling me not only with inspiration from the speakers but also admiration for the organisers.

From left, Ar. Lee Chor Wah (DATUM: KL 2019 Convener), Christian Trampedach, Ruben Cortes, Kevin Flanagan, Khim Joe, Han Zhang (Moderator), Natasha Viitasaari, Sabrina Viitasaari, Twitee Vajrabhaya, Rodney Eggleston, Ar. Dr Tan Loke Mun (KLAF 2019 Director), Scarlet Koon (MC)

Datum:KL the conference is integrated with Archidex the trade show and also within the larger Kuala Lumpur Architecture Festival (KLAF). It was the scale, ambition, and impact of the entire festival that I was impressed with. Kuala Lumpur Architecture Festival (KLAF) 2019 is an annual two-week long (21 June–7 July) festival of activities staged by Pertubuhan Akitek Malaysia (PAM), or the Malaysia Institute of Architects. The theme for DATUM:KL and KLAF 2019 is 'TOMORROW'.

The festival operates through four arms of activity:

ARCHITECTURE + ART showcases works of artists, photographers, and students to broaden the discussion of architecture. Of particular note is the Art + Architecture Auction, a collaboration with an arts auction house, to promote art appreciation and acquisition. It was preceded by a call to architects to consign any of their worthy works to the auction.

FUTURE FOOD specifically raises awareness on global issues such as food security, environmental and ecological stewardship, ethical anthropocentrism, and the future of agriculture technology. Other than exhibitions, talks and workshops by industrial experts, the event also featured an eco-farmers bazaar by local biodynamic farmers, agri-tech startups, organic food vendors, local chef competitions, local artists and musicians.

SHELTER is a series of talks intentionally focusing on indigenous culture, especially about the Orang Asli. The talks, by artists, activists and architects from inside and outside the Orang Asli community, cover their architecture, heritage, land rights issues, education and their role in the greater society. The dedicated approach to this subject from different perspectives keeps KLAF grounded in the local context, giving a sense of mission and urgency to the architectural endeavour.

Finally, DATUM:KL and Archidex are the main events of KLAF2019, taking place in the last 4 days and bringing a large number of practitioners and industry partners together within the consolidated location of KLCC. The format is tried and tested. The trade show brings in the building suppliers who will showcase their latest products and technologies, while the conference attracts the architects and designers who will also be the audience for the suppliers. One important reason why this marriage works is the strength, breadth and depth of Archidex. It is truly a comprehensive exposition of building products that will interest architects, contractors and engineers in South East Asia. As Malaysia is a manufacturing hub, there is healthy research and development activity in the industry which is showcased in Archidex as new products. In addition, the exposition activity is concentrated in this one main event of the year, with the mutual support of various sectors in the industry.

Datum:KL, the conference that remains the main attraction for architects, is staged over 3 days, giving enough time to insert activities between the talks such as book launches, awards-giving, discussions and product presentations. The theme of Tomorrow comes through with the selection of speakers.

There are of course necessarily the architects who showed us their latest interesting forms and looks, such as Peter Pichler, Manual Cervantes Cespedes, and Rodney Eggleston. Martijn De Geus of maison h based in Beijing cut a slightly different figure, speaking almost as a life coach while managing an emergent practice, advising the audience to "choose to create your own life, and to help others live this life". Ingrid van der Heijden, showed public works which use spatial and material ideas to regenerate the city. There was a focus on sustainability, with speakers such as Kevin Flanagan who passionately expounded his ideas on high rise timber construction.

The lineup was made interesting by the addition of non-architects such as Ruben Cortes and Khim Joe who are making a difference to development and the environment. Particularly inspiring was Nusa Sentara, a company of 3 siblings from Finland who use their legal, corporate and operations experience to start projects in island tourist resorts in Indonesia, combining waste management and new forms of power generation to "close the loop", protecting the natural environment and native community in their increasing exposure to the ravaging effects of tourism. Finally, the most interesting speaker might just be a 24 year old social media expert from Denmark, Christian Trampedach, who gave a master class on how to get followers on Instagram!

In all, KLAF:2019 has been a great success in both content and presentation. It is an enriching festival that more Singaporean architects should make a point to be involved in.

REVIEWED BY
Ar. Teo Yee Chin MSIA

I.M. Pei

1917–2019

Ieoh Ming Pei (I.M. Pei) passed away on 16 May 2019, aged 102. In the history of modern architecture, he stands as a giant with his talent, vision and execution. He was a master of not only the grand architectural gesture but also the exquisite detail to elevate it.

It is my utmost privilege to have had the chance to work with Pei during my early years as an architect. His passing was a poignant moment for me as I humbly regard him as my mentor and life teacher in every sense.

Pei established his architectural firm and elevated it into a brand and an institution. In spite of his Chinese roots, his gentle ways departed far from traditional Asian hierarchy. In discussions and internal presentations, he would be ever so humble as he offered a nudge in the right direction, saying, 'how about we try it this way...', giving just enough to illuminate, without quite providing the answer.

A strong culture existed at the office, which Pei led with grace, humility and foresight. There was a tremendous camaraderie and solidarity with like-minded colleagues. It was common to have 7-day weeks, late nights, ordered-in team lunches and occasionally catered team dinners as well. At the conclusion of major project milestones, I.M. would join to celebrate over a team lunch at one of his favourite restaurants nearby. We ate, breathed and slept with Pei's architectural details.

There are two projects I vividly remember from my time there. The first was Mt. Sinai Hospital's modernisation in New York City, funded by Guggenheim Foundation. It was Pei's mastery of site and geometry at work as he rotated the medical suites 45 degrees to maximise views onto Central Park, at the same time defining two lofty light-filled atriums. The other was Creative Artist Agency (CAA), a beautifully crafted little gem located at the cross-road between Wilshire Blvd and Santa Monica Blvd in Beverly Hills. Unlike Mount Sinai Modernisation where the office faced an unfamiliar typology and the bureaucracy of a large establishment, CAA started with the most favourable conditions as a top Hollywood agency literally entrusted I.M. to work his magic on a straightforward brief.

Pei's ideology was that an architectural outcome must stand the test of time with elegance, personified by freshness and lightness within a play of pristine geometry. His buildings almost always includes a light filled Atrium, which serves as a centre of gravity, most intended as a draw for its occupants and users. Entering an I.M.Pei space never fails to leave me in awe. I am grateful to have the memory of witnessing the master at work, creating these spaces, as it is the wellspring I draw from when I seek that balance of function and form that we all struggle with.

In 1989, after I had tendered my resignation with much reluctance, I was totally surprised to be called into I.M.'s unmistakably "white" office, being only a mid-level architect amongst numerous talented architects and designers. I.M. gave me these parting words of wisdom which I not only treasure but also share whenever appropriate:

a)   "I am so happy to learn that you have chosen to move on from this office. I have always regarded this office to be a 'school' but unfortunately too many may have chosen it as a lifelong place of career."

b)   "There will always be ups and downs in any given project in the life of an architect but always hold dear to your heart that it's the relationships you make along the journey that is most meaningful."

My last contact with I.M. Pei was three weeks before his 102nd birthday. Sandi, youngest son of I.M., kindly assisted me to obtain his father's testimonial in support of my nomination for the inaugural Goh Chok Tong Enable Award. I had my daughter who was in New York at that time to pick up the testimonial and, knowing that the man loved fine French wine, deliver 2 bottles of rare 1996 Lynch Bages for his birthday celebration.

Michael Ngu FSIA AIA RIBA RAIA is President and CEO of Architects 61. He worked in I.M. Pei and Partners from 1983 to 1989.

More than a Condominium Needed

We are forced to reckon with the new as the city changes.

Pearl Bank Apartments, one of the Big 4 post-independence, home-made, architectural landmarks, is to go, with its enbloc sale to Capitaland signed and sealed last year. The bulldozers are moving in as I write. The familiar drum will soon be there no longer, as Singaporeans rocket skywards into the future, further unhinged with its past.

The grand dame will ironically receive her last homage from the oblivious thousands who will visit the sales office, as they are invited to go up to the 35th storey of the old tower to experience the panoramic view. Like Shel Silverstein's giving tree, she will be asked to give some more before being chopped down.

The economic premise for the demolition and redevelopment is not hard to grasp. Break down 288 large apartments and make 774 smaller ones in its place, with unit types that cater to the investment market. With the upcoming expansion at nearby SGH projected to create up to 10,000 jobs, agents are assuring the returns from this property.

But aside from rental yield, does the project deliver, architecturally?

To do justice to the removal of a historic landmark, the bar is set for an architecture that would be so remarkable on its own terms that it would stake an irresistible claim for its new place in the cityscape. To do justice, nothing less than a masterpiece must be expected.

The scheme launched for One Pearl Bank sets out a solid premise by bringing the immediate context into play. According to the architects, the ambition of the design is to help revive interest in the adjacent Pearl's Hill City Park. The intent is to install a naturalistic topography that flows up from the road junction at the base, passing under the towers, and joins Pearl's Hill City Park. The apartments float high above supported by tall columns, creating the lofty ground space that aids the visual continuity from the road up to the hilltop.

The towers themselves are two extruded arcs, sliding apart to reduce overlooking and to maximise the North-South frontage across the site. The split between the towers also serve to allow East-West views across the development. However, this appears to be a result of maximising the north-south frontage of the blocks rather than an intent to connect specific points urbanistically.

Conceptually one could see two formal components — above, the towers, and below, a podium mass buried in the landscaped hill, and in between, a void that the terrain passes through.

While this void is where the strongest idea (involving Pearl's Hill City Park) takes place, this is also where the scheme comes apart. If the towers were to somehow engage with the terrain, there may be more coherence and resolution to the landscape and masterplanning. One also wonders if the towers could be positioned such that the space between actually frames the visual and circulatory axis from road to hilltop, as it currently runs on a different logic from the trajectory of the timber path zig-zagging up the hill.

To think in mere convention, if a tower in the park is a suburban strategy, and a tower meeting the ground is an urban one, what category would this site, on a hill in the middle of town, fall under? Would such a laissez-faire attitude towards the ground be the right strategy? Is the ground, with all its concomitant meanings and memories, an inconvenience that the development would be happy to leave behind?

As it is, the disconnect between the block and the ground plane undoubtedly favours the planning of the typical floors. Freed from the constraints of the ground by transfer slab and pilotis, the residential plan is taken over by the developer's optimal mix of unit types and sizes.

Generally speaking, the design of façades for condominiums varies for downtown and suburban sites. Those in the city tend to privilege the reading of the form, assimilating the residential fenestrations by means of glazing, cladding or screens. In One Pearl Bank, the façade design appears to have embraced all necessities of the residential façade. It is worth noting that the packing of units on both sides of a long corridor have left little frontage for inward facing elevations, thus requiring all to be bared on the outside.

To address this, a "double-skin" system has been installed, effectively meaning that columns march along the periphery while the glass envelope is consistently set back, creating the space for balconies, aircon ledges and planters. These elements are deliberately randomised within the gridded façade. It remains to be seen how the grid and random infill will contain (or complement?) the multifarious expressions of residents' lives in this prominent downtown location.

The 4-floor high sky terrace at the midriff of each block is another element that reveals a balance of architectural priority with market demands. While it introduces a break in the tower form, it affords the towers additional height, thereby elevating the units to better views. To mitigate this, the architects have introduced a 4-floor horizontal articulation to assimilate the gap.

Serie+Multiply are architects who have created some of the most outstanding buildings in recent history, such as SDE4 AT NUS and Oasis Terraces. The upcoming State Courts look set to be another exciting architectural landmark. In this instance, the full complexity of the brief may not have been fully digested to produce the same scintillating architecture. Admittedly, any critique made here must allow space for the materialisation to prove itself, and for the sake of the city, we surely hope that it would turn out well.

It is a brave endeavour indeed to face down the the hard logic and well-oiled machinery of market-driven multi-residential design. One may pose the question to all architects — would YOU take on such a commission, and how could you do better?

— Ar. Teo Yee Chin, MSIA
Chief Editor, The Singapore Architect

AWARDS

18th SIA Architectural Design Awards

The SIA Architectural Design Awards is the most prestigious award conferred by the Institute to promote distinction in architectural design.

This award series recognises the achievements of SIA members in their pursuit of architectural excellence and motivates architects to push the boundaries with innovative solutions. The Institute aims to imbue architects with the relentless mindset of continually achieving greater heights, leading to the vision of Singapore architecture being acknowledged as world class standards. The Awards also aim to heighten the appreciation and patronage of good architectural design from both the architectural community as well as the general public.

A total of 6 Design Awards and 15 Honourable Mentions are awarded in 6 categories. By a judging panel of industry professionals comprising;

JURY MEMBERS — DESIGNATION, ORGANISATIONS/FIRMS

1 Ar. Theodore Chan
   — Past President, Singapore Institute of Architects (Jury Chairman)

2 Ar. Sonny Chan
   — Director & Founder, CSYA Pte Ltd and
   *Designer of the Year, President*s Design Award*

3 Mr. He Zhe
   — Founder & Principal, People's Architecture Office (PAO)

4 Prof. Ho Puay Peng
   — Head of Department of Architecture, National University of Singapore

5 Prof. Bige Tuncer
   — Associate Head of Pillar (ASD),
   Singapore University of Technology and Design

JUDGING CRITERIA

o Originality and Innovation
o Sensitivity to Context
o Sustainability
o Response to Climate
o Response to Users' Needs
o Elegance of Construction and Detail

MODERATORS

o Ar. Chin Kean Kok (SIA Awards Committee Chairperson/ Envelope Architects)
o Ar. Wu Yen Yen (SIA Awards Committee Member / Genome Architects)
o Ar. William Ng (SIA Awards Committee Member / Studio Wills + Architects)

Building of the Year and Design Award
House above 44 Kasai Road, ipli Architects

Low-Density Housing Design Award Winner
House with a Sanctum, RT+Q Architects Pte Ltd

Low-Density Housing • Honourable Mention
Aperture House, Formwerkz Architects
Grotto House, Formwerkz Architects

High-Density Housing • Honourable Mention
M5 @ Jalan Mutiara, ipli Architects

Overseas Residential Projects• Honourable Mention
Cloister House, Formwerkz Architects
Shorefront, Penang, RT+Q Architects Pte Ltd

Mixed Developments Design Award Winner
Kampung Admiralty, WOHA Architects

Mixed Developments • Honourable Mention
Marina One, Architects 61 Pte Ltd in collaboration with Ingenhoven Architects

Overseas Commercial Projects • Honourable Mention
Amanyangyun, Kerry Hill Architects

Educational and Community Buildings Design Award Winner
Sparkletots Preschool by PAP Community Foundation, LAUD Architects Pte Ltd

Urban Interventions • Honourable Mention
The Void Deck Pavillion, Kite Studio Architecture

Alterations & Additions • Honourable Mention
Singapore Management University- Prinsep Street Residences, MKPL Architects Pte Ltd

---

Conservation • Honourable Mention
Jurong Town Hall, Forum Architects Pte Ltd in collaboration with WSP Consultancy Pte Ltd

Innovation: Material and Construction Detailing • Honourable Mention
Camo House, WOW Architects

Others • Design Award Winner
Khong Guan Building, META Architecture in collaboration with Lua Architects Associates Pte Ltd

Others • Honourable Mention
Singapore Botanic Gardens Visitor Kiosk & Boardwalk, Genome Architects Pte Ltd

Overseas Projects for Special Categories • Honourable Mention
More than just a Library, IX Architects Pte Ltd

Interior Architecture — Residential • Honourable Mention
Gradient Space, METRE ※ Architects

Interior Architecture — Exhibition Design • Honourable Mention
Century of Light, FARM Architects

Overseas Interior Architecture Projects Design Award Winner
Amanyangyun, Kerry Hill Architects

BUILDING
OF THE YEAR

House Above
44 Kasai Road

DESIGN AWARD WINNER
Low-Density Housing

ARCHITECT
ipli Architects

(Left)
Building of the Year 2017,
House Above 44 Kasai Road
Photographed by Studio Periphery

(Above)
Outdoor Living
Photographed by Studio Periphery

(Below)
Section Plan
Drawing by ipli Architects

JURY CITATION

The simple and clever strategy of lifting the house over an undulating landscape, akin to a kampong house on stilts, responded very appropriately to the client's wish to be more open with people wandering through these spaces.

This strategy of lifting created in a natural entrance into the house and a clear distinction between what is above and below.

The casualness of spaces below is a contrast to the spaces above, resulting in a delightful surprise as one ascends to the house from the entrance. Internally the spaces are well-crafted and well-ventilated with light-well that facilities the discharge of hot air accumulated within the house.

The jury agrees that this is a very fine and unpretentious building with spartan materials used to achieve its many 'ends' and is a masterly handling of tropicality and unanimously accord it 'Building of the Year'.

SECTION PLAN

01	Garage	09	Dining Room
02	Entrance Foyer	10	Master Bedroom
03	Store	11	Bedroom 2
04	Sitting Area	12	Roof Terrace
05	Dining Area	13	Drainage Canal
06	Swimming Pool		
07	Games Room		
08	Living Room		

House with a Sanctum

DESIGN AWARD WINNER
Low-Density Housing

ARCHITECT
RT+Q Architects Pte Ltd

LEGEND

01	Basement Foyer
02	Basement Lobby
03	Gallery
04	Main Entrance
05	Entertainment Room
06	Lounge
07	Shoe Room
08	Living Room
09	Dry Kitchen
10	Wet Kitchen
11	Powder Room
12	Sitting Area
13	Bedroom
14	Master Suite
15	Study
16	Pool/Conservatory
17	Gym
18	Balcony

W	Water Feature
D	Deck
S	Store
U	Utility
T	Conserved Tree
L	Lift

BASEMENT PLAN　　1ST STOREY PLAN　　2ND STOREY PLAN

JURY CITATION

This house is a delightful architectonic play of a central Oval volume with 3 radiating rectangular boxes. The Oval houses communal spaces while the protruding boxes contain bedrooms for the owner, her mother and daughter.

The resultant internal spaces are surprisingly well-resolved and orderly, in contrast to the colourful and eclectic clash of volumes and frames when one sees the house from the exterior. The living spaces are both cosy and modestly scaled. The focus is the Sanctum — a white 3-storey space. It is punctuated by 2 bridges on the second and third stories, and illuminated by skylight from an aperture shaped like a crucifix at the top. This is a gallery space for the client's art collection.

There are spatial surprises and curated views littered throughout the entire residence. The architect is commended for his bold attempt to depart from the usual cookie-cutter house design and deliver a one-off project for his client.

(Left)
Project Fingers
Photographed by Albert Lim

(Above)
Architectural Drawings
Drawing by RT+Q Architects

(Center)
House with a Sanctum
Photographed by Albert Lim

Aperture House

HONOURABLE MENTION
Low-Density Housing

ARCHITECT
Formwerkz Architects

Grotto House

HONOURABLE MENTION
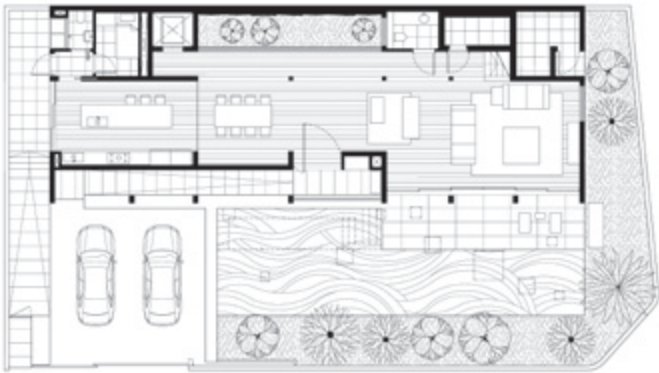Low-Density Housing

ARCHITECT
Formwerkz Architects

JURY CITATION

The house responded well to its site conditions, with a long frontage which is interesting and unusual for a semi-detached house.

A shared party-wall, a prominent feature of such house typology, is capitalized for an internal courtyard with the surprise of natural lighting at the top of the house.

The swimming pool is strategically located, where no building is allowed, with spaces in the house being live-able, intimate and appropriately scaled.

(Above)
View of the pool
Photographed by Fabian Ong

(Left)
1st Storey Plan
Drawing by Formwerkz Architects

(Below)
Street View
Photographed by Fabian Ong

1ST STOREY PLAN

JURY CITATION

The judges enjoyed the section through the house because they found it volumetrically interesting. There is full visual connectivity between the bedrooms on the upper levels and the Central double-volume living room.

This is made possible because the architect used a full height glass in place of brick walls. Natural light is invited into the living room via sky lights spaced between planter boxes at the attic level.

The bare off-form concrete walls blend well with the other finishes and give a cosy quality to the interiors. The architects carefully placed and curated a landscape of natural light and unadorned materials to bestow a tasteful and spatially interesting abode for his clients.

(Above)
Interior View
Photographed by Fabian Ong

(Left)
1st Storey Plan
Drawing by Formwerkz Architects

(Below)
Grotto House
Photographed by Fabian Ong

1ST STOREY PLAN

M5 @ Jalan Mutiara

HONOURABLE MENTION
High-Density Housing

ARCHITECT
ipli Architects

Cloister House

HONOURABLE MENTION
Overseas Residential Projects

ARCHITECT
Formwerkz Architects

JURY CITATION

M5 punctuates a residential enclave with a bold sculptural building. The solitary black residential tower magnifies and commands the urban landscape; standing proudly apart from the adjacent residential developments. In contrast to the obsidian exterior, splashes of vibrant colours were painted within the internal walls of the escape and service staircases.

Due to the tight site constraint, a dramatic 4-sided cantilever of the centrally located tower was a design strategy to free the first storey for vehicular ingress to the rear ramp leading into the basement mechanised carpark. The architect was inspired by the delicately stacking of stone and boulders that seemingly touch or not. The apartments consist of efficiently planned 1 and 2 bedroom unit types which cater toward small families and investors.

LEGEND

01   Substation
02   Basement Egress
03   Services Area
04   Penthouse Dormer Window

(Above)
Entrance
Photographed by Fabian Ong

(Left)
East Elevation
Drawing by ipli Architects

(Below)
M5 at Jalan Mutiara
Photographed by Fabian Ong

SECTION PLAN

JURY CITATION

This single storey house certainly tests the limits and pushes out new ideas of landed residential design. The unique undulating metal roof is a new roof typology for the tropics because it channels rain into the numerous courtyards. The contrast between the strict structural grid to support roof and the ambiguous open plan ground level was well handled by the architect. In terms of programme, there is a clear separation between the public and private spaces.

The plan layout consists of a large square which houses the social and communal spaces, while a smaller square is placed at the rear for the living quarters and bedrooms.

(Above)
Cloister House at dusk
Photographed by Fabian Ong

(Center)
Section Plan
Drawing by Formwerkz Architects

(Right)
Interior View
Photographed by Fabian Ong

Shorefront, Penang

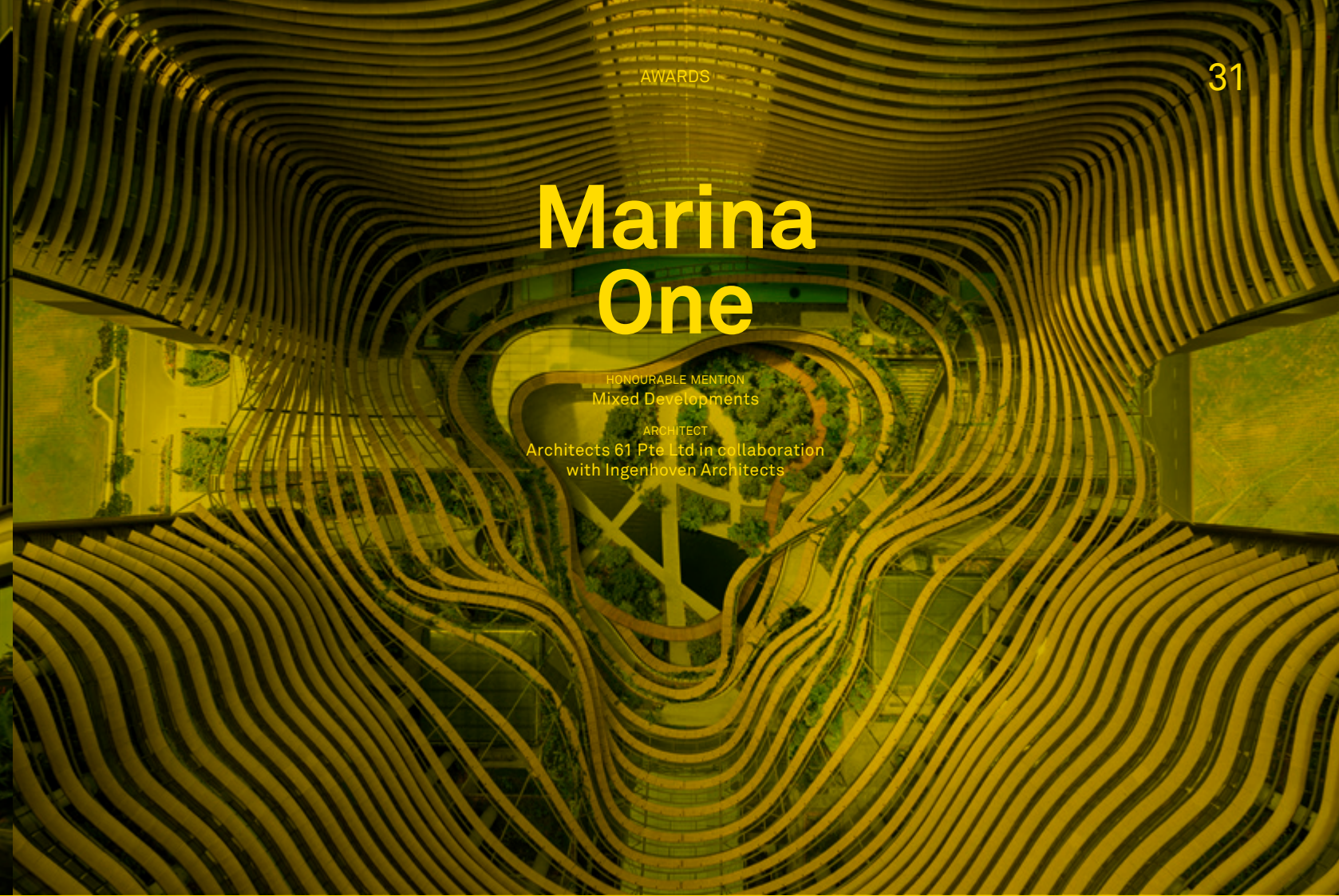HONOURABLE MENTION
Overseas Residential Projects

ARCHITECT
RT+Q Architects

Marina One

HONOURABLE MENTION
Mixed Developments

ARCHITECT
Architects 61 Pte Ltd in collaboration
with Ingenhoven Architects

JURY CITATION

The master planning and the building massing of the development is an interesting and refreshing response to a very difficult site oriented towards the sea. Instead of fronting the sea, building blocks run perpendicular to the sea such that every unit gets an oblique sea view.

The resolution of issues of privacy within a tight site, the breaking up of the façade into parts and its respective treatment is successful.
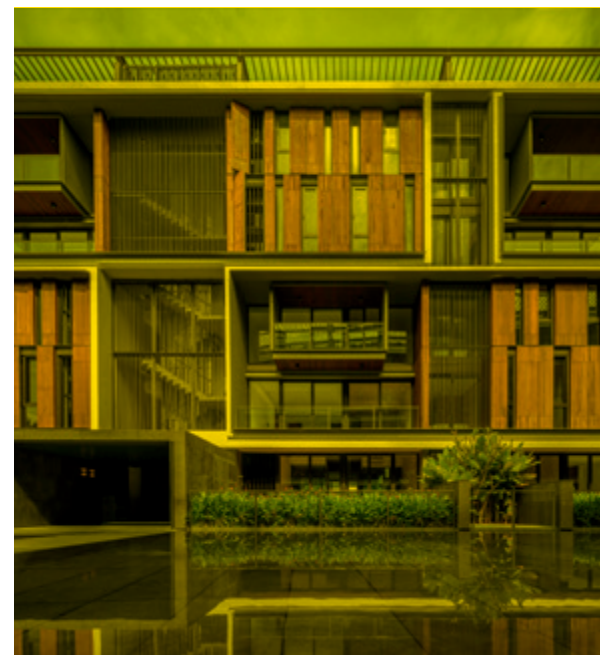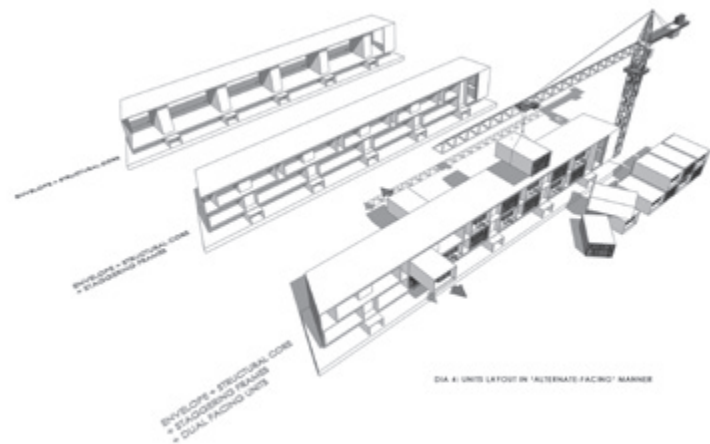
(Above)
View towards the sea
Photographed by Masano Kawana

(Center)
Shorefront Diagram Of Unit Layout
Drawing by RT+Q Architects

(Left)
Elevation
Photographed by Masano Kawana

(Above)
View into the Green Heart
Photographed by HGEsch

(Left)
The Green Heart
Photographed by HGEsch

(Below)
Section
Drawing by Ingenhoven Architects

JURY CITATION

Marina One has an intimate relationship with its urban surroundings. It connects with different modes of public transport via different walkways and they facilitate visitors to access the public spaces around the central Green Heart. The botanical and aquatic landscapes moderate the enclosed conditions; thereby, promoting hubs of activities within. Marina One's strategy of a central wall of air in this delineated space creates another view and buffers an adequate distance between the office tower and apartment blocks.

The beauty of the complex is the juxtaposition of the organic Green Heart against the external rectilinear edge of the building blocks. The sculptural sun-breakers give a cavernous quality and contribute to the iconic inward looking courtyard view. In addition, half of the lift cores are atypically located at the corner of the tower blocks and expressed at vertically movers. The truncated square plan and location of lift cores allow ample daylight to illumine deep into the office floor plate; reducing the need for artificial lighting.

Kampung Admiralty

DESIGN AWARD WINNER
Mixed Developments

ARCHITECT
WOHA Architects
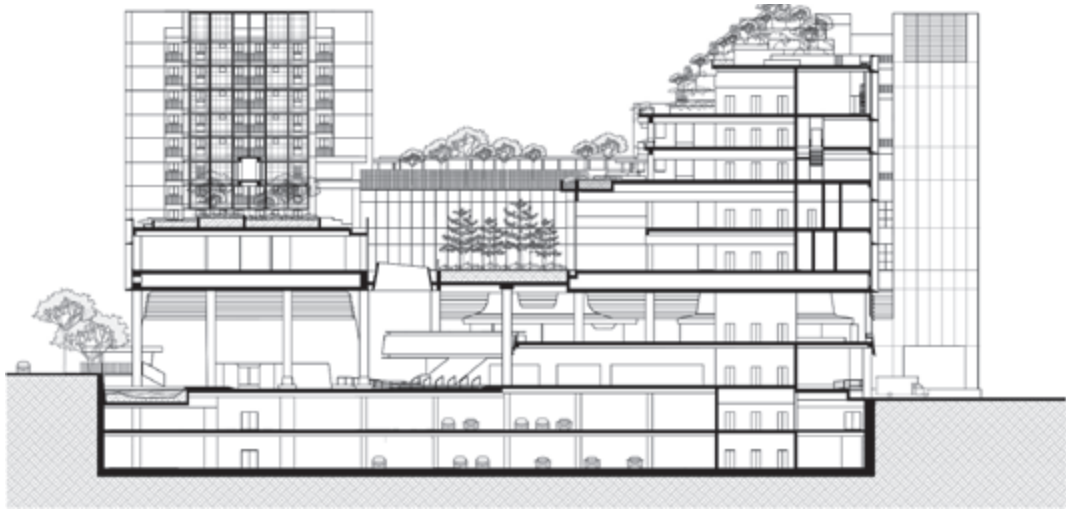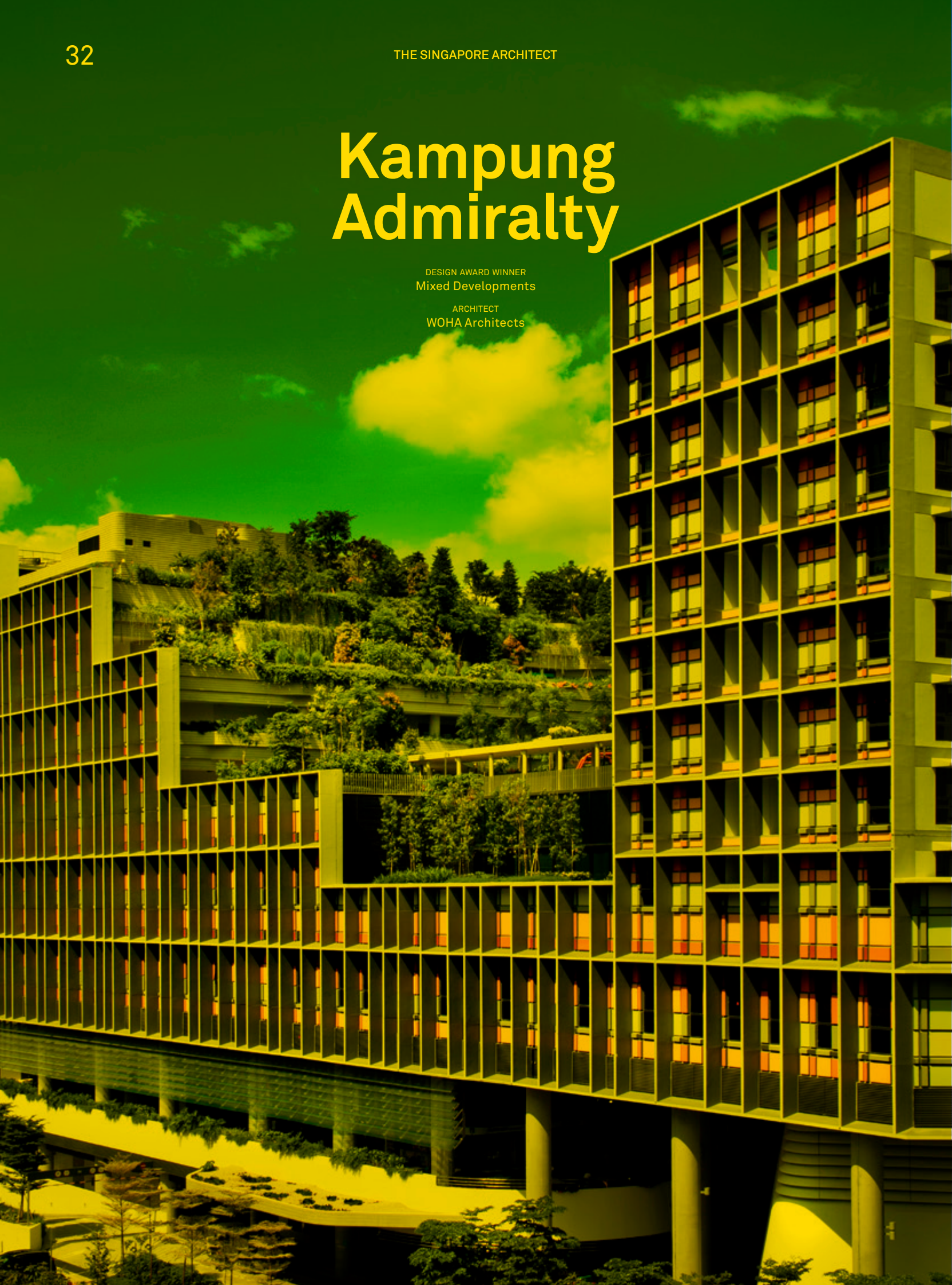
SECTION PLAN

JURY CITATION

This mixed-use development comprising of public housing, public and community spaces, hawker and health-care facilities is well-resolved with various elements being well-articulated in a coherent manner.

The communal space at ground level with multiple entrances integrates well with the adjacent spaces and is well-used as it was designed. The visual connection from this communal space to the levels above and the roof garden is successful.

Amanyangyun

DESIGN AWARD WINNER
Overseas Interior Architecture Projects

HONOURABLE MENTION
Overseas Commercial Projects

ARCHITECT
Kerry Hill Architects

JURY CITATION

This project is yet another successful partnership between the architect and the luxury hotel group. The brief's was to blend history with modernity — coalescing 2000-year old relocated Champhor trees and Ming and Qing Dynasty houses from the Jiangxi Province with the luxury resort. The architect concentrated the traditional Chinese houses as centrepieces within this walled-village resort. This expansive development consists of 26 exquisitely restored Ming and Qing dynasty houses repurposed as "antique villas" and these are complemented with 18 modern villas, a wing of bedroom suites, a club house, dining venues and a spa complex.

The rejuvenated houses contain guest homes and some housing amenities. Amidst these structures, the most spectacular conserved dwelling is the Nan Shufang, located within in a serene garden — curated as a space where guests can enjoy activities such as calligraphy and Chinese Tea Ceremony.

The architect appreciated and imbided the historicity of the houses' 400-year-old building techniques. The modified houses serve resort functions where the M&E requirements were delicately sewn seamlessly with the traditional architectural elements. The experience of the resort is enhanced with the inputs of the landscape consultant who has strategically located the Champhor trees within the milieu to give the visitors an arresting and impactful visual experience. This project was the combined efforts of the architect with a team of botanist, local craftsmen and experts in ancient Chinese architecture. The architect designed a sanctuary which preserves both natural and architectural treasures breathing a new lease of life.

(Left)
Arrival Lobby
Photographed by Lian Xiao Ou

(Above)
Reception
Photographed by Sohei Oya

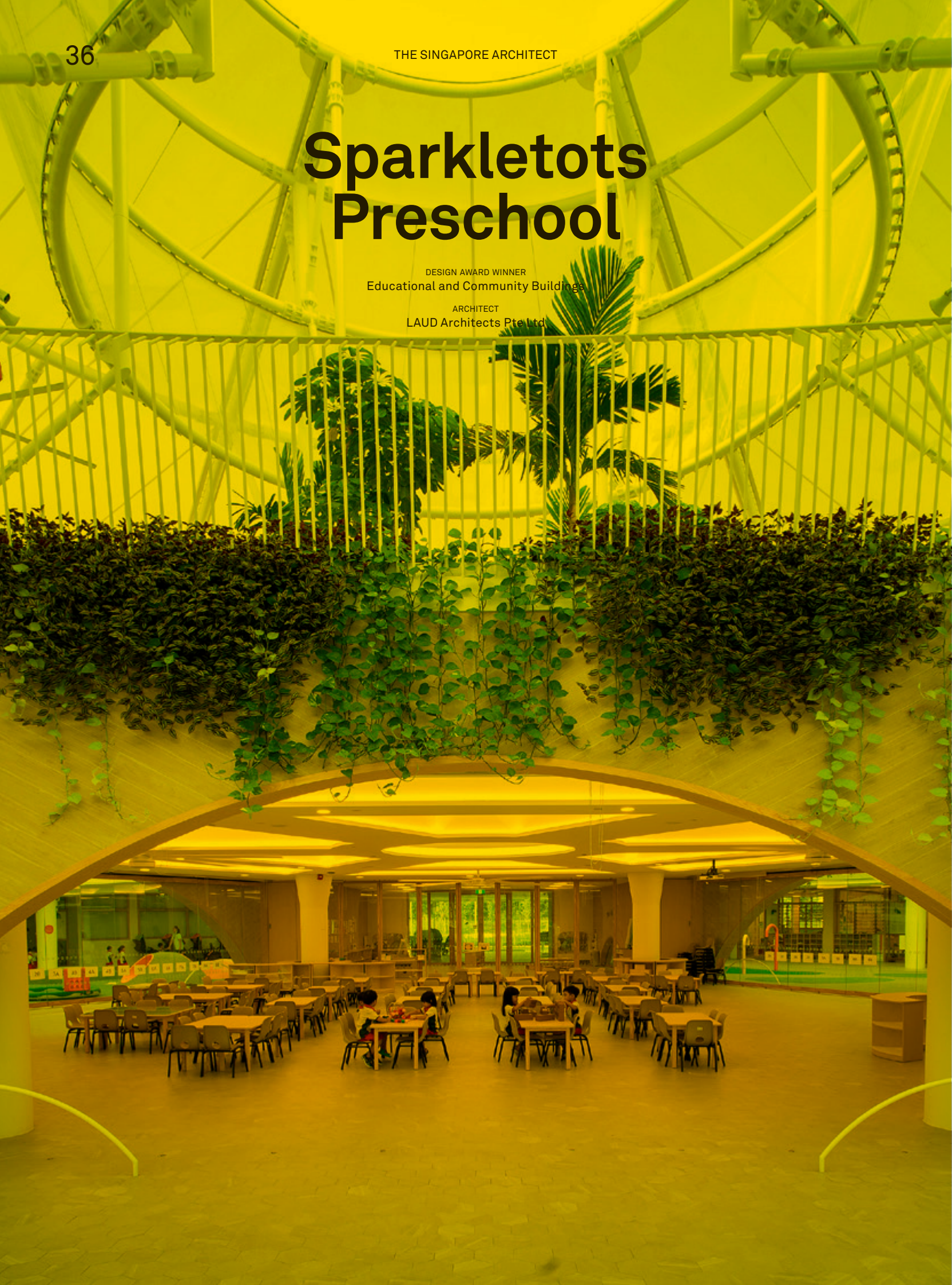**(Below)**
Masterplan
Drawing by Kerry Hill Architects
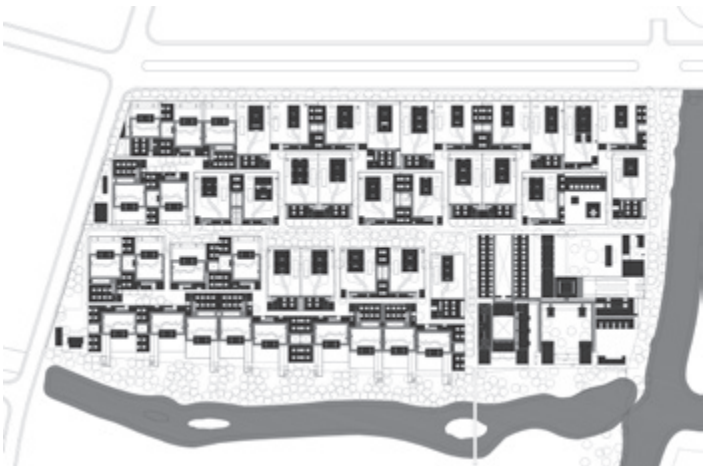
MASTERPLAN

Sparkletots
Preschool

DESIGN AWARD WINNER
Educational and Community Buildings

ARCHITECT
LAUD Architects Pte Ltd

SECTION PLAN

(Left)
Teflon Roof Skylight
Photographed by Melvin H J Tan

(Above)
Section
Drawing by LAUD Architects

(Below)
Central Courtyard
Photographed by Melvin H J Tan

JURY CITATION

The child-care centre adopts a geometry that works well for the purpose it was designed to serve, giving the space a sense of security without the feeling of being 'caged' in. The shape and scale of the dome, akin to a flying saucer, was felt to be imaginative for the children.

Internally, classrooms are single-storey and stacked over 2 floors with a central voluminous space of play areas and a gentle circular ramp that connects them. Common spaces on the ground level, such as dining hall, open to and integrate well with the adjacent spaces such as water-play and lawn.

What appeared as a greenhouse from the exterior is, on the contrary, an interior that is well-lit and well-ventilated resulting from stack effect. Good thermal comfort was observed within the courtyards with children seen lying casually on its lawn during the site visit.

The judges felt that the building is well-designed for its purpose and successful from the user point of view.

The Void Deck Pavillion
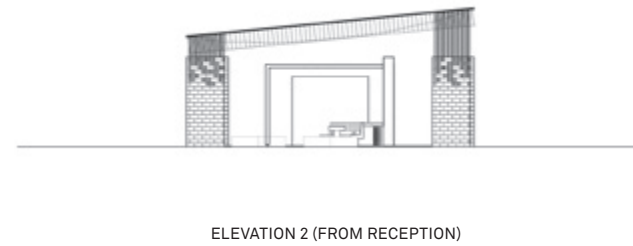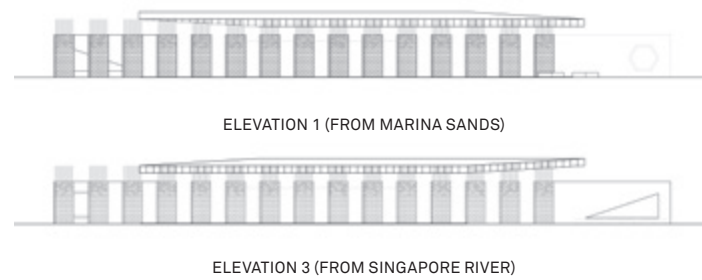
HONOURABLE MENTION
Urban Interventions

ARCHITECT
Kite Studio Architecture

DESIGN FOR LIFE

SMU Prinsep Hostel

HONOURABLE MENTION
Alterations & Additions

ARCHITECT
MKPL Architects Pte Ltd

ELEVATION 1 (FROM MARINA SANDS)

ELEVATION 3 (FROM SINGAPORE RIVER)

ELEVATION 2 (FROM RECEPTION)

JURY CITATION

The Void Deck Pavilion successfully attracted public participation during Archifest 2018 with the public observed to enjoy moving and being around the pavilion and painting the walls it sets up.

An interesting structure with 'columns' comprising of bricks tied together by rebars that gradually rose to meet the 'beams of rebars' was felt to be an apt architectural expression for its temporal nature.

(Above)
Movable Acoustic Partitions
Photographed by Albert KS Lim

(Center)
Ground floor plan
Drawing by Kite Studio Architecture

(Right)
Mural Brickwalls Facing Singapore River
Photographed by Albert KS Lim

JURY CITATION

The architect's skilful interventions to update an existing conserved building were effectively and meaningfully executed within the client's tight timeline. The new architectural elements on the ground level were sensitively positioned in relation to the existing structures. These additions bestow pertinent humane sensitivity to a campus project.

The deliberate creations of naturally ventilated sheltered outdoor spaces and air-conditioned communal spaces encourage opportunities, interactions and relationships. Within the apartment units, communal spaces enlarged and private rooms shrunk. The living areas were expanded at the expense of bedrooms so that students can commingle. The overall result was understated but well received by the student residents.

(Above)
Interstitial Spaces between Blocks
Photograph Courtesy of SMU

(Left)
Communal Hub
Photograph Courtesy of SMU

(Below)
First Storey Plan
Drawing by MKPL Architects

1ST STY PLAN

Jurong Town Hall

HONOURABLE MENTION
Conservation

ARCHITECT
Forum Architects Pte Ltd in collaboration
with WSP Consultancy Pte Ltd

Camo House

HONOURABLE MENTION
Innovation: Material and Construction Detailing

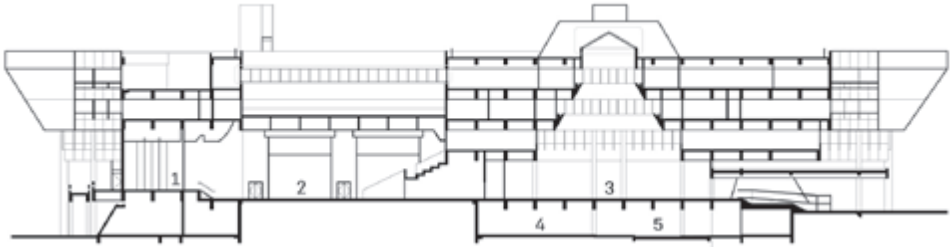**ARCHITECT**
WOW Architects

JURY CITATION

The architect's main aim is to restore the atrium by unfurling the original architectural elements, hidden by years of progressive interior renovations. The architect added designed feature lights, public furniture and curated artefacts to perfect the overall dignified feel of the space. Hence, the overall experience of the entrance was elevated — the existing ramp relocated, steps widen and the marble flooring extended — which made easier for vehicular drop-off.

The Second Storey layout was reconfigured so that awkward spaces and dead-end corridors were structures of the past. Then, the architect used communal break out spaces to activate the new corridors which looked into the restored main atrium.

LEGEND

01   Stage
02   Auditorium
03   Main Concourse
04   Laundry Room
05   Foyer
06   Driveway

(Above)
Daylight filters into the space
Photographed by Edward Hendricks

(Left)
Restored Atrium
Photographed by Edward Hendricks

(Below)
Section
Drawing by Forum Architects

SECTION

JURY CITATION

The design of the 'envelope' of the house involves computational design combing the need for shading, views and ventilation. It went beyond mere 2-dimensional perforation to incorporate 'flaps' that shades the building interior. The entire process involving design to its eventual fabrication resulted in a well-made screen fabricated off-site and out of the country.

The application of method thinking, optimization of design through quantitative design methods with performative results based on data analysis is both innovative and applaudable.

(Above)
Master bedroom verandah
Photographed by Aaron Pocock

(Left)
Section
Drawing by WOW Architects

(Below)
Foliage-inspired Façade
Photographed by Aaron Pocock

SECTION

Khong Guan Building

DESIGN AWARD WINNER
Others

ARCHITECT
META Architecture in collaboration with
Lua Architects Associates Pte Ltd

JURY CITATION

The jury conceded that the project 'sits' on a wedge-shaped site which was difficult to approach in terms of design.

The new twisted forms with its triangulated language, the use of materials, the opening up of the massing with receding courtyards is clever in bringing light into the interior and addressing the 2 roads it fronts, resulting in the careful addition of the 'new' that blends in seamlessly with the 'old' in a subtle manner and where 'new' and the 'old' is almost unrecognizable.

From a conservation point of view, it went beyond mere conservation into an adaptive conservation that is clever, careful and elegant.

SECTION

KG DIAGRAM

(Left)
Stacked Block Scale
Photographed by Darren Soh

(Above)
Section & Diagram
Drawing by META Architecture

(Below)
Burn Road Elevation
Photographed by Darren Soh

SG Botanic Garden Visitor Kiosk

HONOURABLE MENTION
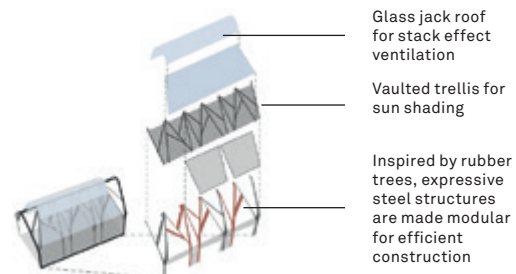Others

ARCHITECT
Genome Architects Pte Ltd

More than just a Library

HONOURABLE MENTION
Overseas Projects for Special Categories
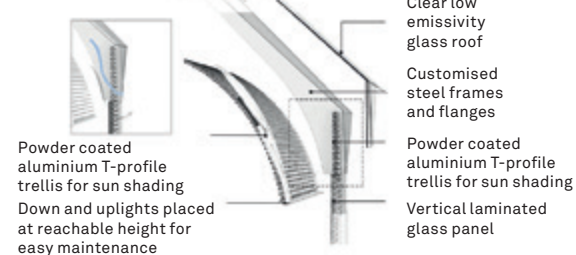
ARCHITECT
IX Architects Pte Ltd

(Above)
Lightweight Pavilion
Photographed by Khoo Guo Jie

(Right)
Internal Trellis Structure
Photographed by Khoo Guo Jie

(Below)
Details
Drawing by Genome Architects

Glass jack roof for stack effect ventilation

Vaulted trellis for sun shading

Inspired by rubber trees, expressive steel structures are made modular for efficient construction

Overlapping vertical glass panels for natural ventilation via convection

Clear low emissivity glass roof

Customised steel frames and flanges

Powder coated aluminium T-profile trellis for sun shading

Powder coated aluminium T-profile trellis for sun shading

Down and uplights placed at reachable height for easy maintenance

Vertical laminated glass panel

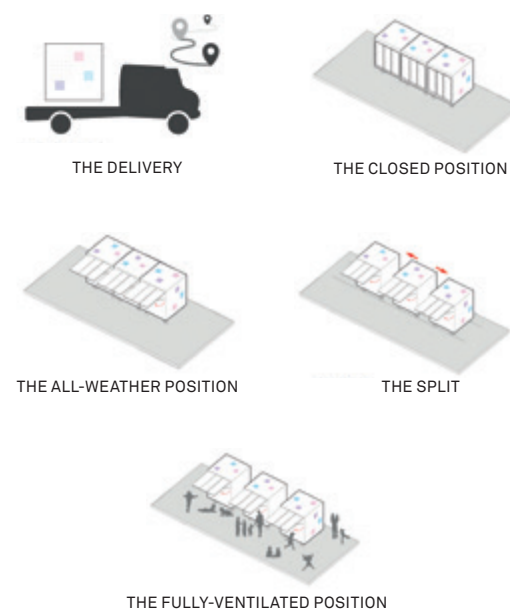DETAIL FOR ENVIRONMENTAL SUSTAINABILITY & CLIMATIC RESPONSE

JURY CITATION

The architect skilfully positioned the entrance pavilion and boardwalk in the layout. It demonstrates her deep knowledge and understanding of the park and the historical significance of the "Economic Lake". The structure of the entrance was inspired by the imprints on trees left by rubber tappers. The architectural positioning of layers of steel portals, timber louvers and glass panels lends more credence for an external view. The boardwalk's sensuous form choreographs changing views for visitors and integrates information panels within the sloping balustrades.

The challenging construction restrictions resulting from access and the requirement to preserve the existing fauna, flora and the lake itself was overcome by carefully considered construction procedures.

(Above)
Front View
Photographed by Aaron Pocock

(Right)
Reading Pods
Photographed by Geoff Greenwood

(Below)
Modularity & Mobility Diagrams
Drawings by IX Architects

THE DELIVERY

THE CLOSED POSITION

THE ALL-WEATHER POSITION

THE SPLIT

THE FULLY-VENTILATED POSITION
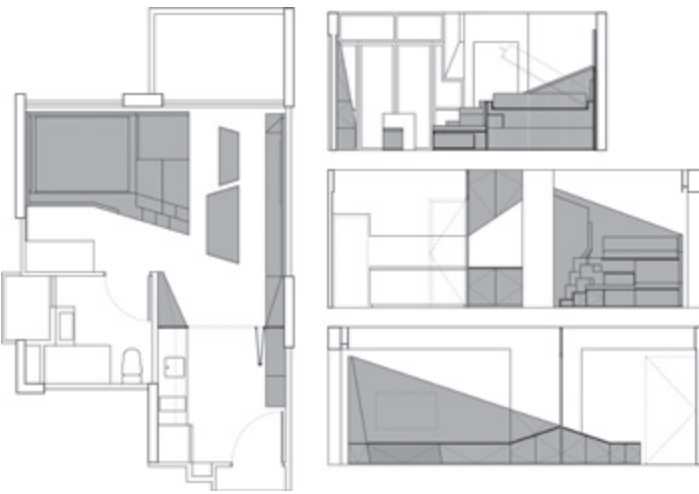
JURY CITATION

The architect's passion is evident in this self-financed social architecture endeavour. This children's library comprises 3 cubes that bring together intense social engagement; fostering a sense of ownership by both the end users and local community. The construction drawings detail the intent to use local builders, welders, carpenters and craftsmen to complete the entire library.

The library also functions as a backdrop for staged performances. The result is an elegant solution executed on a Budget with local construction skills and community engagement.

Gradient Space

HONOURABLE MENTION
Interior Architecture — Residential

ARCHITECT
METRE ※ Architects

Century of Light

HONOURABLE MENTION
Interior Architecture - Exhibition Design

ARCHITECT
FARM Architects

(Above)
Visual Cue towards the Balcony
Photographed by Marc Tan

(Left)
Plan, Elevations, Section
Drawings by METRE Architects

(Below)
Layered Entry into the Apartment
Photographed by Marc Tan

PLAN, ELEVATIONS, SECTION

GALLERIES PLAN

(Above)
Closeup of Threshold Arches
Photographed by Studio Periphery

(Left)
Galleries Plan
Drawing by FARM Architects

(Below)
Space within Each Section
Photographed by Studio Periphery

JURY CITATION

A creative interior design with lots of intention to achieve its goal resulting in useful storage spaces which became apparent during the site visit to the project.

Whilst such projects are quite commonly seen in urbanized cities such as Hong Kong, it was felt that this project will have an impact and filtering down effect in areas of interior design of Singapore's ever shrinking apartment size.
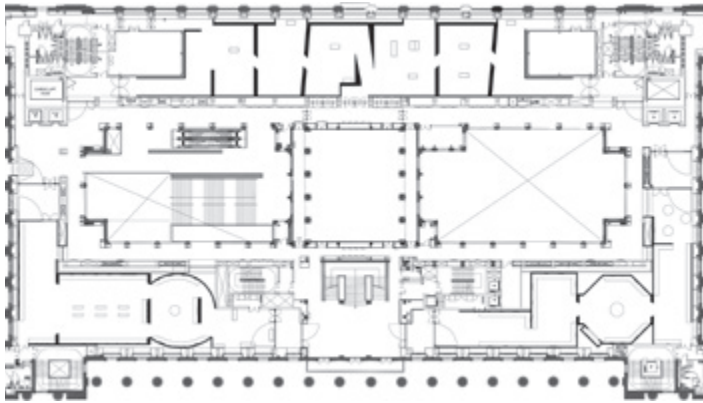
JURY CITATION

Thick 'walls' with archway of this exhibition design allow directional glimpses of the spaces it separates; an elegant and inventive solution to the curatorial needs and direction of bringing 2 shows, Impressionist and Southeast Asian artist, together as one.

Slanted archways coupled with the use of colours and graphics resulted in a series of illusionary spaces with perspectival illusions that was also a successful navigational tool that encourages intuitive way-finding through the spaces.

The jury felt that the exhibition design is both unusual and delightful and strikes a good balance between showcasing the exhibitions and asserting itself at the same time.

Feature

FEATURE

# A Flagship for the Industrial Revolution 2.0 — The GSK Asia House

WRITTEN BY
Ar. Ronald Lim MSIA RIBA

DRAWINGS BY
HASSELL Architects with RSP
Architects Planners & Engineers

PHOTOGRAPHS BY
Peter Bennetts and
Nicole England

The idea of architecture as a means to reinvent private enterprise goes back a long way in history — beginning with Peter Behrens' design of the AEG Turbine Factory in the early 1900s and finding full flourish in the corporate modernism of the 1960s and beyond. We are currently witnessing another technological revolution, spawning a new type of corporate building for the age of the disruptive economy. Ar. Ronald Lim MSIA RIBA reviews HASSELL's recently-completed GSK Asia House and examines the ways it adapts the various settings of work for today's knowledge economy.

LEVEL 2

LEVEL 1
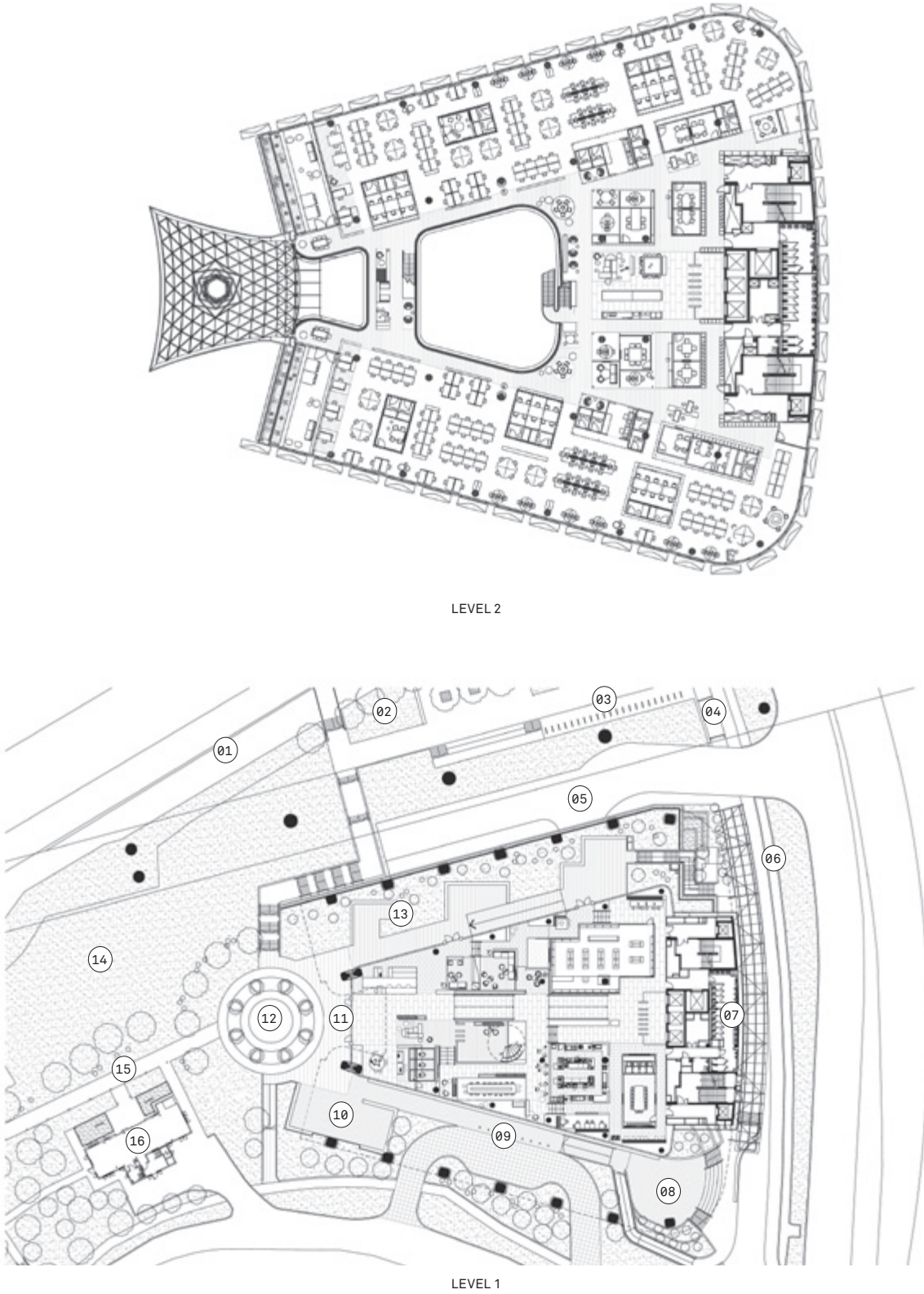
LEGEND

01	2m wide Covered walkway	11	Main Entrance Plaza
02	Heritage Interpretative Pavilion	12	Water Feature
03	Bio Retention Basin	13	Garden Rooms (Retreat, gather and relax)
04	2m wide Covered walkway with cycling path	14	Lawns and Plantings
05	Vehicular entrance to Level 1 parking	15	Heritage Walk (2m wide covered walkway)
06	3m wide Covered walkway with cycling path	16	Heritage Bungalow 22
07	Featured Green Wall	17	Connection between Heritage Bungalows
08	Landscape Plaza		
09	Vehicular Drop-off		
10	Heritage Interpretative Space (Existing Heritage Bungalow 23)		

The GSK Building has an elaborate curtain wall system that includes an elaborate triangular-patterned brise-soleil system. On the top floor, this brise-soleil system breaks away from the glazing to become its own filigree silhouette.

Every so often, a new flagship building gets a chance to reinvent how a company operates to burnish its brand. If its design is progressive and ground-breaking, a single exterior image could speak a thousand words for its corporate ethos. In fact, such a building's impact would extend beyond the skin of its mere exterior image since architecture also commands the power to shape the spatial environments of inhabitation. The quality of these spaces — where people work, make decisions, generate ideas — and the permutations by which they are configured carry real implications for how well employees perform, with knock-on effects for business success.

Located on a hill in Rochester Park, the building's straddles the scalar transition between small heritage bungalows on one end and a large shopping mall on another.

Across the history of architecture, one thinks of buildings like Frank Lloyd Wright's Larkin Building — whose sky-lit atrium conveys an industrial workplace that is humanistic and habitable — or Hermann Hertzberger's Central Beheer Office Building whose cosy concrete trays of "workers' villages" embody a spirit of workplace community. The most imageable of these buildings have gone on to seal their exalted status in the architectural canon — like Gordon Bunschaft's Lever

Almost every floor is visually accessible from the light-filled central atrium. This allows one to see the various activities that animate this interior space.

House, whose striking technological modernity defined the face of corporate America for more than a generation.

It is evident then that the newly-minted GSK Asia House by HASSELL carries from an illustrious lineage of architecture that gears towards corporate reinvention, albeit with an update. Here is a building designed to our prevailing zeitgeist of the Industrial Revolution 2.0, where spontaneous interaction and creative brainstorming plays its part in the economic value-chain, aided by technology. A mere glance at this six-storey building's exterior betrays a decisively technological outlook — starting with its elaborate glazed façade layered with a patterned, triangular brise-soleil system that, towards the upper floors, emerges from the glazing to become its own filigree silhouette, forming an alluring sight. From exterior to interior, this building proclaims "state-of-the-art" as a badge of pride.

The GSK Asia House is perched atop a hill in Rochester Park at Buona Vista, adroitly straddling the scalar transition from the colossal Star Vista shopping mall (on one side) to small colonial bungalows (on the other side) that also form part of this development. For an office building, its massing and stacking configuration is unusual, and for good reason. Each typical office floor plate has a shallow depth to facilitate daylight penetration. It is also U-shaped, wrapping around a sky-lit central atrium that makes each floor feel incredibly open. This arrangement explains certain oddities in the building's exterior massing, like the cascading sliver of glass wall with shading fins that encloses the atrium and swoops down to the drop-off canopy like a pangolin's tail, lending an odd mammalian air.

This project conveys the feel of a campus rather than a lone office building. For one, the notion of a campus suggests a variety of destinations, spaces and amenities of varying character — providing users with choices and options, even for the circulation routes that they can take. Three adjacent heritage bungalows house extended facilities like the gym and wellness areas. These houses further entrench this idea of an integrated campus where circulation pathways connect seamlessly to the office tower's main atrium and its various interior micro-destinations — intimate lounges, chic sky terraces, social pantries, focus rooms for the introvert and everything in-between.

Where GSK Asia House truly sings is in its interior experience, which is a curated continuum of spaces that adapt to the various settings of 21st-century work.

Everything begins with the powerful first entry — into a generous light-filled central atrium that feels like an animated jewel box, humming with warmth and life. The architects conceived of this atrium as an agora, alluding to the ancient Greek marketplace where people gathered. From this light and transparent atrium, one catches glimpses of how people conduct their business in the knowledge economy. Groups of 2 or 3 huddle together at lounges around a laptop; an army of worker warriors on the upper floors focus intently on their computer screens (incidentally, at free desks which are unassigned); someone hosts a video conference from an acoustically-sealed glass booth; colleagues seed ideas for their next big project over a casual coffee in the pantry.

The range and types of spaces in this modern workplace is astounding, including how calibrated and attuned they are to the various social settings of work. This yields dynamic and fluid spaces that are neither too open nor too enclosed (and neither too big nor too small) but "just right" — like a page out of a Goldilocks fairy tale. Behind this sumptuous buffet of varied spaces and furniture groupings — described as "grey rooms" — that invite easy habitation lies apparent discipline and method, especially in programming. Tamagin Blake-Smith, Principal at HASSELL, explains that there was an extensive process of scrutinising and analysing data of how GSK staff used various types of spaces to determine an optimal mix and type of programmes. This analytical process yielded certain decisions, for example to programme in more small meeting rooms and fewer large ones to free up floor area for other productive uses.

Each furniture grouping is carefully paired and composed for placemaking effect. These furniture groupings are referred to as "grey rooms" since they offer an intimate setting that replaces the need for partitioned rooms.

Work zones on the typical office floors of the GSK Asia House are finely calibrated and programmed with furniture groupings that offer scale and intimacy. This yields spaces that are neither too open nor too enclosed, inviting habitation.

A sculptural staircase that forms the centerpiece of the GSK Asia House's main atrium. This recognizable staircase gives dramatic expression to the many "bump moments" for employees to run into each other and interact.

This chic sky terrace is one of many spatially-differentiated "micro-destinations" within the GSK Asia House that makes it feel more like a campus and less like a literal building.

The building offers moments that mediate between inside and outside, like this sheltered landscaped terrace that offers the choice of an unconventional setting to work in.

As one traverses these various spaces, what remains coherent is how every inch of this spatial continuum is attuned to bodily and perceptual experience. This begins with the thoughtful placement and curation of various human touchpoints — whether they be unobtrusive technological screens that are conveniently placed, or a "low-tech" signboard ready to greet one at an opportune stair landing, or groupings of leafy potted plants that humanise the many cosy sitting areas. Equally delightful are the many social "bump opportunities" (i.e. the chance to run into familiar colleagues en-route to other spaces) littered throughout the building. These "bump" spaces are maximised and given dramatic expression through architectural elements like a sculptural staircase that twists and turns — that is a centrepiece of the main atrium.

The GSK Asia House holds up as an exemplar of what design can accomplish when the users' needs and requirements are not just thoroughly considered, but also rigorously interrogated and reconceived. Such a successful outcome requires much more than the intense work and effort that the architects and other designers put in to design the spaces. It also requires a strong beginning, powered by the high expectations of a visionary client who is sophisticated enough to recognise design's strategic value as a business proposition. None of this was lacking from the client GlaxoSmithKline, going by the elaborate multi-stage visioning and competition process by which the architects were selected and handed an elaborately conceived design brief. The final result is a class act that will not be easy to replicate. Kudos to both architect and client.

PROJECT INFORMATION

○ **CLIENT**
GlaxoSmithKline

○ **TIME TO COMPLETE**
3 years

○ **TOTAL FLOOR AREA**
12,300 m²

CONSULTANTS

○ **EXECUTIVE ARCHITECT**
RSP Architects Planners & Engineers

○ **DESIGN ARCHITECT**
HASSELL Architects

○ **CIVIL AND STRUCTURAL ENGINEER**
Arup Singapore Pte Ltd

○ **M&E ENGINEER**
Arup Singapore Pte Ltd

○ **QUANTITY SURVEYOR**
Turner and Townsend

○ **LANDSCAPE ARCHITECT**
HASSELL, with Earthscape Concepts as landscape consultants

○ **SIGNAGE & WAYFINDING CONSULTANT**
THERE

○ **LIGHTING CONSULTANT**
Arup Singapore Pte Ltd

○ **FAÇADE CONSULTANT**
Arup Singapore Pte Ltd

CONTRACTORS

○ **MAIN CONTRACTOR (BUILDER)**
Boustead Projects Singapore

SUPPLIERS

○ **FLOOR TILES/ FLOOR FINISH**
Mafi

○ **WALL FINISHES**
Kvadrat

○ **LIGHTING**
Louis Poulsen / Fred International / Foscarini / Oluce

○ **CONTRACT / LOOSE FURNITURE**
MTM Solutions / Kettal / Xtra/ Stylecraft / Unfor/Vitra / Dream / Wilkhahn / Zenith

○ **CARPETS & RUGS**
Desso / Milliken / Tappeti

○ **GLAZING SYSTEM**
JEB

FEATURE

# The Funan Guide to Shopping

WRITTEN BY
Ar. Jia Xin Chum

DRAWINGS BY
RSP Architects Planners
& Engineers

PHOTOGRAPHS BY
Darren Soh &
RSP Architects Planners
& Engineers

In the almost two decades since the prophetic proclamation in Koolhaas' 'The Harvard Design School Guide to Shopping', the national pastime has evolved beyond "the defining activity of public life". Indeed, the culture of co-everything is the product of current technological innovations, forcing architects, urban planners and designers to rethink its impact onto the physical realm. Jia Xin Chum investigates the possibility of an Architecture transforming itself as quickly as with an Instagram filter (or Snapchat filter, depending on your identifying generation), or if the question posed should be that of the fundamental differences between agility and flexibility in the built environment.
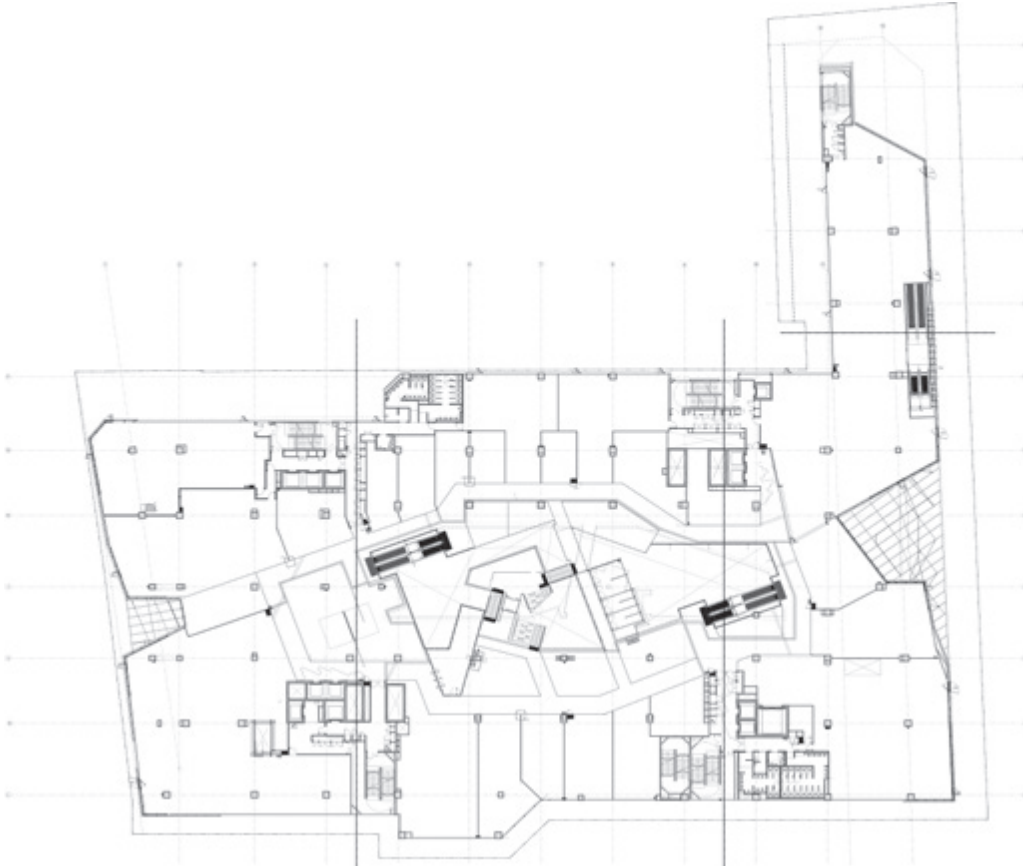
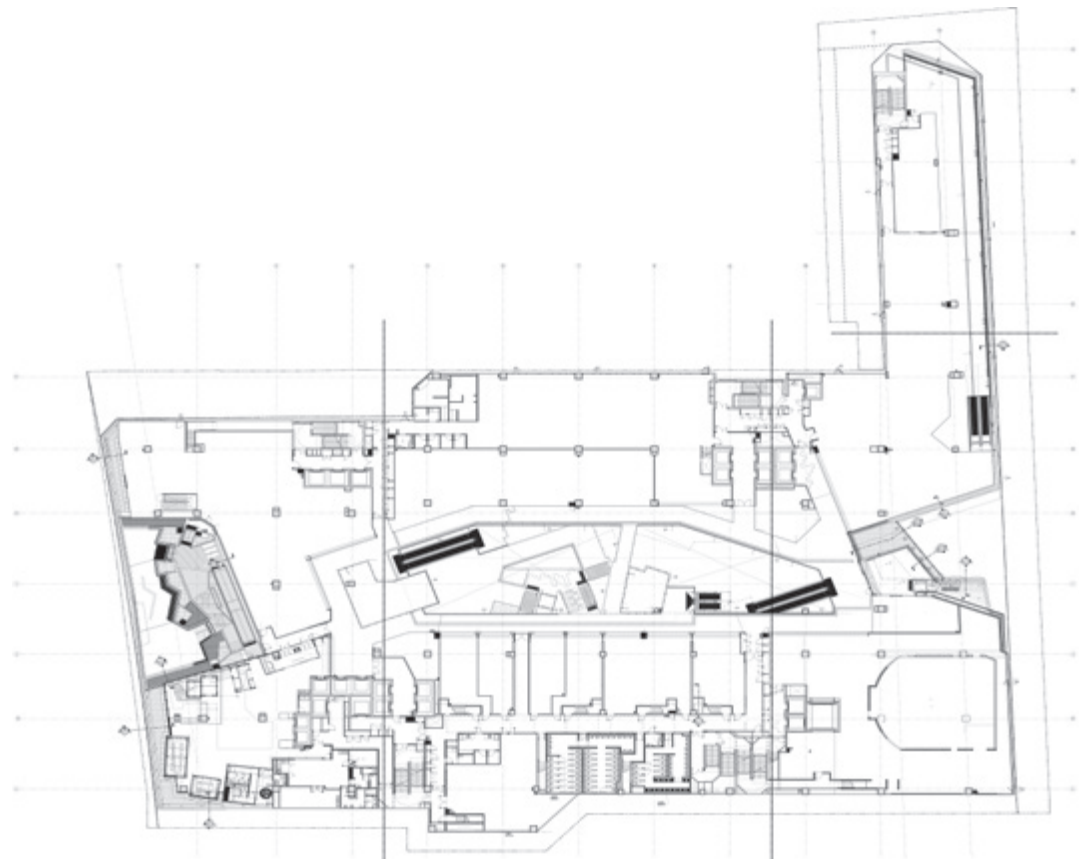Experiencing retail at warp speed. Whether on foot or on a bike, the mall is an extension of the city.
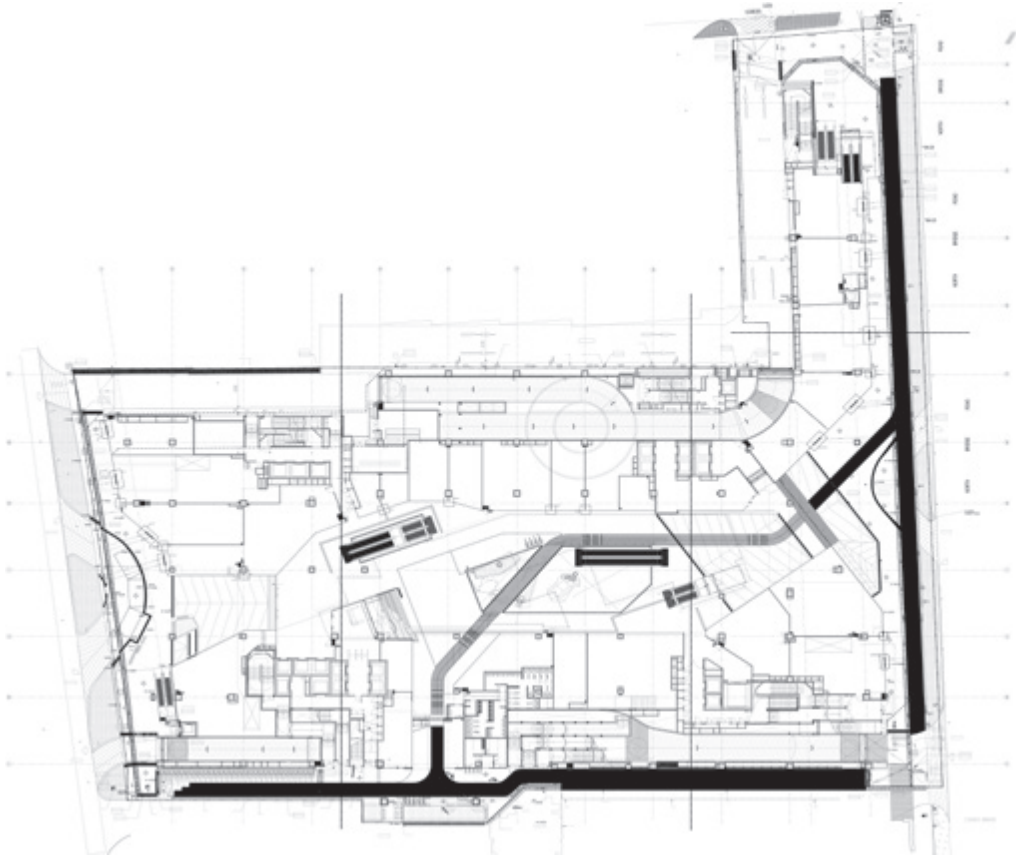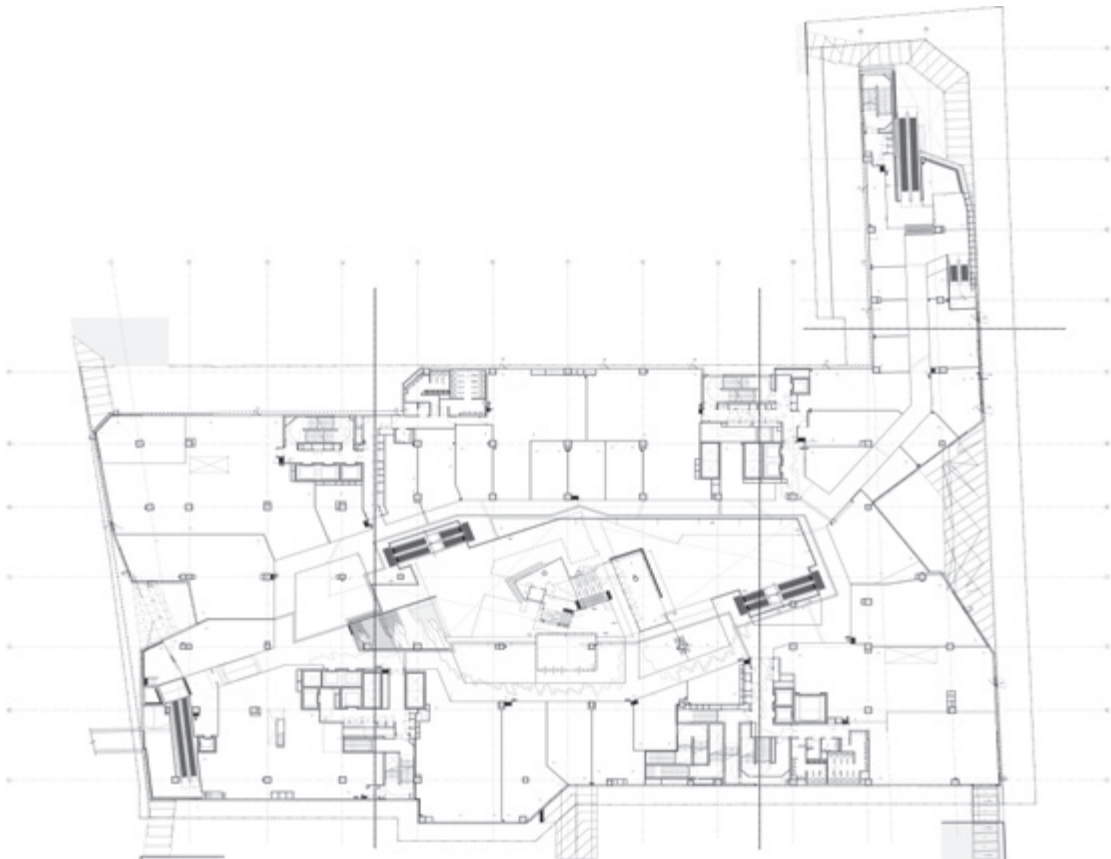
1ST STOREY PLAN

3RD STOREY PLAN

2ND STOREY PLAN

4TH STOREY PLAN

Faceted Pixelation: the façade is a ripping field of colours, announcing the excitement within.
Photo credits: Darren Soh

We are at peak Junkspace now, or are we?

Another landmark development led by Capitaland Mall Trust, Funan is a collaborative project between RSP Architects Planners & Engineers Pte Ltd and Woods Bagot. Having had two past iterations, the newly unveiled mixed-use development is set to be a conversation starter as its former lives having been embedded within the memory of the city as the place to be for photography enthusiasts and IT gadget connoisseurs.

If the invention of escalators, elevators and air-conditioners has made everything we know about Singapore's urban development possible, how have e-commerce and social media shaped our city? After all, social media is the phenomenon that has fundamentally changed our society over the last decade. The answer is hidden between the lines of the zinger shared enthusiastically by the architects, describing Funan as being 'designed by millennials , for millennials'. What does it mean for Generation Like (a term coined by Douglas Rushkoff) to play the role of ultimate content curator of our local culture?

The revelation is that it makes a space surprisingly positive and uplifting. Unafraid of being a sell-out, Funan is a brave 'think global, act local' experiment where the experience of shopping is unabashedly mixed with working, lounging, dining, and exercising. This is of course designed for visitors who value experiences more than materialistic possessions; or if the actual act of shopping is involved, this demographic is as entranced by the narrative behind a product, as by the well-crafted product itself. Funan is authentically living its values.
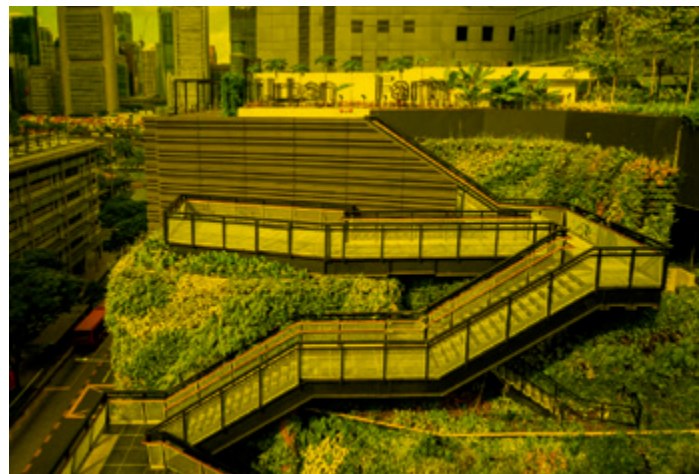
As one ascends towards the top, the garden is announced by a lush green wall.

"Not only is shopping melting into everything, but everything is melting into shopping. It is now, arguably, the defining activity of public life."
— The Harvard Design School Guide to Shopping, 2001

It invites without any trace of irony the many indie homegrown brands and the new-new hipsters, as it basks in its own mass appeal.

Neighbourhood Mall on Steroids

None of the above is more apparent than at the Centre Stage, an amped-up atrium for all matters of consumption: be it material, cultural or sensorial. It is not the ambush of visual cacophony that catches one off-guard, but the murmuring insistence of dividing visitors into two camps: those that adopt the philosophy of Fear of Missing Out (FOMO), or those that could just as well live with the Joys of Missing Out (JOMO). Either way, the excitement of consumerism refuses to be dampened.

Peeling through the mediated experience of digital screens and pulsating lights - or if one fails to do so, don't fret as they will eventually recede into the background into a fuzzy blur (akin to the visual equivalent of whitenoise) — it is ultimately the creative programming within this light-filled cavern that will astound visitors. An actively used climbing wall scaling from Basement 2 to the Level 1, the brick-red streak that demarcates a public bike-path, a series of platforms and jewel boxes that swivels around a lift core forming an ever-changing 'Tree of Life', a dedicated glass pod for community hobbyist to reserve and curate their own events, a cascade of timber steps forming an amphitheatre; this is a neighbourhood mall on steroids, eager to tailor itself to your specific needs.

Folded and Woven

Like a city folded onto itself, streets contract and expand to allow opportunities for unexpected findings. There are no cookie cutter floor slabs here at the retail podium. And like a city, the scale of the shops varies between the larger anchor tenants' lifestyle showrooms, small sized boutiques to pop-up stalls. These are tropes found in any commercial mall, but never in this rhythmic intensity. It is precisely the sense of scale that cuts down the "mall-ness" and emphasises on the "communal", as corridors spread into nooks and seating areas complete with power points (a necessity for the urban nomad).

Designed as a shopping loop, the sets of escalators suggest that there is an order to your shopping sequence. For those who absolutely must have direct access to shops across all 7 retails floors and the rooftop garden at level 10, the pseudo Corten-clad (actually ultra-thin large format porcelain tiles for ease of maintenance) lifts bring you expressly to your desired floor, just a
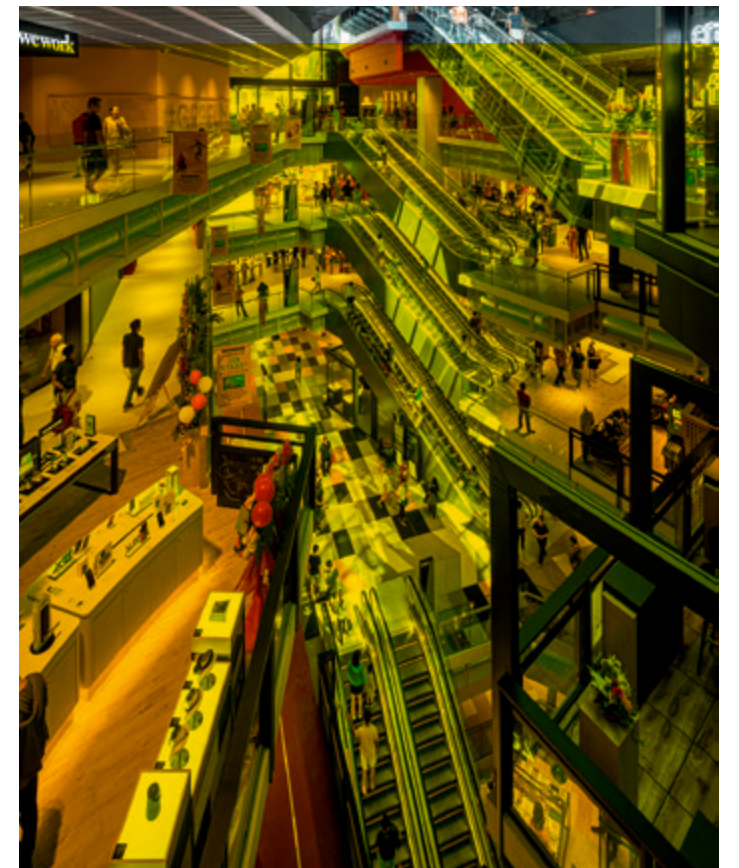
Cascading spaces reveal a plethora of choices for the avid shopper and the urban flaneur alike.
Photo credits: Darren Soh

The Tree of Life holds many treehouses of activity, underpinning the vertical sequence of the mall.

click away. The lushly landscaped rooftop garden, meticulously maintained urban farm and futsal arena being key photogenic destinations for momentary respite, allow uninterrupted views towards Fort Canning Hill and Marina Bay.

Perhaps the elephant in the room is the indoor cycling path that swings in from and connects back to the external cycling path, designed to be used between 7 and 10am by the working crowd commuting to the office towers above. An interesting and clearly well-funded experiment (considering the thoughtfully designed end-of-trip facilities and ample bicycle parking provided), the popularity of it being an unstaged biking

conduit is yet to be tested as lyf, WeWork and the Department of Statistics were not fully operational at their new outposts at the time of the visit.

Retrofitting the Post-Kinfolk Era

In an era where Insta-worthy moments are part of the design brief, the fluidity and interchangeability between planned and informal spaces are most impressive in large part due to the controlled material palette harkening to a foreign industrial past.

Precast terrazzo slabs (yellow: as an homage to Foster's Supreme Court across the street; red: a nod to

the Hill Street Central Fire Station; grey and white: filler colours) form playful geometric patterns that transition from chevron to herringbone on the ground floor, whilst antiqued brass stains and Corten-like elements theme the lift lobbies and lift cars. Atypical to most Capitaland malls, bare polished concrete is used for selected areas of circulation and pop-up stalls, and to no harm. Today, content is king, and king is the neon-lit catchphrases and visuals in blue light. Perhaps like the imagery it conjures, Funan is the millennial's fan fiction of a utopic Blade Runner: retro with an extra dose of optimism.

Like a Loosian house, the exterior is (relatively) muted and elegant, especially so when the diachroic sheen on

the parametrically-optimised aluminium façade cladding picks up refracted rays from the sun. The monochromatic kinetic wall looming above the urban living room between Coleman and North Bridge pays respect to the Church bell tower diagonally opposite as a new urban marker.

Agility vs Flexibility

The architecture captures the zeitgeist of our times — a nimble machine built to be reactive, highly optimised with a waft of illusory democracy. It is reassuring to see developers committing to a civic conscience, and Funan clearly views itself as one of the 3-dimensional jigsaw puzzle pieces to the larger urban fabric.

It has become imperative for architects to think of architecture as a vessel within the larger urban landscape, a flexible entity within an agile framework. And like any landscape, the city is a living dynamic system that constantly reacts and adapts to stimuli. The true question is, as technological feats and cultural shifts trundle at us at warp speed, is desirable architecture now big, blank and skin-deep to cater for anything that sticks? What is the right balance between flexibility and fixedness to attain increased agility? Funan hedged its bets on Community, and Architects must lead the charge in articulating our role in this time of exciting uncertainty.

PROJECT INFORMATION

○ **CLIENT**
CapitaLand Mall Trust/
Ascott-Qatar Investment
Serviced Residence Global Fund

○ **TIME TO COMPLETE**
2 years 3 months

○ **TOTAL FLOOR AREA**
889, 000 sq ft

CONSULTANTS

○ **EXECUTIVE ARCHITECT**
RSP Architects Planners & Engineers

○ **DESIGN CONSULTANT**
Woods Bagot

○ **CIVIL AND STRUCTURAL ENGINEER**
RSP Architects Planners & Engineers

○ **M&E ENGINEER**
Alpha Consulting Engineers Pte Ltd

○ **QUANTITY SURVEYOR**
Arcadis

○ **LANDSCAPE ARCHITECT**
Grant Associates

○ **SIGNAGE & WAYFINDING CONSULTANT**
THERE

○ **LIGHTING CONSULTANT**
Arup Singapore Pte Ltd

○ **FAÇADE CONSULTANT**
Building Façade Group
— HCCH Consulting Pte Ltd

○ **INTERIOR DESIGN
(SERVICED RESIDENCE)**
FARM Architects

○ **FIRE ENGINEER**
Ignesis Engineering Pte Ltd

○ **ENVIRONMETAL SUSTAINABLE
DESIGN CONSULTANTS**
Building System
and Diagnostics Pte Ltd

CONTRACTORS

○ **MAIN CONTRACTOR (BUILDER)**
Woh-Hup — Obayashi Joint Venture
(Funan)

○ **CANOPY/ALUMINIUM/
FAÇADE SUB-CONTRACTOR**
LHL International

○ **INTERIOR CONTRACTORS**
DSG Ltd (Serviced Residence)/
Space Form Design Pte Ltd
(Retail and Office)

○ **LANDSCAPE CONTRACTORS**
ISS Hydrioculture Pte Ltd/
Consis Engineering Pte Ltd

○ **OTHER SPECIALIST SUB-CONTRACTORS**
M&E — Guthrie Engineering Pte Ltd

SUPPLIERS

○ **FLOOR TILES/ FLOOR FINISH**
M&G Contracts (S) Pte Ltd /
Stonrich Pte Ltd /
Surface Projects Pte Ltd

○ **CEILING**
Buildables Pte Ltd, Panframe (S) Pte Ltd

○ **WALL FINISHES**
OAS Painting Construction Pte Ltd

○ **SANITARY WARES**
Rigel Technology (S) Pte Ltd /
Carera Bathroom Pte Ltd

○ **LIGHTING**
Creative Lighting Asia (Equipment) Pte
Ltd / Luxlight Pte Ltd / Philips Lighiting
Singapore Pte Ltd

○ **CONCRETE**
Alliance Concrete Singapore Pte Ltd

○ **PROJECTORS**
Hexagon Singapore

The vibrant life within Funan glows outwards toward the public realm.
Photo credits: Darren Soh

FEATURE

Habitat by Honestbee: A Fun Palace?

WRITTEN BY
Ar. Fiona Tan

DRAWINGS BY
Wynk Collaborative

PHOTOGRAPHS BY
Jovian Lim

In 1964, the late British architect Cedric Price in collaboration with avant garde Theatre Director Joan Littlewood, conceived the enduring and influential unbuilt work The Fun Palace — An experimental architectural proposition that would incorporate the newly emerging realms of cybernetics, computer technologies, and game theory. The Fun Palace represented a shift from the solid and reassuringly permanent physicality of architecture to one that is responsive, agile and constantly adapts to the users' desired programs through the integration of Technology.

View of light-filled dining spaces through strategic opening up of the original car park façade

Spatial integration of grocery shopping and dining experiences

Decades on, the theories expounded in The Fun Palace remain highly relevant. In the face of endless waves of disruptive technologies and markets, it probes one to consider what today's Fun Palace equivalent would be. How can we harness technology and the virtual space as a complementary and integrated experience of the physical realm? To avoid obsolescence, is Price's proposition of agility in Architecture possibly its most important trait for survival and sustainability?

Habitat by HonestBee is one such agile space designed by Wynk Collaborative. Occupying a former warehouse for Car Parking, the 60,000 square-feet space is the delivery startup's flagship showcase for technology-enabled shopping and dining.

Positioned as the physical extension of HonestBee's digital market place, Habitat by HonestBee marries the convenience of digital purchasing with the often irreplaceable value of physical perusal. The routine chore of physically purchasing groceries at a store is thus transformed into a multi-sensorial tech-enabled experience where visitors are encouraged to linger, meander and discover. A key part of this technological experience is the HonestBee BeePass app that becomes a digital companion — facilitating all purchases within Habitat, including the logistics for ordering, packaging and collection. As part of this strategy to integrate technology,

basic everyday products that require little introduction are displayed only in the digital marketplace. This frees up space for other more interesting products and uses.

Deftly interpreting the Client's brief for an adaptable and refreshing retail experience, Wynk Collaborative designed a series of unique spatial environments that are at once engaging and personal, yet flexible enough for programmatic alterations over time. Since its opening in October 2018, Habitat's multiple programmatic and spatial transformations had proven to be a successful design strategy in maintaining visitorship beyond its initial 'nolvety-draw'.

Si Jian Xin and Leong Hon Kit; Design Partners at Wynk, revealed that Habitat was in fact designed to ease the circulation of pop-up mobile kiosks and vehicles by the simple rearrangement of loose furniture. "We don't like to be too deterministic in how a space is being used... Users are encouraged to explore and have some agency in deciding how they want to use the space," shares Leong.

On entry, one passes through a fairly dim and intimately sized corridor flanked by window displays on both sides. Gently sloped, the corridor forms an anticipatory threshold that opens into a luxurious light-filled welcome reception space that hosts a range of tastefully curated display pieces of homeware and pots.

Previously an in-house florist space, Wynk's design of customized movable furniture of varying heights allows for swift programmatic changes without the downtime of demolition or retrofitting. This flexibility allows the welcome reception to be constantly refreshed according to seasonal themes and utilized as a festive event hall as required. The strategic spatial allocation of this multi-use space allows for the effortless cordoning off from the rest of Habitat to facilitate events that may happen after the closing hours of the main retail space.

Meandering through, the circular welcome reception unfolds and expands into a lofty 10m ceiling height space brimming with the various happenings of the day. It is difficult to miss Habitat's heavy spatial resemblance to the experience of a flaneur wandering through a festive street, a Design strategy inspired by the designers' own appreciation of the vitality and fluidity of European outdoor markets. Instead of a linear segregation of dining, retail and event zones, Wynk embraced the opportunity to blur these demarcations to create a seamless and integrated experience while maintaining the necessary spatial hierarchies for subtle wayfinding. The outcome is a testament to the designers' meticulous curation and spatial planning.

Back-of-house services are logically tucked into the fringes of the space for ease of loading and unloading logistics. Likewise, multi-use spaces such as the welcome reception and a 'hidden' bar occupy the perimeters to facilitate segregated access and spatial separation. In place of the typical bombardment of product advertorials and discount tags in radioactive shades of neon, retail products are strategically and thematically displayed in beautifully curated tiered modules reminiscent of mobile fruit carts of an outdoor market. Designed to match the general eye level of a seated patron, these modules are peppered around seating spaces to subconsciously tickle and entice dining patrons to browse and purchase. Elsewhere, upright customized shelving units are kept to a deliberate 1.5m low to maintain a clear visual line of sight to the rest of the spaces, a refreshing twist to the usual towering shelves of a typical grocery run experience.

The ceiling space is subtly lit according to the orderly grid of the beams at high level to create an illusory expansion of the already lofty 10m high space. Towards the mid-level of the ceiling, a complex network of conveyor tracks circulate filled grocery bags from online orders across the main hall and into the back-of-house delivery dispatch points. The aesthetically curated physical

View from the Welcome Reception towards the Main Hall

manifestation of this new economy as expressed via the movement of groceries overhead lands a form to the otherwise abstract realm of the digital marketplace.

To maintain the lofty ceiling space, the designers were careful to park the heavy cooking activities towards the edges of the space by means of distinctly curated dining experiences — grill house, bakery, fine dining, pancakes stand, and a lounge corner to name a few. This spatial strategy skillfully eliminates the potential eyesore of expansive cold kitchen hoods and messy exhaust ducting soaring over the main hall.

The demarcation of spaces also takes the form of a raised platform area at one end and colour-blocking with tiles on the other. Si explains that the raised platform area function as a stage during temporary events while also serving as everyday seating for non-event days. A mezzanine level above the bakery and restaurant space further doubles as additional storage space for unused furniture during seasonal programmatic changes of spaces.

Maintaining the agile and festive atmosphere reminiscent of an outdoor market space, each standalone F&B concept in the main hall is sized and fitted for light-cooking activities and food preparation only. Individual F&B Islands are framed by thin darkly-coloured mild steel

vertical posts which support a crowning lightweight mesh structure to allow for flexible rotation of food concepts and services. The structure functions merely as a canvas to flexibly mount of signage display or additional light fittings as required. To subtly accentuate the individuality of each F&B concept, each modular Island is designed to be homogenized yet distinctly differentiated through the change in materiality and cladding treatment of its base. The technique of cross-selling is subtly engaged around the standalone F&B concepts where additional tall display shelving integrate with the surrounding structural columns to showcase rotating supplies of spices and ingredients used in the corresponding F&B menu.

Towards the side entrance of Habitat, a series of 3 unique shopfronts feature the Oyster Bar, Bottle Shop and a flexible store space for temporary Pop-ups. Bearing some resemblance to a vault for Alcohol, the archway at the end of the Bottle Shop terminates at a mirrored surface that conceals a cosy hidden Bar . This is a result of Wynk's spatial ingenuity where the otherwise underutilized left over corridor space is transformed into an enticing and intimately curated encounter. Wynk's trademark splashes of bold colours feature strongly in this space as a counter point to the otherwise deliberately muted down colour palette of the main hall, an intentional design decision to provide a neutral canvas to show off the products themselves. Conceived as a series of intimate

View of Arched passageway leading into Hidden Bar behind the mirrored sliding door

The Collaborative B Lounge is an elegance place of respite for the contemporary lifestyle enthusiast

View from B Bar looking back into the Arched passageway of the Bottle Shop

Playful collage of geometrical shapes at B Bar

PROJECT INFORMATION

○ **CLIENT**
Honestbee

○ **TIME TO COMPLETE**
10 months

○ **TOTAL FLOOR AREA**
60,000 sq ft

CONSULTANTS

○ **DESIGN FIRM**
Wynk Collaborative

○ **CIVIL AND STRUCTURAL ENGINEER**
Shopfit Pte Ltd

○ **M&E ENGINEER**
EWC Engineers

○ **LIGHTING CONSULTANT**
Light Collab

CONTRACTORS

○ **MAIN CONTRACTOR (BUILDER)**
Shopfit Pte Ltd

○ **ALUMINIUM/FAÇADE
SUB-CONTRACTOR**
A Max Pte Ltd

○ **INTERIOR CONTRACTOR**
Shopfit Pte Ltd

○ **KITCHEN SPECIALIST**
Kitchen Hub

SUPPLIERS

○ **FLOOR TILES / FLOOR FINISH**
Rice Fields / Hafary / Un Enterprises /
Hup Kiong / Evorich

○ **CEILING**
EDL / KD Panel

○ **WALL FINISHES**
EDL / Lamitak / KD Panel / Un
Enterprises / Rice Fields / Hafary / Futar
/ Nippon Paint

○ **SANITARY WARES**
Toto / Apaiser / Rigel

○ **LIGHTING**
Endo / Acolyte / Megaman / &Tradition /
Louis Poulsen / Chochin lanten

○ **CONTRACT / LOOSE FURNITURE**
Ton and Wendelbo (from Made and
Make) / Commune / Comfort / IKEA

○ **NOTABLE FINISHES,
FURNISHINGS & EQUIPMENT**
Dekton/ Cosentino

rooms, a push of the wall brings visitors to yet another cozy lounge space that could function as an extension to an adjacent private dining room. The clever coalescence of spaces one within another creates a gradual theatrical journey that engages with one's senses.

The function of Habitat as a social and vibrant canvas for flexible programming takes precedence over the conventional space-maximalisation design strategy of a typical retail outlet. Subtle changes in levels by ramps and platforms and a deliberate play of space and proportion culminates in an agile and free space that is demarcated or amalgamated as required by user function while technological touchpoints are curated as an integrated part of the user experience. From robotic-shelving grocery check-out points to the movement of grocery orders on conveyor tracks overhead, the space prototypically demonstrates the endless possibilities afforded by strategic technological integration and creative spatial planning. As a typology, the space inspires further investigation into how spaces can be innovatively planned for our new economies. Perhaps Price's ideal of a truly agile architecture is soon becoming a reality.

FEATURE

A Present History: The Khong Guan Building

WRITTEN BY
Lua Jin Wei

DRAWINGS BY
META Architects

PHOTOGRAPHS BY
Darren Soh
Khoo Guo Jie

'Respectful' and 'sensitive' are by far the most common vocabulary used to describe a good conservation project. These words are loaded, often implying that conformity is the gold standard. Yet, conformity at face value often results in an architectural pastiche. With the renewed Khong Guan Building, Meta Studio offers an alternative way of conservation — one that is experimental yet contextually resonant both to the past and present.

Built in 1952, the original Khong Guan Building speaks of the post-war atmosphere as an architecture of economy and of optimism.

Most unassuming passers-by would probably not guess that MacPherson holds the distinction of being Singapore's first light industrial district. Markers of its industrial past are few and far between, save for the Khong Guan Building, which was awarded conservation status in 2005 and recently underwent major A&A works.

Once the tallest landmark in the neighbourhood, the 3-storey tall Khong Guan Biscuit Factory served as both the base of operations for the home-grown biscuit company on the first and second storeys, and as residence to the founder's family on the third. While often lauded for its modernist charm, the original architecture was really one of economy and utility — most obviously demonstrated in the matter-of-fact manner in which flights of stairs navigated the varying floor-to-floor heights.

Within this historical context, and in a similar vein to Lina Bo Bardi's 'historical present', Meta Studio forged a renewed vision for the humble building using an acute archaeological reading of site and context. "The conserved building had a lot of stories to tell, and we wanted to bring those stories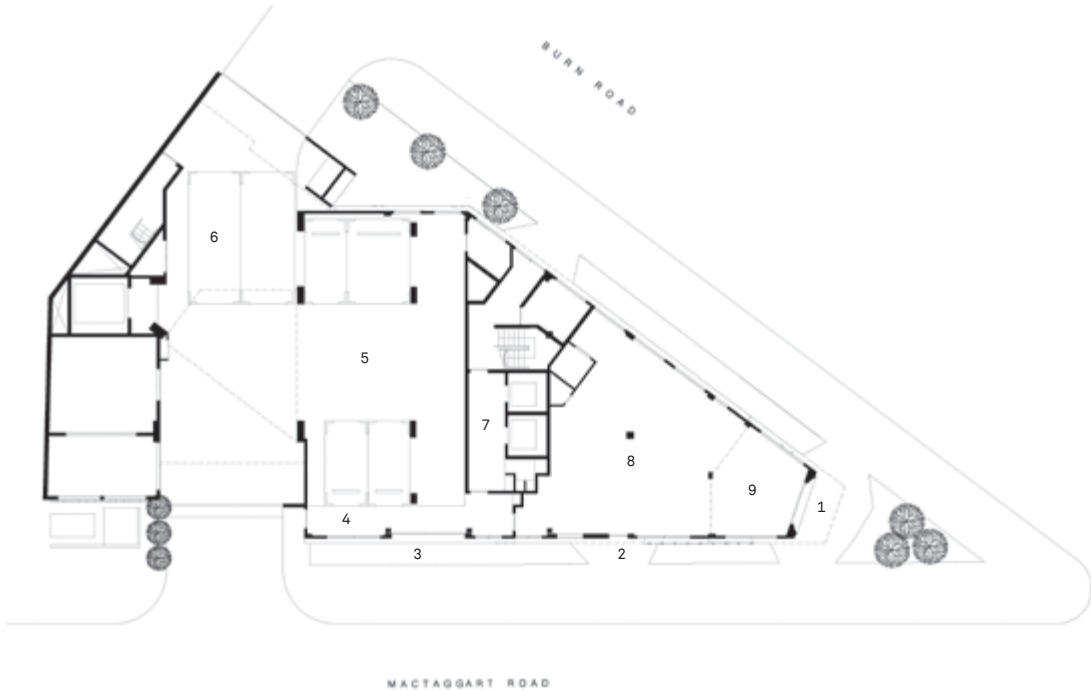 into plain form," shares Architect Adrian Lai. Indeed, this reading is delightfully apparent in the making of the architecture across different scales — from the formal expression to spatial characteristics, and down to the tiniest of details.

Standing at the junction of MacTaggart Road and Burn Road, the new Khong Guan Building presents a heroic soaring perspective that comes from the inherent quality of the wedge-shaped site and the pragmatic maximisation of the plot. It is a striking, eye-catching view. Drawing closer, the heroic extension seemingly takes a bow and steps back, leaving you under the sheltered canopy of the old entrance: an intimate moment to admire the craftsmanship of its restoration. While this contemporary armature may not restore the building's landmark status through physical height, it certainly helps the building distinguish itself through this memorable scenographic experience of shifting scales.
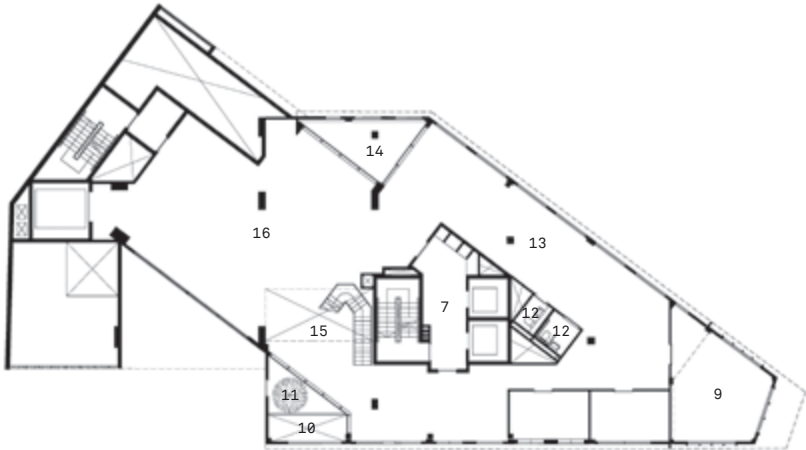
A closer study of the plans, though, reveals that this form is not merely a matter of convenience or aesthetics, but rather an architectural masterstroke.
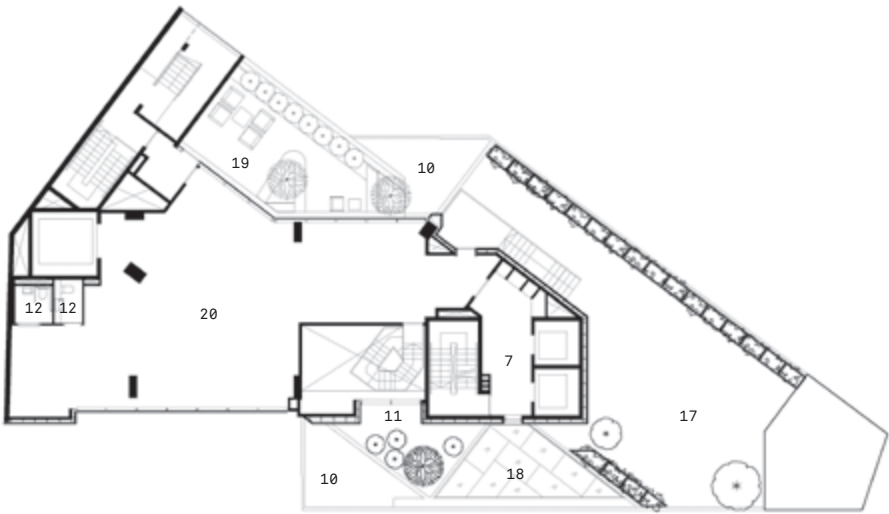

The old embossed Chinese sign, when read right to left, reads "Khong Guan". A contemporary stylised logo is etched onto the new.

BURN ROAD

6

5

7

8

9

4

1

3

2

MACTAGGART ROAD

1ST STOREY PLAN

19

10

12 12

20

7

11

10

18

17

UPPER 4TH STOREY PLAN

14

16

13

7

15

12 12

11

9

10

3RD STOREY PLAN

21

19

7
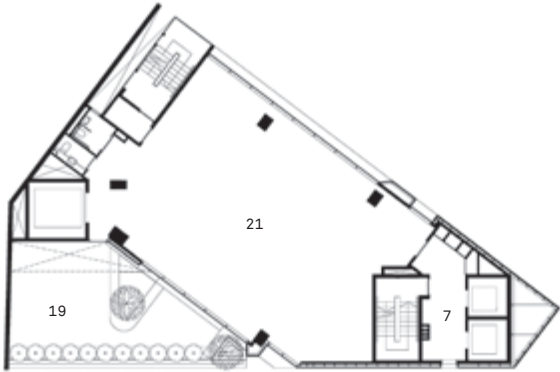
8TH STOREY PLAN

LEGEND

01 Heritage Public Entrance
02 Heritage Entrance
03 Heritage Loading
04 Entrance
05 Car Park
06 Loading
07 Lift Lobby
08 Conserved First Floor
09 Void Above
10 Void
11 Roof Garden to Void Over Entrance
12 Toilet
13 Conserved Third Floor
14 Partially Conserved Open Terrace
15 Internal Stair Link Between New and Old
16 Third Storey Extension
17 Conserved Lower Roof
18 New Skylight
19 Sky Terrace
20 New Fourth Storey (Typical Mactaggart
   Road-Facing Production/Storage Space)
21 New Eighth Storey (Typical Burn Road-
   Facing Production/Storage Space)

A new void within the old — replacing the past physical connection of levels into a visual one.

A pair of structural grids that run parallel — one of which is an extension of the existing grid — to the two roads form the foundation instrumental in the making of the architecture. First, the axes of the grid guide the alternation of volumes that make up the extension, breaking down the monumentality of the tower and bringing its scale more in line with that of the conserved portion. Second, in reconciling the challenging geometry of the site with the pragmatic considerations of the program (open-plan tenanted light industrial space), angular sky terraces are allowed to be carved out in a sensible way without encroaching upon the interior space. As a result, these volumes are reminiscent in shape and peculiarity of the conserved building, drawing yet another link between the old and new.

Entry to the new extension is tucked alongside a lofty vehicular access (at least three storeys high!) into the carpark and loading bay situated within the old warehouse. There is a nonchalant honesty about this space. "This warehouse door tells the story of how the biscuit factory used to be across the road, and all kinds of biscuits used to come through here," explained Adrian, "We wanted to bring new users in through the old warehouse, embedding it into the daily use rather than allowing it to be just an artefact." The generosity of space is a simple but powerful trope usually applied to monuments — encapsulating it in order to call attention and draw focus. Likewise, the grand scale employed in this seemingly service space speaks of the significance of its role in its industrial past.

This however, is just scratching the surface. Khong Guan headquarters, straddling the intersection between the old and the new with a feature stair, is a goldmine of references that plays an intriguing game of déjà vu. Here, Meta Studio imprinted motifs, spatial qualities and even philosophy of the conserved within, waiting to be discovered. The main doorway bordered with a chamfered frame; shelves taking on a language of the façade; seating shaped in a now-familiar angular form; beams set the framework for decorative ceiling; skylight casting a patterned shadow; a seemingly superfluous control joint is actually a mapping for movement; kinks found in the feature stairs celebrate a utilitarian ideal — its detail is only privy to those who ever had the privilege of translating handrails from plan to 3-dimensional space.


Along MacTaggart Road lies the voluminous entry into the new extension where the loading bay and car park (formerly the warehouse) is celebrated.

While the tenant spaces are rationalised into for efficiency, the experience of the angular geometries are felt from the carved-out sky terraces. The exposed structure and coordinated services overhead emphasises your understanding of this experience.

The interior fit-out for the headquarter, too, continues the language of the acute geometry.
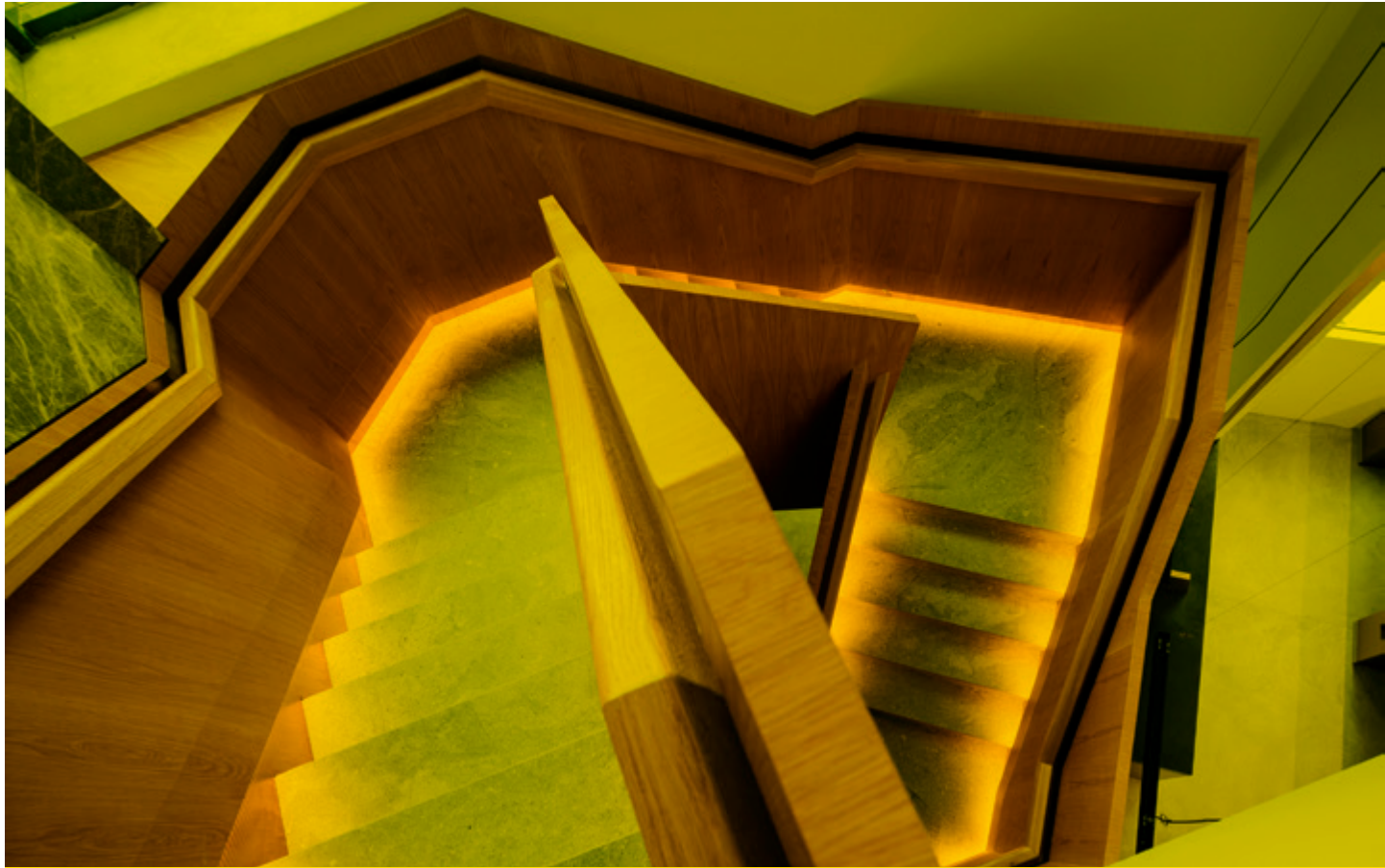
The new stairway serves as a connection between the old and the new.

Despite the contemporary aesthetics, you cannot help but feel an uncanny familiarity as these revelations bridge with your understanding of the old building. It is not nostalgia, but one could say that it is a tool to help comprehend the old and what it stood for — a different way of considering what it means to conserve.

As a whole, it is an intensely layered piece of architecture that grew from a disciplined and rigorous process — one that seems to test the limits and relevancy of ideas carried within the original Khong Guan Building. This understanding of history and dexterity of form shown here is rare, and elevates the project beyond mere preservation and/or the usual lament of facadism. Rather, it forges a new path for itself and demonstrates along the way that the identity of the conserved might be strengthened with great care.

It takes a village to make an earnest project. The success of Khong Guan can be ascribed to a charmed meeting of kindred allies. As we toured the building, Adrian gives credit to the different partners: URA — for being supportive of a public program within the conserved despite its B1 zoning; The contractor — who carefully salvaged as much as they could, consequently finding a suitable filigree gate for the entry into the new

These seemingly jagged detail references the characteristic utilitarian construction of the old.

View of the Khong Guan Building at dusk.

extension; and Khong Guan themselves — for being passionate, steadfast, and loyal to their legacy: warding off potential buyers of the building and committed to supporting local enterprises.

I am heartened and hopeful that more conservation projects might follow such a deft and sensitive approach. This spirit has caught on, at least, with one of the tenants of the new building. The Alchemist Cafe, whose owners found the space only after construction was completed, pays homage to the building it resides in by using identical mosaic tiles from the original building and showcasing the gates from inside. As Adrian puts it, "I don't know if we're lucky or if people got the cue because we've built it right, but with everything in place, one can remain hopeful."

PROJECT INFORMATION

○ **CLIENT**
Khong Guan

○ **TIME TO COMPLETE**
18 months

○ **TOTAL FLOOR AREA**
2,548 m²

CONSULTANTS

○ **EXECUTIVE ARCHITECT**
META Architecture
with Lua Architects Associates Pte Ltd

○ **CIVIL AND STRUCTURAL ENGINEER**
Prostruct Consulting Pte Ltd

○ **M&E ENGINEER**
Elead Associates Pte Ltd

○ **QUANTITY SURVEYOR**
PTD Consultants Pte Ltd

○ **LANDSCAPE ARCHITECT**
META Architecture

CONTRACTORS

○ **MAIN CONTRACTOR (BUILDER)**
Boon Tian Contractor Pte Ltd

○ **ALUMINIUM/FAÇADE SUB-CONTRACTOR**
Bond Building Products Pte Ltd

○ **INTERIOR CONTRACTOR**
Shanghai Chong Kee Furniture &
Construction Pte Ltd

SUPPLIERS

○ **FLOOR TILES / FLOOR FINISH**
Hafary / Ardex Singapore Pte Ltd

○ **ROOFING MATERIAL**
RC Flat Roof

○ **WALL FINISHES**
Hafary / Ardex Singapore Pte Ltd

○ **SANITARY WARES**
Rigel

Insight

INSIGHT

…And Co-working For All

WRITTEN BY
Ar. Razvan I. Ghilic-Micu MSIA

HASSELL, The Work Project – Asia Square
Image Credit: EK Yap

Let's address the white elephant in the room: everyone wants co-working. What is it about this new typology that has entirely disrupted the workplace market?

Introduction

Is it the hip furniture, the smart-casual atmosphere of the space, not quite button-down enough to feel corporate, yet grown-up enough to inspire more order than a college campus centre? Is it the perpetually buzzing coffee machine or the foosball table in the corner? The truth is co-working comes in a wide variety of qualities and covers a very broad aesthetic range, from inspiring environments crafted by celebrated interior architects to vulgar spaces thrown together using the latest design trends of the day by neophyte decorators.

Regardless of the brand and quality, co-working — just like co-living, co-learning, and latest swarm of typologically hybrid projects taking the world by storm — is not just another spatial architectural proposition, but a shrewd economic real-estate play that impacts how the city is shaped, and ultimately how we interact. It is a disruption that requires a full appreciation of its complexity in order to deliver meaningful places.

Neo-liberalising space — a slippery slope

I was in New York City in 2010 when a new space meant for small agile entrepreneurial types opened in SoHo. It was called simply WeWork — and over the past nine years the name has become synonymous with co-working. Something that many young start-ups have been intuitively doing throughout the world (very much like our own creatives in the light-industrial buildings of Ubi): renting together large lofty spaces and creating an emergent culture of sharing, has now become franchised, and ready to be rolled out across the United States and the world. Although the original intention is brilliant: curate affordable communities of entrepreneurs, do good intentions really scale well without unintended consequences?

MacBook and coffee: the entrepreneurial lifestyle at WeWork in Dumbo Heights
Image Credit: Dan Gold

In Singapore alone, WeWork already has 10 locations, with the 21-storey HSBC tower on Collyer Quay slated for occupation once the bank moves out. Here — just as across the world — the flexibility of short-term leases and promise of low overheads and breakfast seems to provide the type of agility that many start-ups, and even larger companies need. It is yet unclear how a company whose revenue and losses both doubled steadily year after year will stand the test of time, or a recession when its tenants might all flee on a moment's notice. By taking long-term leases on full-office buildings, chopping up the real estate and re-selling it as short-term subcontracts to sub-tenants, WeWork (or any other coworking tempted to copy its model) is flirting dangerously close with the subprime mortgage bubble that brought about the financial crisis of 2008.

To quote a recent CB Insights Report[1], the question is: "So is WeWork's business model just a "house of cards" fueled by "Silicon Valley pixie dust," as critics have claimed?"

One thing is for certain: this aggressive expansionary business model colonizing prominent city blocks will change the urban fabric. If the unwelcoming opaque WeWork storefront along the Beach Centre is anything to go by, the scalability of the "community" model is seriously called into question.

It is all about the people

While the future of the workplace is indeed driven by the economy, its success is enabled and underpinned by space design and technology.

John Naisbitt is quoted in Frederic Laloux's book Reinventing Organizations, remarking: "The most exciting breakthroughs of the twenty-first century will not occur because of technology, but because of our expanding concept of what it means to be human."[2]

For many enlightened organizations as well as co-working entrepreneurs like The Great Room and The Work Project, workplace success in a crowded market is down to one key fact: putting people first.

For far too long has typology in general — especially in an efficiency driven model like the workplace — been all about metrics, numbers, space capacity, allocations and utilization. Good design goes beyond square meters and putting people in chairs at desks. The old Fordist paradigm focused on mathematical efficiency is anachronistic, running against the contemporary Humanistic ideals of unlocking human capital.

HASSELL, The Great Room Offices
Image Credit: EK Yap

1   https://www.cbinsights.com/research/report/how-wework-makes-money/
2   Frederic Laloux, Reinventing Organizations (Oxford: Nelson Parker, 2014), 43.

Produce, Lien Foundation Office
Image Credit: Daniel Chia

Good design is about creating community in a genuine and meaningful way and harnessing the creative power of teams. Innovation is not to be sought in new technologies, but in new ways of thinking about space and working together.

Al Zollar states "Knowledge accidents happen when people run into each other at places like the water cooler, exchange information, and realize an opportunity for collaboration and a synergy between the projects they're working on. We need to make knowledge accidents happen on purpose, regularly and, most importantly, with intent."[3]

Over the past decade the laptop-enabled dream of "working from home" has steadily eroded for one simple reason: as social beings, we all do our best work when we are together, and the most serendipitous discoveries do need the creative chance encounter at the watercooler. It is a matter of skill, insight and imagination to choreograph spaces that enable the social networks of a workplace to best tap into the potential of teams and code-in the right amount of agility to adapt to an evolving activity-based lifecycle. For co-working space operators, it is a matter of true vision to curate clearly and with purpose communities that work, getting their tenant chemistry right instead of deploying repetitive formulas on a trope.

3   https://www.trainingzone.co.uk/develop/business/knowledge-accidents-and-learning-
    management-from-lotus
4   At least one client out of three

Design based on evidence, not on trend

"I want a space like the Google office".[4] Workplace design is not an aesthetic proposition to be commodified based on the latest trends. That is perhaps the shortest path to guaranteed obsolescence or failure. What works for one tenant, may not work for another. Although we are no longer bound by traditional occupancy metrics, space is ultimately a complex service that does have to enable a variety of activities in a swift and efficient way, specific to the community it is designed for.

An agile practice of architecture and design cannot rely on aesthetic skills alone to solve a complex problem that requires among others the knowledge of a sociologist, a design strategist, researcher and experience designer. The most successful contemporary workplaces are designed by creatives who broaden their horizon to make the best use of complementary consultants and go through the painstaking process of change along with their client, creating bespoke spaces based on evidence.

Are codes agile enough?

From zoning and planning guidelines to building codes, the heterogenous breeds of projects emerging across the city are challenging status quos.

At a macro urban planning scale, the distribution and definition of land use is still relatively monolithic.

Room: the phonebooth-sized office you can rent
Image Credit: Room

Hailed as the beginning of a new era, the URA Draft Masterplan 2019 is offering the CBD Incentive Program as an encouragement for developers to reposition and redevelop old office stock as more dense and vibrant new mixed-use typologies that would activate the precinct around the clock. The hope is that a more flexible urban planning will slowly allow for unpredicted innovation in order to avoid the speculative "creative interpretation" of zoning applications and development charges of the past years.

From a building code perspective, it is very difficult to ascertain how agile SCDF will be in overhauling the building code to respond to the dramatic changes in how contemporary enterprises work. Occupancy and egress were previously as bulletproof a formula as the space metrics used by property agents and facility managers.

In contemporary co-working and activity-based working (ABW), the number of permanent tenants and especially visitors can fluctuate massively over the course of a day. The number of people in the office no longer equals the number of chairs behind desks but is driven by parameters such as ratios of people to workpoints, expected level of occupancy, and real-time occupancy monitoring.

For regulatory bodies, anticipating and regulating contemporary developments should start with developing dynamic frameworks that better reflect the nature of occupancy — very much like designers do when planning them for functional and spatial performance. It is yet to be seen how the future of the workplace will shape up as the economy-driven market demand develops in tandem with what's allowed or encouraged by codes.

Conclusion

So, why co-working?

The impact and proliferation of co-working spaces is too often summed up in trendy beautiful images, while entirely missing the positive, humanistic aspects of how delightful and social work spaces can truly fulfil and unlock the potential of human capital.

A property market left to its own devices will quickly become over-saturated and eventually collapse if those funding, curating and designing co-working spaces do not put people first and create bespoke solutions for well-crafted social narratives. People expect more of the places they love, so design must deliver not only through sheer aesthetic devices, but rigorously based on evidence.

Ultimately, the co-working disruption challenges our own imagination and agility as designers, and it is a welcome shake-up to how we perceive typology and our role as creatives.

Quarters Architects, The Working Capitol
Image Credit: Quarters

Quarters Architects, The Working Capitol
Image Credit: Quarters

Anticipating the Architecture of Sharing Culture

WRITTEN BY
Dr. Jeffrey Chan and Dr. Zhang Ye

The Sharing Economy is widely recognized as a fairer, more transparent, participatory and socially-connected economy.[1] In the Sharing Economy, individuals grant each other temporary access to under-utilized or idle assets — often for a fee[2] — and this practice is exemplified by the paradigmatic Airbnb and Rideshare. More recently, big business has started to capitalize on this trend by creating new spatial typologies, which are attempts to systematize sharing. These typologies include the co-working space, which is redefining innovative ways of working and collaboration,[3] as well as the co-living space, which aims to create a synthetic community through the reinterpretation of shared living spaces and other communal amenities.[4]

However, critics of the Sharing Economy would argue that such rationalized configurations of sharing are merely veiled rent-seeking or profiteering ventures.[5] Corroborating these critics, research has shown that instead of improving equity, the Sharing Economy has worsened inequality.[6] Valuable assets with idle capacities are increasingly concentrated in a smaller

group of well-off providers against a far larger group of users, who cannot afford them but nevertheless require their use — otherwise also known as the "Piketty-effect of the Sharing Economy".[7] Furthermore, instead of championing inclusivity and openness, certain sharing practices have turned exclusionary, where individuals are clustered together according to similar cultural capital while excluding others perceived to be from the lower classes.[8] For these reasons, there is a need to look beyond the Sharing Economy and its related architectural solutions.

On this, recent discourse has started to gravitate toward the idea of a sharing culture. By granting free access to different resources to as many people as possible, the cultural disposition to share has become increasingly appealing in neoliberal cities for many who require help or access to resources but cannot afford them. This sharing culture tends to be comprised of citizens (or individuals) who intentionally and voluntarily choose to co-produce, co-manage and share different resources together.[9] In such a sharing culture, sharing activities can expand and bleed into other sharing categories, for example, where sharing caregiving of little children between parents expands into sharing knowledge and resources required in childcare.[10] Unlike the well-defined and targeted sharing practices in the Sharing Economy, interactions and associations within the sharing culture are dynamic living processes constituted by many unpremeditated negotiations and improvisations. Through these interactions, individuals learn and build new connections with others, which can trigger novel situations and needs that then become new opportunities for further sharing. In other words, a sharing culture consolidates when individuals benefit from shared resources and are spurred to reciprocate, which subsequently develop into new solidarities that can reinforce further sharing behaviours.

1   Schor, J. (2016). Debating the sharing economy. Journal of Self-Governance and Management Economics, vol.4, no.3, pp. 7–22.
2   Frenken, K. & Schor, J. (2017). Putting the sharing economy into perspective. Environmental Innovation and Societal Transitions, vol.23, pp. 3–10.
3   Bosa, D. & Levy, A. (2019). WeWork says revenue more than doubled last year to $1.8 billion, but so did its net loss. Retrieved from https://www.cnbc.com/2019/03/25/wework-says-sales-more-than-doubled-last-year-but-so-did-net-loss.html
4   Holder, S. (2019). The largest co-living building in the world is coming to San Jose. Retrieved from https://www.citylab.com/life/2019/06/cohousing-san-jose-room-for-rent-starcity-coliving-housing/590731/
5   Slee, T. (2015). What's yours is mine: Against the sharing economy. New York, NY: OR Books.
6   Schor, J.B. (2017). Does the sharing economy increase inequality within the eighty percent?: Findings from a qualitative study of platform providers. Cambridge Journal of Regions, Economy and Society, vol.10, pp. 263–279.

7   Frenken, K. & Schor, J. (2017). Putting the sharing economy into perspective. Environmental Innovation and Societal Transitions, vol.23, pp. 3–10.
8   Schor, J.B., Fitzmaurice, C., Garfagna, L.B., Attwood-Charles, W. & Poteat, E.D. (2016). Paradoxes of openness and distinction in the sharing economy. Poetics, vol.54, pp. 66–81.
9   Katrini, E. (2018). Sharing culture: On definitions, values, and emergence. The Sociological Review Monographs, vol.66, no.2, pp. 425–446.
10 Ibid, pp. 433.

What could then be the architecture of such a sharing culture? Looking beyond the Sharing Economy, this is an important question that architects should be prepared to confront. Drawing from the work of design anthropologist Arturo Escobar, the community that adopts a sharing culture ought to practice the design of itself.[11] By this, the participants of a sharing culture constantly reshape architecture to better reflect, embody and organize the social and material relations of various sharing activities in their community. In other words, the community practices the shared shaping of their physical spaces.[12] Ineluctably, the architecture must be sufficiently robust — flexible — for these participants' design to accommodate, or enable, emergent sharing practices. For the architect, this may mean designing minimally while leaving maximum room for innovative variation and adaptation by these participants.

In doing this, the architect has to aim for a design outcome that will not only attract and bring together future participants, but also suggest to them how to build on what the architect had initiated.[13] Similar to any open system that relies on co-production, participants should be free to continuously work with and complement the architect's design.[14] Through such processes, spontaneous negotiations and meetings between participants are more likely to take place and opportunities for reciprocal sharing can arise in everyday routines. Nevertheless, the architect must be careful to avoid the many fallacies and sub-optimality associated with characterless 'flexible architecture' that Herman Hertzberger once cautioned.[15]

If the Sharing Economy has initiated a different way of thinking about architecture and the city, then a sharing culture challenges architects to reimagine a wholly new form of architecture that is open, adaptive and living. The challenge of anticipating and conceiving an architecture of this sharing culture would enjoin architects to reconsider what Christopher Alexander once referred to as the architecture of life: an architecture that transcends mere functionalism or aesthetical whims, and which represents "…human value, [architecture] that raised life to its greatest possible heights, [architecture] that supported a spiritual and meaningful conception of human existence."[16]

11 Escobar, A. (2018). Designs for the Pluriverse: Radical interdependence, autonomy, and the makings of worlds. Durham, NC: Duke University Press.
12 Sargisson, L. (2018). Swimming against the tide: Collaborative housing and practices of sharing. In A. Ince & S.M. Hall (eds.), Sharing Economies in Times of Crisis: Practices, Politics and Possibilities. New York, NY: Routledge, pp. 145–159.
13 Simon, H.A. (1996). The sciences of the artificial. Third edition. Cambridge, MA: The MIT Press, pp. 162–163.
14 Sennett, R. (2018). Building and dwelling: Ethics for the city. London, UK: Penguin Books, pp. 254
15 Hertzberger, H. (1991). Lessons for students in architecture. Rotterdam, The Netherlands: 010 Publishers, pp. 146.
16 Alexander, C. (2002). The nature of order: An essay on the art of building and the nature of the universe. Book One: The phenomenon of life. Berkeley, CA: The Center for Environmental Structure, pp. 6.

Agility in Education — Part 1: SUTD

Razvan Ghilic-Micu and Ronald Lim
in conversation with SUTD

Photographs by
Ar. Jason Lee

Bige Tuncer

Eva Castro

INTERVIEWER

Ar. Ronald Lim MSIA — (RL)
Practice Editor,
The Singapore Architect

Ar. Razvan Ghilic-Micu MSIA —(RGM)
Reviews Editor
The Singapore Architect

INTERVIEWEE

Dr. Bige Tuncer — (B)
Associate Professor & Associate Head of
Pillar (Architecture & Sustainable Design)

Eva Castro — (E)
Professor of Practice

Ronald Lim: Could you describe to our readers how the ASD program is organized? What are the desired skill-sets and competencies that SUTD graduates should have?

Bige Tuncer: One of the distinct characteristics of SUTD is that our first year is common for every student, building a foundation in science, math and so on, later choosing which direction they want to go in without restrictions. In architecture we focus on technology and sustainability as an integral part of the design thinking and development process. We want our students to be conceptually strong, but also strong in the skills and thinking processes that drive the industry through advances in technology.

In our core studios students focus on conceptual development, which then integrates technology in interesting ways, complemented by other core courses and electives that further integrate cutting edge technology relevant to architecture. Our students are very fluent in building computational models of many different kinds, simulations, to drive design and to help make better design decisions throughout the architectural design process.

So the skills that our students develop should be strong conceptual abilities, which are very much supported and facilitated by cutting edge technology.

RL: A lot of SUTD students seem to come from a very strong physics and mathematics background rather than from the humanities or a soft qualitative approach. Starting with second year, architecture training itself is ritualized around charettes, reviews, studio culture. How harsh is the transition from the first year focus? How is that working for students?

B: We have re-designed core one in a way that makes the transition much easier. Now that we have a chance to review our curriculum after a few graduating classes, we are focused on building a studio culture. They're being taught introduction to design early on. Studio culture is embedded in the first three terms, which makes the program a softer landing for architecture majors. Some may say that physics and mathematics courses are not relevant for architects, but we think that in fact they are very relevant, because with this kind of foundation, students who are very good in conceptual design can also integrate cutting-edge technology. Our curriculum is the enabler.

Razvan Ghilic-Micu: Speaking of foundation, sitting in reviews I see a lot of the discussion focusing on the very quantifiable aspects of how you generate design through analysis. Students generate data, take it at face value and create a design with it. I have always struggled to see where the students are given a solid platform of history, theory and culture to really ground their decision making in the cultural values of our profession and subjectively interrogate all that amazing information and data that is generated.

Eva Castro: I think regarding your question on how to cope with technology: I was always attracted to SUTD because of that. It is not easy to balance the complete embrace of the myth and criticality of that. Because students in Asia start university so young, they immediately embrace and absorb everything. So we have a lot of conversations about how to be technologically driven without embracing it religiously, and how to develop criticality about what technological advances mean.

RGM: So the school essentially doesn't wholesale buy into technology as the be-all and end-all.

E: No. We simply need to embrace it, like architects have always embraced technology. We must embrace it such that we can operate from within the system, but also challenge the system. This has to do with a good foundation in maths, physics and sciences. For as long as we continue to see those disciplines as completely alien to architecture, and we continue to consider architecture to be this artistic discipline, we are always going to be excluded from the technological and scientific developments. We are always going to be outsiders and will have to follow without really understanding how to operate within it.

B: And then engineers will develop all the systems and tools for architects and we're going to get trapped inside them.

E: Not being against engineers, we love them!

* laughter*

RL: You mentioned criticality, right? I think this is part of a broader discussion on architectural discipline and technology — and Mario Carpo has written about this — as we see these tropes of technology, and the general issue of authorship, or architecture as a cultural project. We can't tell when the tool is the designer, and when the architect is the designer with some aspect of will and intention.

B: But the tool always becomes the designer! A tool is a way of creating a representation. And architects work with representations. A model is a representation, a sketch is a representation, a hand drawing is a representation, a parametric model is a representation; and the representation always influences the design, whatever that may be.

RL: Yes, the link I wanted to make was back to the issue of the quantitative versus the qualitative. This positioning of architecture seems to sell a lot more easily the quantitative because it's measurable.

E: I know exactly where you're coming from, and I think that is a perfect feed to our society, driven by engineers, efficiency and performance. The rest of the schools of architecture that have been working with parametric tools are beyond this kind of discussion around "is grasshopper generating everything?". That is what you're describing.

I don't see it being the case here. And I haven't seen it being the case in some of the leading universities in the world. The question of authorship, with all the developments of machine learning is one that we should pay attention to, because who is the author? How do we define authorship? As architects, we need to redefine what is our aesthetic project, because we need to be able to judge what is of certain quality, and what is not.

RL: So, to bring this into the context of teaching Singaporean students who pass through the JC system, Polytechnic: they do a lot of hard work. They like instructions. They like a set framework where the feedback is very clear to them. Is teaching them criticality and the ability to discern difficult to reconcile?

E: The organisation of the curriculum in general is around three compulsory core studios, where they get what we call the fundamentals. In conjunction, we teach compulsory courses in fabrication, computation, history and theory.

In Core Studio 1 students undergo this shift between general subjects to architecture. Last year I started to coordinate Core Studio 2. Whereas Core Studio 1 and 3 were very well defined, with Core Studio 2 we could perhaps experiment a bit more and ask: What if?

I remember not too long ago, when we started to work with Rhino, our renderings were very abstract. We needed the client to join us in the adventure of producing the design, to believe us and trust us like we trust a lawyer or a doctor.

There was no clear evidence of what things would look like, and the conversation was incredibly rich. As most of the representation became more and more accurate and commercial offices started to produce more and better renderings and animations, clients have started to demand from day one a seductive image instead of a concept, instead of a sketch, instead of ideas.

So, Core Studio 2 is an experiment. The idea of the Digital Archive was to use virtual reality from day one to explore that interface between the physical and the non-physical.

RG: I think there are several things that you touched on that I would like to delve in deeper. You have mentioned notions of reassessing and redefining the way our discipline works. What are some of the dangers of the status quo, or some of the traps of the myth? How are you recalibrating the education of your students to be nimble, either in step with it or ahead of the zeitgeist?

E: To me it is like a double-edged sword. On one side, you have technology and on the other side a good understanding of the historical contextualization of technologies.

If you look at the history of architecture, the best attempts of shifting the gears of architecture have always taken place at that crucial intersection of understanding the tools that we have at our disposal, and understanding how to tweak the tools. If you cannot tweak the tools, if you don't have that critical agency, you will not have a good understanding of what's going on around you.

B: I will add to that and to Ronald's previous question about ensuring our students don't just follow instructions and end up with a cookie-cutter result.

In my view — and I tell this in every lecture that I give and every course I teach — data collection and the use of technology is about moderating the assumptions you make when you design. I think we can design our process in a way that we can use technology and even push technology, tweak it, to create ways of using and collecting relevant data for what we want to do.

If we can technically build the infrastructure of this process with our students in our core studios, in our core courses, later when they have more advanced courses or after they graduate, they can look at the context more holistically and decide for themselves critically.

RGM: If you look at the best schools of architecture around the world, they each seem to have a very strong identity or motivation, they stand for something. What sets SUTD truly apart when it comes to that identity, that legacy? Is that a response to the immediate professional or regional context or is it a response to an ideological project that defines who SUTD is?

E: I think this is a question for any educational institution: do you produce people who get fed into the market, find jobs and continue to produce thereafter? Or you try to produce people who can offer a critique of the world. Educational institutions are always judged, most often in numbers, so the criteria are more quantitative than qualitative. Questions like "how many of your graduates got a job?"

B: We are doing very well at that by the way.

laughter

B: We are a very new school. We are a very ambitious school. And our vision is out there. I think if one looks at our faculty profile, one will understand what our goals or ambitions are, so I invite everybody to do that. But of course, we are an evolving place.

RL: Speaking of faculty profiles both of you are very uniquely qualified, coming from culturally rich international backgrounds and having passed through several well-known schools of architecture. How does that extrapolate to Singapore, and are there common threads through your past experiences and the current one?

B: International experience is very valuable. I am an architect by training. But my specialization from my Masters has been designed computation and information modelling. I have also taught at ETH. When students engage technology in the context of design, they become more enthusiastic and tend to see its value and take ownership. This is pretty much what I see with my own students here in Singapore

E: I think maybe the product of who we are can be seen in how we teach. At the same time, to address your question, I don't believe too much in a national autonomy, or quest of culture in a closed ecosystem. For better or worse globalization has made us perhaps too open, yet we need to respond to that.

Teaching in different places makes you aware of techniques, discussions, strategies that take place at other academic institutions and I can say that my experience here has been incredibly positive. I think our students have an incredible degree of productivity, diligence and hunger; but it's a hunger that you need to feed and that has been the key to me. I do think that you need to understand pedagogically how to foster that hunger.
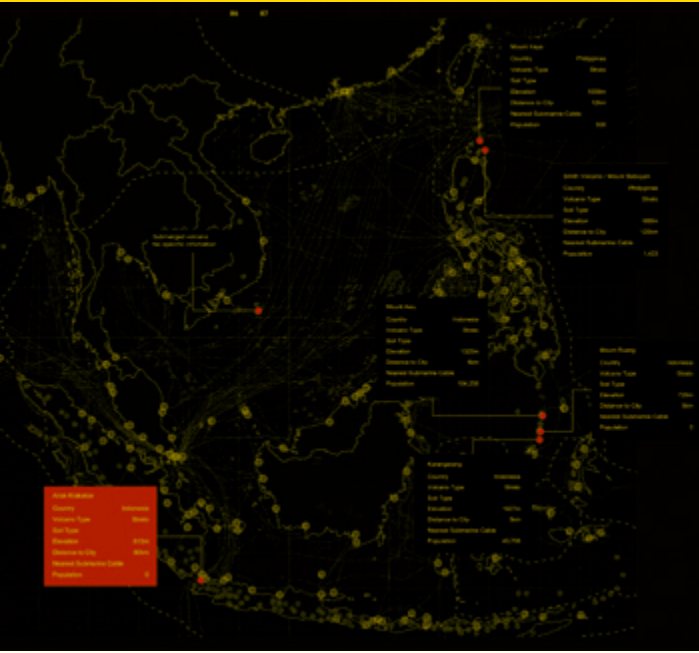
B: Yes, I completely agree. If I may make a comparison, slightly generalizing: at TU Delft only the few motivated students put effort into their projects, whereas here I see this hunger and eagerness much more present.

RGM: Do you think it is ingrained or did you somehow unlock the secret to making them hungry?

B: When they come to architecture, our students are very much driven by grades and getting frequent feedback about their performance. We have a very active strategy as an architecture school to break that. We do not give them intermediate grades, we do not have exams, we give them feedback on their assignments, we critique their progress. This really works.
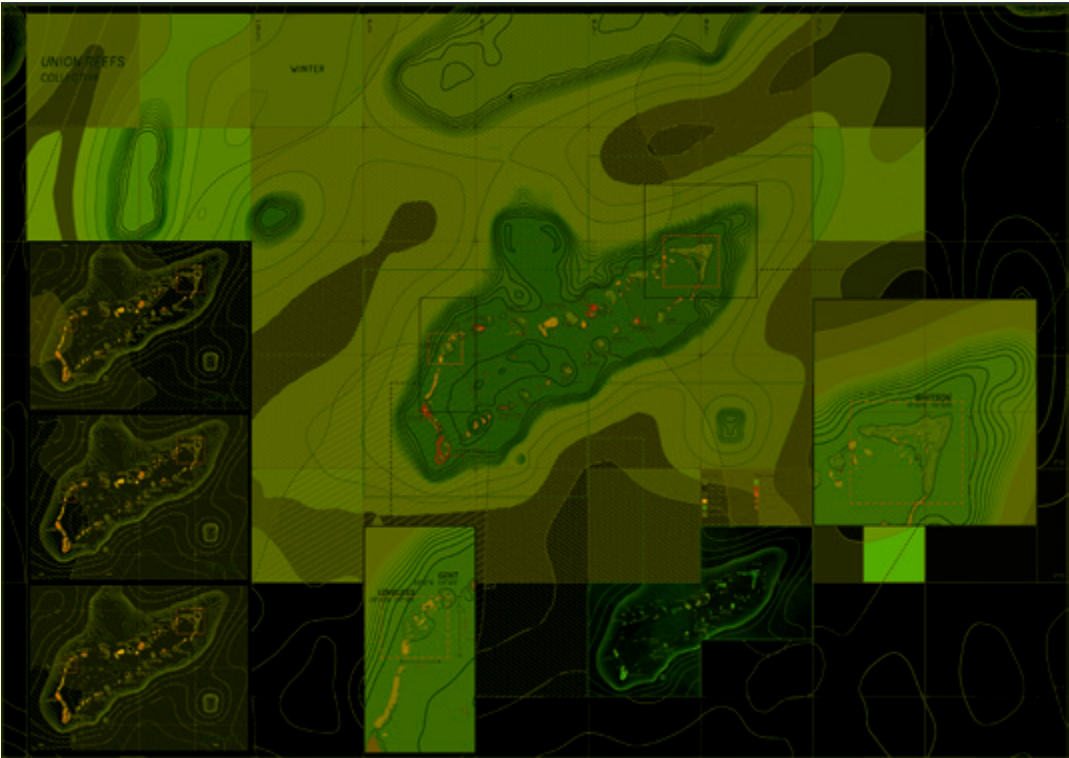
(Opposite page)
Core Studio 2 Final Review
Image courtesy of SUTD

(Top)
Volcanism
— Student Ng Haonan
Image courtesy of SUTD

(Bottom)
Bodies in Exile
— Student Sim Yi-Ting Michael
Image courtesy of SUTD

B — Bige Tuncer
E — Eva Castro
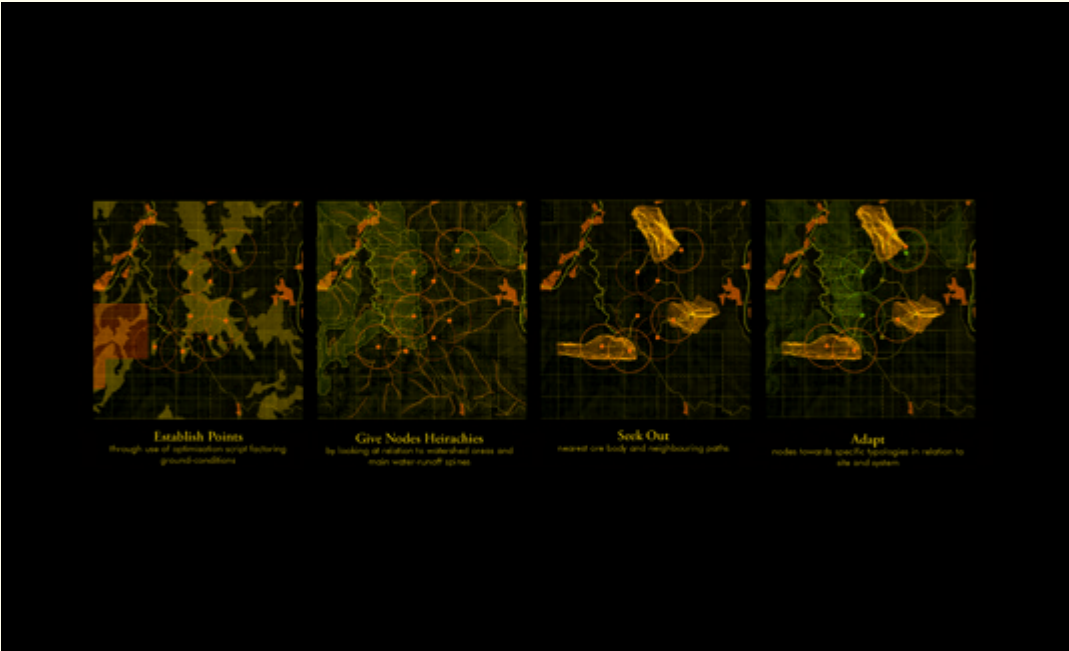
(Top)
Black Strata
— Student Ho Jin Teck Daryl
Image courtesy of SUTD

(Bottom)
Bige Tuncer and Eva Castro
Image courtesy of SUTD

(Opposite page)
Designing for the End of the World
— Student Nabila Larasati Pranoto
Image courtesy of SUTD

E: I think it is a strategic way of changing the game from within, so students understand the quality of their work beyond a mark that is given. And the absence of interim marks also makes them more courageous about their degrees of experimentation. It is very important to try to put a stop to the top-down discretization of creative work.

RGM: So how did you then shift the focus from the value of the grade as some form of abstract representation of your intellectual worth, to them cherishing the process that makes them better as individuals, even if the final grade might be a B, or C?

E: You need to design the process. You can no longer think about architecture as a product that unfolds out of inspiration. "I felt like doing this, I felt like doing that". We see the product as a direct result of a process. We hope what they take away when they graduate is not the projects, but the process, so they can continue to develop it into their own agenda.

I think another key thing is to help them contextualize the work in a larger cultural sphere. And I think that is something that comes with the background of the various faculty at the ASD.

B: Our process is well designed, and the way we evaluate our courses reflects it.

RL: There is a battle that every architecture school is fighting with the broader University between the measurable and the non-measurable, because essentially design needs the freedom to take a risk, yet it must take place in a safe space where you're not punished for having taken the risk.

RGM: Which leads to another question about the framework of the university as an enterprise. Each University competes to attract and retain the best educators and the best students. How does the department manage to foster good quality education that is hard to quantify, but also hitting the KPI's that will place you on school rankings and retain your staff on tenure tracks?

B: I agree with you that what makes a good university is a combination of many different things. For this, beyond the pillar of architecture and sustainable design, there is a broader framework for how the administration runs the university and how funding is organized.

E: A university must be an agent of change. I do believe in academia as that near revolutionary agent where the ideas are generated; it's the laboratory for things to grow into a real project so yes, it is a balancing act.

I think there are very few schools in the world exempt from that, particularly when you're not a fully independent creative discipline. Having said that however, there is something very positive about Singapore, which is its size. Irrigating the context opens up the possibility of changing how we are assessed.

RGM: SUTD itself is no longer the new kid in town. You are accredited. You have produced two cohorts of alumni. Do you see some form of identity forming independent of the school? Is it all going according to plan or is it something new altogether?

B: Everything is going according to plan.

laughter

E: Seriously speaking this is a very difficult question to answer because I don't feel we are sufficiently familiar with what's going on in the architectural practices that hire our students, so we don't have yet a direct feedback loop between what we are doing and how that is being received.

My pre-occupation is that I think we have very well-defined local practices that do a very well-defined type of work. Maybe there aren't many offices driven by experimentation. Yet somehow it seems that there is still a lot of work in Singapore.

What I'm trying to say is that all students get immediately absorbed into the workforce. In London I think 50% of the students that graduated from the Bartlett or the AA started their own offices — perhaps barely scraping by — but still pursued their own things.

I think and I fear that somehow here , culturally, things are very set in a pre-arranged order and students get immediately absorbed into the labour market.

RL: I think it's a systemic risk aversion at all levels, and the price to pay for failure is high. The reason you have KPI's is because the safest environment must be measurable. In turn, that constrains the ability to take risks and find something else that's not measurable.

RGM: Is there a space for young voices to manifest themselves after graduation? What I hear from you is that you don't have that feedback yet; they just go into the workforce, which is great. But it's yet to be understood how the industry is using them.

E: We do not understand yet whether the industry is going to be sufficiently receptive to give them a voice internally and if we are going to start to see some changes within certain offices driven by our graduates.

B: There is some early indication that we are going in the right direction. I hear this from several firms, several students, and these may not necessarily only be architectural firms, but also other big corporations.

RL: Let's talk about the Capstone program. It is a unique project.

B: It's truly unique. It is a two-term studio. All students from all engineering directions and architecture take this course. We take projects from industry, and here you can think of any kind of company: small architecture firms, large architecture firms, developers.

Anything could become a capstone project and it is multidisciplinary by nature. We have a group of faculty from different pillars who help assess and moderate the projects.

When a company comes to us with the proposal, we have a discussion with them, ensuring we understand what they need, and that the project is interesting and of an appropriate scale. Once we approve a project, we open it up to students for selection.

In every group there are students from at least two pillars. Sometimes it's students from all four pillars working on one project. Ultimately, it needs to be a design project — yet the meaning of design is also quite different between the different disciplines so this dialogue between the members of the team becomes very fascinating. In most cases, it adds a lot of value to the project.

Teams need to develop a working prototype at the end of two terms. Throughout the process students also meet at least every two weeks with their company mentor. A very important aspect of capstone is that the IP ultimately belongs to the company. The company pays a fee for each team, partially given to the students to manage as part of their coursework, and they retain the IP rights.

RL: That really dovetails into the theme of the issue, which is really about the conversations that need to emerge, to provide value in a way that is really beyond our traditional understanding of the discipline, in an inclusive and adaptive way.

RGM: Also very broad, as traditionally architects only come alive when they're being given a brief. That is thankfully changing nowadays because

we must be part of the journey alongside our clients, setting up the right question so we can give meaningful answers, and not just being handed briefs.

B: The first part of Capstone is always about defining the problem. The students actively work on that. Sometimes the problem given to them turns out to not be the core issue at all. It happens frequently.

RGM: To conclude, I think the one question we do have to ask is, as you pointed out, we are a very small community in Singapore. And there used to be only one big school, but now there are more. How is SUTD different from NUS?

E: I will leave that one to you.

B: NUS gives a Bachelor of Arts in Architecture and we give our students a Bachelor of Science in Architecture. This should be a good first clue.

Generally I think that it is good to have more than one architecture school in one country, even if it is as small as Singapore. I really believe that it was the good decision of the government to start a second school, and in some aspects, competition makes everything better. In other aspects, collaboration is also very valuable.

I believe that currently collaboration does happen in certain aspects, which is wonderful. We clearly have different ways of operating, and while each school has its own values, I believe we are both very good schools.
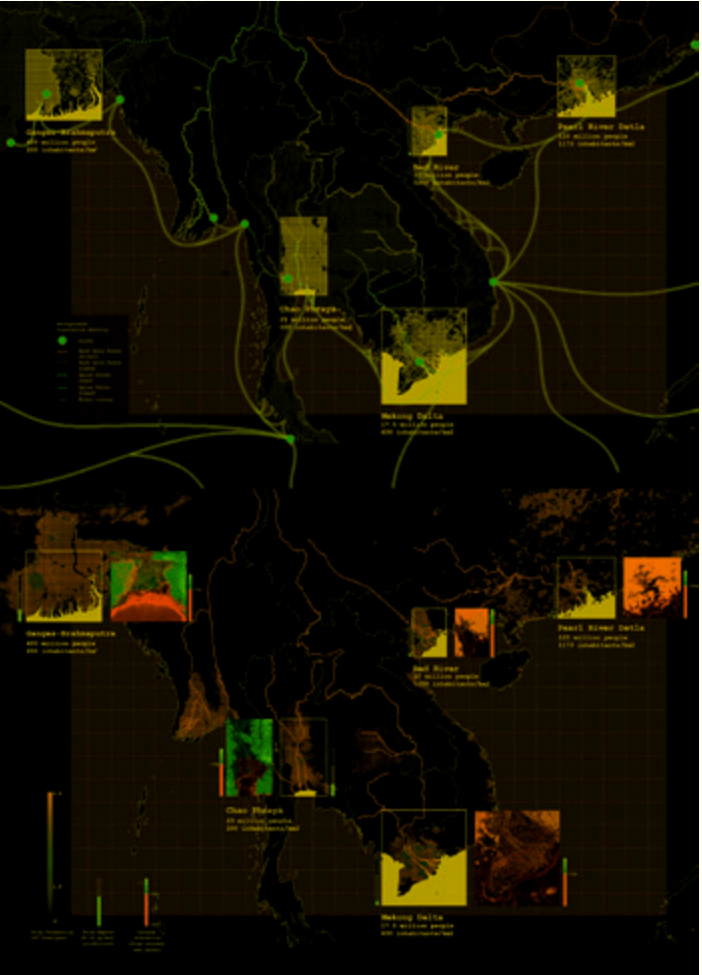
Lilian Chee

Erik L'Heureux

INSIGHT

Agility in Education — Part 2: NUS

Razvan Ghilic-Micu and Ronald Lim
in conversation with NUS

Photographs by
Ar. Jason Lee

EDITOR'S NOTE

The issue is titled "Be agile". Agility is everywhere. Most clients want to develop very agile environments, whether they're learning environments, working environments or retail environments. Responding to the market or getting ahead of it are aspects we are interrogating in some of the projects showcased in TSA16. These are questions that we also opened to practitioners: is the practice of architecture, agile in any way, shape, or form? So the question for you is how is education responding?

INTERVIEWER

Ar. Ronald Lim MSIA — (RL)
Practice Editor,
The Singapore Architect

Ar. Razvan Ghilic-Micu MSIA —(RGM)
Reviews Editor
The Singapore Architect

INTERVIEWEE

Erik L'Heureux AIA, LEED AP BD+C — (E)
Dean's Chair Associate Professor,
Vice Dean, School of Design & Environment,
Programme Director, Bachelor of Arts
in Architecture

Lilian Chee (Dr.) — (L)
Associate Professor, Deputy Head
(Academic), School of Design & Environment

Ronald Lim: I guess we can start with describing generally how the program is organized and what are the desirable skill sets or competencies that NUS students and graduates are meant to have?

Erik L'Heureux: We have a Bachelors of Art in Architecture undergraduate program, and a Masters of Architecture program. I think it's important to position that it is a liberal arts education for undergraduates, with the eventual professional degree being the masters. Undergraduate students get a wide diet of mandatory and elective courses, not only in the department, but also across the university.

I think this wide horizon equips our students with a compelling way of approaching the challenges in front of us — not only technical, but also cultural, political, economic and social. Design education is fundamental to the training of an architect at NUS, and that takes up most of the module credits.

The undergraduate program works on a series six themes across the first three years, rather than typology. We are interested in allowing students to really focus on a theme or topic and to dive very deeply into that. This is not meant to produce a comprehensive architect right from day one, but rather to allow us to tackle very important issues we see right now in architecture.

My own aspiration is that students would already start to think and position themselves as though they would be a thesis student or a practicing architect themselves, early on in their education.

Lilian Chee: I think Erik has already covered most of it, but because you brought up agility as a theme, I think that we must question what the role of an architect is? What is the relevance of the architect today, how we are positioned, where should architecture move to, and who is the architect in the future?

As we were for a very long time the only school here, we were burdened with the responsibility of taking on every single role, primarily as "producing buildings". As more schools are joining the fray, we are slowly trying to shed off some of this responsibility and look at other ways of training an architect.

To get back to the word "skilling", I think the old way of thinking was equipping the student with as much knowledge as possible before pushing them out into the working world. We now know it can be counterproductive because when they go out, things change very fast. Whatever they've learned six months ago may no longer be relevant.

Many young architects today have a hard time seeing what their role is. We see a good number of students from our undergraduate program who go overseas to do their masters and subsequently embark on further studies either in the same field or something different altogether. Architecture should also produce people who can work in different fields and be agile in that way.

RL: NUS has been for a long time a legacy outfit that had to bear the burden of equipping students with tools because of the perception that an architect must do everything in an all-encompassing way as part of a rigid structure.

I think it's precisely because of how heavy the professional structure is, it somehow inhibits and limits the diversity of ideas, so the professional setting does not offer the range of intellectual choices for intelligent graduates.

E: I have a hard time fully subscribing to that. Because yes, NUS has had this history as being the only school. But it's a very large school. We have 150 students per year. Within that kind of capacity, there are a lot of different voices and range of approaches, not only students but also faculty.

And what Lilian is saying is that maybe now we no longer need to have the whole range all the time.

The good thing now is that NUS, through our own self-reflection, has started asking questions. What do we stand for, what is our ethos, what kind of graduate — if there is a type — comes out of this place? That is perhaps not entirely perfected because we are such a big school. But we have started to refine that. Architecture as a cultural act is very important.

RL: Now that you mentioned your ethos, I am quite impressed with how your mission and values are articulated on your website.

L: Because we have a legacy in humanities, history, artistic creativity, we can claim this space and work on it. As a school you cannot simply say "we do everything".

You absolutely cannot do everything. You may cover most things, but some you'll do better than others. Students also are good at some things and less at others, and the best students in thesis do that: they recognize what their strengths are, and they work to their strengths. A student who doesn't do well is the one who does not know what they are made of and try to excel in every field, only to become mediocre in everything.

RL: For those of us who are very aware of the qualitative aspects of learning and education, students have their own strengths, so you want to nurture them to their own strengths, and help them take the right risks for them. However, we are still operating in a system where you have 150 students a year and everyone is evaluated across some rubric that should feel consistent across the board. How do you manage this? Is the education comprehensive, are we penalizing students for taking risks?

E: Okay, I think the white elephant in the room is this question of the comprehensiveness.

First of all, it drives me crazy. And I think that's something that we've been working with the undergraduate program, in order to get away from the fact that a typology or program brief is the definer of architecture, and you just need to produce a comprehensive project that "looks and smells like architecture in all of its capacity" and the more things you take on, the better the project is.

This is absurd in my opinion, but there's a long history to it. There are enough people who believe that is the definition of architecture.

For me, that is providing a service, and not providing intellectual positioning. I honestly hope that all our students are encouraged to at least stand for something and see how far they can go in the discipline of architecture.

We have to get away from the idea that architecture is just about checking a whole series of boxes and saying "okay, because we've done so many things, we have good architecture".

Razvan Ghilic-Micu: Since we're talking about the culture and traditional context in NUS, looking at what you are inheriting the question is what and how you're taking it forward? The best-known schools in the world have a very clear intellectual and moral compass. Occasionally you do see major schools having a dramatic shift and respond to contextual change.

And here I want to bridge two questions: one being about your personal perception of how the architectural discipline is evolving where you see the school going, in terms of how it reacts to the professional discipline. The other is about NUS's identity as something that sounds like a deliberate intellectual pursuit.

E: We are located in a really special place, because our region is still in its developmental phase. There is still sufficient work, Architecture with a capital A is being produced, huge questions of infrastructure are asked, and the urbanization process is still very much ongoing. Maybe in other locations like the US or Europe, that process happens at a much slower degree or has already completed, so architects are looking for other ways of staying relevant and having an influence.

Because we are close to where the work is, the importance of architecture with a capital A is fundamental. At the same time, because we operate in the global circuit and the connectivity between inter-dependent cultural power brokers in Asia, Australia, the US

and Europe, we do have students who can see architecture from a very different point of view. They don't see pouring concrete as doing architecture.

And I think that we're always trying to operate on that hinge. We hope that students and graduates don't necessarily just get absorbed into the service of architecture but become leaders in their profession in different ways: that could be technical leaders, political leaders, creative leaders, or even troublemakers as leaders.

L: Architecture is still defined quite narrowly, because it presumes that students must come out and work in offices. In my view when you embark on a tertiary education in architecture, you are joining a frontier-forming discipline. Right now, we are still thinking of architecture as providing service. Architecture is seen as a solution provider, as opposed to cultural project.

I also think that young graduates who find themselves interested in architecture as a cultural project begin to question themselves, whether they are in the right profession or in the right discipline in the first place.

RL: Because the actual range of options and spaces to engage in architecture as an intellectual or cultural project, separate from taking on all the QP responsibilities on a building, is quite narrow.

E: Oh well, come on, do you think that it is so much better in the US? No, it's worse!

There's a tremendous amount of potential in our context, let's say not only in Singapore, but Southeast Asia, where graduates and young architects are able to do amazing stuff.

I think economically, the developmental structures are putting a lot of pressure when architecture is allowed to happen. This makes it become a service. The financial instruments and return on investment underpinning the production of architecture could be demoralizing. Singapore is an extremely regulated market in the most expensive sense: who can practice and at what level at what skill set. It is also regulated in terms of code and its complexities.

RGM: I think what troubles me a little is this general binary thinking: there are only two ways of reacting to the world, when you come out of school: It's either you subscribe to the traditional practice model, you get sucked in, and in the process your soul gets sucked out, or you become some form of guerrilla resistance in arts and doing other things. Why can't the new generation of intellectuals that NUS trains change the profession from the inside?

The current TSA issue is also trying to tease out how inadequate the traditional profession is to the demands of contemporary clientele. Suddenly designing "buildings" is no longer the meat of the scope. The demand has gone so much past it. If anything, I find that now is the moment to colonize certain areas that architects traditionally didn't have to deal with, and perhaps shed some of the thankless tasks that QP architects must do. It shouldn't be that one has to either subscribe competely to the system, or be banished to operate on the fringes, does it?

E: I share your view. I think of my time in New York, and many of my clients at the time were in advertising. I was always amazed that they would bring an amazing vision, leadership, and advising to their clients — whether small clients or corporate clients — and they were paid very well.

I hope that our graduates and the best architects around do bring that kind of leadership, value and work at that highest level.

Somehow though, because of our legacy service model that holds onto "the thing" as the only product (Editor's note: the thing = the building) and we only generate the revenue off "the thing" rather than the intellectual knowledge to produce the thing, is that we're getting killed fee-wise. Because we are only focusing on the material object.

And we are also not producing it; the contractors are making all the profit off it. We are in the doghouse, not giving ourselves the self-respect that we should be. I really hope these conversations percolate somehow into NUS, and that we take a more honest and more interesting, invigorated approach to what it means to be an architect today and the near future.

Then I think we must come to the terms of how we are compensated, and not because we're greedy, but because of the livelihood of our graduates. Many graduates ask this question: "Should I become a QP?" What they're asking in my opinion is, "How do I maintain a livelihood in the domain of architecture? How do I maintain longevity?"

L: So maybe we should shift the conversation then to that capacity of school itself. And this is thinking larger scale, because now we are thinking of the small shifts that we can make with the students and the profession. I'm just wondering, if the education itself should be more radical, and agile, so all our entrenched values could shift visibly for the better.

E: For many years now, I haven't done a project in Singapore with my students. And I didn't have to go too far either. There's Batam, Bintan or Indonesia at large, with so many interesting things happening. I hope that our graduates are able ask those questions much earlier.

RL: Let's move back to broader issues of learning. Since you mentioned liberal arts, what is the extent of freedom the students get to explore different modules and topics of interest to them?

E: They have to take a number of credits, and some are general education modules. In the Master's program we have pushed hard to open up all the electives. Structurally, students should go into the wider university and take courses they find interesting. However, I think most students see it as a burden rather than something to enhance their education experience. This requires a shift of mindset.

I think there is also another inherent challenge. I went through a four-year undergraduate course, followed by three years of graduate school, so I had seven years to get a master's degree. Here students only take five years to get the same degree.

Where in that space of curriculum do you get courses like "The Philosophy of the Window" which I took with William Gass? Where do I get to take "The History of Cinema," or anthropology? Where do all those important courses end up in a very tight curriculum?

RGM: So this is about the distinction between "educating an intellectual" who can be nimble as they graduate, which seems to be the didactic goal of the department, versus the "training of a professional" which seems to still linger in the department as an ideology.

E: This is about the legacy of treating architecture as an industry. Calling it industry is a very peculiar way of thinking, as though you were just manpower for a profession, rather than preparing our students to be leaders or to take intellectual positions. There is still a long legacy of preparing industry-ready graduates. I have sat in meetings where various people were complaining about how students didn't know their S-trap or P-trap.

There's an infinite amount of information in architecture, and only training those kinds of things is nonsensical. We need to move away from the architect as part of the industry and closer to the architect

as an intellectual with a creative and important contribution to society. I don't want to diminish utilitarianism, because it is important. But I hope we could rely more on the profession to teach that, rather than the space of the university.

RGM: That tension is something that we should speak about. You are not a stand-alone autonomous school, you are accountable to the university. There are obviously your aspirations that are not quantifiable. But there are also many quantifiable aspects and KPI's of academia. What are the hardest parts about changing education, and reaching that consensus with the university and with the profession on how to move the department forward?

L: Most of the requirements we got come from the profession. I never felt the university has specific criteria and constraints on the curriculum.

E: Yes, I agree with you, but I also think that there is a whole pressure that we feel as faculty members, in terms of research output. The whole question of research puts a particular lens on the way we also see architecture in the university.
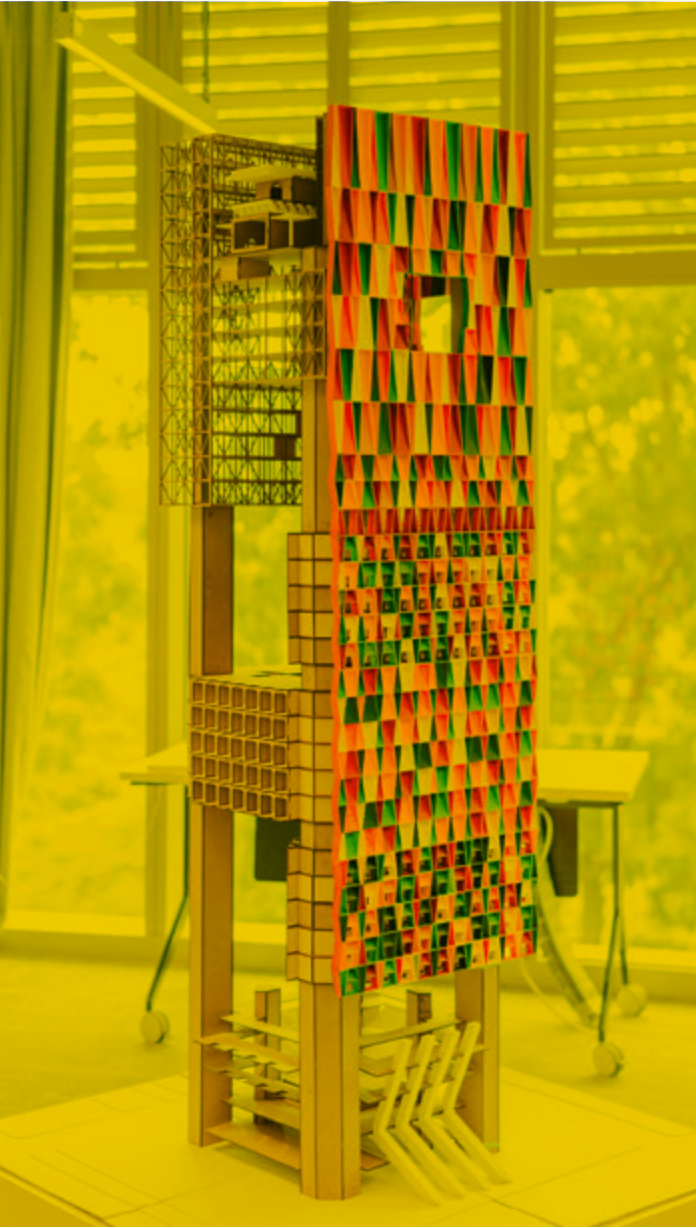
RL: It was interesting for me to hear how Christine Hawley (Editor's note: Ex-dean of the Bartlett, and visiting professor at NUS this past term) describe how RIBA helped her prevent UCL from shutting her school down. It is ironic that in other contexts, the profession rescues the architecture school while here in Singapore, the profession circumscribes it.

E: I think it can all work together in a productive way. Where is the pendulum in that kind of ecosystem? For me at least I think it comes back to the role of our graduates and why we are encouraging them down this path.

L: I can understand why some students may feel like they switch off when they're asked to do certain things, which also relates to the research questions. Tutors are trying very hard to shoehorn research into their teaching. Sometimes the very academic research seems somewhat irrelevant. In the US, because of the professionalization of academia, research has become disenfranchised from the school setting.

RL: I think in the US — at least the East Coast schools we went to — departments were professional graduate schools. You knew that you were training professionals, so many teachers were practitioners who got tenure. The focus was more on creating a body of knowledge and a body of people who represent that knowledge.

RGM: Without wanting to assign value, this has started to rank the utility of research. Do you do it for the sake of KPI's? How are you really impacting positively the discipline? I think that is the fine line between a neo-liberalised discipline, where you don't want academia to become proxies producing research that goes to large firms who commission it, but you also don't want it to become a form of self-gratification in the mirror.

LC: *laughs* Actually a few days back I was looking at the NTU PhD program for Art History, and they are doing very interesting things. I think their inquiries are relevant to the production of art as a creative critical practice around Southeast Asia and broader Asia.

Strangely architecture rarely has this approach. Research in architecture has tended to become very serviceable; if there's a need we quickly find some research to do. We are happy to pay money for researching waste disposal systems, but not for asking critical questions.

RGM: I guess relevance also has a scalability or has a temporality. Certain things are immediately relevant. You have a need that you must fulfil, and that's when education becomes reactionary.

But also, you can anticipate some of the needs. Countries around us are developing at a fast pace, so exporting knowledge as opposed to buildings is our next frontier.

E: Indonesia is basically the size of the US population wise, so my precise point is getting students to know how to operate in contexts outside Singapore.

RGM: Universities globally are competing to attract and retain the best educators and students. Facilities, the curriculum, the campus itself. Where is NUS positioned in order to keep attracting and retaining the best faculty and students and maintain relevance regionally and globally?

E: We just opened SDE4, which is a net zero building. We are going to have a super low energy adaptive reuse of SDE1, finishing at the end of this year. By the end of next year, SDE3 — the home of the architecture program — will also be completed. I think on the facilities side, we have a lot of support from the university to champion the ethos we stand for.

Faculty wise, Lilian, myself and many others are working very hard to

E — Erik L'Heureux • L — Lilian Chee

try to recruit new and interesting design-based faculty as an ongoing process. It is so important that we have people in our core faculty who are doing creative practice as part and parcel of their research project. That creative practice is fundamental.

In terms of students, many of them will still come from Singapore but we are expanding our range internationally. We think that diversity is healthy. We have exchange programs to over 20 or 30 universities. That is very productive for our students, not only for those who go overseas, but also for the ones that are here when the exchange students are coming in during the third and fourth year.

RL: There seem to be other programs in SDE, yet they all seem rather secluded?

E: I think this is a real estate question more than intent. The ambition is that with the new renovation taking place, everyone will eventually be housed in SDE.

RGM: The time has come for the closing question: We are part of a small community of design professionals. How is NUS different from SUTD? Where does it fit in the local and regional context, now that it is no longer the only producer of architects

L: Like we said earlier on, we are still refining our position having had a generalist approach so far. At least for myself, I think that we have enough history behind us to be able to look at architecture more through a humanist and cultural perspective.

E: I think we definitely have an expanded view of the role of an architect. Design Excellence is at the centre of what we do.

There are many lenses, but they are all coming from the cultural point of view we apply: whether technological, scientific, human, aesthetic or political. Because we are able to have that wide intellectual range, we think NUS is and will continue be a very strong reference point for architectural education.

(Opposite page)
Kitsch | Kcamp | Khmer
— Student Ezra Aik
Image courtesy of NUS

(Top)
Slow Hands Make Quick Work
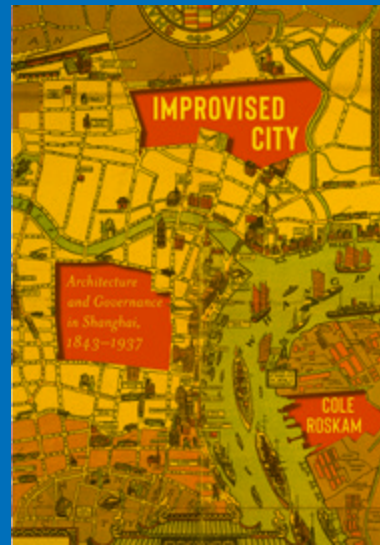— Student Zuliandi Azli
Image courtesy of NUS

BOOK   REVIEWS

01

Improvised City:
Architecture and Governance
in Shanghai, 1843–1937

Written by Cole Roskam

Reviewed by Ian Tan

Mention colonialism and chances are it would conjure images of imperialistic pomp and pageantry on one hand and on the other, violence and oppression in reshaping the physical landscape to predetermined design and functional purposes. Roskam's book however challenged such standard narrative. Instead, he offered a fascinating account of how Shanghai, as an international treaty port in the 19th and 20th century, did not develop systemically to plan.

The title Improvised City hinted at the peculiar spatial qualities that had emerged as a result of Shanghai's complex tripartite governance structure shared among Shanghai's three municipalities: the International Settlement controlled by British and American ratepayers, the French Concession, and the Chinese walled city under Qing rule, and the unruly cosmopolitanism generated by the ambiguous extraterritorial rights enjoyed by foreign governments and their nationals on Chinese sovereign land. Architecture played an important role in mitigating the anxiety produced by competing commercial interests amongst the local and foreign traders and the confusing myriad of legal and governance systems individuals abided by. New building types such as courts, consulates, town halls and infrastructure became physical spaces that not only delineated different municipal functions but also represented the communities they served, and the authority and the symbolism vested in them. Focusing on the relationship between municipal governance, diplomatic representation and the resultant architecture in Shanghai's treaty port, Roskam traced the development of the "cosmopolitan community designed for unfettered economic exchange".

The book adopted a broadly chronological approach. In turn, each chapter focused on specific episodes of Shanghai's history in the 19th and 20th centuries, providing readers with not just a macro perspective of events that influenced Shanghai's political, cultural and social development, but also the actors and their motivations that had shaped the physical edifices that adorned Shanghai. The first chapter laid the groundwork for later discussion on the cosmopolitan yet volatile nature of Shanghai. It provided reasons behind Britain's compulsion for the Qing

Empire to open up Shanghai in the aftermath of the Opium War and the early development of a model mercantile settlement at the Bund along Huangpu River outside the walled Chinese city. Chapter Two examined how crisis such as the Small Swords Uprising and Taiping Rebellion threatened to disrupt the peace and prosperity necessary to uphold the treaty port's founding principle of laissez faire commercialism and to assuage overseas investors of its long-term viability. In turn, anxiety over the city's lawlessness and potential trade disruptions would percolate into architectural strategies designed and built to mitigate such risks. The following chapter discussed the construction of public buildings, not to exert conquest and control as in traditional colonies, but rather as cultural acts to symbolise a new municipal citizenship that transcended national, racial and religious boundaries, such as establishing a Mixed Court to try Western and Chinese criminals and the locals' acceptance of foreign institutions such as the Trinity Church and the Masonic Hall.

Taking this approach however does not mean that the book is devoted exclusively to discussing Shanghai's exemplary architectural heritage, such as the stylistic analyses of major landmarks or adopting a binary definition of what differentiated traditional from modern forms, or local versus Western architecture in Shanghai. Instead, the research is guided by a strong theoretical framework in which the author examined firstly, how architectural development aligned to ideologies in political control, spatial negotiation and municipal administration; and secondly, how the public's interaction and perception of these architectural objects reinforced or subverted such intents.

Shanghai is not the only example of an international treaty port established during a period of burgeoning transoceanic exchange between the West and the Far East during the 19th century. Yet it is remains one of the most complex and influential urban environments of the period. Further studies focusing on the architectural dimensions of extraterritoriality could lead to comparative studies of Shanghai with other extraterritorial zones like Suez Canal and Tangier and provide new insights on cosmopolitanism and modernisation.

02

In their own words
– Pioneer Architects of
Singapore Polytechnic

Compiled by Wong Yunn Chii

Reviewed by Ar. Quek Li-En MSIA
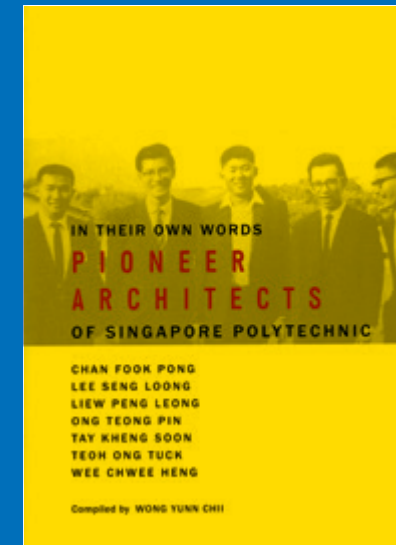
This book gives a first-person perspective of the post-independence architectural scene in 1960s Singapore. From the formative years of the pioneer architects' education to the uncertainties they faced in establishing themselves as local professionals, their struggles are documented in a series of interview transcripts which reveal the tumultuous milieu under which modern architecture in Singapore developed.

The oral history format proves engaging and is necessarily disjointed as each architect tells their story through a series of anecdotes. It is refreshing to read this true-to-life coalescence of practice and architecture as the Pioneers candidly reveal the social and economic rationales behind urban development. This is no carefully orchestrated narrative, but rather a sincere reflection on the ebb and flow of the architects' career.

It is perhaps this aspect that is most appealing about the book: beyond architectural design — economic savvy, political affiliations and individual charisma played a large part in determining the city we see today. The relationships forged between patron and architect, negotiations at the meeting table or in private, are what led to deals being struck and projects materialized. With equal measures of humour and sobriety, the architects share unvarnished aspects of practice which are seldom espoused.

An overarching theme seems to be the question of how to make the best out of messy political and economic circumstances. The Pioneer architects navigated their way through this morass and produced a body of work which has proved foundational for architecture in Malaya. Perhaps this holds a lesson for us today, in a world which has been fragmented by mercantile interests and competing ideologies, how does one negotiate the practice of architecture?

No definitive history is encapsulated in this book, but it provides a stepping stone to unravel the beginnings of modern architecture in Singapore, a reference point upon which to set out further studies of this neglected era.

Studio

6 × 3

Six creatives answer three salient
questions on Agility

A cross-section through the zeitgeist of our contemporaries

For this issue we have considered a slight departure from the normative one-practice feature approach. The question of agility indiscriminately affects all creative practices, regardless of size, experience or reputation. The six selected practices are meant to sample a representative cross-section of models, scales and areas of expertise.

From large established Architecture firms like Architects61, currently undertaking complex and large commissions, to Design Studios like Produce crafting bespoke interiors and pushing material research, we asked each to answer the same three questions, ideally through the voice of a person representing the Next Generation of leaders in their respective firm.

We thank all six practices for their openness and encourage you, our reader, to think of your own answers to the three questions, as you delve into the next few pages.

— Razvan Ghilic-Micu and Ronald Lim

Filippo Pesce
Architects 61

Donovan Soon
FDAT

Ben Teng
K2LD

Pan Yi Cheng
Produce

Pearl Chee
WOHA

Randy Chan
Zarch Collaboratives

STUDIO

Architects 61 on Agility

Answers by Ar. Filippo Pesce, Associate

Filippo Pesce
Architects 61

'Agility, adaptability, nimbleness are essential in contemporary practice.' What is your response to this statement? What does being agile mean to you?

Filippo Pesce: It means openness and collaboration. We practice in an era where structural changes may arise thrice or more in the timespan of a professional career, and remaining receptive to embrace them helps with staying relevant. The continuous professional development must not be only to contractual and statutory requirements. Humbleness toward technology, eagerness to explore alternative processes, solutions and techniques, inclination to diversity are the foundations for a confident mindset toward the future. Predisposition to transformation is the very key not only to survival, but to prosperity. We have to be mindful that flexibility in individuals requires a tremendous effort and it's not a natural instinct. In our discipline it means being digital-savvy, pairing the technical knowledge with up-to-date software, and maintaining a collaborative spirit.

Do you find your practice model under threat? How is your practice adapting to stay relevant in this environment?

F: We believe in collaboration and team effort. Both at a macro-scale, amongst architects 61 (a61) and national and international consultants, and also at a micro-scale, within our office itself. The first instance is well rooted in a61, initiated with the first few mega-projects decades ago (Raffles City, Temasek Tower, OCBC Centre). We continue to evolve to allow us to expand into sectors that would not be possible based on our office current expertise and size, like Changi T5 and the New Science Centre. Our answer to the second question is derived from the awareness that a complex project requires various skillsets and levels of knowledge which cannot be delivered by a single individual. We believe that all team members contribute their unique talents and skills to the success of a project from concept to delivery. Internal cooperation is supported by a leadership whom encourages

dialogue and ideas horizontally as vertically, bridging the generational gap and easing communication.

Can you share a recent example of a project where you had to depart from the traditional norms in some way (it could be in the typology, project delivery, etc.) What was the challenge and how did you overcome it?

F: The conceptualization and design development of the new Esplanade Waterfront Theatre, for which a61 is both design and project architect, needed to deviate largely from the standard to deliver its vision. Conceived to be a mid-size theatre for an audience capacity of 550, complexity resides in the atypical layout configuration where the stage 'floats' from the usual end-stage format, to the less common centre-stage, or disappear in a flat-floor layout. Other variations of stage layouts are also catered for. The stage and seating are designed to be fully removable, within a 'raw black-box' interconnecting four storeys and a mezzanine equipped with performance based engineered smoke control system. This was a highly cost sensitive project fully designed in BIM. Delivering the flexible layout was the result of a strongly collaborative design approach whereby all parties played key roles, from client to consultants to specialists. The Waterfront Theatre serves also as example of how a61 aims to remain relevant through a design that avoids self-referential gestures and is respectful of the context, environmentally conscious and user-focused.

Waterfront
Image Courtesy of A61 Architects

Theatre Interior
Image Courtesy of Esplanade — Theatres on the Bay

FDAT Architects on Agility

Answers by Ar. Donovan Soon, Director

Donovan Soon
FDAT

'Agility, adaptability, nimbleness are essential in contemporary practice.' What is your response to this statement? What does being agile mean to you?

Donovan Soon: Yes I fully agree, especially so in an increasingly crowded landscape for small and medium sized firms. How rapidly one can respond meaningfully is an indication of agility.

Do you find your practice model under threat? How is your practice adapting to stay relevant in this environment?

D: I think we are quick and flexible in finding design solutions to problems and roadblocks. However, we still function like a traditional architecture practice at heart and may need a re-think for us to come out of our comfort zone.

Can you share a recent example of a project where you had to depart from the traditional norms in some way (it could be in the typology, project delivery, etc.) What was the challenge and how did you overcome it?

D: One example is the PARKROYAL Kuala Lumpur — the client wanted to decant their existing office building and convert it to a Hotel, with extensive lush greenery, similar to PARKROYAL on Pickering. However, the building envelope was already maxed out and the client didn't want to lose any internal areas. After much study we designed a series of lightweight planters that can be bolted onto the existing façade adding much needed greenery. DBKL (local planning authority) was consulted and agreed that the planters could extend into the setback. In addition to providing relief to the streetscape, the landscape also enhanced the view from within the guest rooms, screening away the view of the elevated LRT track which passes close by.

Another example is Straits Clan (previously New Majestic Hotel) — the challenge here was that the client's vision to create a creative community that didn't fit in to any available categories. The club would host meeting spaces, a restaurant, gym, massage corner, arcade and bar — which didn't fit into any of URA's use classifications. There was a lot of dialogue with URA to convince them that we weren't up to anything nefarious.

Park Royal Kuala Lumpur
Image Courtesy of FDAT Architects

Straits Clan
Image Courtesy of FDAT Architects

STUDIO

K2LD
on Agility

Answers by Ar. Ben Teng, Director

Ben Teng
K2LD

'Agility, adaptability, nimbleness are essential in contemporary practice.' What is your response to this statement? What does being agile mean to you?

Ben Teng: Fully agree! In this day and age, everything moves and changes so rapidly. If the practice is not agile and adaptive, we will be outdated.

To me, 'agile' is being open-minded and having a curious mind. In our line of work, keeping an open mind enables us to observe everything (including non-archi stuff) in a more 'in-depth' perspective; understanding the 'why' and 'how' to all matters. This sort of understanding enables the office to craft unique solutions for our design work. That's agility to me.

Do you find your practice model under threat? How is your practice adapting to stay relevant in this environment?

B: Not at all!

Ever since K2LD Architects was established in 2001, we have been through a few rough patches; but we survived.

Our ability to adjust and adapt is largely due to our fluidity in the office structure and the mindset of the office. The fluidity (adaptability) nature of the office structure allows us to plan our resources in a flexible manner, and the openness in our staff mindset permits them to work on projects in various sizes in an efficient way.

Can you share a recent example of a project where you had to depart from the traditional norms in some way (it could be in the typology, project delivery, etc.) What was the challenge and how did you overcome it?

B: There is no particular one project that has pushed us out of the comfort zone, at least not yet. We deal with clients from all walks of life day in day out, and the project design brief varies from client to client. The key is to listen well and comprehend their needs, this is how we get an 'in-depth' understanding of their aspirations, and to craft a unique architecture solution for the project.

Like 'The Golden Box', client came to us and wanting his house to look like a commercial building; which we totally understood after listening to his aspiration. The project was fun!

In a reversal, we have another client requested for his commercial wine storage facility to look like a bungalow. Again, we listened and understood the requirements, and we delivered.

The Golden Box
Image Courtesy of K2LD Architects
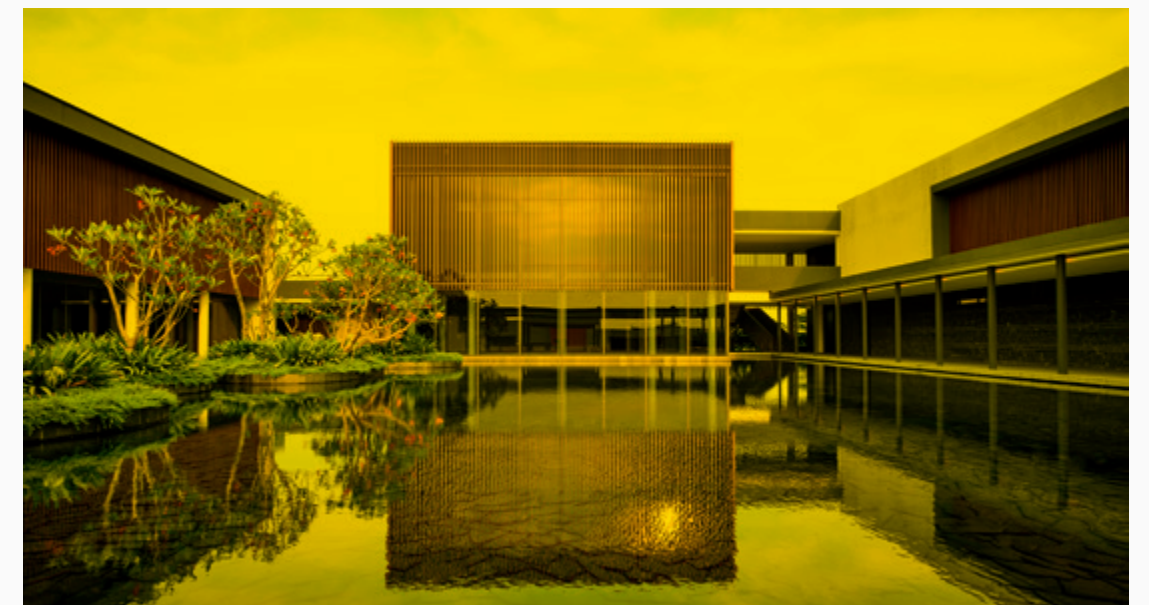
Singapore Wine Vault
Image Courtesy of K2LD Architects

Produce on Agility

Answers by Ar. Pan Yi Cheng, Director

Pan Yi Cheng
Produce

Oxcii
Image Courtesy of Produce

'Agility, adaptability, nimbleness are essential in contemporary practice.' What is your response to this statement? What does being agile mean to you?

Pan Yi Cheng: It is important to be agile, adaptable and nimble in contemporary practice however it is also important to determine the boundary of one's practice. I would still limit my practice within the traditional mode of production of Architecture. To practice within this boundary means to be able to influence and control the processes, tools, materials and social relations in service of a physical built environment. Within this boundary, it is essential to be agile to adopt new methodologies, to be adaptable to the rapid advancement in technology and to be nimble to meet new urban demands.

I think that being agile does not mean to operate across traditional fields of discipline into territories such as branding and marketing, experience design, augmented reality etc. Instead, it is about exploring different modes and keeping the best to deepen our practice.

Do you find your practice model under threat? How is your practice adapting to stay relevant in this environment?

YC: In the current digital environment, we are facing a surplus of digital skills and knowledge with grossly opportunities to practice them. The reason being, many new building technologies such as engineered timber construction, are not accessible to small practices doing small projects due to economy of scales. To discover more possibilities and wider applications that comes with technological advancement, it requires the entire industry to work on multiple types of project rather than relying on the efforts of a few large companies working on few large projects.

To overcome this, we have been building up our prototyping capabilities so that we can employ advanced technological productions even for very small projects. We see these small projects as means to accumulate knowledge for scaling up our operations in the future.

Can you share a recent example of a project where you had to depart from the traditional norms in some way (it could be in the typology, project delivery, etc.) What was the challenge and how did you overcome it?

YC: We were recently involved with the rethinking and revamping of traditional shopping malls. It is already cliché to say that shopping malls everywhere has been disrupted by online shopping. Increasingly, we find that more providers are relying on data analytics to guide mall planning to bridge the online and offline gaps. The role of the architect as planners of spaces is therefore reduced to mere decoration and at best thematization. We ended up proposing a system of prefabricated retail units that can be fabricated on demand as well as an organisational model that resembles urban growth patterns. We proposed this as a suggestion that malls can be reclaimed by the City and conversely that retail no longer requires the confinement of a mall type. Like 'The Golden Box', client came to us and wanting his house to look like a commercial building; which we totally understood after listening to his aspiration. The project was fun!

In a reversal, we have another client requested for his commercial wine storage facility to look like a bungalow. Again, we listened and understood the requirements, and we delivered.
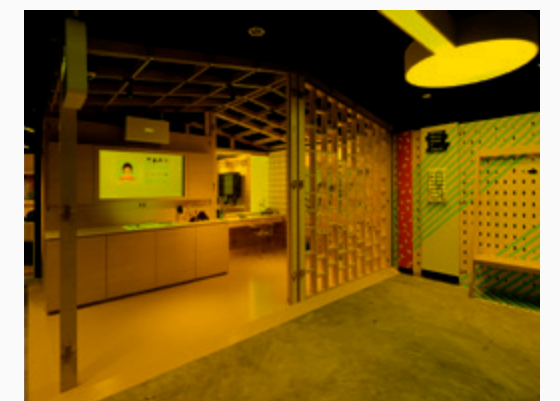
Prefabricated Retail Unit
Image Courtesy of Produce

WOHA on Agility

Answers by Ar. Pearl Chee, Director

Kampung Admiralty
Image Courtesy of WOHA

Pearl Chee
WOHA

'Agility, adaptability, nimbleness are essential in contemporary practice.' What is your response to this statement? What does being agile mean to you?

Pearl Chee: To us it means being mentally agile in terms of creativity and architectural possibilities, to not revert to "default mode".

Do you find your practice model under threat? How is your practice adapting to stay relevant in this environment?

P: The practice is changing at a very fast pace, with new systems, regulations and services that must be provided — but these new services are mismatched with the old fee structures as well as terms and conditions. The architectural practice is at a real pinch point where something has to change. It is time for the private and public sector to recalibrate contemporary services and remuneration.

Can you share a recent example of a project where you had to depart from the traditional norms in some way (it could be in the typology, project delivery, etc.) What was the challenge and how did you overcome it?

P: A recent project that is different from the norm is Kampung Admiralty. It is a project where we had more agency and were able to propose new spatial possibilities.

Kampung Admiralty was briefed as a cluster of public services and facilities as an integrated public development. The traditional approach is for each government agency to carve out their own plot of land, resulting in several standalone vertical silo buildings. Instead, this proposal distributed the various stakeholders as a horizontally layered "club sandwich" giving much more opportunity for cross-programming benefits and showing that the whole is greater than the sum of its parts.

Besides the challenge of integrating the unique mixed uses and programs, there is also the challenge of working with many agencies as a collective client and this is very different from traditional single client project.

Kampung Admiralty
Image Courtesy of WOHA

Zarch Collaboratives on Agility

Answers by Ar. Randy Chan, Director

Randy Chan
Zarch Collaboratives

'Agility, adaptability, nimbleness are essential in contemporary practice.' What is your response to this statement? What does being agile mean to you?

Randy Chan: To understand 'Agility' we must first define our context: Southeast Asia, a diverse multi-cultural, multi-religious region largely comprised of emerging economies with a young consumer base. We are moving towards a 'Sharing Economy', differing from traditional models.

Being at the centre of a rapidly developing, industrialising region, we are made acutely aware of the new environmental realities brought about by climate change as this development often comes at the expense of the environment.

'Agility' is perhaps how to be relevant to society and the environment. At Zarch, our position since the beginning has been that design is the convergence of a multitude of disciplines. It is about adapting to the new conditions where design is no longer compartmentalised, where collaboration is the norm and design requires a consciousness in mitigating our environmental footprint and prudent use of resources.

Do you find your practice model under threat? How is your practice adapting to stay relevant in this environment?

R: It is not that the practice model is 'under threat'. The 'threat' is perhaps the internal inertia to learn and adapt and the persistent belief that architectural practice can be sustained as per status quo.

For better or worse, practice has evolved beyond a space-centric discipline towards a more holistic consideration of the human experience. There appears to be an increasing engagement with communities and stakeholders to the extent that contemporary practice has to rethink how projects are proposed and managed. Communities shape space even before the project starts.

Contemporary practice has transformed from having a look-and-see approach to one where

the architect can take part in important conversations through engagement. Our office maintains a Special Interests arm that has recently invited architects, experts from various fields and the public to engage in open dialogues on issues, and perspectives often invisible from within the confines of the discipline. One major recent issue we discussed was the trend of En-Bloc redevelopment whose impact is profound across society.

Professionally, the present challenge is how to foreground the issue of the environment in every project in ways that raise a sustainable sensibility among clients, consultants and eventually those who dwell in the space.

Can you share a recent example of a project where you had to depart from the traditional norms in some way (it could be in the typology, project delivery, etc.) What was the challenge and how did you overcome it?

R: Zarch has recently completed Windsor Nature Park, a 'buffer' park located at the fringe of the Central Catchment Nature Reserve. In the context of land-scarce Singapore, the challenge is in enabling nature and the city to co-exist. How do we re-imagine the typology of the park as a biophilic space that allows existing nature and biodiversity to thrive. The design seeks to fulfil three objectives: to accommodate minimally-intrusive recreational activities on site, to promote education and appreciation of nature and to protect and strengthen the existing biodiversity.

The resultant strategy was to position the new visitors' node to one portion of the park while the remaining area was nurtured as a regeneration forest. The planning entailed in-depth biodiversity studies, working with non-governmental groups, close observation and walking the site. We had to develop a different sensitivity in both executing the project and in thinking about architecture. The project perhaps demonstrated that we could be building more with less.

Windsor Nature Park
Image Courtesy of Zarch Collaboratives

Practice

PRACTICE

Towards an Agile Profession:

A Conversation with Ar. Seah Chee Huang — President, Singapore Institute of Architects — on why the profession must transform

SIA President Seah Chee Huang in conversation with Ronald Lim and Razvan Ghilic-Micu

Photographs by Ar. Jason Lee

EDITOR'S NOTE

Digital design delivery — Constructability — Future Economy — Design-for-Maintainability… barely a day passes without some new initiative or dynamic that significantly impacts how architects work. Furthermore, these changes are happening in an environment of stagnant fees and complex issues of liability and scope-creep. The current state-of-affairs implies that it cannot be business as usual for architects. Addressing these multi-faceted dynamics, the Singapore Institute of Architects is releasing its Industry Transformation Map (ITM) to qualitatively enhance the architectural profession. In this interview, co-editors of this issue Ar. Ronald Lim and Ar. Razvan Ghilic-Micu speak with Ar. Seah Chee Huang — President of Singapore Institute of Architects — on the proposed ITM, the many challenges facing the profession, and why agility matters.

INTERVIEWER

Ar. Ronald Lim MSIA RIBA — (RL)
Practice Editor,
The Singapore Architect

Ar. Razvan Ghilic-Micu MSIA —(RGM)
Reviews Editor
The Singapore Architect

INTERVIEWEE

Ar. Seah Chee Huang PSIA — (S)
President,
Singapore Institutes of Architects

About the Industry Transformation Map

Ronald Lim: Thank you for agreeing to this interview. Our current issue theme — Be Agile — is based on the premise that both architecture and architectural practice need to change and adapt to bottom-up dynamics. Architects our age are debating intensely on how the business model must change. We know up-close what these challenges are.

Razvan Ghilic-Micu: And nobody is really shielded. Architects are always at the confluence of all these market pressures, new typologies, new economies and so on. That really spurs the idea of agility in the profession and is intimately related to SIA's Industry Transformation Map (ITM). Could you perhaps open with when and how the ITM came about, and what the desired outcomes and hopes are for it?

Seah Chee Huang: This is really a response to the government's Committee for Future Economy (CFE) report released in end-2016 which identified future economic challenges. It charts key strategies to restructure the economy in order to address them and stay competitive. Looking within the construction sector, the question is how we can continue building something sustainable and innovative in the longer run.

For SIA, the ITM was a crucial strategic tool to re-examine the profession. Within this landscape of how the profession is being shaped and the areas within our natural purview, the ITM goes beyond practice itself to address the broader idea of an architect's role and how to stay relevant. There is a larger physical and socio-economic climate, with the shifting economic centre-of-gravity from the US to China, that is shaping our work. There is also a part on skills — both current and future skills. One key topic is the impact of digital technology on how we, as practitioners, conduct our business in the future.

In short, it's really about what the profession has to give so that we remain a valued profession — not just to add economic value but also to contribute to the well-being of community and society.

RL: It appears to operate on many levels.

S: Yes. At an individual level, the ITM addresses competency, skills and capabilities. At the industry level, it seeks to cultivate an innovative and progressive agenda. At the national level, it builds a framework for a stronger economy and furthers our cause of a sustainable and liveable environment. This is how we formulated the SIA ITM in essence.

We also see the ITM as a set of living documents since the context is evolving rapidly. If possible, we want to continue reviewing this road map every year or two years. Also, there is still Phase 2 of the ITM. Towards the end of the last term, we spent a fair bit of time scrutinizing specific details of the ITM to operationalize it. So further to the ITM, we obtained a grant from Design Singapore to chart out our 3-year industry road map.

So to sum up there are two parts: the ITM which is visionary and highlights the challenges, opportunities and strategies; and the 3-year roadmap, which operationalizes our planned strategies.

DESIGN
CREATIVE: AESTHETIC, DELIGHT

TECHNICAL
FUNCTIONALITY, CONSTRUCTION, TECHNOLOGY

STATUTORY
PUBLIC SAFETY & LAW COMPLIANCE

ECONOMIC
COST VS. VALUE, OPTIMISATION

ENVIRONMENTAL
ECOLOGICAL & CLIMATIC SUSTAINABILITY

SOCIAL
UNIVERSAL DESIGN, CULTURE, HISTORY, PLACE MAKING

ADMINISTRATIVE
CONTRACT, PROJECT, DISPUTE

INTEGRATIVE
RELATIONSHIP, CONTEXTUAL, SYNTHESIS

Advocacy of Architectural Profession
In line with staying agile, the institution calls for an expansion in areas of advocacy.

Hitherto the profession was anchored on four traditional roles of an architect, namely Design, Technical, Statutory and Administrative.

In this epoch, architects have to be recognised and further champion other equally critical roles we play in practice; that is the Economics, Environmental, Social and Integrative ones, to further supplement the values the architectural profession create.

SIA ITM and other national plans
Aligning with the CFE report and various national plans, SIA developed the Industry Transformation Map for the architectural profession, to chart its strategic development through enhancing design capabilities, skillset and innovation, so as to stay competitive, relevant and resilient in this rapidly changing and dynamic socio-economic context.

RL: Could you give us some examples to illustrate this?

S:　We engaged Ernst & Young to formulate this roadmap. It began with an overview of the larger global, regional and local context as the backdrop. It identified various trends and challenges, examined through the lens of other masterplan frameworks like the CFE Report, Design 2025 Masterplan and BCA's construction ITM. It was important to look at that alignment across the different frameworks instead of going in silos. After bringing in these various barometers or strategic plans, we sifted out very specific initiatives to operationalize what we have advocated over the years.

There are 4 major initiatives:
• 　SIA Academy
• 　SIA's Digital Agenda
• 　A skills and competency framework, and
• 　Collaboration and Internationalization.

Within each of the initatives, from objectives to outcomes, we will work with key partners to implement a possible support system or infrastructure, whether through funds or research programs. Each of them has a specific workplan and timeline.

RL: This notion that we can synthesize different road maps into a common strand is based on very commonly understood tenets — like skills, internationalization, etc. Is there a consideration or possibility that there exists a completely different realm outside what anyone has defined that really disrupts us all — a "blue ocean" of sorts? Is there any fear of that?

S:　We are always mindful that there are alternative ways to approach this topic. But I would say — because the whole instrument of ITMs have been in place, and all the support systems — whether it's funds or research programs or industry collaboration initiatives — are all tagged onto these larger instruments. So from SIA's perspective, it's really to leverage this current structure to further our cause and better the profession. There are obviously other ways but short of initiating one, this is still our main platform to effect transformation within the profession.

Looming Challenges

RL: You mentioned certain challenges earlier. Is the ITM coming about because the challenges are really severe, with an imminent sense of threat even?

S:　I think "threat" is a big and aggressive word, I prefer to use "challenge." There is a broader economic perspective to this concept of transformation. Sometime ago, the RIBA published a document "Building Futures 2010" postulating that in the foreseeable future — i.e. now — the profession would no longer be called "architecture." There is an anxiety that some inevitable outcome will prevail if we do not change certain fundamentals — not just within our profession but across the built environment sector. We can wait for change to happen, or we can confront and lead that change with meaning and purpose.
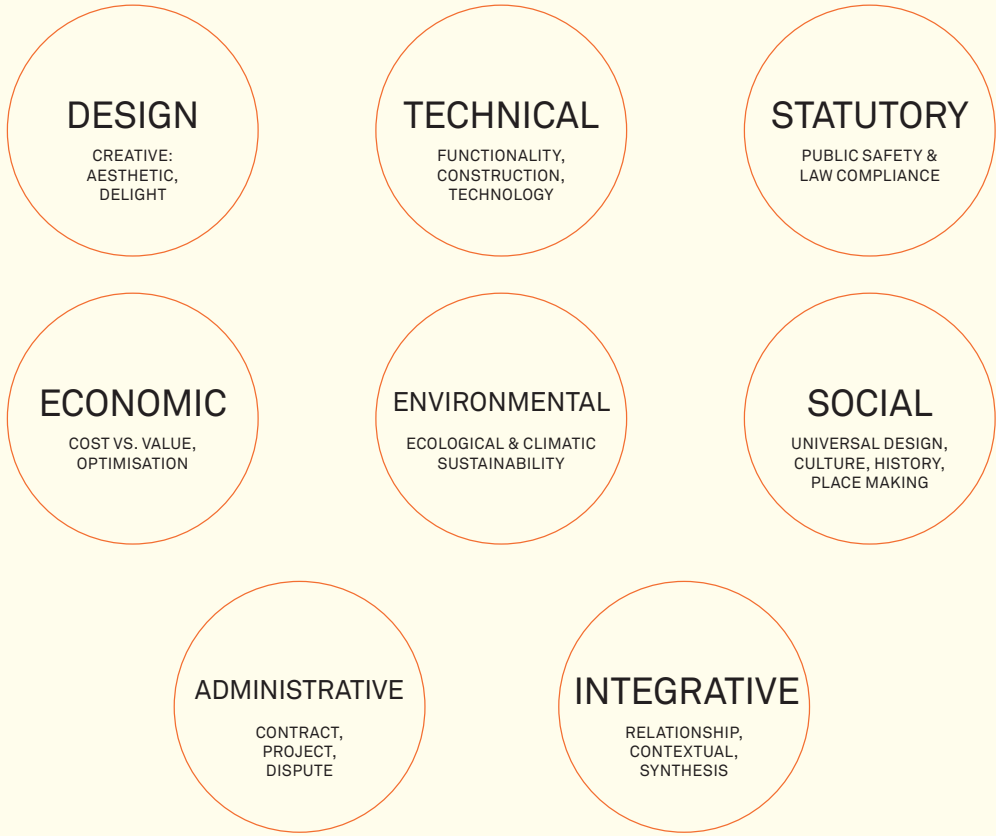
Regionally, things like the Belt and Road initiative are exciting but can cause anxiety of being geographically displaced. But if we try to better engage and harness these larger regional initiatives, it could turn into an opportunity that can be brought into our local market.

We know that the local scene is quite challenging. The construction sector has gone more than 3 years of contraction. Although the rate of decline has slowed it's still in the negative zone. This overall status is still very fragile and is further compounded by issues like a dilution of ethics and the larger value system.

RGM: The value system of whom?

S:　That is a big subject. To me it's a societal-level issue. But architects ourselves are not helping with the issue. The conundrum of fee-diving is but a symptom and the important thing is to identify the root cause.

RGM: Is it a loss of a value system among architects that then percolates down? I mean, if we don't recognise our own value proposition enough to quote realistically for it, how can we expect others to understand the value of our work?

THE COMMITTEE ON THE FUTURE ECONOMY REPORT 2017

DESIGN SINGAPORE 2025 MASTERPLAN

SIA ITM 2018

CONSTRUCTION ITM 2017

The CFE report recommends 7 strategies towards achieving 2–3% economic growth, implemented through TAC-led ITMs

DSg's vision is for Singapore to become an innovation-driven economy, and a lovable city through 5 strategic thrusts.

SIA'S ITM envision Singapore as an 'Architecture Capital', underpinned by establishing a structured framework strategic & purposeful transformation, and 7 Sustainable Development Goals

To transform the Built Environment Sector, BCA targets 3 key areas of increasing adoption of DfMA and IDD, building strong and capable firms and supporting workforce needs and aspirations.

S: However we perceive technological advancement — artificial intelligence, machine learning, pattern recognition — I think creativity plus architects' own design sense and sensitivity belongs to a higher order of thinking. It is not so easy for this work to be automated or replicated. It's important to not see technology as an adversary.

RL: The bigger challenge is this "higher level thinking" — creative imagination, etc — how do you reach the point where you can price for it fairly.

RGM: It's hard to give it a KPI. We've gotten ourselves into a corner where every single thing we do as a professional service must be justified through measurable outcomes and checkboxes. In the current framework where professional fees are quoted, it is difficult to quantify our value in a way that project managers can recommend to a client. Architects' will to expand that repertoire of their service offerings is by taking on even more liablty, as opposed to shedding tasks that lead us to dead ends. It seems like we have to reconcile what our core values are, re-focus what we do and really deliver well on those. Where do you see the profession going as a plausible business model?

S: To some extent our strength becomes our handicap. This really stems from how we perceived our traditional roles as architects. For one, we are quite late to the idea of utilizing data. We see design skillsets as unique to an architect. We believe that the values of good architecture and design are difficult to quantify. That is fair enough. But I think part of our profession has a very weak form of research — not so much in design — but in the value and outcome of good design, like post-occupancy benefits to users and clients. This is where data can help to articulate value.

Another weakness of ours is that we do not communicate or share enough. If you have finished a building and if I finish a similar building, we can consolidate and compare notes. With that record, we can better articulate its tangible benefits to the client and larger community. That advances the discourse on value systems, since we cannot design so long as the value system remains distorted.

One challenge is that the vocabulary we use is always about cost and not value. Cost is easy to quantify, but not value. This goes back to my earlier point, that we do not yet have a culture of harnessing the relevant data to articulate our value. The current drive for design to be more performance-based or evidence-based is possibly one attempt to articulate this value. The more important part is post-occupancy where you have real data sets to understand or gain cause. I think this is where technology and the use of data is highly relevant and very strategic.

Articulating our value

RGM: Earlier, you touched on something that I personally care quite deeply about. When the Competition Act came into effect, doctors and lawyers fees were set up and architects' fees came down. I suspect that we are very secretive and afraid of each other so we do not openly communicate. We seem unwilling to be open about the amount of work, time and fee it would take to service a project of a certain size. When you look at public tender results and analyse the spread, the lowest tenderer is ten times less than the highest. How can the client even seriously believe us as a profession where instead of being within 5% of each other, we are within 95% of each other? All the "transformation" wouldn't overcome the fact that we are very confused as a profession as to what our value is. Where do we start?

S: That's where we need to change our culture of mystique and secrecy. That's also why I say we have to change our lingo. We have to share with our clients that our services are not just about a cost but are for greater investment — and that cost is not just construction cost, but it's life-cycle cost, the entire building cost, and the benefits it brings to the dweller. If such forms of data get further analysed or collated, we'll make a much stronger case.

RL: To what degree to you think our services have been commoditized? People often say that the Singapore "brand" is competency. But would people actually be way more willing to share information and data if their business models were strategically or sufficiently differentiated — that I can share my insights but nobody can replicate my unique business model. But so long as everyone is on a common base, competing for the same scope — just like how the Architects' examination tests on all the standard things that architects are supposed to do — if that's the same, then of course the only other differentiating factor is the fee. And that makes people less willing to share information. It's a question of commoditization versus strategic differentiation.

S: Yes, I agree with that point. I think Singapore has quite a good balance of diversity in the scale of practice. But in skill-set, in specific offerings, in design or value creation, there is a lack of that form of differentiation. That creates the problem of how you differentiate the services of architects A vs. B vs. C. I think this is where leveraging technology could help differentiate each of the individuals' offering.

I think technology will help us restore the traditional definition of architects as the master builder. Because with new technologies and methodologies, we talk about not just design processes and workflow, but about fabrication and making. It brings back the discussion of craft but with an advanced set of tools, and allows us to re-partake the whole idea of making.

This "master builder" role has become segregated from our traditional profession. By returning to this role, technology will allow us to — not compete with — but work with builders to create a much better and integrated product. We can capitalize on the various digital toolsets to create new means of design and expression.

RGM: I was at the ETH Future Cities Laboratory where they were doing those pre-fabricated brick walls that looked so amazing. You no longer have to create standard elements — but you can standardize and quickly get these unique elements. But somehow you do not see that happening on construction sites — even with all the BCA grants — the technology adoption is happening quite slowly.

S: Your example about robotics and getting robots to build the brick wall — we have seen it for a very long time. The question is, which building in Singapore has actually employed such a method? Zero. The more fundamental question is, why so?

RL: More architecture than any other industry — because of the nature of the building enterprise — you cannot set up a simple business model or process and run along with it. You get a customized set of consultants and stakeholders for each building project which is one-off, and each building project itself takes a few years to complete.

RGM: It's not like you can use the same contractor for every single building so they know upfront every single thing that you want.

RL: Architecture runs on a project-by-project, team-by-team basis with so many regulatory agencies. So the idea that you can develop a single application or technique that can propagate itself quickly — it would never happen because there are too many stakeholders and variables. And the only way we manage these variables is to have the same person be ready for whatever problem that comes up and solve it in that localized way. It's a highly customized approach that is not sustainable - and we're all bucking under that pressure.

S: That is where we have to capitalize on technology to eliminate some of these compartments. Actually, the concept of Integrated Digital Delivery (IDD) is very powerful — if you take away the idea that government agencies are driving it. If you look at its potential to eliminate gaps and overlaps as an entire value chain, it's very powerful — not just as a concept — but as a methodology.

Evolving the Profession

RGM: Would you say these problems — of thinking and working in compartments — begin much earlier, say in education?

S: This is one area where the profession has a stake in shaping and influencing. I always have an issue with how we approach education. By the time the graduates are out in the industry and we say "ok, guys, collaborate and work together," they would have spent six years being individual and independent — and territorial about their respective spheres. I think that we need to start shaping this collaborative mindset in school. Going forward, our current silo-ed way of working cannot be the status quo. Because of the realities of the ground, the legacies of construct and the bigger environment, policies and framework, you will always struggle and often, any improvement will be incremental.

RL: It's also about value systems about control. Right now, people are talking about partnering contracts at BCA — which was inspired by the Integrated Project Delivery (IPD) construction contracts that appeared in the U.S. about a decade ago. The contract no longer retains fixed hierarchical relationships (i.e. Client-Architect and Client-Contractor) and the incentive structure changes — so that every discipline working together on this project has the same stake in a shared outcome that is not determined by the architect alone. So the architect would have to share outcomes with others who are not of a similar leaning. The question is — are architects willing to take on this "open-source" attitude and relinquish control?

laughter

S: We know that the major drift is toward that, hence the traditional roles and forms of how we practice needs to change and refine. And I'm saying that the best place to experiment and instill that change must come from school. That way, once they reach the industry, that inter-disciplinary behavior starts to be common, facilitating that concept of an "open-source" seamless workflow versus the current compartmentalization of the building enterprise.

RGM: Also, the old model is linear. When you collaborate together, you co-create and the iteration happens naturally. Whereas when you are silo-ed, then it bounces linearly from one to another to another — which is ultimately more inefficient.

RL: I have another question for you. In your position, you get to meet the heads of other architectural institutes — say the presidents of RIBA and PAM, among others. What are some of their concerns for the future of the profession?

S: Interestingly, I was invited earlier this year to the RIBA for a roundtable meeting with the heads of 19 other institutes around the world. The represented countries came from North, Central and South America, Europe, and some countries from Asia. We discussed the challenges of our profession. The heartening thing is, our problems

SIA's 7 Sustainable Design Goals
With the United Nations laying out its blueprint of the 17 Sustainable Development Goals for the year 2030, SIA responded with the evolution of our 11 Attributes of Sustainable Built Environment (developed in 2011) into 7 Sustainable Design Goals (SDGs), with the aim to develop these goals as applied design toolkits, to ultimately empower our fraternity to adopt more performance based design approaches and elevate our sustainable and liveable design capabilities.

1 EDUCATION & INTEGRATION
The Architect has the lead role in integrating and educating the client and the team, leading the design process including setting and managing the sustainability aspirations.

2 CLIMATE ACTION
Design to minimise its impact climate change and adapt and be resilient to the predicted local consequence of climate change.

3 NATURAL CAPITAL
Design to integrate greenery and other landscapes into urban masterplans, site design, and building envelope. It seeks to protect and enhance life on land and life below water.

4 RESOURCE MANAGEMENT
Use renewable resources over non-renewable ones. This operating principle extends to its demand for energy, water and materials.

5 URBAN HARMONY
In harmony with its setting; acknowledging and responding to the pre-existing conditions that physically define a site or describe its social and cultural context.

6 HEALTH & WELLBEING
Ensures the wellness of its inhabitants, taking into account the physiological and psychological needs (emotional satisfaction) of its users, addressing their expectations and preferences relating to comfort, health and safety.

7 ADAPTABILITY & LONGEVITY
Designed for adaptability and reuse, to reduce the risk of obsolescence by anticipating changes in programme, technology and land use.

ITM FRAMEWORK	INITIATIVES	SUB-INITIATIVES

YEAR 1	YEAR 2	YEAR 3
Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4

SUSTAINABILITY & LIVEABLITY

SIA ACADEMY

- 1.1 DEVELOPING A KNOWLEDGE REPOSITORY
- 1.2 CET & PED DEVELOPMENT
- 1.3 THINK-TANK & RESEARCH
- 1.4 EXPORT OF KNOWLEDGE

LAUNCH OF KNOWLEDGE REPOSITORY

BIM COURSE LAUNCH

PMF COURSE LAUNCH

1.2 PHASE 2 TO START AS SOON AS SKILLS FRAMEWORK HAS BEEN ENDORSED

CET & CPD OFFERINGS ROLL OUT

1.4 DEPENDENT ON COMPLETENESS OF KNOWLEDGE REPOSITORY

THINK-TANK & RESEARCH CARRIED OUT

CET & CPD COURSEWARE

SIA PRODUCTS EXPORTED

PRACTICE TO ENTERPRISE

SKILLS FRAMEWORK

- 2.1 DEVELOPMENT OF ARCHITECTURE SKILLS FRAMEWORK
- 2.2 CONDUCT A WAGE STUDY

2.2 TO START AFTER IDENTIFICATION OF PARTNERS IN 2.1

2.2 PHASE 2 TO START UPON ENDORSEMENT OF JOB ROLES WITHIN CAREER MAP

LAUNCH OF SKILLS FRAMEWORK

COMPLETED WAGE STUDY REPORT

COLLABORATION & SOCIAL RESPONSIBILITIES

DIGITAL AGENDA

- 3.1 DEVELOPMENT OF PERFORMANCE BASED DESIGN TOOLKIT
- 3.2 ENHANCEMENT OF ENTERPRISE PLATFORM
- 3.3 INCREASE IN AND OUT REACH OF SIA
- 3.4 INCREASE EXCHANGE & EXPORT OF DIGITAL SOLUTIONS

LAUNCH OF DESIGN TOOLKIT

LAUNCH OF UPGRADED ENTERPRISE SYSTEM

3.4 DEPENDENT ON COMPLETENESS OF DIGITAL TOOLS AND PLATFORM

LAUNCH OF UPGRADED WEBSITE AND COMMUNICATIONS PLATFORM

PENETRATED INTO A FEW KEY MARKETS

INNOVATION & UPSKILLING

COLLABORATION & INTERNATIONALISATION

- 4.1 TRANSFORMATION OF ARCHIFEST
- 4.2 LEVERAGING ARCASIA TO SHOWCASE SG DESIGN CAPABIL-ITIES
- 4.3 DEVELOPMENT OF APC LITE FOR STUDENTS
- 4.4 BUILD SIA INTO AN ARCHITECTURE INCUBATOR & CENTER OF EXCELLENCE

NEW ARCHIFEST INITIATIVE WILL ONLY COMMENCE AFTER 2019 ARCHIFEST

LAUNCH OF NEW ARCHIFEST

4.2 DEPENDENT ON SINGAPORE ARCHITECT OFFERING, BIM OR PMF COURSE READY FOR EXPORT

LAUNCH OF COLLABORATION WITH ARCASIA
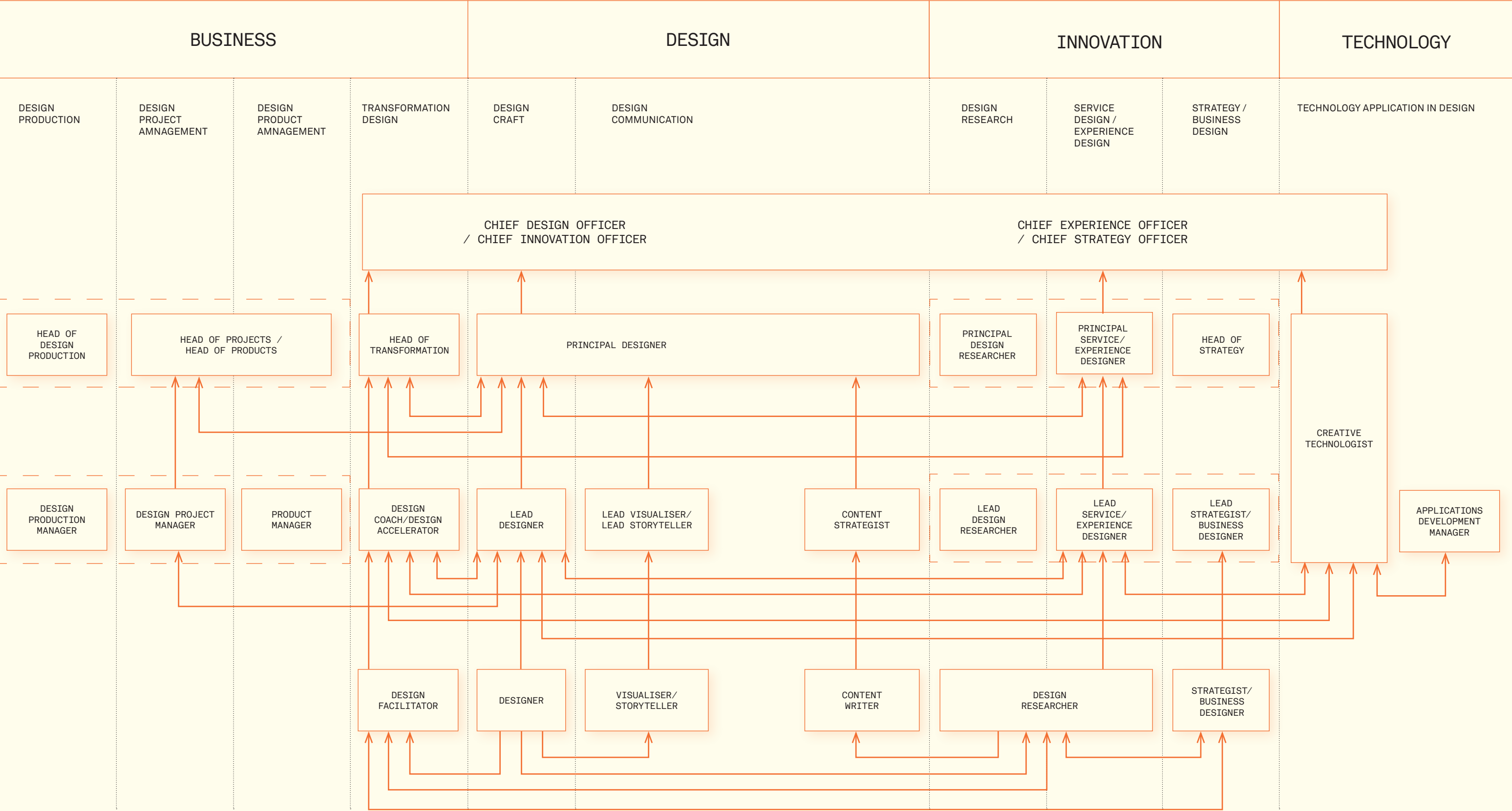
APC LITE #1 LAUNCH

LAUNCH NEW PROGRAMME

SIA's 3 year Transformation Roadmap
In the next phase of the implementation of our ITM, SIA has developed a 3-year Operationalization Roadmap to translate our vision into plans, based on our ITM framework and value system. Strategic initiatives include the SIA Academy, the Skills Framework, Digital Agenda and plans for collaboration and internationalization
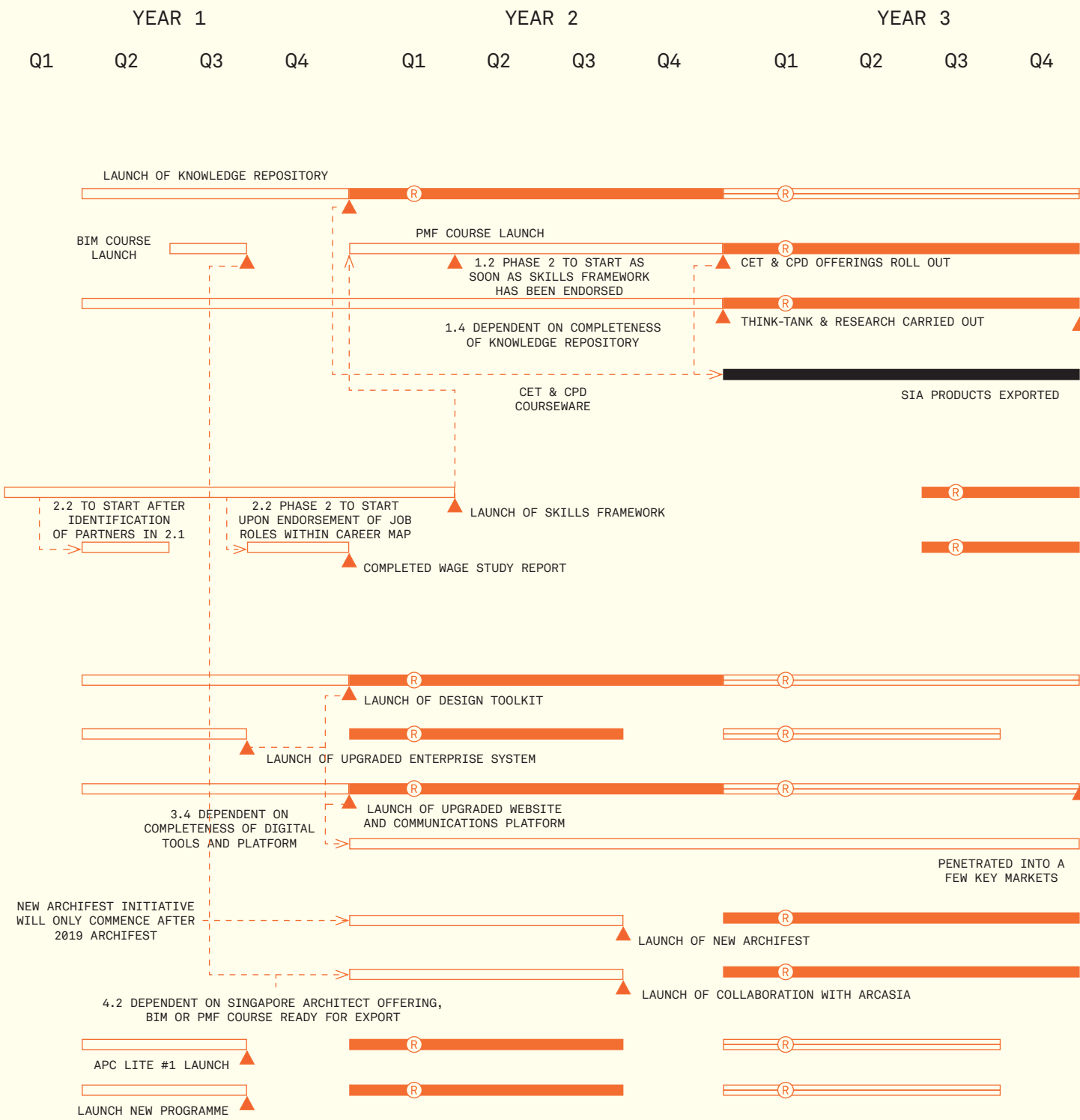
LEGEND

WAVE 01	DEPENDENCY
WAVE 02	REVIEW POINT Ⓡ
WAVE 03	MILESTONE ▲

NOTE: ALL MILESTONES ARE SUBJECT TO COUNCIL REVIEW AND APPROVALS

BUSINESS				DESIGN				INNOVATION			TECHNOLOGY

DESIGN PRODUCTION — DESIGN PROJECT AMNAGEMENT — DESIGN PRODUCT AMNAGEMENT — TRANSFORMATION DESIGN — DESIGN CRAFT — DESIGN COMMUNICATION — DESIGN RESEARCH — SERVICE DESIGN / EXPERIENCE DESIGN — STRATEGY / BUSINESS DESIGN — TECHNOLOGY APPLICATION IN DESIGN

CHIEF DESIGN OFFICER / CHIEF INNOVATION OFFICER — CHIEF EXPERIENCE OFFICER / CHIEF STRATEGY OFFICER

HEAD OF DESIGN PRODUCTION — HEAD OF PROJECTS / HEAD OF PRODUCTS — HEAD OF TRANSFORMATION — PRINCIPAL DESIGNER — PRINCIPAL DESIGN RESEARCHER — PRINCIPAL SERVICE/ EXPERIENCE DESIGNER — HEAD OF STRATEGY — CREATIVE TECHNOLOGIST

DESIGN PRODUCTION MANAGER — DESIGN PROJECT MANAGER — PRODUCT MANAGER — DESIGN COACH/DESIGN ACCELERATOR — LEAD DESIGNER — LEAD VISUALISER/ LEAD STORYTELLER — CONTENT STRATEGIST — LEAD DESIGN RESEARCHER — LEAD SERVICE/ EXPERIENCE DESIGNER — LEAD STRATEGIST/ BUSINESS DESIGNER — APPLICATIONS DEVELOPMENT MANAGER

DESIGN FACILITATOR — DESIGNER — VISUALISER/ STORYTELLER — CONTENT WRITER — DESIGN RESEARCHER — STRATEGIST/ BUSINESS DESIGNER

Skills and Competencies Framework
The Skills and Competencies Framework is an integral part of the Industry Transformation Map. It is to be launched in the second year of the roadmap and serves as a guide on key growth areas and the skills required for emerging jobs in the industry, as well as identifying traditional skills and roles, matching them with the corresponding up-skilling needs. (Attached: a reference of the Career Map in DSg's Skill Framework launched in 2018.)

are quite similar. The slightly more worrying thing for me is, it's still architects talking to architects.

I respectfully shared that if we really want to understand our strengths as well as limitations, it's always good to get friends that work closely with us — allied professions of a certain stature. The craft of architecture and engineering is always recognized as a powerful teamwork. Sometimes, when we hear from others, it helps us discover our own blindspot. This is where we need to keep the dialogue open.

There were similar issues — on education, on the state of the profession, on fees. What I thought was quite interesting was RIBA's desire to liberate their professional framework. Here, we have our Architects' Act. There, there was talk about how they can liberate regulations governing their profession.

That is where I feel quite grateful for Singapore's situation — at least with SIA working closely with the Board of Architects. Even if a foreign architect works here, they need to register with the Board that they are partnering a local architect. A framework of this nature is important because it ensures accountability and professionalism. Ultimately, one of our key roles is to serve the greater public safety and interest.

It's interesting that we share very similar anxieties and concerns, but there are parts where we need to be aware of our slightly better position — and appreciate the power of the Architects' Act to help safeguard these core aspects of our profession.

An Agile Practice

RG: Moving back to agility, I'm interested in the knowledge and services that architects can provide that are not historically architectural. Architects historically come alive when the brief is put on the table, but rarely do they get to contribute intelligently to how the brief is written. Somehow a suite of advisors to clients — change managers, property managers, experience designers — have claimed that space. My question is — because typology is dead, at least to me — and things are always in flux, do you think there is scope out there for architects to use our projective skills to create value upstream?

S: Maybe I'll use your concept of Agility to address the expanded roles that architects can potentially play. Agility to me is about being flexible and adaptable. The key thing is for us to be responsive and resilient in the flux of disruption. This requires breadth and depth. I don't think typology is dead yet but it's about how we harness this expertise in typology to get depth. If I have done 10 shopping malls, it helps to have experience but more importantly, what do you do with that 10 years of knowledge?

RG: Exactly. It's the knowledge and intelligence that matters.

S: If you translate that into tangible value — in terms of specific design outcomes and through certain inputs, then that would start working for you. So that idea of going deep with research — not just through process or a method — but toward outcomes are important because somehow we cannot articulate well and describe things in comprehensive terms for non-architects. Beyond the traditional roles of an architect described on SIA's Scope of Services Matrix — Design, Administrative, Technical, and Agent to the State — I would venture that there are 4 more roles that are under-recognised by ourselves.

RG: And these other roles would be?

S: The first is on economics — not about cost but value. If you make this design change, the value it brings has a multiplier effect of 3 times what it can be. We must engage in terms of this nature.

The second is environment. We have to champion this march towards sustainability. It is a global issue and one of the 17 UN Sustainable Development Goals. That is why SIA re-looked at our 11 attributes and developed our own 7 Sustainable Design Goal.

The third is social. Many design architects have design agendas but not many talk about a social agenda. We need to give back to different segments of society and encourage the fraternity to champion this issue of giving back.

The fourth is to synthesise — to bring things together in a way that is functional, habitable, meets users' needs and brings delight.

If we add these 4 innovative roles, it becomes really powerful. There should be research looking at how these 4 other aspects can be articulated, shared, and even attributed to partnership. We can harness this recognition to broaden our spectrum of service offerings into the space currently occupied by change managers, place-makers and design strategists, among others. To me, it is much more convincing for an architect to say that he is a place-maker or community planner than some other professions. And we have good examples of it.

RL: I guess we've run out of time, but that is possibly an inspirational way to end this thought-provoking conversation.

RG: I must say, definitely more convincing for an architect than any other profession. Thank you for your time.

S: The pleasure is mine, thank you for the exchange. I enjoyed it thoroughly.
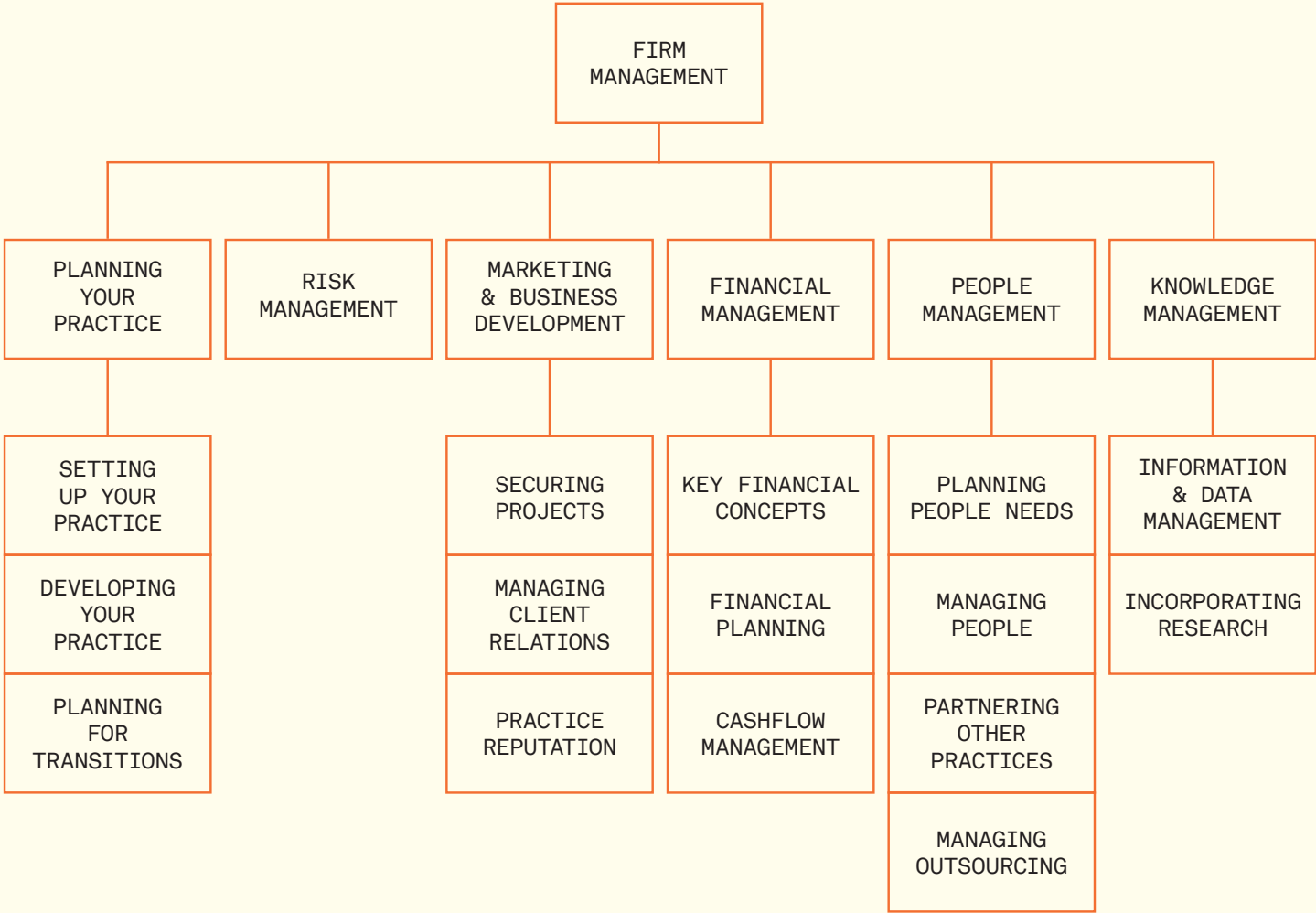
Practice Management Framework (PMF)
The Practice Management Framework (PMF) is a vital piece of the Industry Transformation Map and is conceived as part of the SIA Academy initiative. It will be launched as a course in the second year of the roadmap, educating participants on a systematic framework for effective and sustainable delivery of architectural services, ranging from bespoke to traditional styles of practice.
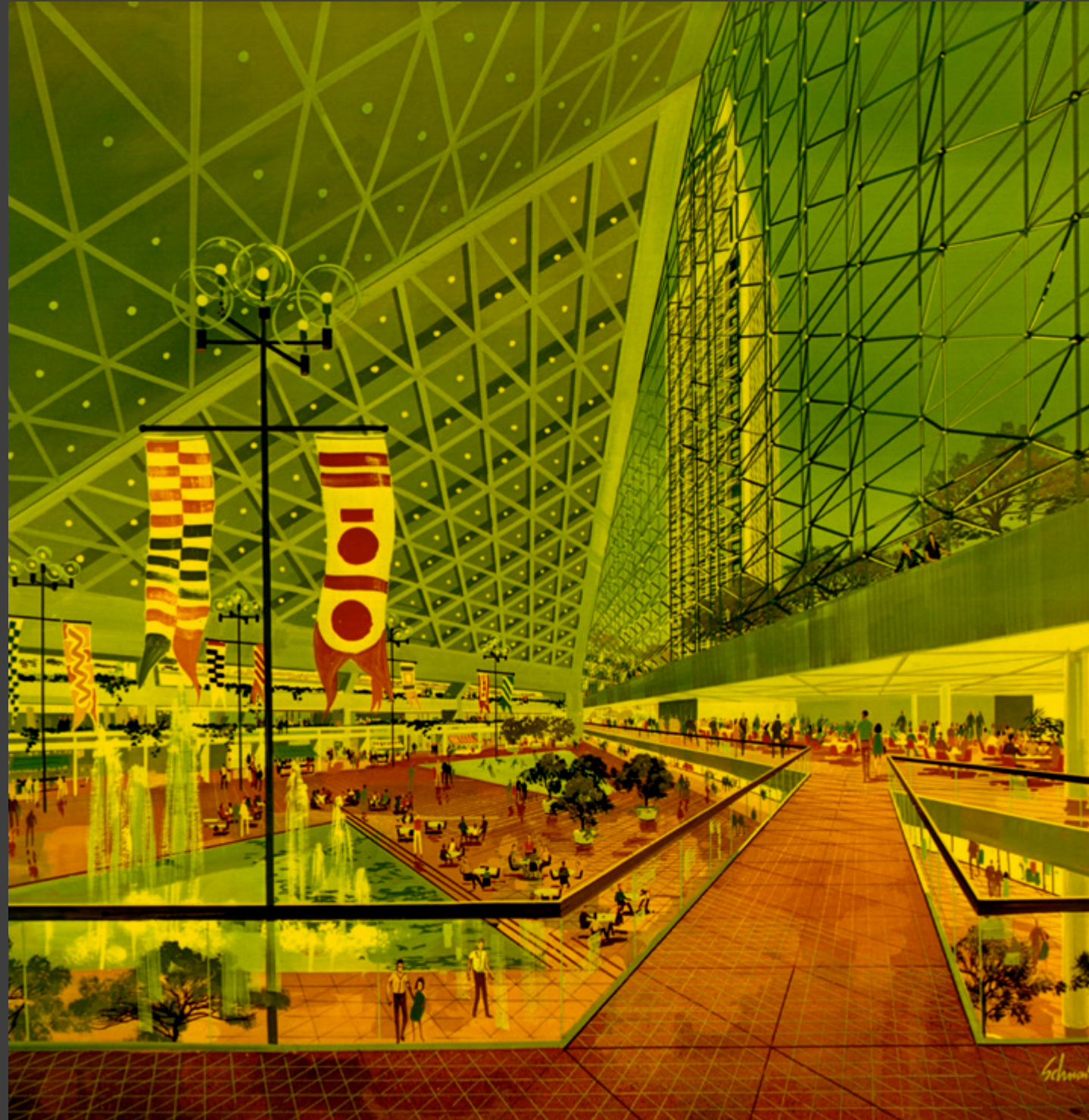
Heritage

HERITAGE

Building Dreams Are Made of These…
— Pei's Unbuilt Projects in Singapore

WRITTEN BY
Shirley Surya

IMAGES BY
Pei Cobb Freed Architects

Marina South Development Plan (1982) — Perspective view of architectural model

Interior view of proposed Raffles International Centre

The recent passing away of the modernist master architect I.M. Pei has focussed attention back to his legacy and influence. As the first foreign consultant architect who designed buildings in Singapore — including the OCBC Tower (c.1976) that still stands today — Pei's imprint on our built environment is still deeply felt. In this essay, Shirley Surya examines I.M. Pei's largely unpublished and unbuilt work in Singapore — including his masterplan for Marina South Development and the early schemes to Raffles City.

There has been an outpouring of tributes to Ieoh Ming Pei and his work since his death in May. It was thus timely to exhibit the model of Marina South Development Study by Pei's office at the Singapore City Gallery to commemorate one of his built legacies in Singapore. Interestingly, there are gaps in how Pei's esteemed projects, particularly those in Singapore, have been represented in publications. On one hand, they were seen as important contributors to the country's urban identity. Yet, they were also perceived as perfunctory tools for economic pragmatism and symbolic aestheticisation. Similar perceptions also figured in accounts of Pei's own ambivalence toward his commercial projects and how they were deemed as demonstrating only 'technical tour de force' and exerting little 'design influence'.

The following glimpse into the contexts of the rarely-published and largely unbuilt schemes of Raffles City (1969–1986) and Marina South Development Study (1983) by Pei's office is an attempt to assess Pei's "corporate architecture". It is motivated by the necessity of assessing architectural production beyond the registers of aesthetics or favoured narratives of continuity between conception and implementation, to reveal its entanglements with the indeterminacy of political economy. Revisiting Pei's "thwarted" designs seeks to reframe his as "conflicted" means of addressing complex urban problems within the economic and political apparatus of a city-state seeking to capitalise on its urban core and land resource.

Raffles City — Heralding the Necessary "Spillover" of the CBD

When the model of Raffles City was unveiled in 1979, few knew that it was first conceived in 1967 four times its eventual size. Amidst criticism on the development's poor relationship to its context, the project was slightly vindicated when an article in 1986 revealed — via the project's architect-in-charge Kellogg Wong — that if the initial comprehensive plan was implemented, it would have dovetailed more neatly with its surrounding, tapering from a higher to a lower density massing towards Dhoby Ghaut. Indeed, the development began when the Development Bank of Singapore (DBS) invited I. M. Pei & Partners to identify possible uses for a 15-ha area — bounded by Stamford Road, Beach Road, Bras Basah Road and Dhoby Ghaut — slated for urban renewal. As underwriter of real estate developments under the Urban Renewal Programme, DBS (in co-ordination with the then State and City Planning Department) chose to redevelop the area to 'refocus the centre of development towards the waterfront' between Beach Road and Nicoll Highway. When the project

was announced as Raffles International Centre in 1969, it was expressly described to maximise the land value of an area that was considered under-utilised. It was thus clearly planned as an expansion of the Central Area — Singapore's Central Business District (CBD) around the historic commercial centre Raffles Place — to fulfill its 'proper economic role by reflecting its high real estate value.'

As a development meant to 'equal the grandeur of New York's Rockefeller Centre', the project's other goal was to 'boost the vibrancy' of the CBD beyond banking hours. Pei's team therefore proposed a four-phased plan for Singapore's largest mix-use 'city-within-a-city' to enliven its urban core as an all-day place of interest. It included a hotel, a 10,000 seat convention centre and shopping facilities on the Raffles Institution site; office buildings on Convent of the Holy Infant Jesus site; apartment blocks opposite Saint Joseph's Institution; and a park where Bras Basah Complex was later built. While such massive redevelopment would have alarmed heritage activists, the urban renewal ambition of post-independence Singapore shared the spirit of massive redevelopments implemented across 1950s America — which Pei and the in-house design team of real estate firm Webb & Knapp (which became I. M. Pei & Partners) had undertaken, by designing sections of cities as integrated units and framework for retail, hotel, accommodations, offices and transportation.

Site plan of Raffles International Centre, early scheme

Perspective View of early scheme of Raffles International Centre

Unforeseen factors, however, resulted in up to seven schemes proposed for a site that eventually became the 3.4 ha superblock programmed with a different "mix". These include: the 1970s recession which made DBS wait; focus on a tourism-based economy and Westin Hotel's late entry as investor in 1979 that turned offices and apartments into hotels; Marina Square development; and siting of MRT stations. Nevertheless, some aspects of the scheme were unchanged. Raffles City (officially named in 1979) remained as the envisioned one-stop multi-use complex housing a convention hall, hotels, offices and shopping facilities — which made up the largest portion of the mix, as Pei believed it would ensure an all-day traffic integral to a commercial development. Other features that remained include the 0.6 ha atrium — connecting centre of the superblock — animated with light, colour, and motion of people on criss-crossing escalators, bridges and curved open balconies. It had proscenium-like screen walls dividing the whole into discreet spaces while offering glimpses into spaces beyond. Pei considered such visual and programmatic complexity necessary to sustain interest in a large space.

Despite the unfulfilled grand design, Raffles City's initial unprecedented scale revealed the government's ambitious will to expand the CBD. Even in its eventual reduced scale framed by the city's oldest landmarks, it cemented the expansion by stitching the 'Civic and Government Zone' into a more united Central Area, while symbolically heralding its extension toward Marina South, and development of Marina Bay.
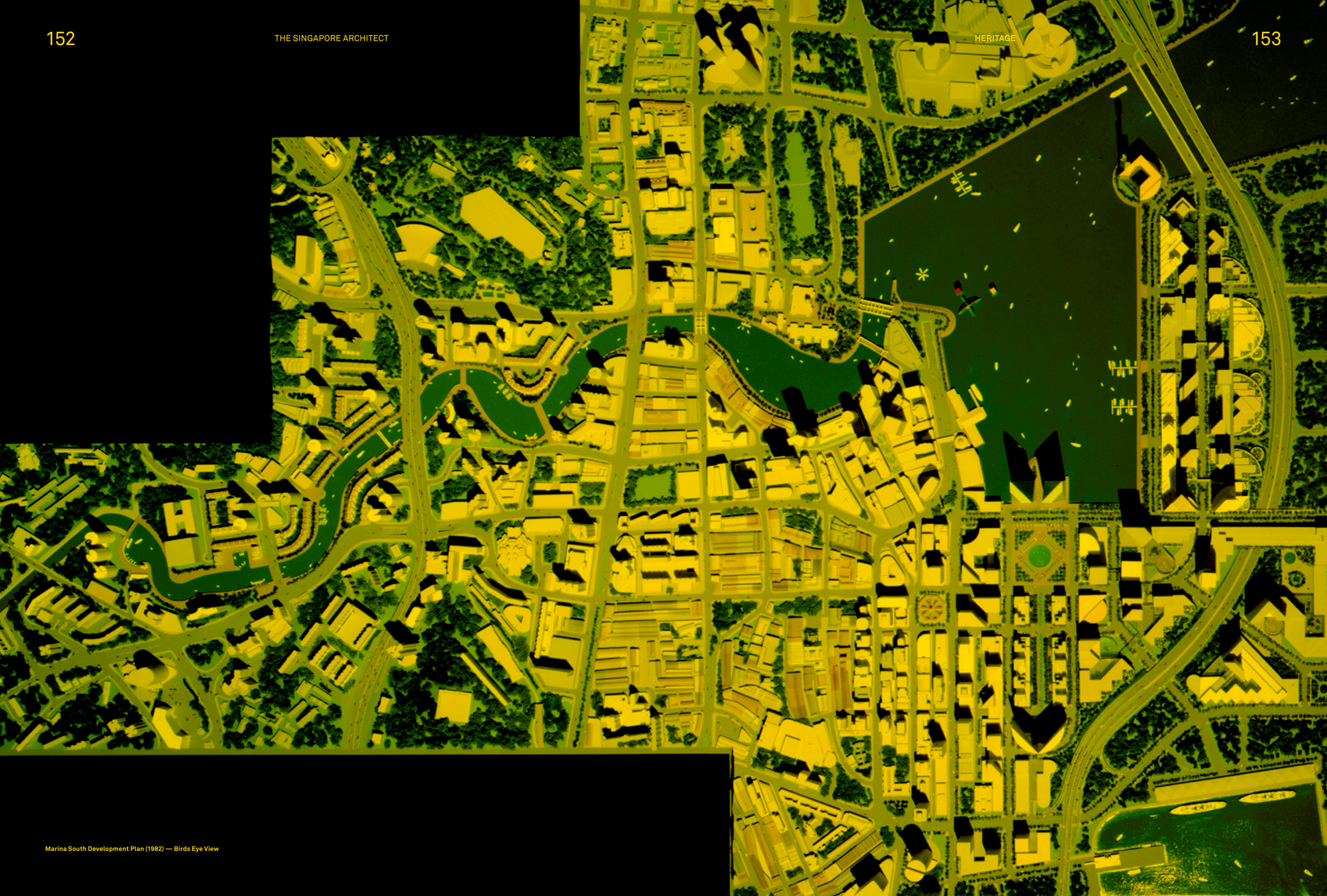
Marina South
— The Final Seaward Extension

Marina South Development Study was not one of the many "Large-Scale Planning and Development" projects in Pei's catalogue raisonné in his 2001 monograph. Publications by the Urban Redevelopment Authority (URA), however, revealed how the project's influence continued to be exercised in various degrees through multiple agents orchestrated by the URA to make Marina Bay the focal point of the new CBD.

Marina Bay is formed by the natural shoreline along Collyer Quay and coastlines of Marina Centre and Marina South parcels reclaimed in 1977 to develop a new urban area and an expressway to connect Singapore's east and west side. As CEO of the Housing Development Board (HDB) overseeing land reclamation and the Urban Renewal Department, Liu Thai Ker considered the provision of future capacity insufficient to create a distinct identity Marina Bay needed, thereby recommending the Ministry of National Development to commission Pei's office to develop a master plan for Marina South. Having practised at I.M. Pei & Partners between 1965–1969, Liu was aware of Pei's experience in master planning commercial districts with strong civic quality. Pei's office was highly selective in taking on planning projects due to their indefinite outcome, but the project was accepted assuming that it was solely commissioned to the firm. The Singapore Cabinet, however, required an alternative proposal, which led to a similar commission for Kenzo Tange.

Both plans had the waterfront flanked with tall towers. The main difference was in Tange's radial plan which matched the curve of the ECP freeway, as compared to Pei's more rectilinear grid plan. This difference was indicative of Pei's perceptiveness of the government's economic pragmatism to develop a new downtown core that grows out of the existing CBD, through a flexible land parcellation. Pei's plan was therefore preferred. Its rectilinearity could seamlessly integrate the old CBD's grid pattern with the New Downtown, through a pair of thoroughfares extending the existing grid southward. Pei's plan — as compared to Tange's curved design — would also allow a more incremental process in the development of land parcels, such that the area would look complete at any stage of implementation. It also addressed the importance of creating an urban panorama and civic identity. Close to the old CBD, the plan featured a central green axis of an open square, terminating at a promontory with a pair of twin towers, while another promontory was planned at
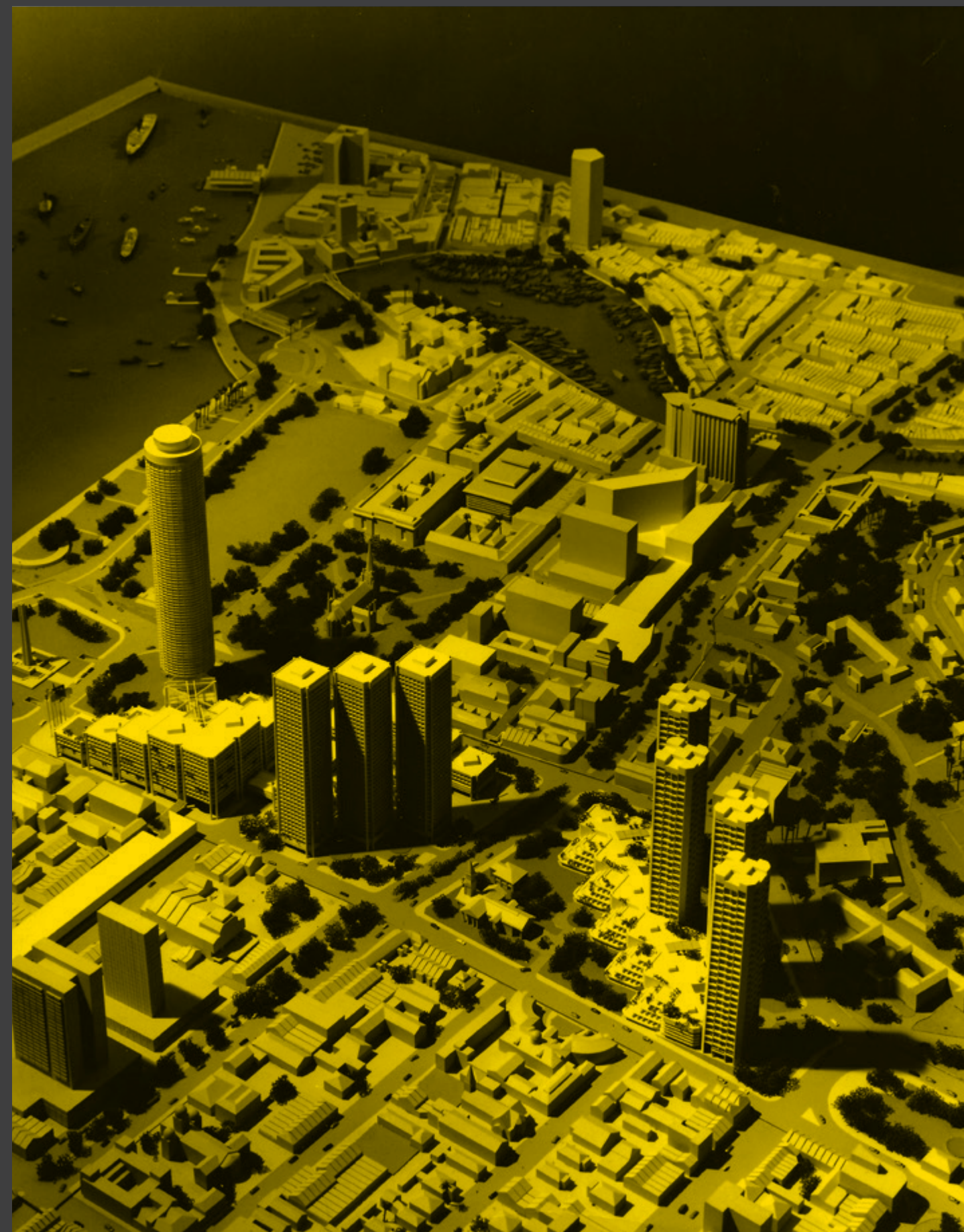
View of Architectural odel of early scheme for Raffles International Centre extending to Dhoby Ghaut

Marina South Development Plan (1982) — Birds Eye View

Marina South Development Plan (1982) — Perspective View from other side of the Benjamin Sheares Bridge

the corner of the site. Both were close to the waters to visually anchor and frame the new downtown of Marina Bay.

Tange's and Pei's proposals were unveiled in 1984 as part of a ministerial statement on 'Singapore, City of Excellence — a Vision for Singapore by 1999'. In key publications by the URA in 1989 and 1991, characteristics of Pei's master plan were clearly featured, though not specifically attributed to Pei's office. In 2003, in line with URA's protocol of constantly reviewing existing plans, Skidmore, Owings & Merrill was invited to critique Pei's plan, resulting in the high-rises shifted back to leave the waterside for low-rise development, while one promontory was turned to a pedestrian green space, and the other became the ArtScience Museum today.

Despite these changes, URA emphasised the influence of Pei's plan in laying the foundations for an economically viable and visually arresting Marina Bay in their 2015 publication A River Transformed. The rectilinearity of Pei's plan that shaped the Bay was also observed to mirror the shape of the old Padang, as though exceeding the former colonial space for national ceremonies with the "liquid padang" of Marina Bay — the designated stage to witness the spectacle of the city, its people and the state on National Day.

Pei was once quoted to say: 'if modern design was ever to amount to more than paper architecture it would have to withstand the market forces of supply and demand as assuredly as it withstood gravity.' Pei's schemes, however, remained unfulfilled despite their accommodation of Singapore's economic-aesthetic pragmatism. They, nevertheless, offer a necessary glimpse into the firm's active engagement with, or unwitting contribution to, the island-state's mastery of resources and agents to construct an environment of awe with its downtown core and prized waterfront.

References (in chronological order):

New $200 million 'heart' for city – Raffles Centre Plan (1969, October 17). The Straits Times, p. 1.

Development Bank of Singapore Ltd. (1969). First annual report 1968 (p. 4). Singapore: Development Bank of Singapore Ltd

Chua, K. Y. (1979, October 4). Raffles City project a different concept. The Straits Times, p. 15

Tye, K. K. (1986, September 7). Raffles City: A shining example of controversy. The Straits Times, p. 6

Chua Beng Huat, The Golden Shoe: Building Singapore's Financial District (Singapore: Urban Redevelopment Authority, 1989)

Urban Redevelopment Authority, Living the Next Lap: Towards a Tropical City of Excellence (Singapore: Urban Redevelopment Authority, 1991)

Michael T. Cannell, I. M. Pei: Mandarin of Modernism (New York: Carol Southern Books, 1995)

Carter Wiseman, I. M. Pei: A Profile in American Architecture (New York: Harry N. Abrams, 2001)

Aaron Koh, "Living with Globalization Tactically: The Metapragmatics of Globalization in Singapore", Sojourn: Journal of Social Issues in Southeast Asia, Vol. 22, No. 2 (October 2007), pp. 179-201

Chee-Kien Lai, "Maidan to Padang: Reinventions of Urban Fields in Malaysia and Singapore", Traditional Dwellings and Settlements Review, Vol. 21, No. 2 (Spring 2010), pp. 55-70

Timothy Auger, A River Transformed: Singapore River and Marina Bay (Singapore: Editions Didier Millet, 2015)

Rana Amirtahmasebi, Mariana Orloff, Sameh Wahba, Regenerating Urban Land: A Practitioner's Guide to Leveraging Private Investment (Washington D. C.: World Bank Group, 2016)

Interview with Liu Thai Ker, 30 June 2017

Interview with Kellogg Wong, 7 August 2017

CONTRIBUTORS
WRITERS & EDITORS

Ar. Ronald Lim MSIA RIBA has worked internationally — in New York, Tokyo and Mexico City — for the architects Cesar Pelli and Fumihiko Maki, among others, and locally for Forum Architects. Ronald has taught or presented lectures at National University of Singapore (NUS), Singapore University of Technology and Design (SUTD), and ETH Future Cities Laboratory, Singapore. He also conducts design research on ageing, collaborating with other designers and academics. He is Practice Editor of The Singapore Architect magazine and runs his own practice — Ronald Lim Architect.

A global citizen, Ronald speaks five languages fluently and has visited more than 50 cities across 5 continents. He holds a Master of Architecture from Yale University.

Ar. Razvan I. Ghilic-Micu MSIA is an Associate at HASSELL Architecture Singapore. He obtained his Master of Architecture degree from Princeton University, and a wide-ranging professional experience in Singapore, Shanghai, New York City and Toronto.

Razvan is an advocate for evidence-based design and research-centric practice, with a keen interest in technology and innovation. He is currently involved in projects exploring new generation agile working and learning environments. Razvan balances practice with ongoing involvement in teaching, writing, cross-disciplinary design collaborations and curatorial activities.

Ar. Kenneth Koh is a partner of Quarters Architects. In his working experience, he led design teams on projects of varying scales, from masterplanning projects to houses. He is constantly experimenting with illustration and art and their intersections with architecture and urban space. Recently, he has completed public sculptures at East Coast Park and Marina Barrage.

Ar. Quek Li-En MSIA (M. Arch, National University of Singapore) is a registered architect practicing in Singapore. He is inspired by interesting situations in everyday life and founded Quen Architects in 2016 to pursue the integration of architecture, art, landscape and interior design.

Ar. Teo Yee Chin MSIA is the founder and design director of Red Bean Architects. Born in 1975 in Singapore, Yee Chin obtained his Master's of Architecture at Harvard University. He was named one of the top 20 architects under 45 by URA in 2017. He balances the creative work in RBA with an ongoing, self-driven research on the city actualised through writing and teaching. He has served as the Chief Editor of The Singapore Architect since 2017.

Ar Jia Xin Chum MSIA is a Senior Associate at Ramboll Studio Dreiseitl She obtained her Master of Architecture degree from Princeton University, and a wide-ranging professional experience in Singapore, New York, Beijing and Hong Kong.

Driven by a strong personal belief that Design holds a powerful role in positively transforming societies, Jia Xin aspires to elevate and empower the design cultural scene of Singapore together with like-minded, passionate individuals and organisations. She believes that good design is not to be understood as only belonging to the privileged, but as a philosophy that encompasses our everyday life.

Dr. Jeffrey Chan is presently assistant professor in the Humanities, Arts and Social Sciences (HASS), at the Singapore University of Technology and Design (SUTD). He is author of Urban Ethics in the Anthropocene (2019; Palgrave). He is writing his second book, co-authored with Dr. Ye Zhang (National University of Singapore), titled, Sharing by Design, to be published by Springer in 2020.

Dr. Zhang Ye is assistant professor at the Department of Architecture, National University of Singapore (NUS). His current research focuses on the relation between emerging sharing practices in the city and transformation of urban form. Ye is the director and co-founder of NUS-Tsinghua Design Research Initiative: Sharing Cities (www.nt-drisc.org). At present, he is working with Dr Jeffrey K.H. Chan (Singapore University of Technology and Design) on a co-authored book and a co-edited journal special issue on shared spaces and design for sharing.

Ar. Fiona Tan is a registered Architect with the Board of Architects, Singapore. She obtained her Bachelors in Architecture at the National University of Singapore in 2011 before pursuing her Masters in Architecture at the Bartlett School of Architecture, UCL under the Design Singapore Overseas Scholarship in 2013. As an Architect with award-winning firm Zarch Collaboratives Pte Ltd, Fiona is interested in the use of Architecture (both the permanent and the temporary) as a vehicle to shape society and provoke change. In her personal capacity, Fiona enjoys creating and building installation works that straddle in the blurred boundaries of art and architecture.

Lua Jin Wei is an architectural associate at Lekker Architects and holds a Master of Architecture from RMIT. Through writing, she seeks to rediscover what architecture might mean in context of Singapore and South East Asia.

Shirley Surya is Curator, Design and Architecture, at M+ museum for visual culture in Hong Kong. Shirley has contributed to shaping the museum's collection through her research and acquisition of works that engage with plural modernities and transnational knowledge networks in greater China and Southeast Asia. At M+, she recently co-curated In Search of Southeast Asia through the M+ Collections (2018) and is now working on a major I. M. Pei retrospective.

She received her BA in Media Studies at the University of California, Berkeley and MA in History of Design from the Royal College of Art, London.

Ian Tan is a PhD candidate at the Department of Architecture, University of Hong Kong. His research focuses on iron structures found in British port cities such as Singapore, Hong Kong and Calcutta. In particular, he is interested in technology transfers and the flow of craftsmanship from Britain to her colonies and vice versa. He also runs Forward Heritage, a heritage consultancy offering advisory services in planning, architectural conservation as well as interpretation and research.

Ar. Michael Ngu (MCP MArch BArch) FSIA, AIA, ARAIA, RIBA, APEC Architect, ASEAN Architect, is Chief Executive Officer at Architects 61 Pte Ltd (A61). With more than 30 years of design, master plan and professional experience in USA, Australia, Asia and Singapore, he oversees the design direction at A61 emphasizing a Corporate Boutique consultancy practice focused on Sustainable Design.

With qualifications from Melbourne University (1980 Honors Class 1) and University of Pennsylvania (1983 Master in Architecture and City Planning), Michael Ngu is a licensed architect in New Jersey USA, in New South Wales Australia and in Singapore. He is a member of the Urban Land Institute as well as the American, Australian, British and Singapore Institute of Architects. In 2019, he received the Goh Chok Tong Enable Award (Achievement).

DURAVIT

THE SINGAPORE ARCHITECT 17

Beauty vs. Buildability

The national mandate to improve productivity has transformed the building industry to embrace new methods of construction, harnessing prefabrication and mechanisation. Projects of certain size and type, such as housing, have had to embrace buildability as the new paradigm of design. However, some architects have struggled to find the elegance and character in these solutions. Others prefer to dwell in bespoke and intricate constructions in smaller scales, steering clear of these broader discussions.

Are beauty and buildability really mutually exclusive, and are craft and automation diametrically opposed? The next issue of The Singapore Architect takes a hard look at whether these recent initiatives do compromise architectural quality. We will look for inspiration in well-built projects, and at the same time explore broader definitions for buildability. The coming issue will also celebrate the people who continue to play a vital role in making buildings.

What a Viu
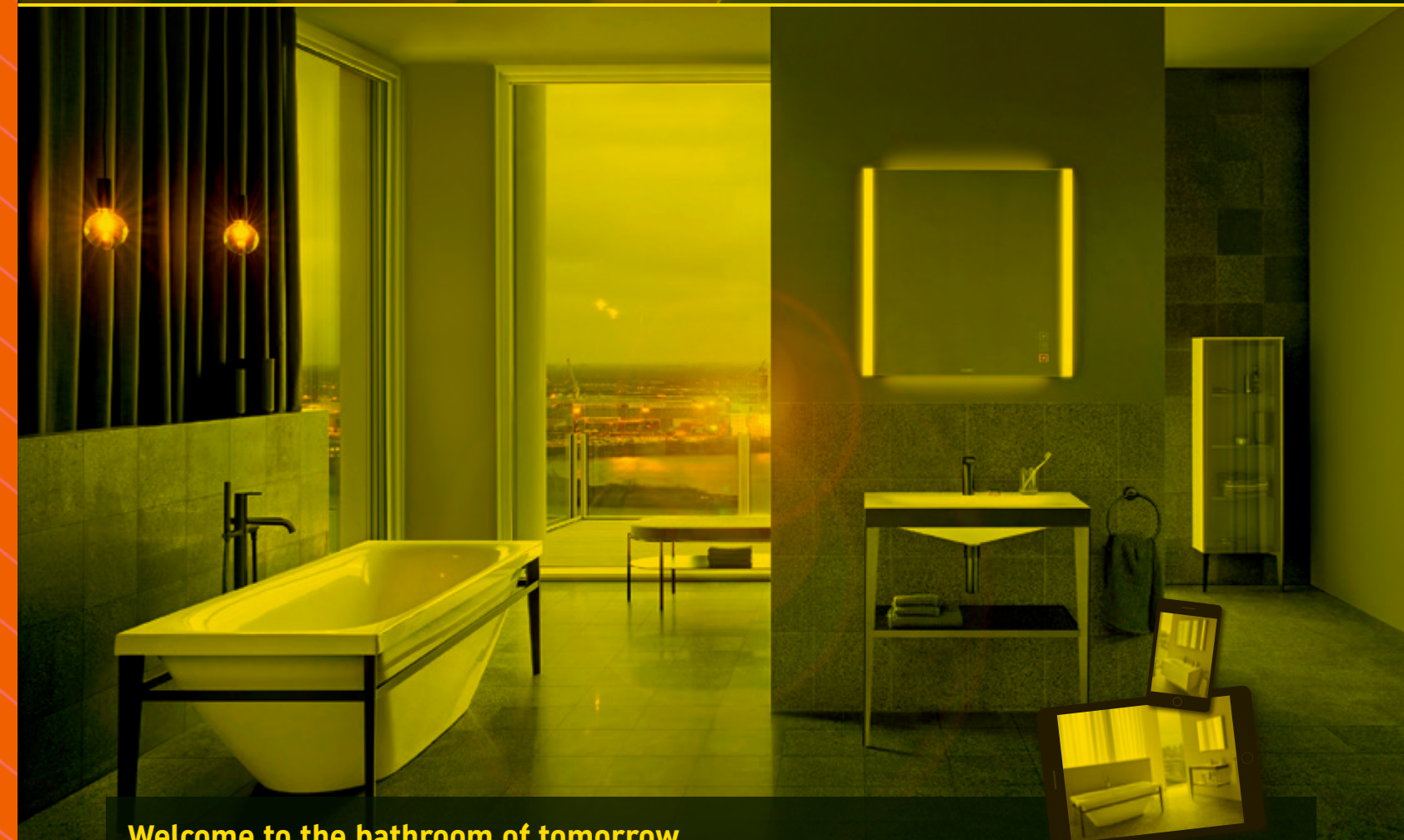
Welcome to the bathroom of tomorrow.

The idea: Soft, organic inner forms meet geometric, precise outer contours. A fusion of different materials – ceramics, wood, metal, glass. The purpose: Perfection from every angle, technology for maximum comfort. The result: Viu. Design by sieger design, realised by Duravit. What a Viu!
Duravit Asia Limited (Singapore Branch), Phone +65 6238 6353, info@sg.duravit.com, **www.duravit.com**, **Econflo Systems Pte Ltd**, Phone +65 6396 3738, sales@econflo.com, www.econflo.com, **Ferrara Asiapac Pte Ltd**, Phone +65 6235 0020, infor@ferrara.com.sg, www.ferrara.com.sg, **Sansei Singapura Pte Ltd**, Phone +65 6292 8321, sales@sansei.com.sg, www.sanseionline.com, **Bathroom Gallery**, Phone +65 6546 5900, sales@bathroomgallery.com.sg, www.bathroomgallery.com.sg, **Hoe Kee Hardware Pte Ltd**, Phone +65 6749 4521, sales1@hoekee.com.sg, www.hoekee.com.sg

Project: Hotel Llaut Palace, Mallorca, Spain / Architect: Arantxa Guerrero, Serta Arquitectos / Ceiling: Rockfon® Mono® Acoustic

## Geometric Movement and Flexibility

Artistic expression is often about more than just artistry. When creative design embraces innovative acoustic solutions and ceiling systems, spaces can be both elegant and comfortable, benefiting not only the aesthetics of the space, but the sound and lighting too.

Looking across Europe to Mallorca, Spain, the Llaut Palace Hotel, the new 5-star hotel also had to contend with some difficult circumstances when endeavouring to maintain a beautiful artistic design vision. One of the most challenging elements was creating a ceiling with an inverted pyramid design, inspired by origami and its geometry. This ceiling would create geometric ripples throughout the communal space of the hotel. "We wanted to transmit this sensation of

lightness; the element of origami communicates movement and flexibility, expanding the space of the room," said architect Arantxa Guerrero.

Located in the dining room of the hotel, the architect's origami inspired artistry demanded a material which allowed for the construction of vertices and triangulations as well as having a high acoustic absorption, to counteract a highly trafficked space, and that didn't sacrifice on the aesthetic finish.

The flexibility of Rockfon® Mono® Acoustic enabled Guerrero to achieve his elegant and clean design, exactly as he had originally proposed.
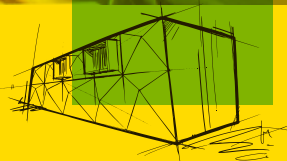
Rockfon® Mono® Acoustic

All in one to shape your world

Modern monolithic architecture calls for undisturbed, expressive surfaces. Modern building design requires good acoustics, convenience and flexibility. Rockfon Mono Acoustic is more than a ceiling. It's a surface solution designed to enrich the beauty of your monolithic design.
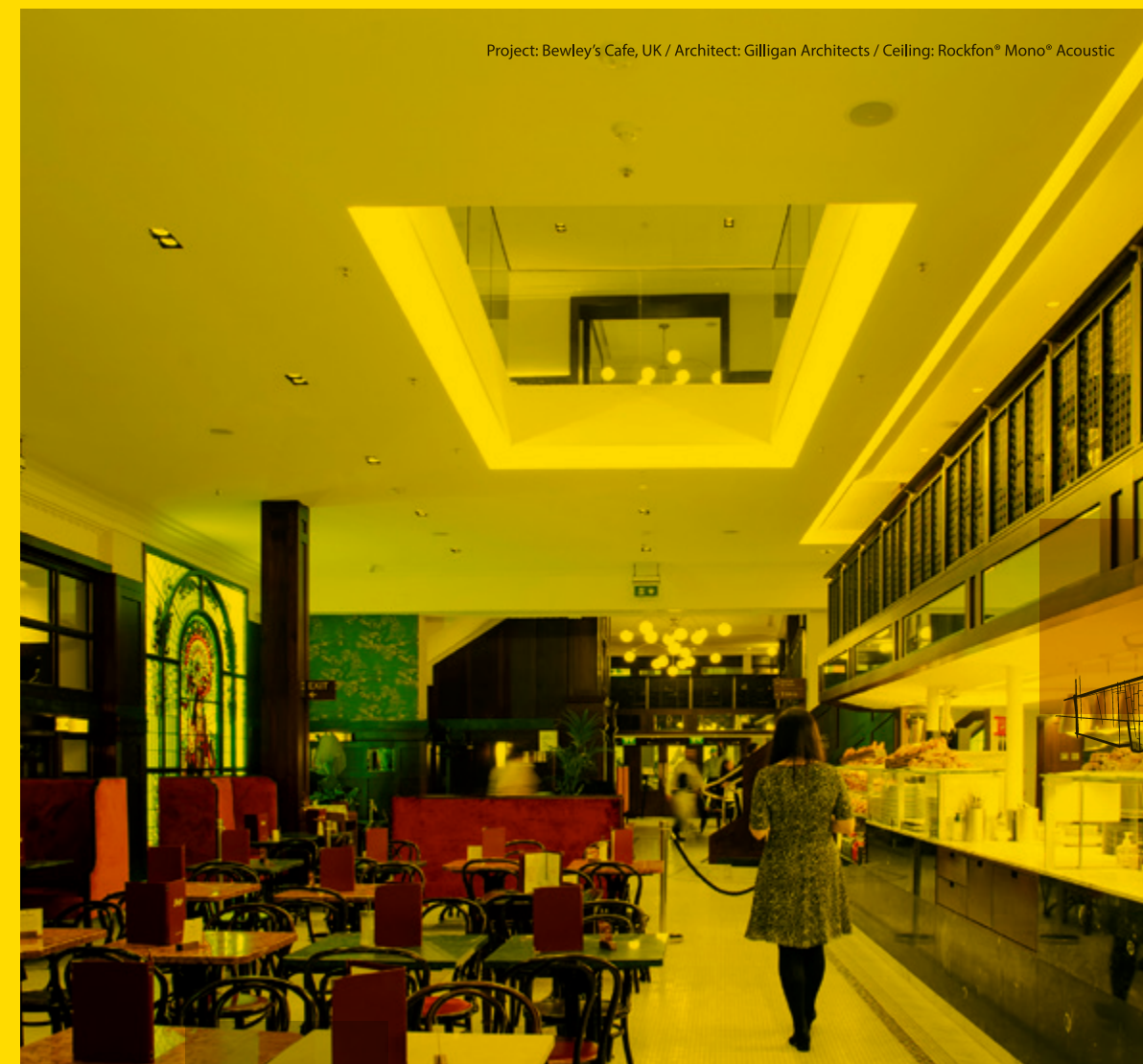
Project: Bewley's Cafe, UK / Architect: Gilligan Architects / Ceiling: Rockfon® Mono® Acoustic