THE SINGAPORE ARCHITECT 18 — MAR 20– JUN 20

The Singapore Architect

Designing Experience

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The New SAM
Project 2020
Paya Lebar Airbase
Architects Declare

STUDIO
Zarch Collaboratives

INSIGHT
Augmented Reality
Experience Design
teamLab

HERITAGE
Enter the Worlds

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The Godown
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Prihal: arsitektur andramatin
The Quiet Room
Prestige Hotel

Experience — KERRY HILL · LING HAO · RAMBOLL STUDIO DREISEITL · ANDRAMATIN · LEKKER · MOD

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ERRATA FOR TSA 17 "BEAUTY VS BUILDABILITY" (DEC 19 – FEB 20) ISSUE:

FEATURE: Tampines Green Ridges (Familiarity / Differentiation)
On page 67, the Project Information showed the incorrect lineup of consultants. The correct consultant team should be as follows:

Executive Architect:	LAUD Architects Pte Ltd
Design Architect:	G8A Architecture & Urban Planning
C&S Engineers & M&E Engineers:	Beca Carter Hollings & Ferner (S.E. Asia Pte Ltd)
Quantity Surveyor:	Arcadis Singapore Pte Ltd
Landscape Architect:	ICN Design International Pte Ltd

STUDIO: Interview with LOOK Architects
On page 97, the client for the Fuzhou Trans-Urban Connector project was not corrected stated. The client for this project is the local government, and LOOK Architects worked with the local design institute.

We regret any inconveniences caused by these errors.

The Singapore Architect

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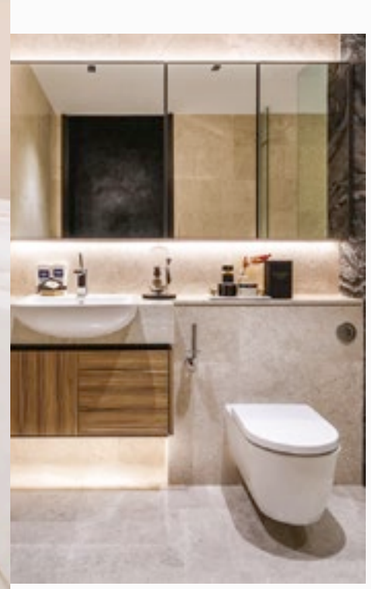

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DESIGNING

Teo Yee Chin
Chief Editor

This quarter, we centre discussion on the subject of architecture — human life and activity.

The heated toilet seat, the inverted umbrella, and the blade-less fan. These are designed objects that have addressed long-entrenched problems that people had actually learnt to live with. Their innovation is possible only because of the empathy with end-users that the designers have.

Consider also the treadmill in the sports store, which allows runners to really test the performance of shoes rather than just the fit, or the kids' play corner in the boutique, which gives mothers some crucial moments to browse properly. These are small innovations in retail that address gaps in the customer's shopping experience, and surely also help to increase sales.

The rise of User Experience (UX) as seen in examples above reaches for an enhanced level of functionality, intuition, and comfort. It seeks to improve the various touchpoints in the process of carrying out a task, from entry to contemplation to decision-making and closure. While this practice likely first emerged in the field of industrial design, possessing empathy and sensitivity to uncover problems and offer solutions really should not be seen as a single discipline, but an underlying attitude that is applicable across multiple fields.

Are architects really sensitive to the people they design for? Beyond rule-of-thumb ergonomics and planning norms gleaned from 1970's textbooks, have architects updated themselves on people's functional, occupational and behavioural patterns in today's hyper-connected and disrupted world? Or do even the perfunctory assignment of anthropometrics into space quickly become mere ingredients to be assembled into bigger systems that fulfill other (legitimate) ambitions of architects - urbanism, density, sustainability, or geometric and material effects?

The probable answer is that there is an array of different types of architects. Where the scale of projects do not allow an architect to do it all, there are various possibilities for a practice to include such considerations. We discuss these in our interview (pg 104) with Mark Wee, Executive Director of DesignSingapore Council, also architect and experience design pioneer.

But we know experience as a term goes beyond the commercial arena and any object of use. The transcendental kind would be that perfect vacation or a life-changing encounter with art. The more challenging variety would be like visiting the

EXPERIENCE

dentist, opening a durian with bare hands, or crossing the causeway to JB (Johor Bahru), where some degree of pain is involved but which perhaps makes the event more memorable.

In UX, however, adding "friction" to user actions is not advisable, meaning that actions taken need to correlate closely with intention and expected results. Such staged intentionality may differ from the complex or challenging experiences in life. As design moves from being a problem solver to a creator of meaningful experiences, I do believe that spaces created by architects, perhaps defying easy categorisation, remain necessary to create unique backdrops to human activity, challenging the intellect and imbuing order, beauty, and emotion.

The projects we feature in these pages include hospitality projects, exhibitions, installations, and a landscape design. The quiet choreography of courtyards in Amanyangyun by Kerry Hill Architects are a sure contrast from Ministry of Design's playful reinterpretation of the Victorian style, but both are attempts to re-present the heritage of the place to the visitor while weaving in the rituals of hospitality. We are happy to feature the first Indonesian project here for a long time, the insightful exhibition on leading Indonesian architect Andra Matin. The Quiet Room by Lekker is small, thoughtful for its users, and perhaps the most appropriate project for this issue.

In INSIGHT, teamLab generously shares with us their philosophy and methodology in creating their interactive and immersive installations. Jason Lim introduces how augmented reality, a way to communicate design intent vividly to all stakeholders from builder to user, has reached a state of development that is ripe for wider integration into architectural practice.

In this time of extreme change, the conversation with Randy Chan in STUDIO is invigorating. He shares his journey of building his collaborative, always engaged within the broader culture of art and community.

It seems evident that the practice of architecture needs to expand and transform, using technology and upstream engagement to better serve users at different scales. These pages may speak less of architecture (as the object), but we hope it points towards new directions that the discipline can embrace.

NEWS

Artist impression showing Singapore Art Museum's new building design, featuring the front view of the former St. Joseph's Institution building with a new purpose-built Sky Gallery and pedestrianised green space for art
Image courtesy of Singapore Art Museum

NEWS

The New Singapore Art Museum

SAM's newly-revealed design preserves histories while crafting exciting new public spaces for all to enjoy

The Singapore Art Museum (SAM) revealed artist impressions of its new building design on 17 January 2020. Led by the team of architects from SCDA, the bold new design will bring contemporary architecture into the museum's heritage buildings — the former St. Joseph's Institution (SJI) building which is a gazetted national monument, and the former Catholic High School (CHS) building which is a conservation building — to create an architectural landmark in the heart of the Bras Basah Bugis precinct.

The redevelopment will also introduce new spaces for the public to experience and engage with art, and increase accessibility for visitors with special needs. This will be the first time that SAM will undergo major works since it was opened in 1996. Slated for completion by 2023, the redevelopment will enable SAM to better fulfill its mission as a champion of contemporary art in Southeast Asia, in active dialogue and collaboration with artists, partners, and audiences.

The Building Design

The redevelopment is expected to increase the overall space in the museum buildings by about 30 per cent to meet an urgent need for more exhibition space to house the constantly evolving and multi-disciplinary nature of contemporary art. A SAM Building Committee comprising industry experts and professionals has been established to provide oversight and advice on the redevelopment.

"The new building design will have public spaces that are open and welcoming to all, inviting engagement and collaborations with artists, curators, local and overseas museums, and the general public. We will also carefully preserve the histories and stories of the museum's buildings and reflect them in the new design. We hope to combine heritage, contemporary art and architecture that places SAM on the world stage and create an iconic museum space that Singaporeans and visitors will love." said Mr Edmund Cheng, Chairman, Singapore Art Museum.

Key changes that the public can look forward to will include purpose-built gallery spaces, suitable for the presentation of large-scale contemporary artworks and exhibitions. This will include the Sky Gallery which will overlook the former SJI building, as well as a new gallery spaces in front of the former CHS building. There will also be a new Queen Street entrance for SAM that will transform the inner courtyards of the museum — Queen and Waterloo courtyards — now encompassed below the Sky Gallery, into a large high-volume atrium to welcome visitors. Visitors arriving from Bras Basah MRT Station will be immediately greeted by a generous outdoor plaza, welcoming them into Singapore's new contemporary art museum.

"The design response was to float a large box above the existing courtyards of the former SJI building. This would provide the museum with a large, column-free exhibition space within the 2 box, thus liberating the historical school building from the stresses of displaying large artwork. The new façade on Bras Basah Road will feature a series of reflective glass panels running along its length, with each panel progressively angled towards the historical building's dome — creating multiple and displaced reflections that shift as one moves past it. The former CHS building on 8 Queen Street — previously separated from the main museum — is now connected with a link bridge, providing seamless access between the two buildings. A second floating box is also introduced there to increase the museum's much-needed capacity for art presentation." said Mr Chan Soo Khian, Founding Principal and Design Director of SCDA Architects Pte Ltd.

The original entrance of the museum and former driveway along Bras Basah Road will be transformed into a fully pedestrianised green space for art for the public to enjoy. The two SAM buildings — currently separated by Queen Street — will be linked by a gallery-bridge to create a seamless museum experience, as visitors view exhibitions, attend museum events and programmes across both buildings.

Preservation and Conservation Efforts

Preservation and restoration works will be carried out on the much older, former SJI building to ensure that its heritage architecture will be carefully maintained for future generations to enjoy. These works will include preserving in-situ key architectural features and materials that are intact such as the interior of the SJI building chapel which is highly ornamental which feature stamped metal ceilings and wall panels, and the 1903 pediment with the original Signum Fidei logo which was uncovered during the 1990s restoration. Certain sections of the building will be restored to their original presentation, for example, the ventilated upper floor verandah.

The façade of the CHS building will also be conserved, with the historical school gate posts moved to a permanent position within the plaza where the legacy of the school will be celebrated. The former CHS building will also house the SAM Learning Gallery and workshop spaces for students and school groups, continuing its legacy of education for young museum visitors.

The redevelopment will also introduce new features to the building interiors to allow for greater accessibility for museum visitors with special needs. In addition, the new museum will feature learning studios and a library, new public spaces to experience the arts, as well as exciting retail and café spaces.

Artist impression showing Singapore Art Museum's new building design, featuring the new Queen Street entrance and entrance plaza
Image courtesy of Singapore Art Museum

Artist impression showing Singapore Art Museum's new purpose-built Sky Gallery
Image courtesy of Singapore Art Museum

Artist impression showing Singapore Art Museum's new Queen Street courtyard
Image courtesy of Singapore Art Museum

COMPETITION

Runway For Your Imagination

Ideas competition for the reimagining of Paya Lebar Airbase

"Runway for Your Imagination" – the ideas competition for the redevelopment of Paya Lebar Airbase has been launched by the Urban Redevelopment Authority of Singapore (URA), in partnership with the Singapore Institute of Architects and Singapore Institute of Planners.

The site was Singapore's second international airport from 1955 to 1981 and is currently used as a military airbase. The place holds many rich memories as a nation, being the birthplace of Singapore's national carrier, Singapore Airlines, in 1971. Many of the former airport buildings such as the passenger terminal buildings, control tower and aircraft hangars remain today, but have been re-purposed for other uses. The most distinctive feature of the airbase is the 3.8 km long runway.

With the relocation of Paya Lebar Airbase from the 2030s onwards, the airbase and its surrounding industrial areas can progressively be transformed into a highly liveable and sustainable new town, built on its unique heritage as a former airport and airbase.

The possibilities are immense, and this competition seeks ideas on how this place is envisioned in the future, including ideas on how some of the former airport buildings and parts of the runway can be repurposed to celebrate the area's rich aviation heritage.

A selection of the ideas received will be exhibited for public viewing, and useful ideas and concepts from the competition will be distilled into design principles and used for the development of a planning brief for the future master planning of the area.

Participants may submit proposals in any ONE of the following topics:

A. Topic 1: "Concept Master Plan"

Participants are to come up with a broad concept master plan and ideas for the redevelopment of the airbase and the surrounding industrial area, illustrating the vision of what the community of the future can be like in the next 20–30 years, with residents living in a highly liveable and sustainable town anchored in rich heritage and history.

B. Topic 2: "Transforming the Runway"

The runway is a distinctive feature in the landscape, at about 75m wide and 3.8km long, and orientated along Singapore's prevailing North-East and South-West wind directions. Participants are to develop concept proposals for the use of significant stretches of the runway as a multi-functional community space for people of all ages and abilities, while retaining the memory of it as a former runway that served the airport should be included.

C. Topic 3: "Rejuvenating Paya Lebar Airport"

Participants are to develop concept proposals for the cluster of distinctive former airport buildings comprising the terminal building, control tower offices and hangars. Participants can propose a precinct master plan and design strategies for the re-purposing of the former airport buildings and structures to give them a new lease of life, and possibly to also include the injection of new buildings and public spaces that integrate with the retained buildings to create a unique precinct identity within the future town.

Participants will be grouped into TWO categories, Open and Tertiary and all entries must reach by 27 March 2020, Friday, 5.00 pm.

Image Credit: URA (Urban Redevelopment Authority)

https://www.ideas.gov.sg/public/Runway_for_Your_Imagination

EVENT

Why Architect? Forum

Forum promoting Small Medium Architecture Practices accompanied by exhibition

The Why Architect? Forum is a commitment of the SIA Small Medium Architecture Practices (SMAP) Committee to promote firms of such sizes here in the architectural landscape of Singapore. The SMAP exhibition titled "On the inside of ___" and curated by Mr Yann Follain (WY-TO) and Ar. Wu Huei Siang (WASAA Architects & Associates), was held at URA Architecture for Urban Design & Excellence (AUDE) Gallery as part of Archifest 2019 and URA Heritage Fest 2019.

Following which, all exhibitors were invited to take part to the 2nd iteration of the Why Architect? Design Series over a midday break at the AUDE Gallery. Five practices, namely GOY Architects, TA.LE Architects, MAKK Architects, Shing Design Atelier as well as Liu & Wo Architects came on stage to share their explorations and innovations behind the making of highly crafted and well-articulated buildings that is shaping our built environment.

From local conservation projects involving heritage to regional buildings involving craft, the wide typology of buildings undertaken by these five practices embody the diversity of small and medium architecture practices in Singapore. Audiences were treated to behind-the-scene processes of how the practitioners worked alongside different stakeholders in their approach and across geographical locations to work together in their relentless pursuit of architectural excellence and perfection.

An artist's impression of the aerial view of the Punggol Digital District
Image Credit: JTC

An artist's impression of the SIT campus boulevard
Image Credit: JTC

An artist's impression of the trail in the Punggol Digital District.
Image Credit: JTC

NEWS

Punggol Digital District Is On Track

Completion of open digital platform heralds the beginning of the technologically integrated hub

The 50-hectare Punggol Digital District is on track for completion from 2023, with the first phase of a key feature — a central platform that will collect real-time data from the district — now completed. The Punggol Digital District was first announced as part of the Urban Redevelopment Authority's Draft Master Plan in 2013.

The open digital platform — which will collect real-time data from the district and can be used to roll out solutions such as optimising temperatures in buildings — is expected to be completely developed by the end of 2022. From 2023 onwards, systems and technologies will be integrated onto the open digital platform, which will then be rolled out for industry, academia and community use when Punggol Digital District is launched.

For instance, a company connected to a network of sensors within Punggol Digital District via the open platform would be able to collect real-time data on solar generation or building occupancy, rainfall and humidity.

The Punggol Digital District will incorporate a business park, the Singapore Institute of Technology's new campus as well as community facilities. It is slated to open progressively from 2023 and will create 28,000 jobs in fields such as cybersecurity and data analytics.

New amenities for tens of thousands of Punggol residents will include a new hawker centre equipped with electronic payment technology and an automated tray return system.

Other new features in the 50ha development in Punggol North include new childcare centres and public transport options, as well as a heritage trail and a pedestrian street. SIT will sit alongside a business park built by national industrial-estate developer JTC, the district's master developer.

As part of the development of the district, the authorities will also employ a range of infrastructure and technology aimed at optimising land use and energy, and cutting the development's carbon footprint.

SIT's new campus, for instance, will be powered by an experimental urban micro-grid that integrates gas, electricity and thermal energy into a smart network. The network also taps into renewable energy, such as solar.

Other features planned include a "hub parking" system in which all carparks in the district are connected underground, and a pneumatic waste-conveyance system that will tap an underground pipe network to transport waste at high speed into enclosed containers. A centralised logistics hub, served by a network of robots or autonomous vehicles, could also speed up the drop-off and delivery of goods in the district. Elsewhere, the district will have an integrated facilities management system that will allow for central and remote monitoring, as well as analysis and control of services and systems.

NEWS

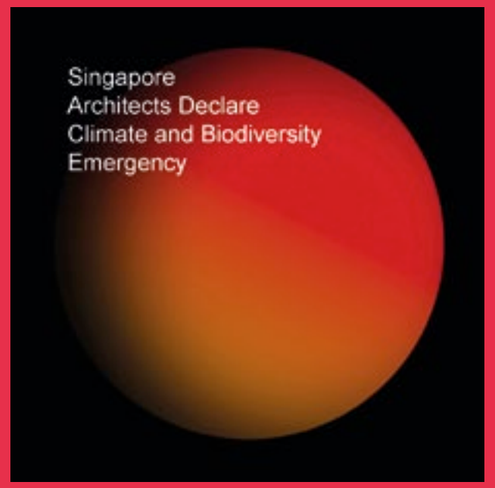
Architects Declare

On 9 January 2020, Singapore has become the first country in Asia to launch Architects and Engineers Declare, a momentous day for our profession to demonstrate the leadership and accountability needed in the existential fight for the future of our planet.

Representatives from all seven founding signatories: CSYA, DP Architects, Forum Architects, Guz Architects, Hassell, SCDA and WOHA gathered together to discuss the urgency of this task and show unwavering solidarity in this joint effort.

It is the sincere hope of the entire Editorial Team — whose practices are proudly part of Architects Declare — that the rest of our professional community will join this commitment and collectively seek to make an active positive difference in the way we practise, and the impact our profession has on the environment.

For more information on Construction Declares, please visit https://www.constructiondeclares.com/



Singapore Architects Declaration

The twin crises of climate breakdown and biodiversity loss are the most serious issues of our time. Buildings and construction play a major part, accounting for nearly 40% of energy-related carbon dioxide (CO^2) emissions whilst also having a significant impact on our natural habitats.

For everyone working in the construction industry, meeting the needs of our society without breaching the earth's ecological boundaries will demand a paradigm shift in our behaviour. Together with our clients, we will need to commission and design buildings, cities and infrastructures as indivisible components of a larger, constantly regenerating and self-sustaining system.

The research and technology exist for us to begin that transformation now, but what has been lacking is collective will. Recognising this, we are committing to strengthen our working practices to create architecture and urbanism that has a more positive impact on the world around us.

We will seek to:

- Raise awareness of the climate and biodiversity emergencies and the urgent need for action amongst our clients and supply chains.
- Advocate for faster change in our industry towards regenerative design practices and a higher funding priority to support this.
- Establish climate and biodiversity mitigation principles as a key measure of our industry's success.
- Share knowledge and research to that end on an open source basis.
- Evaluate all new projects against the aspiration to contribute positively to mitigating climate breakdown and encourage our clients to adopt this approach.
- Upgrade existing buildings for extended use as a more carbon efficient alternative to demolition and new build whenever there is a viable choice.
- Promote life cycle studies, carbon footprint assessment and post occupancy evaluation, to reduce both embodied and operational resource use.
- Adopt more regenerative design principles in our studios, with the aim of designing architecture and urbanism that goes beyond the standard of net zero carbon in use.
- Collaborate with engineers, contractors and clients to further reduce construction waste.
- Accelerate the shift to low embodied carbon materials in all our work.
- Minimise wasteful use of resources in architecture and urban planning, both in quantum and in detail.

EXHIBITION

Suddenly Turning Visible

Exploring connections between art and architecture in Southeast Asia

Illuminating the lesser-known links between art and architecture and the role of institutions in the development of art in the region, the Gallery presents Suddenly Turning Visible: Art and Architecture in Southeast Asia (1969–1989).

This exhibition reflects the rapid modernisation of the region during this period, a time when artists and architects articulated new approaches that freely reinvented international art movements such as abstraction, realism and conceptual art in dialogue with folk and vernacular traditions.

It traces this story through three influential art institutions in Manila, Bangkok and Singapore, presenting artworks from the period alongside archives, and newly commissioned and re-staged works.

Image Credit: National Gallery Singapore

Uncover the links between art and architecture during one of Southeast Asia's most transformative periods, exemplified by three art institutions — the Alpha Gallery in Singapore, the Bhirasri Institute of Modern Art in Bangkok, and the Cultural Centre of the Philippines in Manila. Experience a series of rare artworks associated with the three institutions, which showcase the contributions made by Southeast Asian artists to global dialogues on experimental and conceptual art in the 1970s.

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NEWS

Project 2020

Local architects on expedition to Cambodia to build latrines for villagers

More information can be found on the page: https://give.asia/campaign/project-2020-2714#/

A group of more than 20 Singapore architects and friends have come together for a worthy cause in Cambodia. Entitled Project 2020, this social project is in collaboration with the Cambodian Community Dream Organisation, Inc. (CCDO) under the WASH program. Project 2020 starts off with the Singapore architects designing 20 latrines for 20 families in Village Bustatrav, SvayChek Commune, Angkor Thom District, Siem Reap, Cambodia.

The project aims to raise awareness of sanitation issues faced by impoverished villages in developing countries. All the architects involved have devoted much voluntary time and effort, creating pro bono designs for the village families. Each of the architects has also funded the full cost of building a latrine. With the usage of these latrines, the village households would be able to alleviate their current living and health standards.

In addition, the group has raised more than USD$20,000 successfully through a crowd fund, to finance the building of a total 100 latrines in the province this year.

The architecture fraternity has been brought together for a social cause. In addition, it is a good opportunity for the architecture students from National University of Singapore to collaborate with the students from the American University of Phnom Penh and Angkor University. A total of 100 participants have taken part in the event with the local villagers in building 20 latrines simultaneously over the weekend of 22nd and 23rd Feb 2020.

NEWS

Observations at COP25, Madrid

Ar. Tan Szue Hann
Chairman, Sustainability, Singapore Institute of Architects
Managing Director, MINIWIZ Singapore

COP25 (the UN Climate Change Conference), which concluded in Madrid a fortnight ago, could have, and should have, been one of the most important conferences in 2019. By now you would have read or heard that there was no resolution to the impasse on emissions laws and targets (originally set in the Kyoto Protocol and reviewed in COP21 Paris), with the key decisions being postponed till COP26 in Glasgow this year. While hardly surprising, it was a somewhat disappointing end to those amongst us with hopes of starting 2020 on the right foot — if not with the right carbon footprint.

This was one of those conferences that are both remarkable in scale, and confounding in its end-goal. The logo itself read "COP 25 Chile — Madrid 2019", almost in apology over the fact that it was planned to be held in Santiago, Chile, but had to be moved to Madrid due to the unrest in Chile. On entering the sprawling conference grounds at IFEMA Madrid, there were wonderful poster-sized photographs of Santiago and its verdant landscape and dense urbanscape — which read like "wish you (we) were here" postcards. Nevertheless, the organisation in Madrid — they only had months to plan for what would be the most significant, and for environmentalists, the most pertinent conference of 2019 — was laudable.

Some of it felt like the World Expo — there were pavilions from different countries centred around what they were doing to mitigate climate change, and numerous NGO pavilions shouting for your attention. There were even cultural dances, which were in interesting contrast (and incongruity) to peaceful climate protests, and meatless diet advocates. There were the usual suspects — Al Gore, and Greta Thunberg (but of course), but I was surprised to catch a glimpse of Harrison Ford in the midst. One would hope that this consciousness of climate issues would be turned into action, but global action in all senses of the phrase is still largely guided by the world's superpowers. We – and the health of the planet at large — are mostly at their mercy.

On to Glasgow in 2020. Till then, we'll continue to work within our locus of control — building and environmental design, in our case — to halt climate change.

Empty chairs at an empty hall — which would be chockful at the height of the international negotiations.

Country and NGO pavilions at COP25. Here's Japan promoting climate change awareness by way of anime.

With the Singapore contingent at a tea session hosted by Minister for Environment, Masagos Zulkifli.
We had an engaging conversation on the role that Singapore plays in the global climate conversation — and it's more significant than what you might think.

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FEATURE

The Living Museum

WRITTEN BY
Ar. Razvan Ghilic-Micu MSIA RAIA

DRAWINGS BY
Kerry Hill Architects

The story started hundreds of years ago, with the old camphor trees and antique houses of Jiangxi province. Facing a dreadful predicament less than two decades ago, slated to perish by drowning after the construction of a large new dam, the village, its ancient trees and centuries of history would have been lost forever.

The colossal initiative championed by entrepreneur and philanthropist Ma Dadong — that of preserving 10,000 camphor trees and 50 historic homes by relocating them 700 km North from Fuzhou to Shanghai — has been given a new lease of life by Aman and its chosen designer, Kerry Hill Architects. What makes Amanyangyun a true living museum, and how is the present and future experience woven with its past?

A memorable arrival at Amanyangyun
Photographer: Lian Xiao Ou

Courtyards

Less than an hour's drive outside Shanghai, Amanyangyun is located close enough to be easily accessible, yet conveniently away from the city to allow one's gaze and thoughts to transition from the urban scale to the almost flat and serene agrarian surroundings of the resort. Inconspicuously located along Yuanjiang Road, the indirect entry sequence quickly robs you of your bearings and introduces you to a brand new system of order: that of Aman. Driving between curtains of tall grasses only affords you a fleeting glance at the clean stone volumes of the villas, announcing the first touchpoint of the project: the symmetrical Arrival Courtyard leading to the majestic entry Lobby.

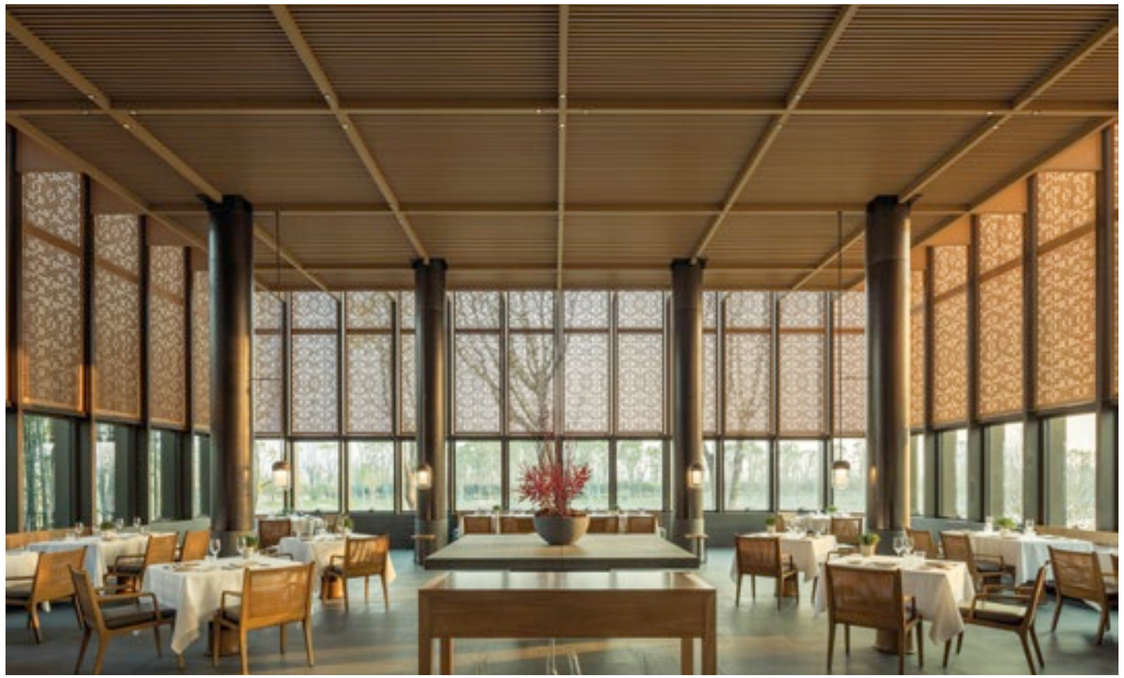
A stroll along the textured paths of the resort
Photographer: Lian Xiao Ou

Courtyards, whether open to the elements, sheltered, internal or semi-external are the strongest organizational device of Amanyangyun and a clear typological nod to the traditional houses and villages of the Jiangxi province. The way you are directed from one space to another in this exclusive walled village is scripted to perfection, as a series of rituals and rites of passage from the most public welcoming zones to the cultural nucleus — the King tree courtyard and Nan Shufang — and the most private peripheral clusters of villas.

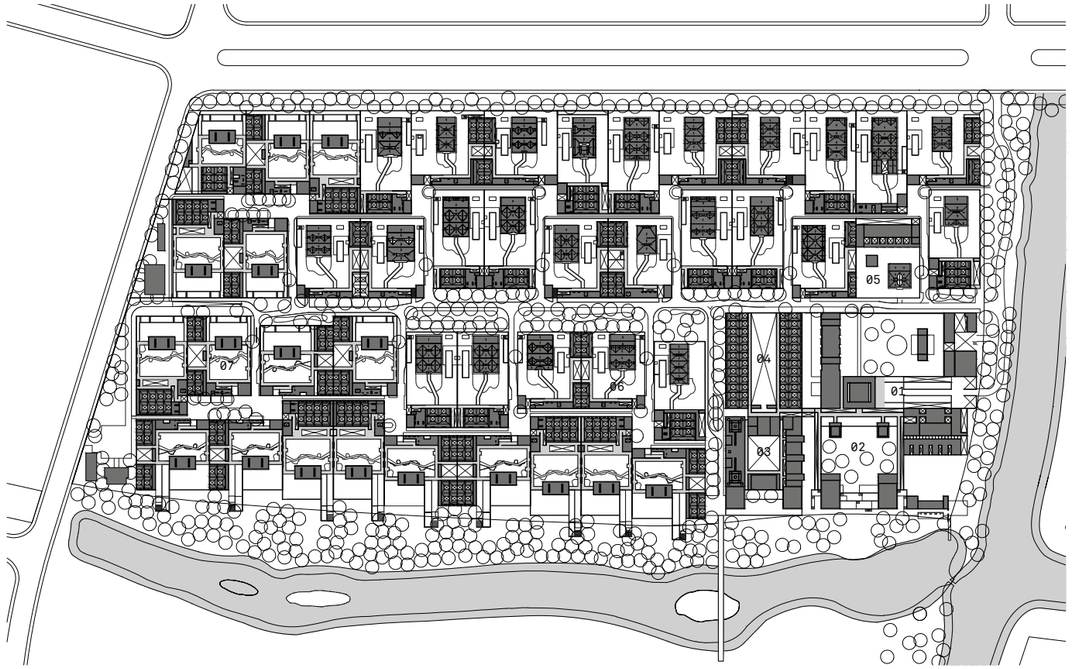
At a macro-scale, the masterplan blueprint is a clear accretion of courtyards, with linear negative spaces subtracted for circulation. As one walks through the development, it is clear that the architecture is underpinning the introversion and exclusivity expected of a resort like Amayangyun.

The villas, both Antique and New are clustered in groups of four in a pinwheel arrangement, each opening to their visitors in a gradual indirect progression. From the shared Cluster Court one enters through a Moongate into a narrow water court — a striking resemblance to a dramatic Miesian experience — that subsequently opens up to the hero moment: a generous courtyard with naturalistic landscape by Dan Pearson, amplifying the presence of a centre-piece Villa . The guest suites are equally well choreographed as a linear progression of rooms and courtyards at an intimate scale.

The glowing lobby is a warm welcoming space
Photographer: Sohei Oya



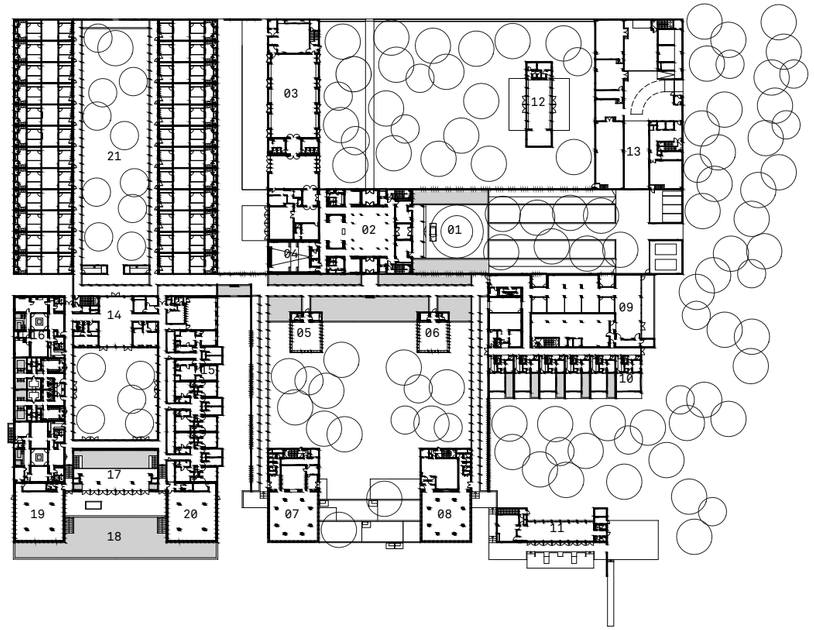
Arva, the Italian restaurant
Photographer: Sui Sicong



LEGEND

01 Hotel Arrival
02 Hotel Garden
03 Spa & Fitness
04 Guest Suites
05 Nan Shufang
06 Typical Antique Villa
07 Typical New Villa

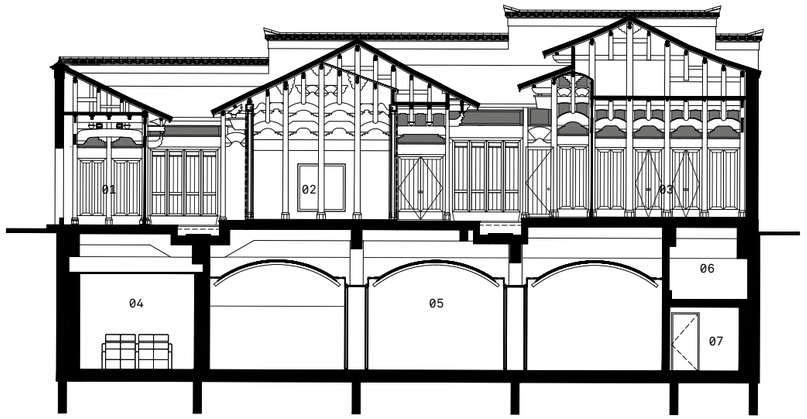
MASTER PLAN



LEGEND

01 Arrival
02 Lobby
03 Banquet Hall
04 Cinema
05 Cigar Lounge
06 Retail
07 Club Lounge
08 All Day Dining
09 Chinese Restaurant
10 Private Dining
11 Lakeside Cafe
12 Discovery Centre
13 BOH
14 SPA Reception
15 Treatment Rooms
16 Treatment Houses
17 Indoor Pool
18 Outdoor Pool
19 Gym
20 Yoga / Pilates
21 Guest-suite Courtyard

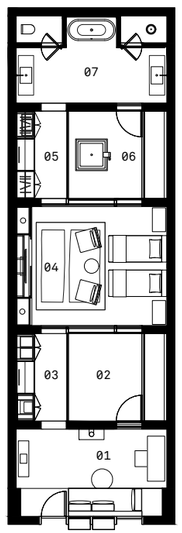
HOTEL PLAN



LEGEND

01 Entry
02 Living / Dining
03 Bedroom
04 Cinema
05 Gallery
06 Geothermal Plant
07 Store

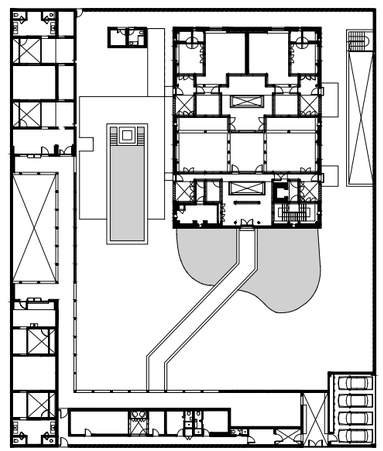
ANTIQUE HOUSE SECTION PLAN



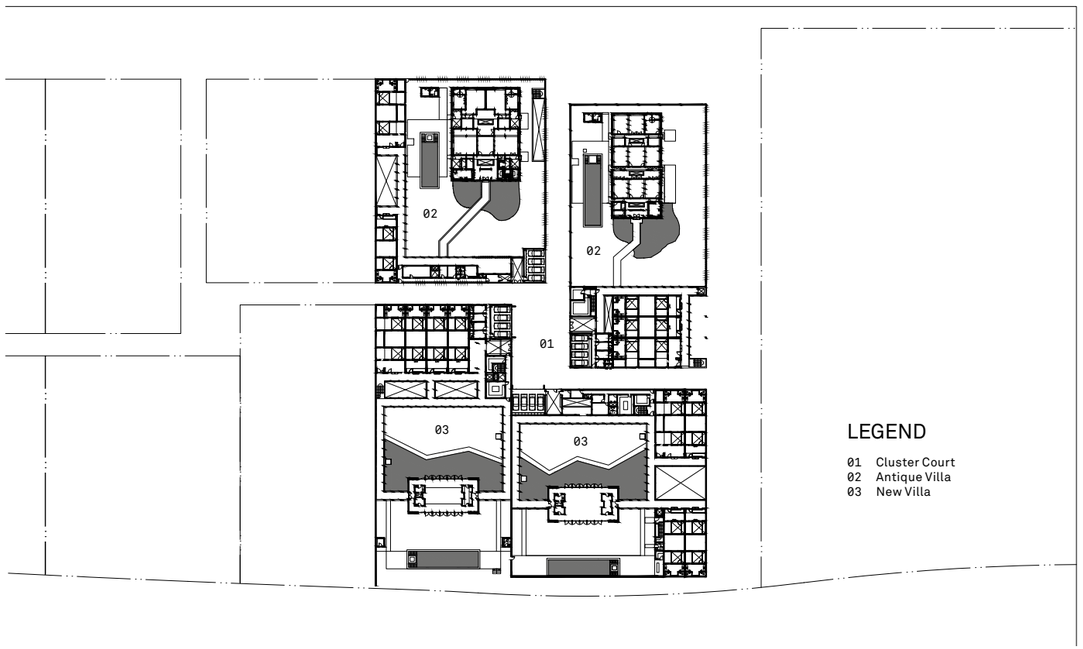
GUEST SUITE PLAN

LEGEND

01 Study / Lounge
02 Courtyard
03 Cloaks
04 Bedroom
05 Wardrobe
06 Bath Courtyard
07 Ensuite Bathroom



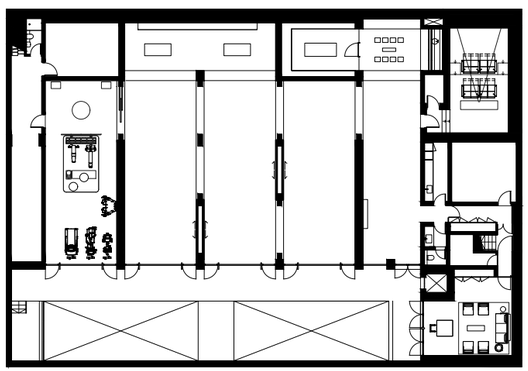
VILLA PLAN



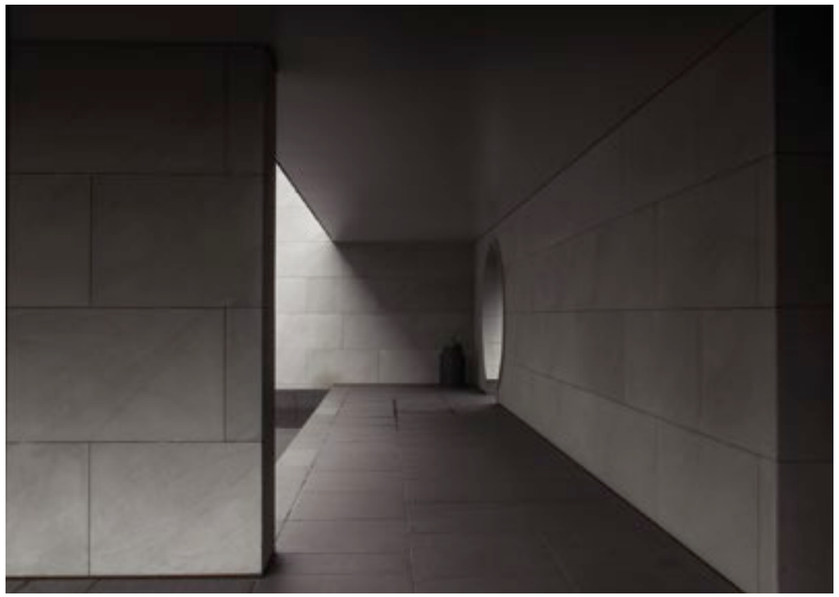
LEGEND

01 Cluster Court
02 Antique Villa
03 New Villa

VILLA CLUSTER PLAN



VILLA BASEMENT PLAN



(Above)
Every elevation is a fine-tuned composition
Photographer: Lian Xiao Ou

(Left)
The moongate and water court of a typical villa
Photographer: Lian Xiao Ou

(Opposite Page)
The Antique villa commands the courtyard with its majestic vernacular presence
Photographer: Sui Sicong

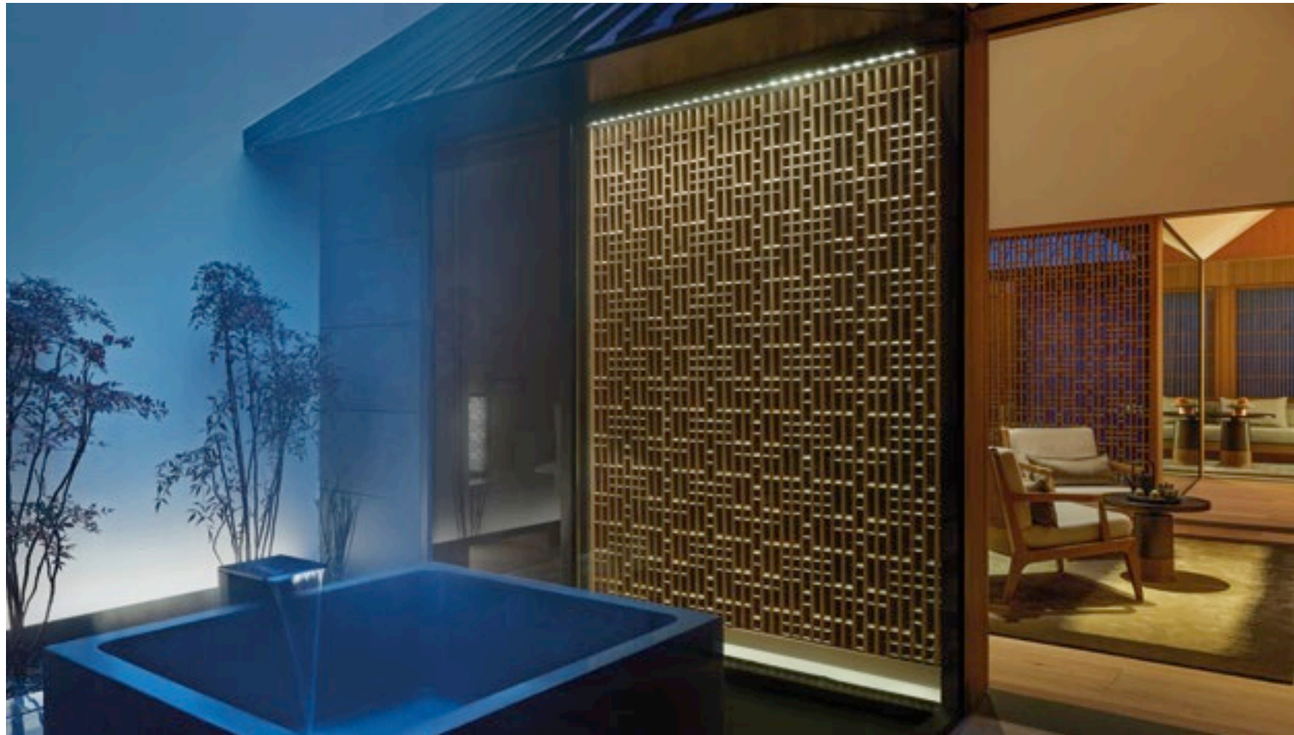
(Bottom)
The guest suites
Photographer: Sohei Oya

However well resolved in plan, the courtyard typology truly shines in section. By creating generous sunken spaces admitting natural light well below the main floor, the architects have transformed the basement level into an equally desirable habitable floor with a gorgeous lush backdrop. Below the Villas one can enjoy a personal art gallery, entertainment and fitness, while the visitors to Nan Shufang can make great use of the exquisite library and conferencing facility. This three-dimensional approach to courtyard planning pushes the boundaries of negative space as an unexpected key to unlocking the programmatic and experiential qualities of all inhabited spaces.

Screening and layering

The one striking element visually binding together the experience of Amanyangyun, are the ever present screening devices. Whether a lattice of preciously rare Nanmu, teak, zinc, or a tectonic layering of precisely cut stone blocks, screens facilitate soft transitions between spaces, gently direct the gaze for privacy or discreetly open up the Antique houses masonry walls to allow light within. Each type of screen is deliberately and painstakingly designed to suit a variety of materials and settings, while through repetition and variation forming a strong architectural syntax. Wherever you may find yourself within Amanyangyun, each space continues to unfold beyond what you can immediately perceive. Nothing here is left to chance.

While walking along the corridor surrounding the main Arrival Lobby, the arresting dappled warm light traces filtered by the screens and dancing on the robust grey stone of the wall gave me a wonderful chance to pause and appreciate the intangible material that all good architecture uses to the fullest: light. The architects have without doubt studied countless iterations to optimise the elegant Nanmu lattice, perfectly spaced, chamfered and articulated to filter the contemporary cloud-like pattern of light. Such effortlessness of effect



The dining room of an antique villa
Photographer: Sohei Oya

and contemporary pieces in the noble Nanmu and teak, screens battens, lanterns, lampshades, screens, built-in cabinetry and flooring — each lending a slightly different grain, flavour and personality to the spaces.

By contrast, the lightly veined pale grey Chinese sandstone becomes a welcome neutral counterpoint and a gentle background for the intricate details to shine ever more legibly. During my visit I understood that the developer of the resort has actually purchased the stone quarry, bestowing upon Amanyangyun even more exclusivity in its use of materials.

From the tectonic balance of the façade massing down to the order and hierarchy clearly articulated through every millwork detail, the project is edited with an enviable level of maturity and sophistication. The craftsmanship is palpable, just as essential to realizing the high expectations set by the design.

Contemporary hospitality is many times a full attack on the senses, an amplified experience meant to dazzle with seldom enough relief for catching your breath from all the opulent excitement.

Not Amanyangyun. The well aerated and distilled design is self-assured in its rigor, and elevates the experience to a brand new class of luxury. Design is not about status, but about authenticity and refinement.

The experience of luxury: exquisite, or solitary

From sipping my Jasmine welcome tea by the Lobby fireplace, paying my respects to the millennia-old King Tree, watering it from a century-old well, touring the Nan Shufang with its myriad cultural opportunities — tea appreciation classes, calligraphy, initiation to the world of spices to name but a few — to ending my visit with a delightful lunch at Lazhu, a culinary catharsis sparked by the hot and dry flavours of Jiangxi, Amanyangyun has slowly revealed itself to me as an incredible stage-set for exquisite experiences, carefully curated by the Aman team, enabled by the design and hosted by the outstanding staff.

The vibrant sandstone screen wall
Photographer: Lian Xiao Ou

never comes easy or by accident. Reprised in zinc in the outdoor courtyard of the Nan Shufang, and in teak inside the guest suits, the lattice screen proves to be nimble and universal in its elegance and effect.

In contrast, the robust breeze-block walls cut in Chinese sandstone explore the tectonic potentials of prismatic wedges, cleverly proportioned and spaced apart to achieve a subtle playfulness, while creating a distinctly different reading from the two opposite sides of each wall. Whether external dividers, moments of relief in the massing, or practical solutions to opening up the Antique villa masonry walls, the blocks add to the texture and the experience of Amanyangyun as yet another memorable signature of Kerry Hill Architects.

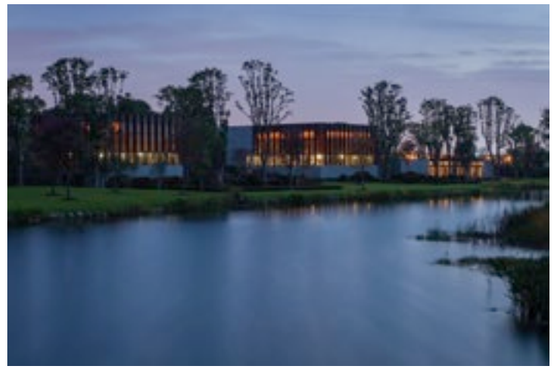
Edited to perfection

The architecture and interior design of the resort are a tour-de-force in restraint, striking a delightful balance between the warm and the neutral, the antique and the contemporary.

I have experienced an incredibly rich variety of wood and timber, a beautiful material exuding so much warmth, both visual and tactile: The timber structure of the old vernacular houses steeped in history, traditional furniture

Dappled magical light filtering through the Nanmu screen
Photographer: Sohei Oya

I could not help but notice however that I have not seen many guests along my visit. Is this the result of a resort that prides itself in exclusivity, hence the intimacy of each villa is keeping all signs of life facing inwards and away from the common areas, or the accidental by-product of exclusivity itself: the high price bar is simply too fine a filter. I understood from my tour guide that presently Aman is fine-tuning the tenancy model to allow co-sharing of the generous villa amenities, in an attempt to diversify the economic model and increase occupation. It would be interesting to speculate how a more vibrant and visible community of guests would enliven the present serenity of Amanyangyun, and if its bravely uncompromising planning and architecture would indeed allow for spontaneous life to sprout in unanticipated ways.



Architecture as serene objects punctuating the landscape
Photographer: Li Jie

Lahzu, the Chinese restaurant
Photographer: Lian Xiao Ou

A refined and authentic architecture
Photographer: Lian Xiao Ou

Conclusion

In retrospect, my day at Amanyangyun has been more of a pilgrimage than a visit. The palpable presence of history, the compelling story of an unprecedented restoration project and the undoubted architectural quality of the final result are a distinctive experiential blend, providentially brought together and impossible to replicate. Rumour has it that somewhere else in China an eager hotelier rushed to copy elements of the resort from the widely publicised images.

While design is inherently a fluid practice of borrowed motifs, it is clear beyond doubt that Amayangyun's experience and lasting impression is magical, transcending its physical form and making a trip to the site an absolute must for hospitality architecture lovers.

PROJECT INFORMATION

- **CLIENT**
  Shanghai Guyin Real Estates Co. Ltd.
- **TIME TO COMPLETE**
  48 months
- **TOTAL FLOOR AREA**
  50,000 sqm

CONSULTANTS

- **ARCHITECTURE FIRM**
  Kerry Hill Architects
- **LOCAL DESIGN INSTITUTE / CIVIL AND STRUCTURAL ENGINEER / M&E ENGINEER**
  ECADI (East China Architectural Design & Research Institute)
- **LANDSCAPE ARCHITECT**
  Dan Pearson Studio, London
- **TIMBER STRUCTURE**
  SIADR (Institute of Shanghai Architectural Design and Research Co., Ltd.)
- **LIGHTING CONSULTANT**
  Lighting Planners Associates, Singapore

CONTRACTORS

- **MAIN CONTRACTOR (BUILDER)**
  Shanghai Construction Group
- **ALUMINIUM/FAÇADE SUB-CONTRACTOR**
  Shanghai Issey Engineering Industrial Ltd.
- **INTERIOR CONTRACTOR**
  Gold Mantis, Shanghai Construction Group

SUPPLIER

- **SANITARY WARE**
  Vola tapware

FEATURE

The Godown

WRITTEN BY
Ar. Quek Li-En MSIA

DRAWINGS BY
Linghao Architects

PHOTOGRAPHS BY
Fabian Ong

The Godown is situated in a grimy corner of Kuala Lumpur, just off Chinatown. In an astute observation, the owner, Ms Lim Wan Yee, decided that a new office tower was the last thing the city needed. She searched extensively for a solution that would be sensitive to the context and found in Linghao Architects an exciting proposal for an Arts Centre that takes on the challenge of engaging with the city.

Walls hang off a steel mesh floor , flowing air, tall space on higher level with the outdoors over the old Godown roof

A tight urban plot

Site

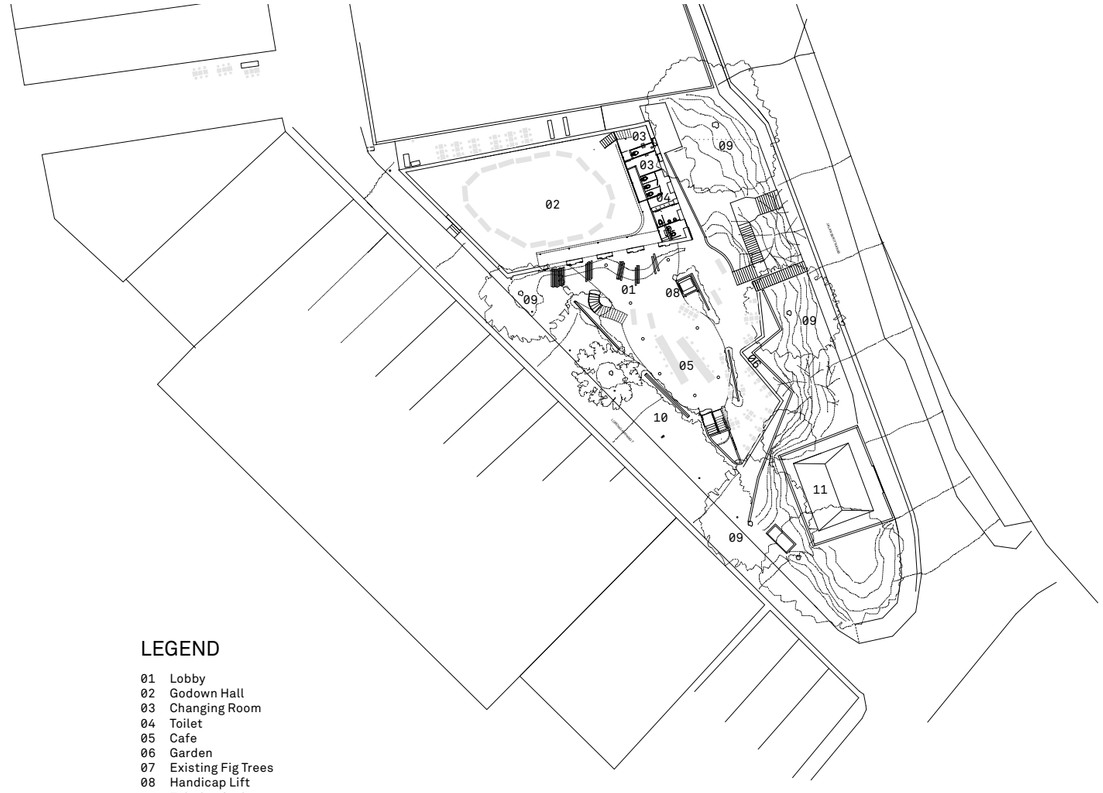
One drifts into The Godown from the street, almost by accident. There are multiple entrances all around the building and there is no clear definition of where the “front” of the building is. In a simple act of demarcation, the ground floor is finished in loosely arranged stones, a natural material which you might expect to find by a riverside or in the patches of wildness that dot the city. This is in stark contrast to the asphalt roads that surround the building, an oasis of nature within the density of the city.

The thin sheath of metal that forms the façade of the building sits lightly above the ground, large openings give the building a degree of transparency that allows the interior activity to be visible from the street. The overall impression is one of welcoming accessibility, a daring achievement given the context of a city where security is a prime concern.

The Godown allows for pedestrian traffic through the site, including a pre-existing staircase from Bukit Nanas (Pineapple Hill) to the city below. By maintaining this porosity, the building becomes part of the network of linkages that have been built up over time, a participant and contributor to the fabric of the city.

A welcome respite amid the concrete jungle

A staircase from Bukit Nanas



LEGEND

01 Lobby
02 Godown Hall
03 Changing Room
04 Toilet
05 Cafe
06 Garden
07 Existing Fig Trees
08 Handicap Lift
09 Existing Stair
10 Carpark
11 Existing Substation

GROUND FLOOR PLAN

The restored existing godown

Double volume space on the 2nd storey

Balcony shaded by existing ficus trees

Tacit Space

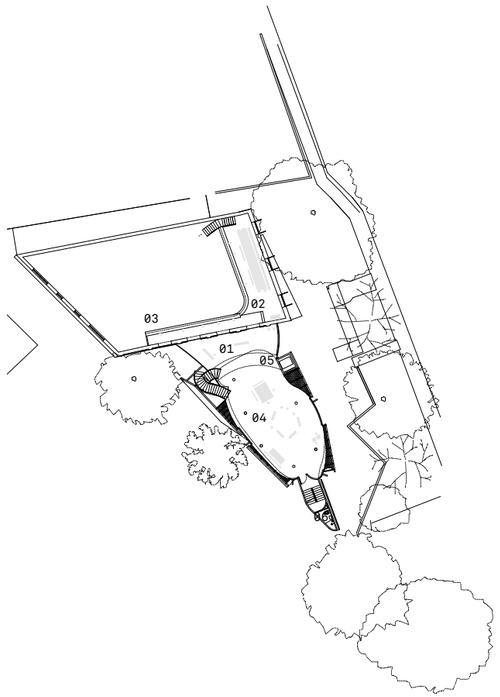
The Godown is composed of two parts, the existing godown building and a new concrete extension. The existing building is given space to breathe, its voluminous interior carved out to become a large hall whilst the new extension houses smaller event spaces and an artist residence. Between them, these two buildings provide at least 7 different venues for activity, each with a different spatial quality.

In some spaces, the ceiling is tall, suitable for large gatherings, in others it is low, ideal for intimate sessions, some views look out over the street and others are backed up against abundant foliage. The irregular shape of the plan means that no two areas are identical, each corner of the building has a particular atmosphere, specific to its location and time of day.

It is up to the user to identify the spaces which are most suitable for his or her use, utilizing the spaces in the building requires spontaneous on-site engagement and a tacit understanding that is characteristic of the street life in the surrounding neighbourhood[1].

1 One example of this kind of tacit understanding is where itinerant hawkers appear on the roadside in the morning, serving breakfast to hungry crowds and vacate quickly after, they have a communal understanding about the use of space that is only tacitly defined.

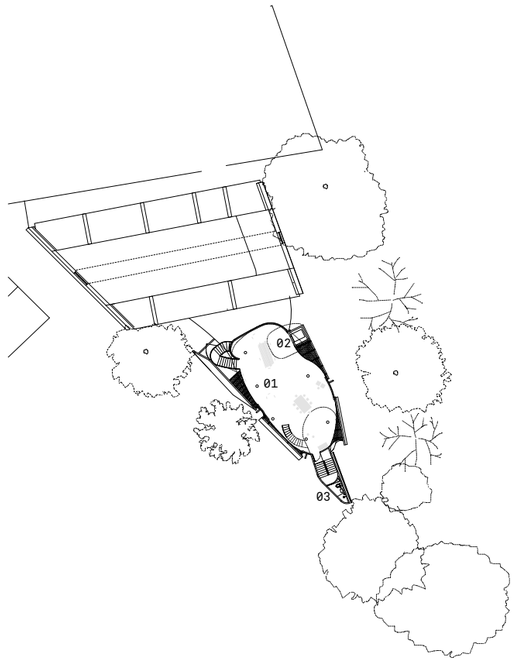
A view from the street



1ST FLOOR PLAN

LEGEND

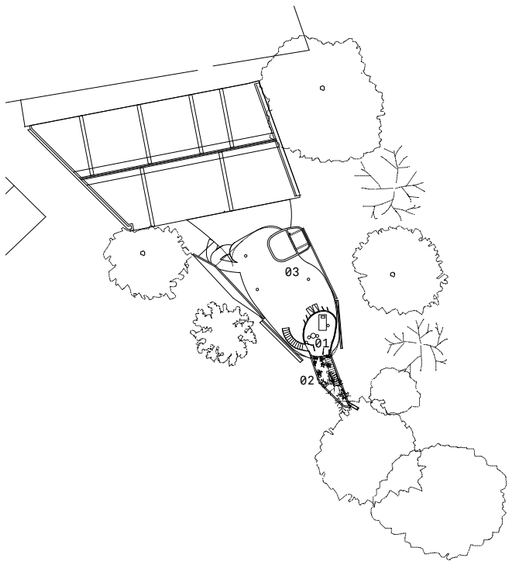
01 Open Terrace
02 Gallery
03 Void
04 Studio
05 Toilet
06 Handicap Lift



2ND FLOOR PLAN

LEGEND

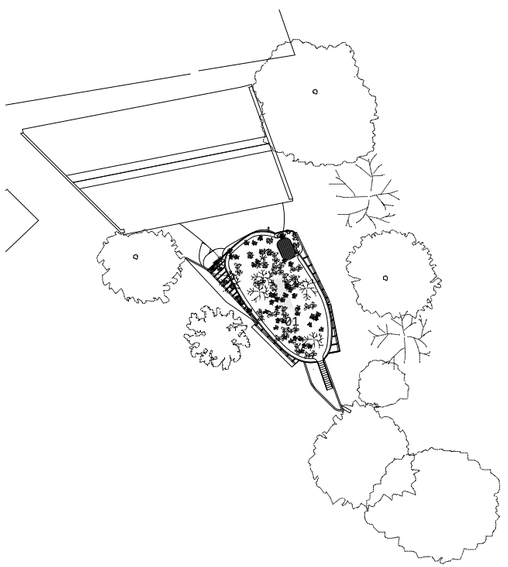
01 Workshop
02 Toilet
03 Handicap Lift



MEZZANINE PLAN

LEGEND

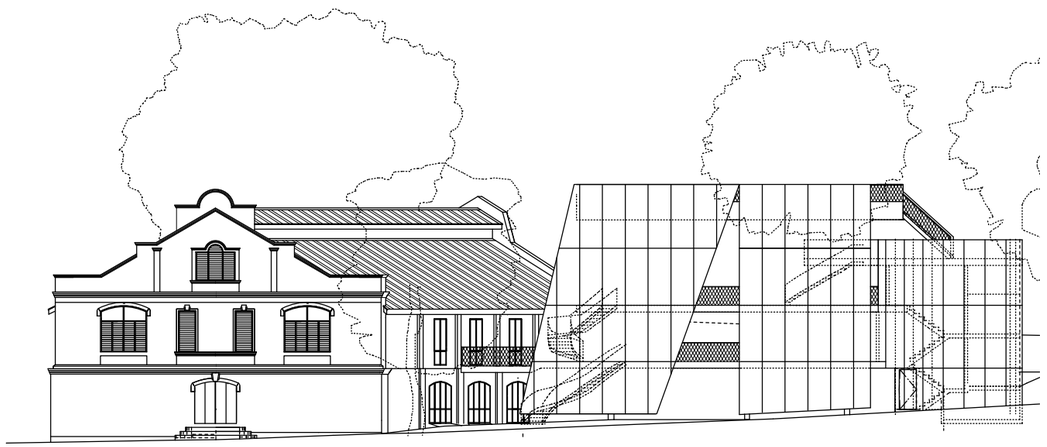
01 Residency Room
02 Garden
03 Void



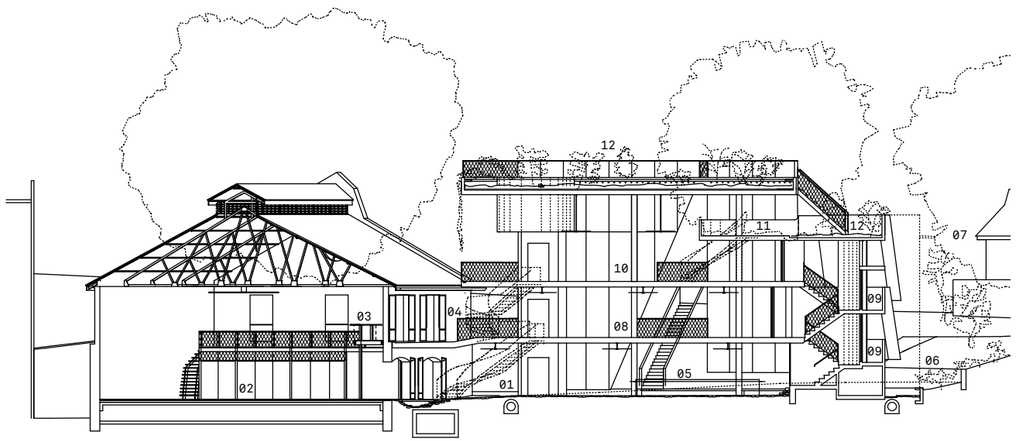
ROOF GARDEN PLAN

LEGEND

01 Roof Garden



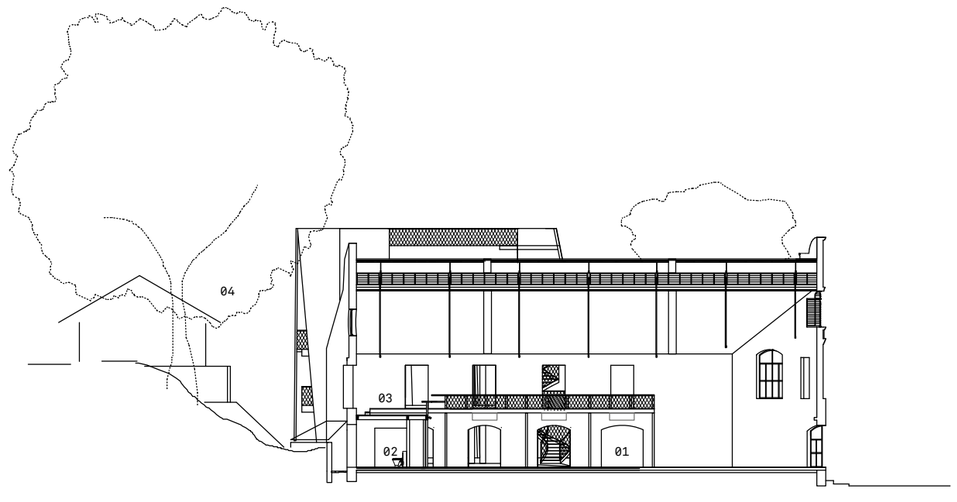
ELEVATION 1



SECTION AA

LEGEND

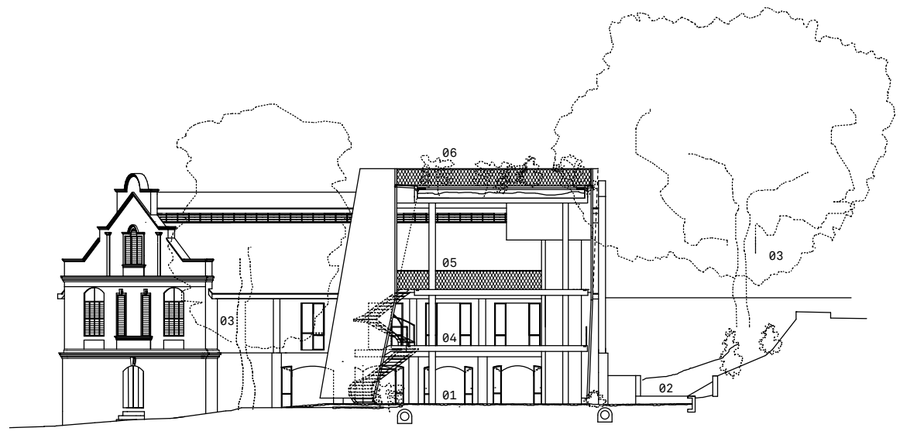
01 Lobby
02 Godown Hall
03 Gallery
04 Open Terrace
05 Cafe
06 Garden
07 Existing Fig Trees
08 Studio
09 Toilet
10 Workshop
11 Residency Room
12 Roof Garden



SECTION BB

LEGEND

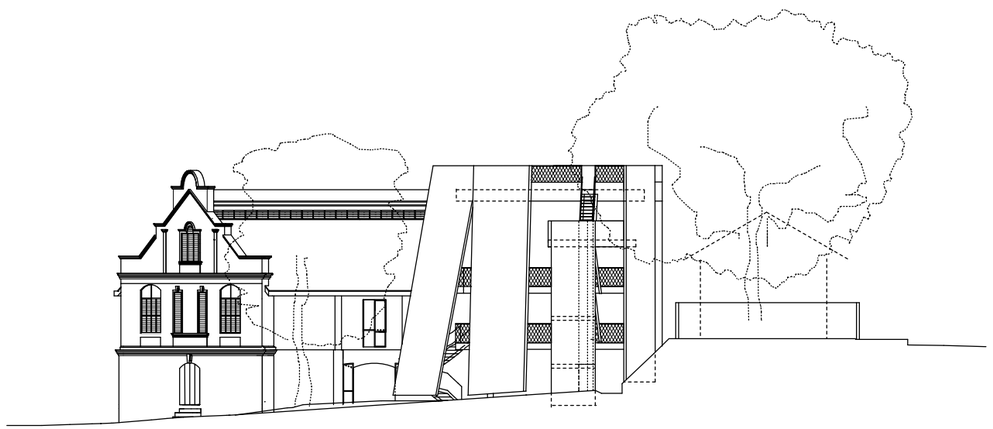
01 Godown Hall
01 Toilet
03 Gallery
04 Existing Fig Tree



SECTION CC

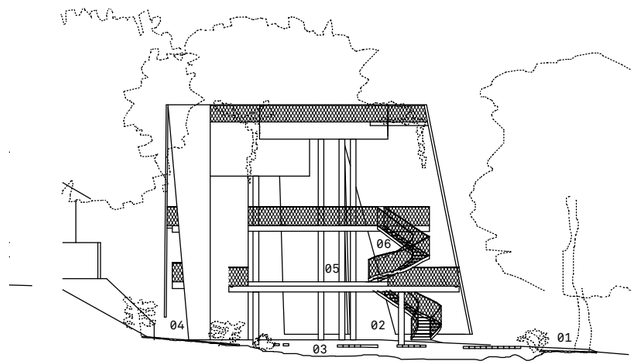
LEGEND

01 Cafe
02 Garden
03 Existing Fig Trees
04 Studio
05 Workshop
06 Roof Garden



ELEVATION 2

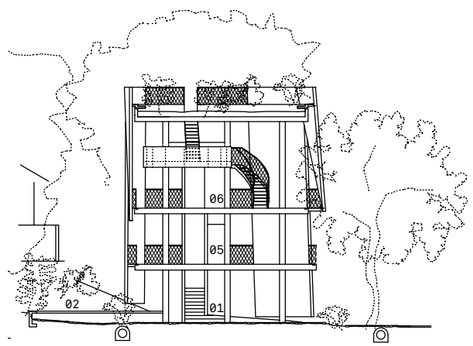
ELEVATION 3



SECTION DD

LEGEND

01 Existing Fig Tree
02 Lobby
03 Bridges over waterway
04 Garden
05 Open Terrace
06 Open Stairs



SECTION CC

LEGEND

01 Cafe
02 Garden
03 Breadfruit Tree
04 Carpark
05 Studio
06 Workshop
07 Roof Garden

Native flora on the roof

Privacy in the City

The four storey height of the building creates a level of privacy from the street and the roof garden explores the possibility of being in solitude whilst being fully immersed in the city.

Ascending the staircase to the roof, a mass of vegetation comes into view, the roof is dominated by this tropical abundance to the extent that there is no place left to walk save the concrete benches that encircle the roof garden. The landscape designer, Stable Unstable, has deliberately selected plants that are native to Kuala Lumpur and will thrive in this climate. Within the greenery, a small timber platform is hidden away, a quiet space carved out amidst the cacophony of the city.

The Godown operates in that liminal zone between being a private and public space, it is not a civic gesture such as a plaza or boulevard, but a gathering under shade, a verandah from which to appreciate the richness of the city.

The rooftop terrace

A garden for the artist in residence on the 3rd level

Potentiality

On plan, the spaces are neatly labeled but in reality the spaces are freely used for a diverse range of activities. As evidenced by their Instagram page, The Godown hosts a multitude of activities — workshops, flea markets, concerts, fashion shows, the sheer range of activity is astounding.

The experience of the building changes with the activities held within, by opening itself to the city and its inhabitants, The Godown explores the potential of what an urban space can be. As it is, the building has the capacity to provide value by offering a variety of spatial opportunities to the arts community in Kuala Lumpur.

The Godown showcases the possibility of architecture as an urban catalyst — when managed by an enlightened owner. However these observations were based on only a snapshot of the building at this moment in time, a building is an entity that persists over time and it would be very interesting to see how this space evolves under the pressure of being an active participant of the city.

PROJECT INFORMATION

- **CLIENT**
  Godown KL Sdn Bhd
- **TIME TO COMPLETE**
  15 Months
- **TOTAL FLOOR AREA**
  948 SQM

CONSULTANTS

- **ARCHITECTURE FIRM**
  Linghao Architects
- **CIVIL AND STRUCTURAL ENGINEER**
  Pro Jurutek Consultancy
- **M&E ENGINEER**
  EDP (M&E) Consulting Group Sdn Bhd
- **LANDSCAPE ARCHITECT**
  Stable Unstable
- **PLANNER**
  ES Planners & Designers Sdn Bhd

CONTRACTORS

- **MAIN CONTRACTOR (BUILDER)**
  Yap Kok Wai Contractors
- **STEEL SUB-CONTRACTOR**
  W Sun Engineering

FEATURE

Retracing Natural History

WRITTEN BY
Ar. Kenneth Koh Qibao MSIA

DRAWINGS AND PHOTOGRAPHS BY
Ramboll Studio Dreiseitl

On the urban stage of Singapore, public parks have become versatile thespians that have multifarious, demanding roles to play.

They need to be sanctums of clean air and respite. To transform into dazzling family-friendly weekend destinations, charged with activities engaging enough to tear kids away from their mobile devices. To be mapped with an intricate network of pathways and waterways that allow for all forms of sports and recreation. To be inclusive, beautiful, efficient, sustainable. Above all, the quintessential Singaporean park needs to be lush with tropical greenery to fulfil our renowned identity as the “City in Garden”.

Bridge overlooking the newly carved waterways that flow into Jurong Lake

The pond and the waterside cafe are fringed with lush greenery native to the freshwater swamp

Lakeside Garden at Jurong Lake Gardens is all of the above.

However, this groundbreaking landscape project presents a unique, new dimension to park design that seeks to turn the clock back prior to Jurong Lake's early 20th century industrial past, back when it was a freshwater swamp teeming with diverse flora and fauna. This introduces the intriguing notion that natural heritage is just as important to placemaking as anthropocentric, human histories.

In this way, Lakeside Garden can be seen as a time machine that restores the landscape heritage of Jurong Lake.

Bringing Back the Swamp

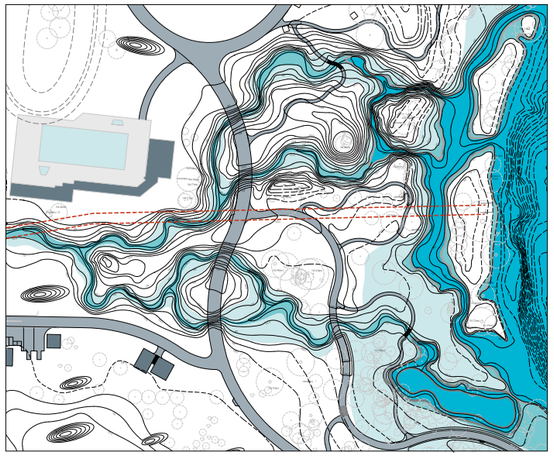
Lakeside Garden is the brainchild of Ramboll Studio Dreseitl, an interdisciplinary design studio best known for their award-winning Bishan-Ang Mo Kio Park. Its sprawling 53-hectare site presents a necklace of activities and gardens on the western bank of Jurong Lake, soon to be Singapore's largest commercial centre and innovation district in the near future. The adjacent Chinese and Japanese Gardens form a nostalgic backdrop familiar to Singaporeans, soon to be redeveloped as well in future phases.

Further north are community and play spaces, while the southern gardens are more nature-centric and meditative.

The design of the park stems from a desire to resurrect the freshwater swamp ecology of Jurong Lake's past, in terms of the hydrology, topography and even plant and animal species that once flourished on site. The site is divided into primary ecotones that simulate distinct thematic environments — the freshwater swamp, woodlands and grasslands. To accommodate the various for community activities and recreation, aspects of the swamp also had to be deconstructed and reinterpreted in novel ways.

For instance, one key issue was to address the existing storm drain cutting across the site and discharging surface runoff into the lake, an urban artifact of the previous park design. Hydraulic studies were conducted to see how these large concrete culverts could be instead reshaped into a webbed system of gentle river tributaries and criss-crossing mounds that become ideal picnic spots for parkgoers. In the event of a flash flood,

The overall masterplan of Lakeside Garden



Hydrological plan showing the Neram Streams' new waterways carved from existing topologies

the rising water skirts around these carefully calculated knolls harmlessly.

Many of the existing mature trees were retained in their new freshwater swamp environment, so the massive cut-and-fill operations of up to 6–7 metres in depth had to thread delicately around the height and width of these tree bases. Ramboll Studio Dreiseitl shared the importance of onsite surveys and the unprecedented appointment of a RLA (Resident Landscape Architect) in the project to keep a close watch on actual site conditions and identify undocumented trees. This results in an organic, sensitive process of site management that allows for making well-informed decisions to relocate key plants or to nudge waterways and pathways on construction plans to avoid them. Sometimes, the decision to retain or move existing trees pivoted around unusual but very reasonable factors, for example: whichever mango tree bore sweeter fruit would stay.

Another Way to Play

There is much to explore and experience throughout the vast areas of this park.

The Clusia Clove is an interactive water playground fashioned after a coastal shore. Instead of jets of water or plastic play structures, this playground instead mimics the natural terrain and water currents of a coastal environment, with gentle rippling play pools fringed with mangrove trees and shrubs. Water pollutants are extracted by an advanced cleansing system of biotopes, an AFM (Activated Filter Media) filter, and finally UV cleansing before returning to public use.

The sandy shores of the pools allows for freedom in navigating this play space — it is a common sight here to see children creating passages in the sand that divert the eddies of water, forming micro-pools and tributaries. Through this exploratory interaction with the water and sand, valuable lessons about hydrology and coastal environments are gleaned.

Further south is the Forest Ramble, a playground inspired by the distinctive movement of freshwater swamp creatures.

The sandy shores of the Clusia Cove offer a perfect opportunity for explorative play

Play structures at the Forest Ramble inspired by "Squirrel Play"

Bouncy trampolines embedded in the ground at the "Frog Play" area

The towering “Snake Play” structure encourages climbing up a winding slide to reach a lookout point

The grassy knolls and nest-like birdwatching structures of the Grasslands

Flying cables soar between clusters of wooden structures that are evocative of heron’s nests. A labyrinthine scaffold of low structures with plastic domes allow kids to scurry through and pop their heads out like fidgety hermit crabs. The ground further on becomes peppered with human-sized holes with taut nets stretched across them, the perfect series of trampolines to send yourself bouncing in crazy trajectories akin to a tree frog.

Leaping, climbing, tunneling through these play structures, one inadvertently takes on and learns the movements of these unique animals through enactment and play.

Shrubs and trees native to the mangrove environment are used to soften the play areas in a naturalistic way. Wandering among the play areas, one would notice informal play areas nestled within the vegetation, trails of wooden stumps of staggering heights repurposed from the trunks of existing trees felled due to their poor condition. There is a genuine sense of discovery as one uncovers each successive space for the very first time.

The idea of limitless boundaries to play is best witnessed at the Otter Play area. Here, sinuous channels are cut into cascading wooden planks to allow a stream of water to flow and be channeled in different directions. Upon consideration, children would instinctively take rocks and sand from the nearby landscape to pile onto the carved wooden channels, just to experiment how the streams of water are further diverted. The landscape architects of Ramboll Studio Dreiseitl assure that this unintended mode of play is definitely welcome, and natural aggregates found on site are free to be used as play material. Furthermore, the play areas are designed to be fully accessible with play features at different height levels, allowing for a truly barrier-less experience where children of different ages or even with mobility challenges can play alongside their friends.

From Hills to Shores

Perhaps one of the most iconic zones of the park would be Grasslands. A first of its kind in Singapore, this is an open, hilly savannah carpeted with grass, a lone bare tree standing stoically on its central hillock. This tree is in fact a sculpture wrought from rebars and steel pipes extricated from an existing road on site that was demolished, now serving as a convenient rest stop for birds to perch in the savannah. Small, nest-like wooden structures sit within the grass. These are birdwatching pavilions that have inclined timber slats that comprise their facades, permitting an intimate view of the grassland birds without disturbing them.

Alstonia island with the Jurong Lake waters as a backdrop

Ha-ha walls comprising of rocks from the existing site

The hills break into smaller mounds towards the water, revealing an intertidal environment of pebbled pathways that disappear as the tide rises. Closer to the water, a boardwalk of GFRC planks and Corten steel swathes a rust-red brushstroke through the landscape, proffering a vantage point from which both the lake and the grassy mounds inland can be viewed.

Beyond the boardwalk Alstonia Island, a constructed island of mangrove trees, becomes a haven for open billed storks, grassland birds and even the occasional flock of migratory herons. Much of this landscape seems to have always existed, and not sculpted into its current form within the recent three years. An astonishing point to gather is that even the changing tides is a mechanically controlled phenomenon, operated by PUB's tidal gates that control Jurong Lake's water levels. Nevertheless, the mangrove plants transplanted here from nurseries begin adapting to their new artificial tidal environment, remembering their inheritances rooted in the swamp.

Knowing the Land Well

A final anecdote from Ramboll Studio Dreiseitl serves to reinforce the importance of sensitivity in surveying the ground well and to leave no stone unturned.

Upon surveying the southern woodlands area of the site during construction, an enormous, previously undocumented ficus tree was uncovered. Enraptured by this monumental tree with its maze of roots and branches, the landscape architects immediately sought permission from the client to construct a new pathway leading up to it. This design change was approved, and today this crucial pathway provides visitors with an opportunity to reach this ancient tree and experience it up close.

As a result of this keen knowledge of the ground, the landscape design of Lakeside Garden becomes a seamless merger of nature and community, evident in the finer design details.

The skillful planning of topographical edges and ha-ha walls so that facilities like the ActiveSG swimming complex appear to be without boundary walls, public space flowing into surrounding greenery.

The use of existing rocks on site to craft gabion walls that act as sound barriers shielding the nearby condominium residents from the busier public zones.

The introduction of a palette of plants that attract butterflies, birds, squirrels, while serving as an ornamental backdrop for park activities.

The use of natural untreated Robinia wood trunks in the play structures to celebrate the textures and irregularities of natural wood, allowing parkgoers to witness and learn how this timber fades to bone white over time.

A successful and joyfully innovative public space is only possible with immense rigour and care from its inspired team of architects, contractors and stakeholders. Lakeside Garden at Jurong Lake clearly demonstrates that before a mastery over the land can be achieved, one must know the land very well — its histories, its intricacies and its well-hidden secrets.

PROJECT INFORMATION

- **CLIENT**
  National Parks Board
- **TIME TO COMPLETE**
  33 months
- **TOTAL FLOOR AREA**
  53 Ha

CONSULTANTS

- **LANDSCAPE ARCHITECT**
  Ramboll Studio Dreiseitl
- **ARCHITECTURE FIRM / CIVIL AND STRUCTURAL ENGINEER / M&E ENGINEER / QUANTITY SURVEYOR**
  CPG Corporation
- **WATER & ABC ENGINEER**
  Ramboll Studio Dreiseitl, CPG Corporation
- **PLAYGROUND DESIGNER**
  Ramboll Studio Dreiseitl, Kukuk
- **ARBORIST & HORTICULTURIST**
  Camphora
- **BIODIVERSITY/WILDLIFE SPECAILIST**
  Subaraj Rajathurai

CONTRACTORS

- **MAIN CONTRACTOR (BUILDING AND LANDSCAPE)**
  Hon Industries
- **SOFTSCAPE NSC**
  Prince's Landscape
- **PLAYGROUND NSC**
  TYT Builders
- **PLAYGROUND SPECIALIST**
  CT-Art Creation
- **BIOENGINEERING SPECIALIST**
  Enviro Pro Green Innovations
- **WATER PLAYGROUND SPECIALIST**
  Proserv
- **BIOTOPE CONTRACTOR**
  Nature Landscapes

Landscaped roof of MSCP

Entrance into timeline tunnel
Photographer: Mario Wibowo

FEATURE

prihal: arsitektur andramatin

WRITTEN BY
Ar. Teo Yee Chin MSIA

ORGANISED BY
andramatin studio

PHOTOGRAPHS BY
Mario Wibowo
Jonathan Raditya

I flew into Jakarta to catch this exhibition about Andra Matin, the Indonesian architect who is widely regarded as the pre-eminent master within the country. Suffice to say, it was one of the most complete and honest expositions of an architect's work that I had ever seen. Curated by young architects Danny Wicaksono and Artiandi Akbar in constant discussion with the studio, the exhibition was designed to say less and show more, to explain rather than to celebrate. In doing so, it left one with a deeper impression of what andramatin has achieved since its inception.

As the curators write, “Work” in an architecture studio is the amount of time spent, whose result might never get to be completed and shown to the public, but in every “work” there are always lessons that can be learnt. “Prihal’” is an exhibition that attempts to showcase parts of andramatin that has not been revealed to the public.

The exhibition opens with a tactile and intense materialisation of a time line. The visitor walks inside a tunnel wrapped in plywood on 3 sides and a rattan weave on the 4th side. On the right, placed at eye level is a line along which every project that the studio has worked on since 1998 is marked with the project title, date and status, with some accompanied by a single image. This includes completed projects, proposals and even cancelled projects. The output of this critically acclaimed studio was surprisingly prolific — I counted 88 projects in a single year! This was the first insight that came through — that in this asian studio, quality was a product of volume and hard work. Skill was honed through a tight relentless grind. Each project came through a quick sketch from the principal, a discussion, a sketch-up model and out to production. There was no artisanal or iterative process that took time.

(Above)
View down timeline tunnel
Photographer: Jonathan Raditya

(Opposite Top)
Entrance into the museum building proper with
curatorial message
Photographer: Mario Wibowo

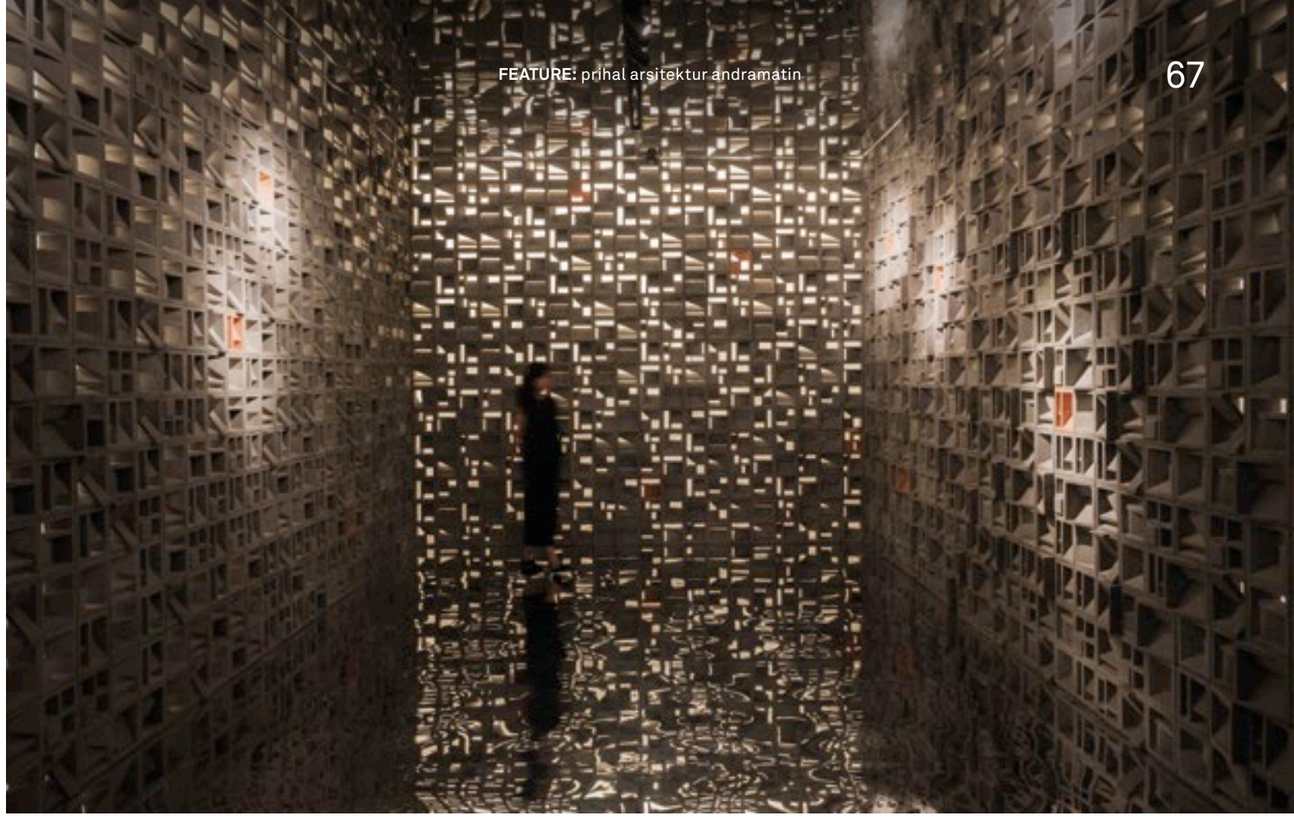
(Opposite Bottom)
View of rattan weave at the U-turn point of the timeline tunnel
Photographer:Mario Wibowo

1 ‘Prihal’ is an abbreviation of the word ‘perihal’ in Indonesian, which could be translated to English as about, regarding, or concerning.

(Top)
1:200 scale model of the National Monument Park takes up an entire room for display.

(Bottom)
Model of Rumah Kos DH (house) at 1:200 scale

(Opposite Page)
Immersive room surrounded by the vent blocks that the studio is fond of using in their projects
Photographer: Jonathan Raditya



EXHIBITION LAYOUT

After the timeline, the exhibition is broken into 6 more sections — Jakarta, Other Cities, Form, Material, Recurrence, and Everyday — that do however flow as one continuous path. The first two sections cover the studio's projects, always with a white 1:200 scale model, but other aspects of the practice are also unveiled in the other sections. In "Recurrence", a screening of interviews in a dark room show andramatin's regular clients explaining their trust in "Mas Aang" (architect's nickname), and how they like to work together. In "Everyday", a scene in the office is physically recreated in another room complete with workstations, large construction drawings, and post-it notes on the wall. In "Form", 49 models are displayed in a completely dark room. Each model is softly lit with concealed LEDs, such that one only sees floating forms in the space. The presentation was successful, because in this way, slowly perusing the models, one begins to see the angles, blocks, and formal manouevres that is consistently deployed in his work — what approaches a familiar vocabulary of the architect.

The exhibition was staged at the National Gallery of Indonesia, which does not charge for its shows but at the same time does not allow branding by sponsors within the exhibition content. The organisers have thus been blessed with many generous sponsors who believed in the architect's work and had given their wholehearted support.

The below passages are the curators' descriptions of the various sections:

Prihal Jakarta
Photographer: Jonathan Raditya

PRIHAL Jakarta

This part explores andramatin in the city of Jakarta.

Every idea presented in this part represents andramatin's effort concerning communal spaces within Jakarta. From commercial spaces to pedestrian paths in the city; ranging from monumental symbol of the nation, to a small three-bedroom boarding house. As a whole, it is a continuous effort to revisit the living spaces in its immediate surroundings, hoping that the architecture will improve.

In the city where the studio of andramatin was born and bred, the intention to contribute to Jakarta's developments always feels close to heart in andramatin's practice. The eleven designs that are presented in this part attempts to tell andramatin's contribution to the living spaces within the capital.

Prihal Kota Lain (On Other Cities)
Photographer: Jonathan Raditya

PRIHAL Kota yang Lainnya (On Other Cities)

It has been a well known condition, that the growth of other cities in Indonesia are vastly different from its capital's development. The different pace in the developments has been impactful to the building types in the other cities and has become a testament to the architecture created in them.

Creating architecture outside of Jakarta also means to create with a certain sensitivity, due to the fact that every city has its own defining cultures that are deeply rooted in its lifestyle, it is also not a rare occasion when the demands of the rapidly changing times and its developments moves away from their own cultures and traditions, producing changes that slowly relinquish their own quality of life.

andramatin's designs in these parts are reactions from the on-going phenomenon. It is a collection of efforts that gives out positive reactions from every answer to different archtiectural problem in cities all over Indonesia, which is then formed as an effort to increase quality of life. The selected works in this part are truly notes on architecture's role in realising the hopes and visions of the people of Indonesia. On the same page, this note implicitly involves andramatin in its rich stories, about the earth, culture and the nation's mankind.

Prihal Bentuk (Form)
Photographer: Jonathan Raditya

PRIHAL Bentuk (Form)

"Form" has always been an important subject to present when it comes to andramatin's architecture. For the past two decades, andramatin's journey in creating buildings' shapes and silhouettes has been an productive architectural wander.

The variety and character of constructed shapes has a strong singularity that take part in shaping the identity of andramatin's architecture. Sharp angles, slanted areas as well as little openings made out of rips and tears are a few characteristics that has been defining andramatin to this day. This part presents several selected works that has experimented with shapes, materials and spaces that are innovative.

It is an archive of andramatin's architectural ideas that can show a glimpse of what "Form" andramatin have been seeking for.

Prihal Material
Photographer: Jonathan Raditya

PRIHAL Material

Throughout its career, andramatin has been well-known as one of the design studios that has been showing how common materials can be manipulated into something different, creating a fresh outlook. On Materiality attempts to show several kinds of materials and its construction that has been a part of andramatin's architecture.

In the installation space, there are customized openwork bricks that have been employed in several of andramatin's projects, stacked massively for the visitors to experience.

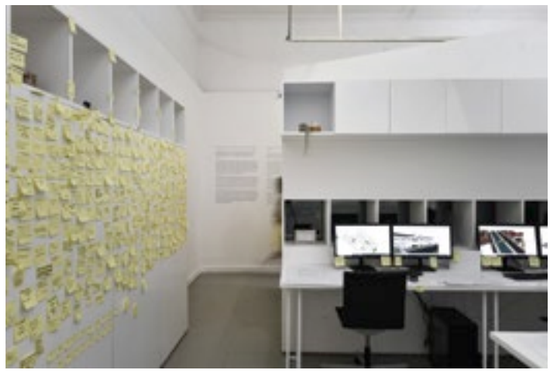
In the display room, there are materials and architectural elements that have also been used in andramatin's designs, a row of catalogues that are presented along with photographs of how those elements are woven into a project's construction.

Screening room (Recurrence)
The interviews with the regular collaborators of andramatin play on loop.
Photographer: Teo Yee Chin

PRIHAL Yang Berulang (Recurrence)

Along andramatin's journey, there are those who always return. They have been placing their trusts over and over again, after having their own definition and understanding on andramatin's architecture. This part let hear stories, opinions, critics and appreciations of several individuals that have been intimately involved in the realisation of the studio's architecutre.

Presented to tell a different story about andramatin's architecture, these are recollections from the clients' point of views that has been involved multiple times in andramatin's designs.



Prihal Sehari-hari. A real-size replica of the andramatin studio.
Photographer: Jonathan Raditya

PRIHAL Sehari-hari (The Everyday)

Behind a studio's work, there's always a certain routine that naturally occurs. This routine then creates a working culture, culture that then creates what ultimately will grow trust in creating beauty.

Behind every work that has been showcased before this last part, there is a daily life that cannot possibly be experienced by everybody. The day to day activity that becomes a foundational element in the creation of andramatin's architecture.

Andramatin's architecture grows from its own everyday routines. Routines that involve too various "extracurricular" around the studio environment. Among them is the architectural trip routine, which is carried out together each year and organised professionally as a subsidiary, in addition to other activities such as monthly sharing sessions, book publishing, as well as exhibitions. Hopefully here you can have a slice of andramatin's daily life — an open, intimate, appealing working space; a neighbouring domain with a coffee shop, gallery, and public park, as well as their monthly talks and sharing sessions — all what makes up for what is it like to be working within the studio's habitat. This daily life is what primarily have been defining andramatin as an architectural studio.

Bird's Eye View of the Exhibition with the Gallery Building. Lini Masa tunnel is to the left of the central gallery building
Photographer: Mario Wibowo

About Andra Matin

Both the man and the firm, andramatin, are known for their clean and modern approach to architecture. The works of andramatin have been a constant reflection of a contemporary take on traditional values, that are based on its context and its sensitivity to the environment. Aside from his architectural projects, Andra Matin is also one of the founders of Arsitek Muda Indonesia (AMI — eng: Young Architects of Indonesia), and has been a part of the progress in Indonesian architecture.

He has also released books under a.publication that opens up discussions about architecture, along with being a frequent lecturer at universities, seminars, and architectural events. His works and his activism has won awards and has achieved international recognition. His latest installation titled Elevation has been granted a Special Mention Award at the 2018 Venice Bienale, for its traditional sense and its contemporary take. Inspired by his great love of travel, Andra Matin continues to search out more knowledge and experiences, in order to further celebrate the architecture of Indonesia.

PROJECT INFORMATION

- **VENUE**
  National Gallery of Indonesia
- **DURATION**
  27 November–11 December 2019
- **ORGANISER**
  andramatin studio
- **CURATORS**
  Danny Wicaksono, Artiandi Akbar
- **GRAPHICS**
  Leboye, Nusae
- **VIDEOGRAPHY**
  Davy Linggar
- **LIGHTING DESIGNER**
  Hadi Komar

SUPPLIER

- **WOVEN WALL ALONG TIMELINE TUNNEL**
  BYO Living

FEATURE

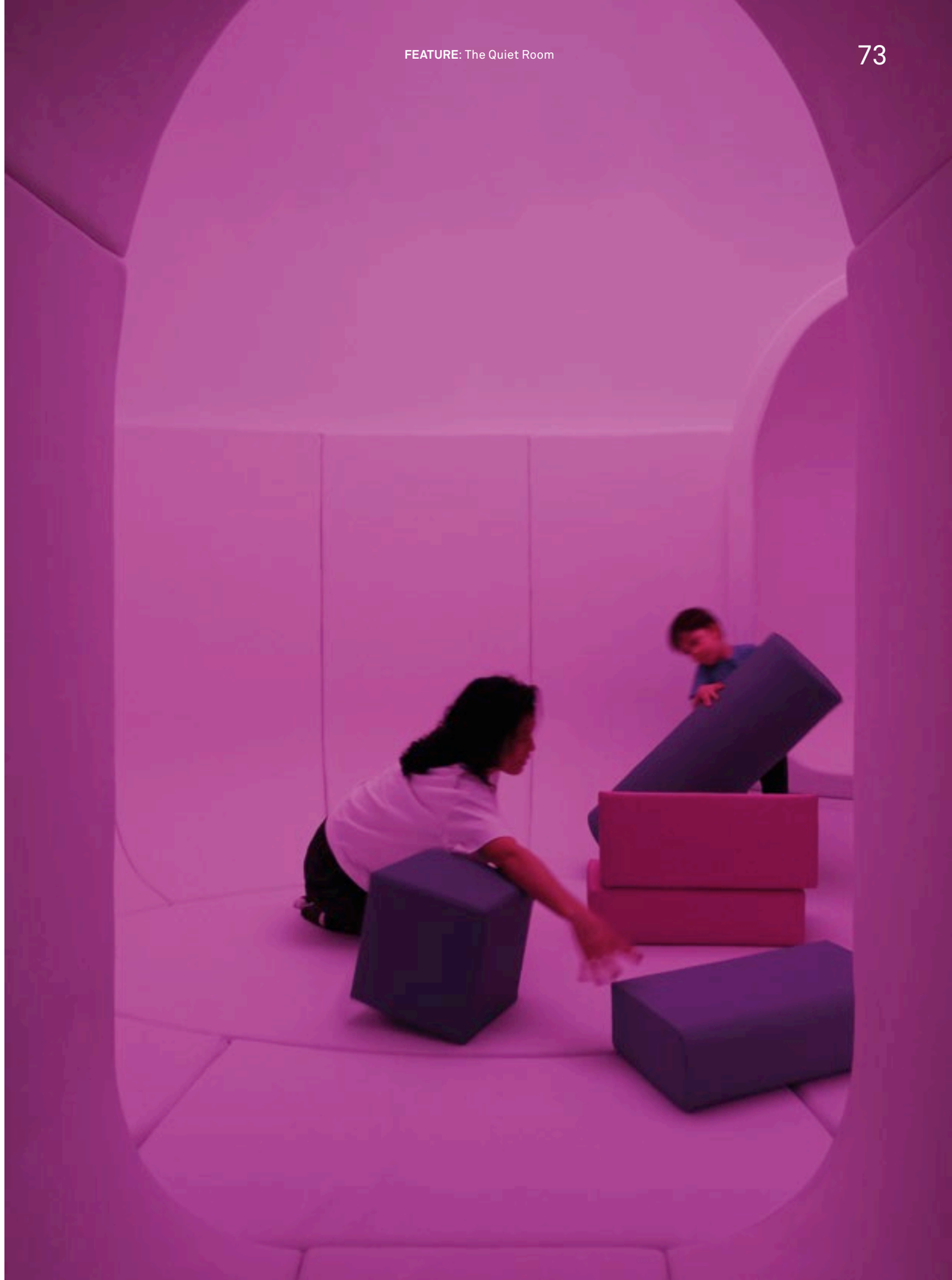
The Quiet Room

WRITTEN BY
Ar. Jia Xin Chum

DRAWINGS BY
Lekker Architects Pte Ltd

PHOTOGRAPHS BY
khoogj

Ar. Jia Xin Chum peeks into what it means to be quiet, and stumbles into the latest wonderland Lekker has conjured for the sensory-challenged.



Designing for the photo-op is old news: lest we forget Kodak moments (or going back further in time — postcards) before the proliferation of Instagram and Snapchat, spaces have long been designed to capture curated moments of awe as one of the key ingredients to making a memorable place. As did the advertising industry in the 50s unlock the powers of visual (and subsequently video) media to increase the accessibility of their marketing message, so have contemporary cultural institutions. In a bid to stay relevant in the age of virtual and augmented experiences, information now engages us fully, cerebral cortex and all, where no amount of subliminal message gets lost in translation.

It is in this context that the Quiet Room was gestated within the palatial labyrinth of cultural history, the venerable National Museum of Singapore. Completed almost a year ago, the project was part of the institution's effort in making cultural and heritage spaces more inclusive for those with additional needs. Singapore has made strides in making public realms accessible, not forgetting the Enhancement for Active Seniors (EASE) programme as part of the Home Improvement Programme that has brought accessibility not only within public housing estates but also within one's home. Ramps, grab bars and elevator access for all — these are some of the visual indicators of barrier-free design. So, what does design for inclusivity look like?

Enter

The experience of entering the Quiet Room is as distinctive as being in the space.

It is immediately intimate as the antechamber looks to accommodate no more than four at a time. Heavy full-length single-toned drapery conceals an otherwise open storage for bags, shoes and the facility's soft pillows, as it does so simply in obscuring what lies beyond. The now-muffled voices from the corridor and stillness in the air betray the normalcy of the setting (especially considering that this is within the confines of the NMS), and prompt one to engage with this space differently. To me, it feels as though Narnia was behind the curtains; to a child with sensory processing disorder, a magical realm of a different kind awaits.

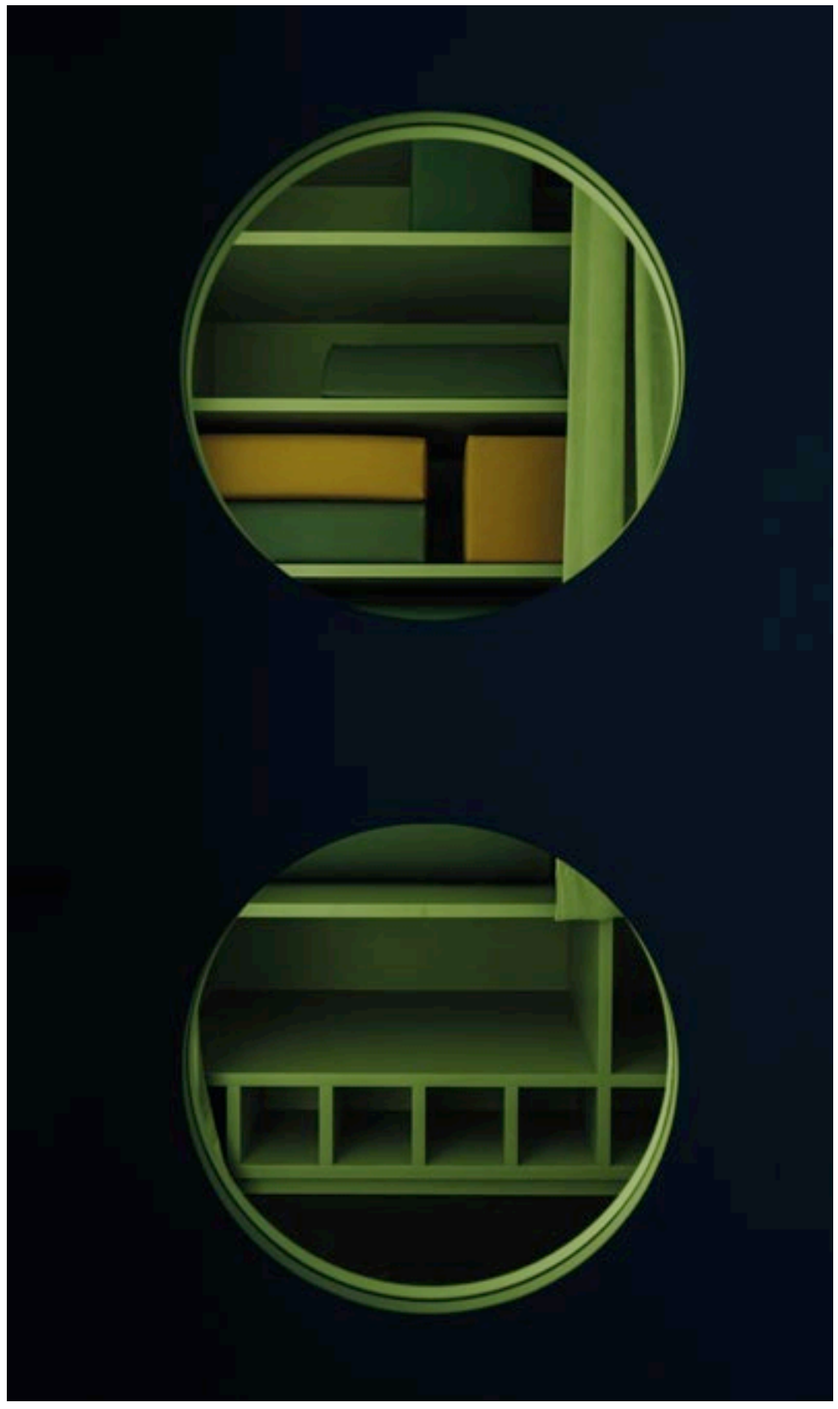
With the curtains drawn back, an unadorned domed space awashed with monocoloured light reveals itself. The floor squished under our bare feet as we treaded through the entry arch.

Floor length drapery with muted tones hides compartments storing loose cushions and the entry to the main room, whilst providing acoustic dampening.

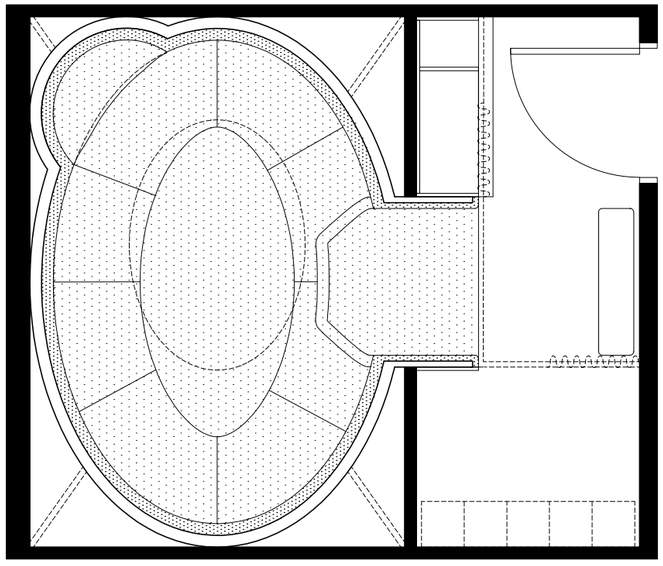
Accessibility vs. Inclusivity

The definition of inclusivity or inclusive design is yet to be determined within the design community. However, the fundamental difference between design for accessibility and design for inclusivity is that the latter considers the flexibility or the diversity of ways where everyone can experience the design to the greatest extent possible. Inclusion is foundational to ensuring that users of all backgrounds and abilities can share an experience, albeit unique to each of them.

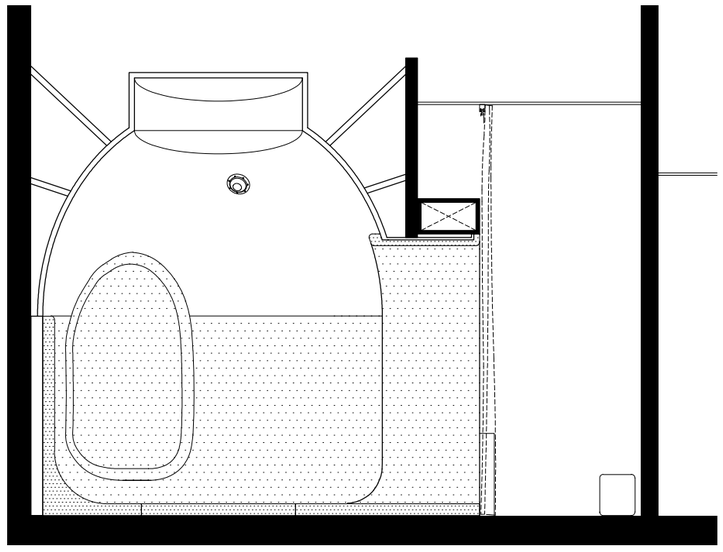
As of now, Singapore's quest for Universal Design has been a direct response to the nation's demographic challenges, emphasising on designing in consideration of the aged, and providing clear guides to the creation of elder-friendly public places. Although the BCA's UD guide and the Accessibility Code covers a wide range of design solutions that address the pain points of physically



Two circular glass openings on an unpretentious door is all one sees from the east corridor on level two, revealing little of the antechamber beyond.



OVERALL LAYOUT PLAN



OVERALL SECTION PLAN

The rooms are padded to the average adult height, leaving a stretch of painted curved walls above- all surfaces glow uniformly, reflecting the warm light from the Barrisol ellipse above.

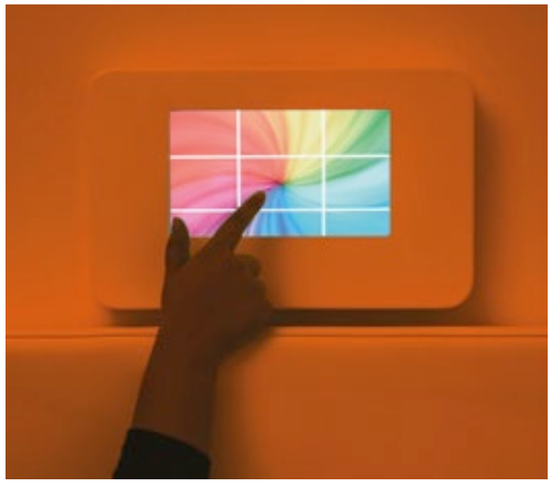
challenged individuals, inclusive design for the sensory-challenged and those with Autism Spectrum Disorder (ASD) was left largely as unchartered waters within the architecture community.

Lekker's past studies with the Lien Foundation that culminated in the success of Kindle Garden — the first inclusive pre-school in Singapore, has provided them valuable insights to take on this design conundrum. The content-rich curation within the museum galleries shadows the context of which the experiences are housed, electing it as a natural precursor to a visit to the Quiet Room.

Content vs. Context

In the room, content is void. An elliptical barrisol set off-center within the space is an obvious homage to James Turrell. However, markedly different from his pieces, the gentle light indiscriminately fills up the space. Perhaps it is this extreme move that brings a sense of one-ness within the space, where our skin is brushed with the same tinted air that had coloured the cushioned surfaces enclosing the space.

The closest commercially accessible experience to that of the Quiet Room can be found within the newer fleet of aircraft cabins rolled out since 5 years ago, integrated with LED ambient lighting that helps adjust the body's circadian rhythm to reduce effects of jet lag for passengers on long-haul flights. Within certain circles of the medical community, light has been studied and found to affect our brain chemicals' link to mood and it sometimes serves as alternative treatment to seasonal affective disorders and depression. This positive physiological experience to light is well translated within the Quiet Room, where the rhythm of shifting hues brings comfort to the user.



An infinite selection of colour saturations and hues are at the users' disposal through the intuitively designed control panel.

The simplicity in the construct of the space: its form, the width to height ratio, its padded floors and sloped walls- somehow evokes the comfort of a mother's womb, but without the emotional heft that might typically be associated with it. The geometry of the space lends itself to becoming a whispering gallery, where physical distance can be kept as hushed tones soothe the disturbed. The range of external stimulants has narrowed significantly except for the occasional whirring of mechanically pumped air. The room is at the eye of the storm where everything is stable. It is in this beautiful blankness that the mind is calmed.

In a universe where a Museum of Ice-Cream exists not as a smorgasbord of olfactory and taste stimulus, but solely as a series of visual set piece for the 'Gram, how many spaces have been purpose built for moments of introspection and relieve in its most diverse range?

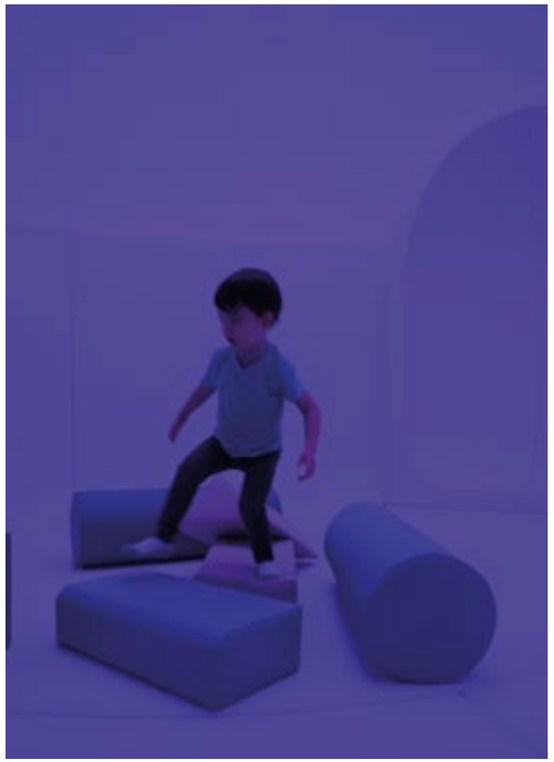
Here, the context takes centre stage.

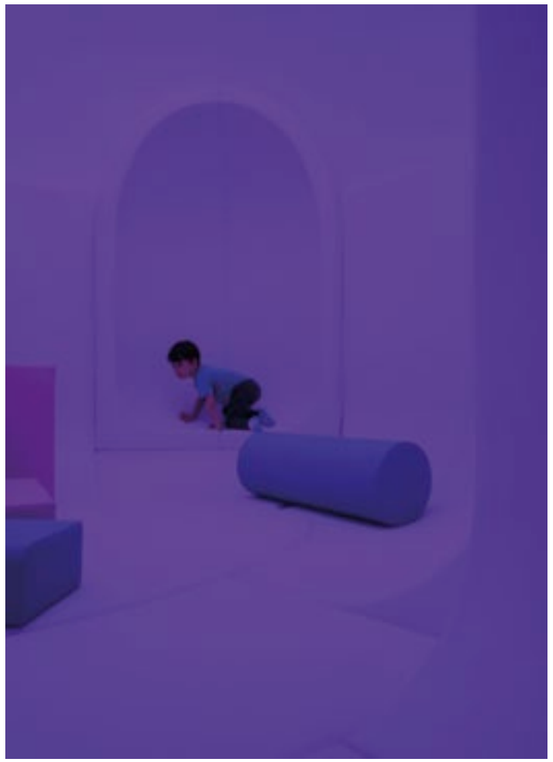
Diversity vs Equality

Naturally, access to the Quiet Room is upon request only, and is reserved for those in need given its limited capacity. Its location is available on the sensory-friendly map, prepared as part of NSM's commitment to provide accessible and enjoyable museum experience to all visitors.

Lekker's continuous explorations in creating accessible and inclusive environments presents a lineage of remarkable breakthroughs for design in the built environment. The Quiet Room marks their most confident departure from what we typically identify as architecture, in using intangibles as the main 'building blocks' to create a functional space. As daring explorers-designers that uncompromisingly place people's needs first, Lekker boldly tackles difficult design questions such as creating diverse experiences to address equality within the built environment.

And perhaps tangentially, they have opened a new realm for all of us, tech-dependent urbanites. After all, silent retreats and digital detoxes are the norm in our ever-expanding urban lexicon. They may very well have found the solution to a problem we invented.





Just as with the surfaces around, the users of the space receive the same tint, giving a sense of one-ness.

Loose cushions with pure geometrical forms allow for an adaptive landscape for each child within the room.

PROJECT INFORMATION

- **CLIENT**
  National Museum of Singapore
- **TIME TO COMPLETE**
  3.5 months
- **TOTAL FLOOR AREA**
  25 SQM

CONSULTANTS

- **ARCHITECTURE FIRM**
  Lekker Architects Pte Ltd

CONTRACTORS

- **MAIN CONTRACTOR (BUILDER)**
  AE Models Team Pte Ltd
- **LIGHT PROGRAMMING**
  Torene Project

SUPPLIER

- **STRETCH MEMBRANE CEILING**
  Cosa International Pte Ltd

Church Street Facade
Photographer: Edward Hendricks

FEATURE

Heritage Transposed

WRITTEN BY
Ar. Teo Yee Chin MSIA

DRAWINGS BY
Ministry of Design with
KL Wong Architect Sdn Bhd

PHOTOGRAPHS BY
Edward Hendricks
(CI&A Photography)

From my place in the water, on the roof deck looking out, pool and sea merge. I must be right on the eastern edge of Penang, as I see only the skyline of Butterworth at the horizon. It almost feels that way, but for the twin octagonal peaks of the Church Street Pier just poking into view. But even these are unfamiliar, dismembered and displaced — iconic pieces of Penang adrift in a blue plane.

View Out from the 4th Storey Pool
Photographer: Yee Chin

The infinity pool is an architectural device long used to selectively crop out context and to create an illusion of unending space. In The Prestige Hotel (Prestige), a new building within the historic core of Penang that opened in late 2019, Ministry of Design (MOD) takes such visual trickery to another level. In order to understand why, some context needs to be established first.

George Town, together with Malacca, were inscribed as UNESCO World Heritage Sites in 2008, recognition given for their history and cultural influences as former trading ports linking East and West. Prestige sits in the core zone of the gazetted heritage site. MOD is the key design consultant for Prestige, exercising design control over the brand strategy, interiors, landscape, signage, installation art, as well as graphics. The only other design scope is the architecture which is undertaken by Penang Architect KL Wong.

On this site, MOD faced the task of creating a new environment within a place rich with heritage, and which draws visitors specifically because of this heritage. In addition to such expectations from the market, the architectural approach to this new structure had also been heavily inspired by colonial neo-classical buildings in the nearby banking district, thereby featuring columns with capitals and setting out a rhythm of tall archways complete with keystones.

MOD chose to embrace this latent paradox of new and old, and engage it head-on by a strategy of "transposing" heritage. This is neither to mimic heritage nor to contrast against it, but to take certain liberties and to create something "fresh yet familiar". The point, I gather, is to give people what they want to see but to embed a systemic deviation within. Going further to develop the narrative[1] into an entire design theme, MOD took reference from the old world of magic and illusionists, even drawing from the movie The Prestige which tells a story of two rivalling 19th century magicians.

The designers surely had fun with this theme. Some manifestations include the improbable balancing of the reception counter on mirrored balls, the viewports peeking into secret gardens from the lift lobbies and the intriguing use of black and white floor mosaics on the promenade.

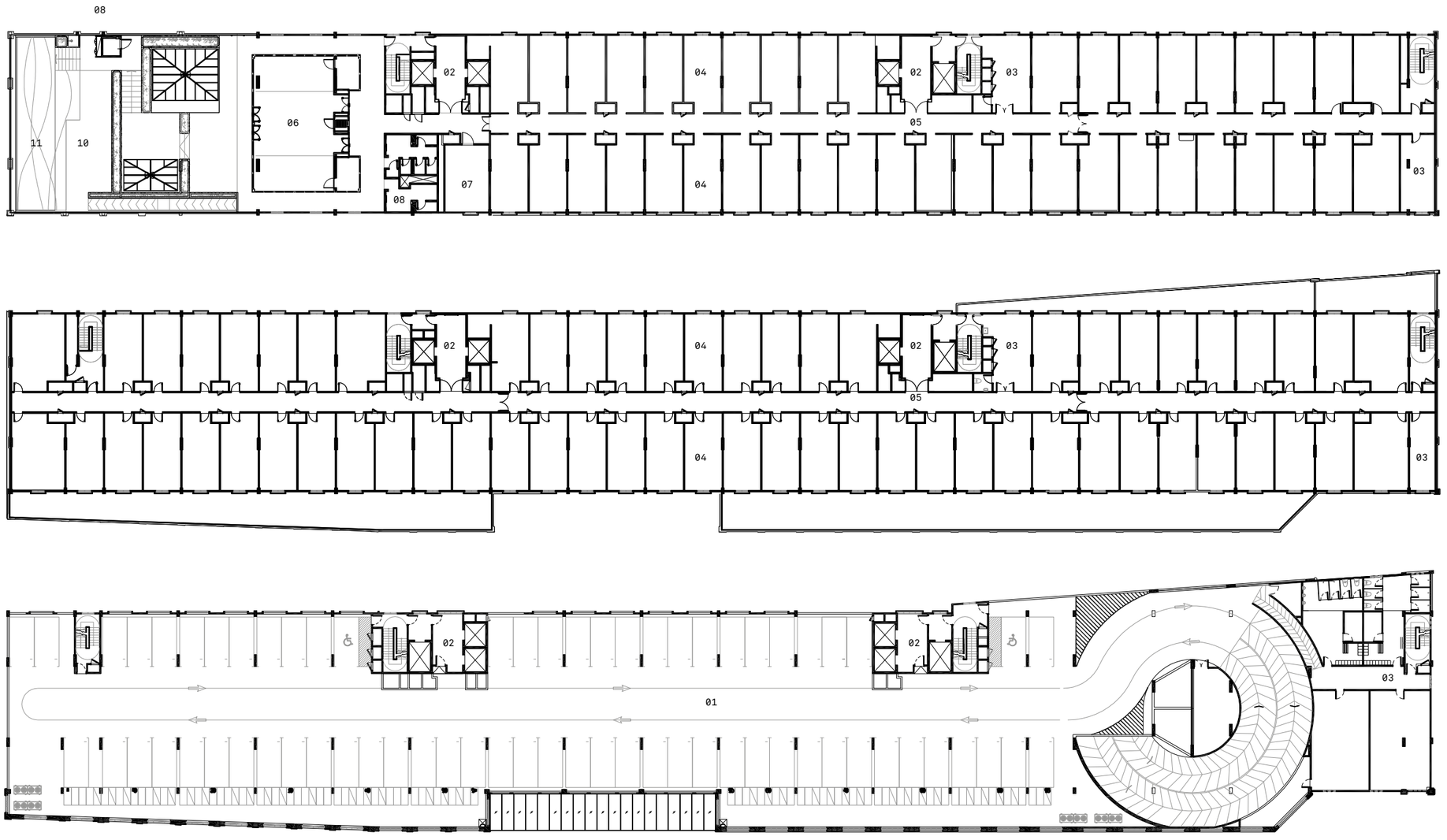
1 There is an implicit understanding that heritage here refers to a certain Victorian style, for of course the heritage of George Town can also be said to reside in other typologies such as the godowns or the shophouse.

Interior of Lobby
Photographer: Edward Hendricks

The Reception Lobby, like the shops and restaurants on ground floor, are enclosed in standalone forms.
Photographer: Edward Hendricks

LEGEND

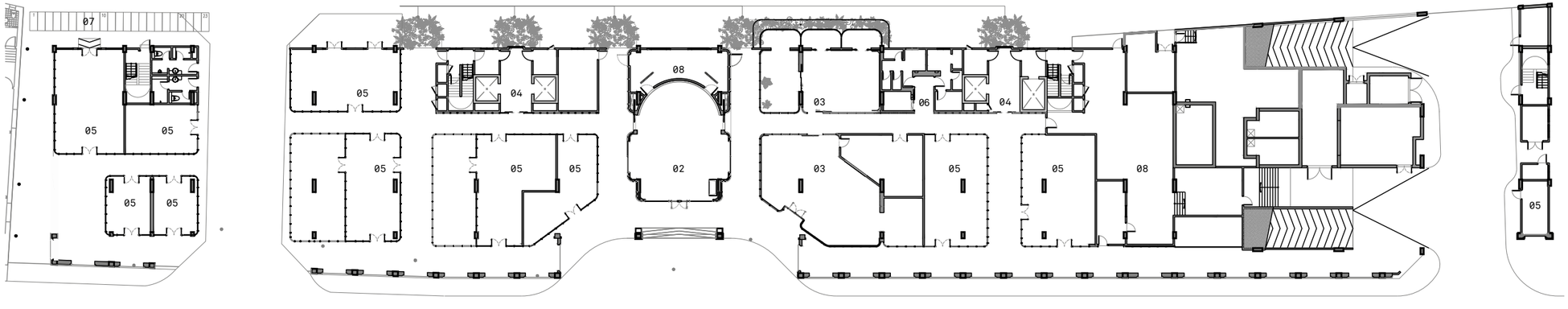
01 Carpark (63 Lots)
02 Lift Lobbies (East & West)
03 Back of House
04 Guestrooms
05 Guest Corridor
06 Function Room (Angier & Borden)
07 Gym
08 Public Washrooms
09 Gazebos
10 Pool Deck
11 Pool



HOTEL KEYPLAN
(1ST FLOOR TO 4TH FLOOR)

LEGEND

01 Drop Off
02 Hotel Reception
03 All Day Dining (The Glasshouse)
04 Lift Lobbies (East & West)
05 Retail Shops
06 Public Washrooms
07 Bicycle Park
08 Back of House



GROUND FLOOR PLAN

Interior of The Glasshouse Restaurant
Photographer: Edward Hendricks

Certain spaces of The Glasshouse on the rear of the plot are naturally ventilated and open up to small gardens.
Photographer: Edward Hendricks

Function spaces on the Rooftop
Photographer: Edward Hendricks

Certainly, one can see that such a theme becomes a wellspring of ideas to derive unique ways of detailing. More than that, it presents a way to overcome physical conditions that make conventional planning difficult. One key constraint was the long and narrow site. On the second and third storey, doubly loaded corridors running the length of the site was basically a given to extract sufficient efficiency from the planning. To overcome the monotony of a long corridor, the studio used bold diagonal lines to create blocks of alternating dark and light colours. The corridor is further animated by gold lattice lanterns that revolve quietly in the hotel corridors, casting a shadow play distorting with the incident surfaces.

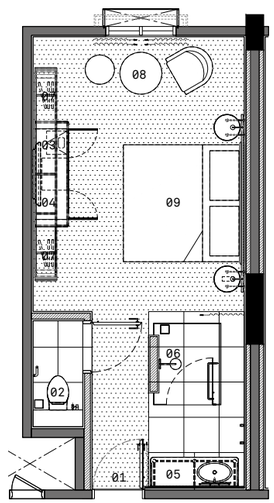
On the ground floor, the shops, restaurants and the reception lobby are not strung along in a corridor but deliberately articulated as stand-alone forms. The porosity to gardens at the rear and frequent cross-overs available to the pedestrian makes the arcade varied and lively. Credit to the designers, what would be an otherwise hermetic hotel experience has been opened up the allow the sights, sounds and tropical air of the town to enter.
But it is in the design of the typical room, the core of any vacation, where the designers have outdone themselves. Working with a smaller size of 28–30sqm that is now common with boutique hotels, MOD drew on their chosen thematic and some smart detailing, going beyond any discussion of size to present a refreshing experience.

The long corridor broken into colour blocks
Photographer: Edward Hendricks

Views of Typical Deluxe Room
Photographer: Edward Hendricks

An intelligent questioning of how much storage is really needed for a two-night stay led to the removal of a closed wardrobe and freeing up space. Instead, a light skeletal centre piece made with bronze pipes and mesh accommodated all that was really needed — sufficient hanger space, mini-bar, safe and a flat-screen television. The vanity counter, which is also formed as a light frame, is brilliantly de-cluttered by integrating all accessories such as the dental kit, shaving kit, etc into small white boxes whose graphics combine neatly to form the elevation of the building.

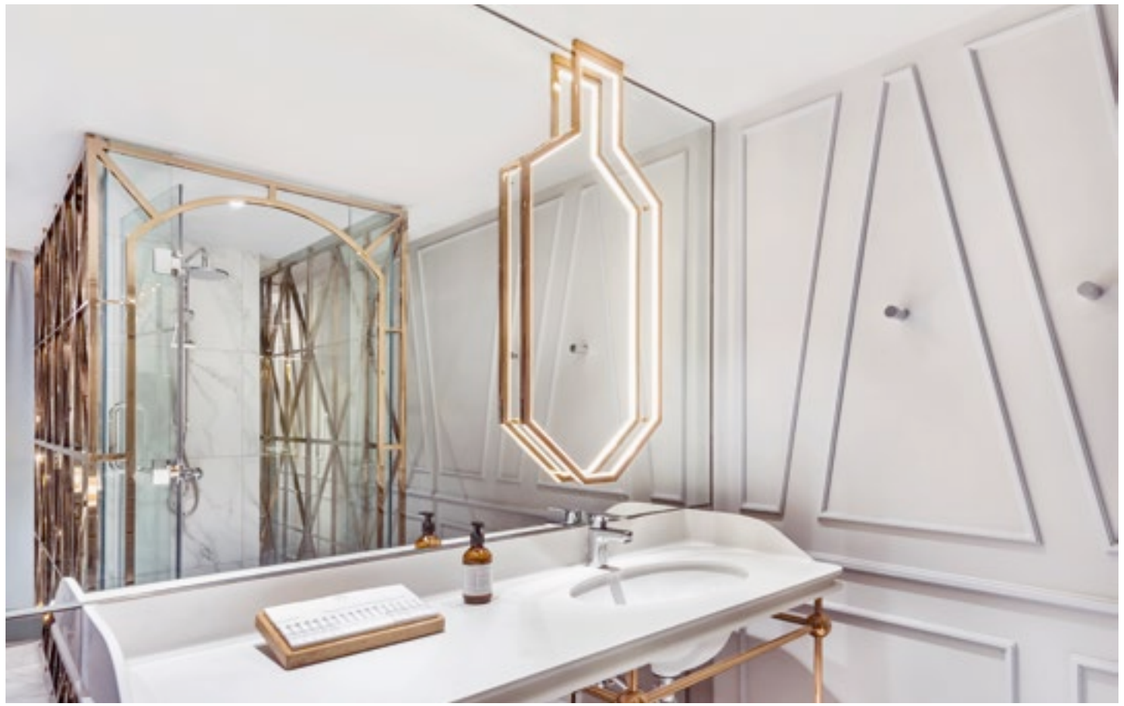
The bathroom itself is broken up into its key components which are articulated separately. The WC is concealed behind the wainscotted wall with a hidden door, while the shower is an exhibitionist glass case, evoking the aesthetic of a magician's props. The set-back of the glass box allows the wall to extend uninterrupted for the full length of the room, creating the sense of a larger room.



DELUXE ROOM PLAN

LEGEND

01 Entrance
02 WC
03 Safe
04 Minibar
05 Vanity
06 Shower
07 Wardrobe
08 Lounge Area
09 King Bed



Views of Typical Deluxe Room
Photographer: Edward Hendricks

Function spaces on the Rooftop
Photographer: Edward Hendricks

What Comes Across?

The intensification of "heritage value" for tourist consumption in Penang, however, is a trend that demands closer investigation. In a UNESCO World Heritage Site, is there a correct approach that doesn't obfuscate history? MOD must be keenly aware of the problematics at hand, as shown in their earlier design for Eco-World Gallery in Penang. It is interesting to reflect, how much of the theme of "smoke and mirrors" comes through to the visitor. What remains at the level of a design idea and how much of it actually forms lived experience?

For most people, these interpretations of heritage are stimuli that immediately engage the senses and form the experience without a cognitive filter. It may not be immediately obvious to a first-time visitor that this is not a Peace Hotel of Shanghai, and perhaps they are completely happy with a restored heritage hotel.

Given some time, however, I do believe that the playfulness of the design comes through, and that the visitor sub-consciously understands that the place is a new take on the old. The new patterns of use, guided by reconfigurations of functional elements such as the bathroom, will further inject contemporaneity into any Victorian dream.

The filter of interpretation that MOD has inserted is thus a crucial one. What remains for the visitor must be a flavour, a sufficiently new one, that gives a memory tied to George Town, Penang, lived in this mixed up epoch of ours!

PROJECT INFORMATION

- **CLIENT**
  Tommy Koay,
  Public Packages Holdings Berhad
- **TIME TO COMPLETE**
  47 Months
- **TOTAL FLOOR AREA**
  8,570 SQM

CONSULTANTS

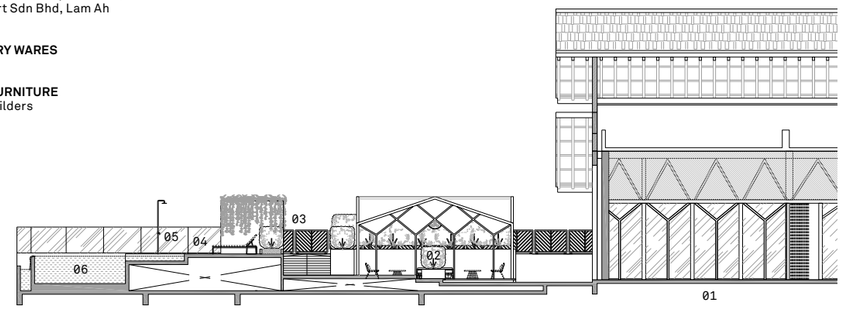
- **BRANDING & GRAPHICS / INTERIOR DESIGN / LANDSCAPE DESIGN**
  Ministry of Design
- **PROJECT ARCHITECT**
  KL Wong architect Sdn Bhd
- **CIVIL AND STRUCTURAL ENGINEER**
  L.o.t consultant
- **M&E ENGINEER**
  GH Consultants Sdn Bhd
- **QUANTITY SURVEYOR**
  Unitech QS Consultancy Sdn Bhd

CONTRACTORS

- **MAIN CONTRACTOR (BUILDER)**
  Goodwood Builders Sdn Bhd
- **INTERIOR CONTRACTOR**
  Pena Builders

SUPPLIER

- **FLOOR TILES & MARBLE**
  Niro Ceramic Group, China EC Stone Art Sdn Bhd, Lam Ah Marble
- **SANITARY WARES**
  Kohler
- **BUILT FURNITURE**
  Pena Builders



LEGEND

01 Function Room (Angier & Borden)
02 Olivia
03 Public Washroom
04 Pool Deck
05 Outdoor Shower
06 Pool

4TH FLOOR SECTION PLAN

Insight

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Written by Dr Jason Lim

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Pivoting into the Future
Ar. Teo Yee Chin MSIA
in conversation with Ar. Mark Wee MSIA

p108
teamLab
Simone Chung in conversation
with Takashi Kudo and Shogo Kawata

INSIGHT

Augmenting the Creative Intellect

WRITTEN BY
Dr Jason Lim

Meet a life-sized lion up close.

In August 2019, Google introduced a functionality allowing you to do just that. Try searching for the term lion using Google on your mobile phone[1] and an option to view it in your space may appear. Select it and the phone prompts you to move it around, allowing it to build a spatial model of the environment[2]. As your surroundings are captured on-screen through the camera, a hologram of a lion eventually appears. Walk around to see it from different perspectives on your phone. The virtual lion remains even when you turn the screen away, occasionally reminding you of its presence when it roars.

Augmented Reality (AR) technology has crossed a significant threshold in its development in recent years, making experiences like the Google lion accessible today, and likely, ubiquitous in future as it continues to be incorporated into upcoming computing devices. The moment is ripe for architects to explore the potential of such technology. Can it be a valuable addition to our increasingly digital design toolkits?

Before discussing Augmented Reality (AR) further though, we should distinguish it from Virtual Reality (VR). The two are often conflated in the public imagination and indeed both are forms of interactive technologies with often overlapping hardware and software platforms.[3] A key distinction is that VR immerses the user in a virtually generated world, while AR allows users to experience both virtual holograms — created out of light and sound — and real objects in a blended experience.[4] The former divorces users from their immediate physical context, while the latter preserves and even enhances their ability to interact with it.

In 2019, we introduced a course to the Architecture Sustainable Design (A+SD) curriculum called Augmented Design at the Singapore University of Technology and Design (SUTD). This was part of a university-wide agenda to expose students to emerging technology and prepare them for an increasingly fluid technological future. We wanted to investigate the use of AR at various stages of the design to production process by developing apps[5] targeting mobile devices (Figure 1) and the Microsoft Hololens headset[6], and testing them in different scenarios.

Figure 1 — Students sharing the same AR model on their mobile phones which are networked together
Photograph: Jason Lim

In the first half of the course, students had to analyse their current studio design workflow and propose ways of enhancing routine processes using AR. They were later required to perform a live demonstration of the augmented process using their custom apps on mobile phones and tablets. One student group was taking a studio[7] exploring woven structures and chose to address a shortcoming of their current physical modelling methods, which limited them to small scale prototypes. Instead, the students wanted to be able to model their structures directly on site and immediately evaluate the results at 1:1 scale. They developed an app allowing them to record points in space with a tablet and then generate a woven surface from these coordinates. Meanwhile, team-mates could view a hologram of the structure on their phones concurrently from different vantage points during its creation process (Figure 2).

Figure 2 — Student (left) defines a surface by recording spatial positions using a tablet, while another student (right) sees the generated woven structure directly on site concurrently.
Photograph: Ye Huzheng, Matthew Tan and Song Qiuji

Another student group was exploring drone-ports in studio[8], which involved designing structures that these flying machines could land and take off easily from. Flightpaths were a critical design constraint and students had to avoid creating obstructions with their forms. The group wanted to make these important constraints more explicit by representing flightpaths spatially and dynamically through an AR experience. Using their phones like paintbrushes, they drew flightpaths around a physical model of their structure, and then viewed how simulated drones would fly in this airspace (Figure 3). The visualisation of these spatially complex paths helped inform the shape of their subsequent structures.

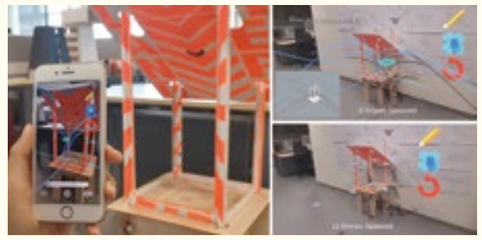


Figure 3 — Flightpath are shown in the AR app (left), and a swarm of virtual drones are generated in a simulation (right)
Photograph: Chin Kee Ting, Song Tingxuan and Zheng Yuxin

In the second half of the course, we focused on using AR for fabrication. Students were asked to design and assemble a spatial lattice structure, which was based on a constructive system developed earlier for the 2018 Venice Biennale Singapore Pavilion. During the

1 This feature is only enabled on Android phones with ARCore and Iphones with ARkit.
2 The phone builds an understanding of the space by detecting features in the environment with your camera using an underlying algorithm called SLAM.
3 For example, software environments like Unreal and Unity can be used to author both VR and AR apps. Mobile phones can be used for both AR and VR.
4 Gwyllim Jahn, Nick van den Berg, and Cameron Newham, "Making in Mixed Reality," in Recalibration On Imprecision and Infidelity Proceedings of 38th ACADIA conference, ed. Phillip Anzalone, Marcella Del Signore and Andrew Wit (Mexico: ACADIA, 2018), 88-97
5 The apps were developed using Fologram, a plugin for the Grasshopper/Rhino software environment, which
6 The Hololens is a wearable goggle like headset developed by Microsoft, It can track the environment more accurately than mobile phones, as well as hand gestures to provide another level of interactivity. "Hololens 2," Microsoft, accessed 31st January 2020, https://www.microsoft.com/en-us/hololens
7 The Craft and Topology of Woven Forms was a design studio was led by Ar. Kenneth Koh.
8 Drones on the Beach: A Coastal Droneport for Singapore was a design studio led by Dr. Peter Ortner.

staging (and re-staging) of the pavilion, contractors had difficulties reading the construction documentation (plans and elevations), which did not adequately convey how such an intricate non-orthogonal structure should be assembled. Considering this experience, students were challenged to not only design a structure based on the system, but more importantly, develop an interactive AR app to capture assembly instructions as an alternative to conventional construction documents.

Students were split into two groups of eight. Each group had to assemble a lattice structure designed by the other team. They were equipped with a Hololens device (Figure 4) alongside an AR app (Figure 5) developed by the other group and were given no further instructions.

Figure 4 — Student using the Hololens to register the space prior to assembly
Photograph: Jeanette Lee

Figure 5 — Student tests the AR app and checks how the hologram is positioned in the space prior to assembly
Photograph: Song Qiuji

Students viewed holograms of the structures in incremental states on both the Hololens and their phones, then followed these holograms to assemble the physical modules (Figure 6, Figure 7 & Figure 8). Each team completed the structure successfully (Figure 9 & Figure 10) using this approach with minimal assistance from the other group.

These case studies demonstrate how AR can be applied in design conception and fabrication stages. Yet the use of AR is not limited to an academic context and has started to extend into the professional domain. Recently, SHoP architects in New York have been using AR to show clients proposed designs directly on site.[9] The winning proposal for last year's Tallinn Architecture Biennale installation competition was a curvaceous wooden and steel Pavilion[10] fabricated with the aid of the Hololens device. Back home, Surbana Jurong is researching new construction paradigms involving AR[11].

Nearly 60 years ago, Douglas Englebart started research into systems to augment the human intellect[12]; 30 years later, Claudell and Mizell[13] prototyped a head-mounted HUD set that was a precursor to modern devices. Today, AR technology has finally developed to a stage, whereby it is ready for widespread adoption. The results of the Augmented Design course hint at some possibilities of AR: enabling us to produce more interactive and information-laden design representations; and fabricate structures directly using fewer notations. Further exciting possibilities lie ahead as we continue to explore ways of augmenting our creative processes using this technology.

Acknowledgments

I would like to thank the students taking this course for their hard work, enthusiasm and positivity: Heong Kheng Boon, Samson Sim, Thet Naung Oo, Matthew Tan, Lee Hsien Toong, Clarissa Hartanto, Paris Lau, Jeanette Lee, Ye Huzheng, Chin Kee Ting, Kyaw Htet Paing, Song Tingxuan, Zheng Yuxin, Song Qiuji and Lee Yimin.

9 Stefanos Chen, "How Virtual Reality is Augmenting Reality," New York Times, November 8, 2019, https://www.nytimes.com/2019/11/08/realestate/how-virtual-reality-is-augmenting-realty.html
10 The Steampunk pavilion was a collaboration between SoomeenHahm Design, Igor Pantic and Fologram."Case Studies," Fologram, accessed 31st January 2020, https://fologram.com/#case-studies
11 Cheng Tai Fatt et al., Translating Research and Innovation in the Built Environment (Singapore: Building and Construction Authority, 2019), 49.
12 In 1962, Douglas Engelbart — an engineer/inventor — wrote ""Augmenting Human Intellect", establishing a conceptual framework for future research into systems that enhance our capability to handle complexity.
13 Caudell, Thomas and David Mizell, "Augmented reality: an application of heads-up display technology to manual manufacturing processes," in Proceedings of the twenty-fifth Hawaii International Conference on System Sciences Vol.2, (Hawaii: 1992), 659-669.

Figure 6 — Student (left) compares the physical structure against the hologram projected on the Hololens and instructs her team-mates what to assemble next.
Photograph: Jason Lim

Figure 7 — Team taking instructions from student wearing the Hololens during the assembly process.
Photograph: Jeanette Lee

Figure 8 – One AR model is shared between multiple devices, the student is comparing the partially assembled physical structure against the virtual model on his mobile phone.
Photograph: Song Qiuji and Lee Hsien Toong

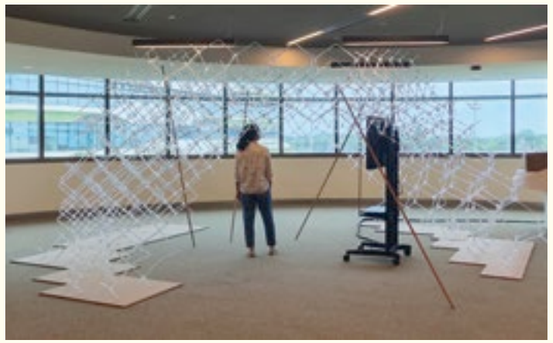


Figure 9 — Team A's completed structure
Photograph: Jeanette Lee

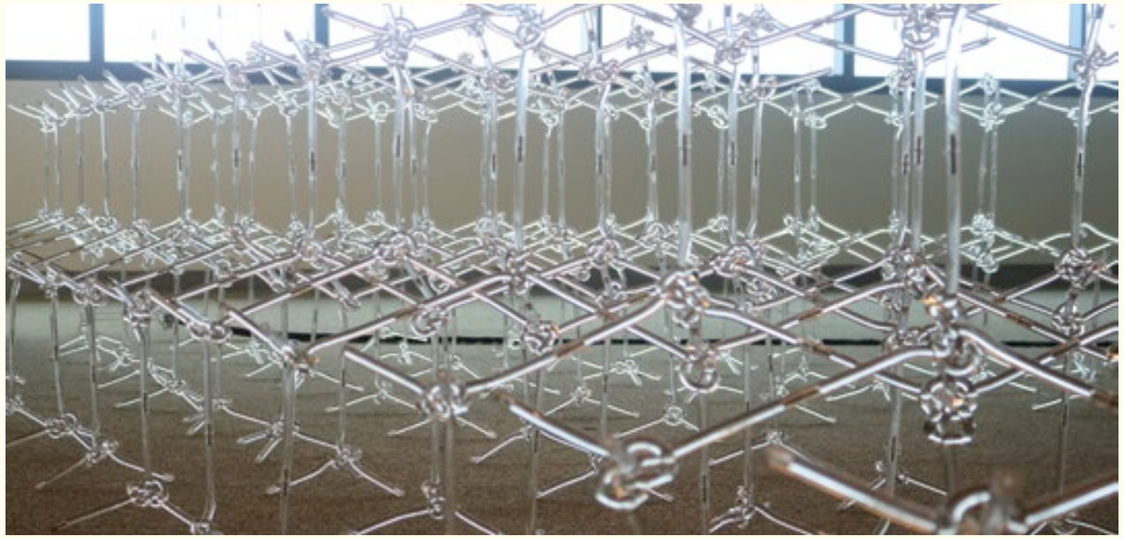


Figure 10 — Detail of Team B's completed structure
Photograph: Matthew Tan

INSIGHT

Pivoting into the Future

Ar. Teo Yee Chin MSIA
in conversation with Ar. Mark Wee MSIA

Photograph credits to
Ar. Jason Lee

Mark Wee is the Executive Director of DesignSingapore Council, the national agency whose mission is to develop the design sector. Prior to taking up this position in 2018, he was well-known for being one of the pioneers of experience design through his work at Kennel and ONG&ONG. We talk to him about experience design as an expertise and how this fits into his work at DesignSingapore.

INTERVIEWER

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

INTERVIEWEE

Ar. Mark Wee MSIA — (MW)
Executive Director,
DesignSingapore Council

Yee Chin: Can you talk about the journey of how you came to embrace and be a practitioner of experience design?

Mark Wee: Like you, I am trained as an architect. After Cornell, my first job was at DP Architects. I worked there for 4.5 years. Throughout this time, I had always had parallel interests in design thinking and experience design, things I heard and read about when I was in college. My time in school was the dot.com era, and that was also the time when agencies like IDEO and FROG, who were shaping design experiences and anchoring their work in human-centred research, came into prominence.

In 1999, in a particular episode of the ABC show Nightline, IDEO was profiled. The segment showed the host touring the IDEO office and observing how they went about redesigning the shopping cart in 5 days. So they would go to the supermarket, observe people, talk to them and see what they were doing with the shopping cart. They would identify the problems, brainstorm in the office, then they would make prototypes. Eventually they would come up with the new shopping cart that responded to all these issues. I was really fascinated with that. Somehow, by fate, I actually almost landed my dream job of working there. But with 9/11 happening and the economy softening, things did not work out. So after I got my license here, I started to do this work in my own way, to bring in human-centred research and experience design. This I did through the two practices I started in 2006, ANNEX A/, an architectural practice, and Kennel, an experience design practice.

YC: So the services that Kennel offered, you just taught yourself all that?

MW:Yeah I read up, I hired people, and we figured things out. We were also very fortunate to be given some opportunities to hone this knowledge and formalise this into a framework. We created a training program for government officers, within this training arm in National Library Board called INVENT, helmed by Gene Tan. That was helpful for us. We were also asked by a forward-looking leader in the police force, who came back from his master's in Stanford inspired by the design thinking ideas that he had been exposed to from the d.school there. He asked us to come up with a design thinking curriculum and train all his frontline service staff at Cantonment Complex. So I, Lam Yishan (now a Design Lead at McKinsey), and a cultural anthropologist named YC, basically created a design thinking textbook from scratch. We were very fortunate to get these breaks.

Other than training work, we also applied these ideas to interior design projects of ours. An early project was the service centre for Singapore Airlines in ION, where we took the opportunity to provide user-centred design research and customer engagement as just part of the fee. We didn't price it in as we were just starting this thing. But the people at SIA were happy working with us like that and years later, we were invited to bid for the experience design strategy for their global lounges, and we won. Later as we got recognised for our work, we were recommended clients such as OCBC whom we created the entire FRANK bank concept for a millennial audience.

YC: So early on, did clients carve time out for all these research processes?

MW: No, not in the early days when you are doing something that no one understands. For training work the scope of work and hours involved were very clear of course. But in design projects like Singapore Airlines, most people have very little awareness. You would basically have quietly factored that into your fee, or you use those opportunities to build a case study and sell it to the next one.

When you are pioneering anything new, you just suck it up — you use the time as a way to validate. By the time we moved to ONG&ONG, there was some maturity in the industry and we were much clearer about how to cost for these things. We would cost it as a consultancy, based on how many persons on the team, how much time it would take and then you put a multiplier on it. For construction it was different as there is a general industry norm to price fees as a percentage of the construction cost. This would be what we do if the work went on to be built but the front-end research would still be costed separately as a consultancy.

YC: In your opinion, has the rise of experience design come about because of a lack in delivery by architects and interior designers or is it something really new that needs to be layered on top of conventional spatial design?

MW: My personal experience, in the early years of practising architecture, reinforced what I already thought was a need. I was fortunate to oversee some interesting work, one of which was a prominent restaurant/bar in Bukit Pasoh. We did our best on the architecture and interior work but in the end, the place was not successful because of other things that you knew would shape its destiny, but as a designer you were not a part of — business strategy, positioning in the market, etc. For me, doing this work was a way to help them think systematically about who their customers were, how you appeal to them, the service proposition, the experience proposition you are putting to them. I felt that in this way I could give more value towards the success of the business, which ultimately was what I wanted to see!

YC: So has this need for designers to play a bigger role upstream always existed … or do you think it has emerged due to the times we are in … the complexity of business nowadays for example.

MW: Yes, the need is more acute now. It's just so much more competitive. People live in an omnichannel world, they are more informed, they have so much more choice and higher expectations. You have to come up with something more sophisticated. You could say clients are looking for designers who can work with them to find better solutions for business success.

YC: Have architects not always prided themselves on designing for people?

MW: Yes, some people are naturally very keen to understand how people think, and are able to take a secondary role in order to facilitate a better interaction, whereas some other architects would want to impose a certain idea of theirs and stand by it. So I think it is not a given for any architect. And you will probably get that confirmed by listening to clients' complaints after the project!

Afternaut's user-centred research in action
Credit: Afternaut

YC: So this emerging field is due to, on the one hand, structural shifts in the economy, technology, communications and on the other, designers not having been sensitive enough.

MW: Well, this field started in product design, but it has also come into spatial design, as the built environment shapes the overall experience. But yes, for architects, there has typically been an aspiration to be a star designer, probably because of the way design education is. They have to brand themselves through certain styles.

But at the same time there is another huge movement, in realising that people want to be involved in the creation process, and that they are much more empowered. The solutions needed are much more complex and need to be much more integrated. Sometimes they cannot be solved entirely by the architect alone, but a larger multi-disciplinary team working together.

YC: What are the limitations of user-centred research when we talk about the age-old practice of urban design and architecture? For example, if we were designing a building that marks a corner in the city, perhaps for the next 50 or 100 years, surely we will talk about presence, scale, ornamentation. You couldn't do enough surveys in 1 month for that.

MW: When I was talking about the importance of service and experience design, that was very clearly in commercial services, where I felt I could bring more value to the client.

Of course architecture and urban planning are slightly different. If you have to think at that scale, your needs become issues like environment, sun, traffic, and contextualisation to its surroundings, all of which you have to respond to. Then of course, there is the people perspective, what kind of relationships you want to foster in the city, and internally what sense of place you want your building to have. A good architect should be doing all that.

YC: Most successful architects in the world now are driven by big form. Do you think ground-up processes can spawn architecture of that kind? Or is this something you completely don't believe in, and in time there will be a different kind of good architecture?

MW: I think in architecture you do need to think from both top-down and bottom-up at the same time. You could say it has always been top down, now we need to incorporate more of the bottom up. From an overview, you need to make certain moves, ultimately the architecture needs to have a certain clarity. Without a doubt, you still need a strong vision to hold it together.

But there are now software that allow people to design their own buildings, so to some extent you just have to involve them earlier. Clients increasingly want community to take ownership of the building before it is built. You will see more government buildings that will ask for community engagement in their brief. You see that in Our Tampines Hub and Kampong Admiralty, and there will be more. The government understands that engaging the people early means they will better take ownership of their neighbourhoods. For people who are uncomfortable, they have to start picking up the tools to be comfortable because this requires skills like collaboration, facilitation, and being able to take feedback.

There's a huge US company called HKS Architects which does work in healthcare. When they do a hospital, they have the overall architecture responding to the environment and urban scale, but bottom up, inside, they also engage heavily with the nurses and doctors. With cardboard, they build up prototypes of entire key areas. This is a nice example of how the ground-up becomes a part of a very large and complicated architectural project.

YC: In terms of how UX has to consider the end users' level of knowledge and habits for design to be effective, do you think it limits innovation when we generate a product? Let me make up an example. If you were to go and engage a community of work people to ask what they want to see … they throw you astroturf, chalkboards, screed floors … because they have seen this on the web and have preconceptions of what they want, of materials they already know. Will you end up having to apply such materials, in order to make them comfortable, to meet their needs?

MW: No, it is not to be literal and ask what people want and then just giving that. We hear what people's needs are, but we must also understand what their underlying needs are. Not everyone has the sophistication to tell you exactly what would make the design better, what they can tell you is how they want to relate to the space.

YC: But even that is difficult to articulate …

MW: Ah yes but unearthing that is a skill! That is what a design researcher will do!

He needs to know behavioural economics, conceptual thinking, critical thinking, empathetic design facilitation, etc. Sounds crazy right? But these are real jobs! It would help if a good design researcher is empathetic, because he would be able to make quick connections. But they also need to synthesize, conceptualise, and strategise. These are all skills that someone interested can pick up through various courses.

YC: Is this something that you are looking at in your work at DesignSingapore Council?

MW: Yes! The national Skills Framework for Design that we launched last year was developed in response to the growing number of design roles that have emerged in the economy.

We were working across industry to understand these things and now we have mapped out what these roles are. We have profiles of what they do, a sense of the skill-sets required, and the level of expertise. We even have an approximate pay-scale of these roles. To be honest, they are paying better than the classical disciplines!

We are making this visible to the public, the schools, employees and employers, HR practitioners, etc. We are also reaching out to potential designers/non-designers on what these roles are so that people can move into them or can pivot into them.

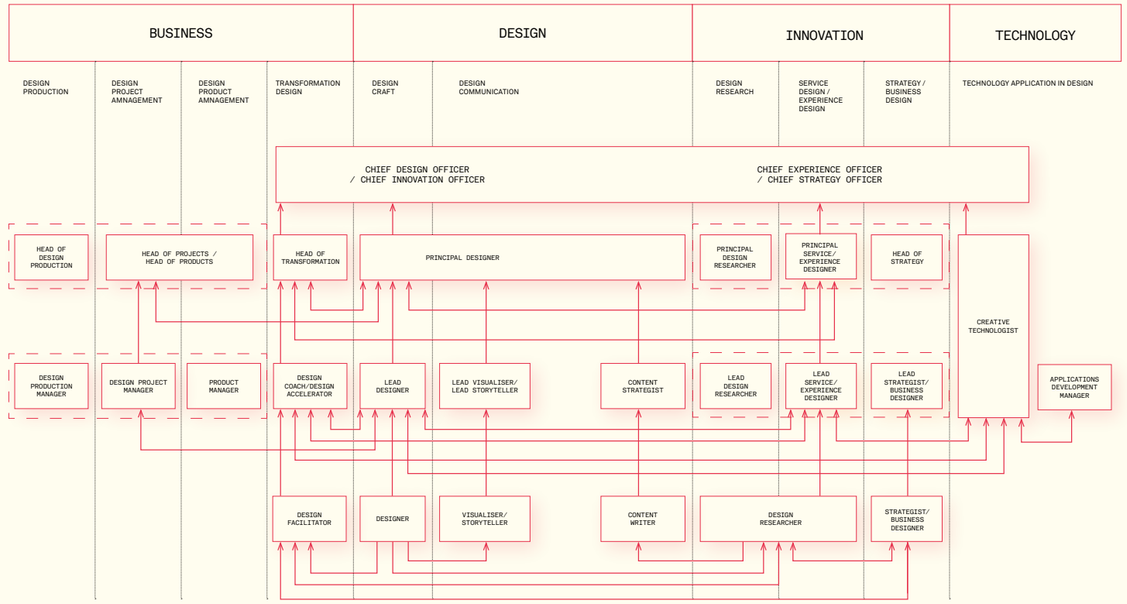
It can be summarised in this chart at the end. What we will understand the typical role for, say you and me, we both have architectural degrees, we would be in this green coloured track. You would have become designer, gone on to become lead designer, then principal designer, right? But actually there are other design roles that merge with business, technology, or are at the intersection of business and technology. These are residing in companies or are becoming the service offering of new types of consultancies like IDEO and STUCK. These are emerging disciplines, but they are very real, less known ironically in certain design circles, but increasingly sought after in companies.

We are also giving out scholarships for people to acquire some of these new skillsets.

YC: How does an architectural practice plug into this?

MW: A design practice could look in there and start to provide these skillsets. They could get a sense of how to build their people up, to give them these softer skills outside of the technical skills. When there is such a capability, the in-house design team could harness the upstream research work done too. Its not just providing a suite of different, classical skills like doing landscape design, interior

MW — Mark Wee



Skills Framework for Design
Career Pathways

BUSINESS MODEL INNOVATION

Identify untapped opportunities and capitalise on them with innovative changes to business model.

CONTENT DEVELOPMENT AND STRATEGY

Brainstorm, ideate and utilise writing strategies and plans to maximise user engagement.

CREATIVE ENTREPRENEURSHIP

Develop and inspire the creation of creative or intellectual capital to generate activities for business success.

DESIGN SUSTAINABILITY AND ETHICS MANAGEMENT

Create designs that align to regulations and guidelines on sustainability and ethics.

EMPATHETIC DESIGN

Apply empathetic-centred design thinking that takes into consideration users feelings and perceptions of products and services.

INTERACTION DESIGN PRACTICE

Develop interactions across technology, products, space and services media to enhance engagement with users.

SYSTEMS THINKING

Identify, analyse and evaluate relationships among systems parts, to understand situations and drive change for improvements.

USER EXPERIENCE DESIGN

Conceptualise user-centred design features that enhances users interactions with products and services

With the changing milieu, these are the specific skills in demand now and in the near future.
Source: DesignSingapore Council

design and graphics, under one roof. This framework we are using here looks at really involving the client in very different ways.

It is very exciting for architecture if architects have these capabilities, because clients can go to them with much more open briefs. because they know they can really help them strategise to improve their business in many ways beyond the built form.

There are typologies that are being challenged — for example, what is a retail mall today? These are already being disrupted. How can you then confidently help a client tackle what his mall will look like? You just cannot go about the same way! You need to have a point of view — what is the digital face of that, what is someone experiencing when he comes in? Or do you just say, that is outside my scope, I am just going to create the shell?

Architects need to start looking into how they can transform themselves in light of this digital era. They cannot always be banging the same drum, on low fees, compliances, competition. It is a limited conversation that need to be contextualised in light of the world that is changing around us.

YC: Who are the architectural practices here who are leading the charge in this aspect?

MW: There are a few companies who have integrated this into their operations. There's a company called Eight Inc. Their global headquarters is here, though they have offices around the world. They are best known for helping Steve Jobs create the Apple store experience. They create entire brand experiences, and can deliver from branding, digital, product, and all the way down to the building.

There is also a new unit within the Formwerkz group, called Afternaut, who do digital strategy and experience design. I believe they will be more prominent in the next couple of years. Afternaut got their break in China, where TenCent engaged them to build a manless and cashless convenience store secured with facial recognition. Now they are rolling out bigger things with an adventurous developer. We were very fascinated and amazed by how they have reconstructed themselves in the last couple of years.

YC: On the demand side, let's say there are a few thousand enterprises in Singapore, how many of them know that they even need to procure such services?

MW: It is one of our jobs at DSG to educate them. In terms of awareness, the highest is probably Global MNCs, followed by the government, then Singapore LLEs, then lastly SMEs.

YC: Let's say one of our readers has a 10-man practice, up to their necks with problems on site and complying with codes, etc, and they want to plug into this... how can they start?

MW: The first way of course is to grow it organically in-house. This would mean hiring new types of expertise or training your existing staff.

You could also form partnerships with other studios who possess this kind of expertise.

As mentioned, Formwerkz grew by forming a collective of different studios, whereas ONG&ONG, did so through mergers & acquisitions, by acquiring firms with different expertise.

You have to find your path from these different choices. But if you really understand where, what, and how design can impact business and people's lives in this digital world, the future of design is bright!

MW — Mark Wee

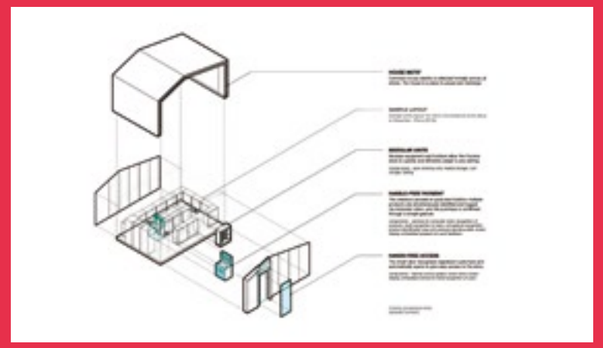
About Afternaut

The way people live, work and play has changed drastically. However, the status quo of architecture remains stagnant. Formwerkz instituted a disruption in the industry and their own business back in the summer of 2017, by drafting multi-disciplinary talent of various backgrounds and industries. Helmed by founders Berlin Lee, Chew Kok Yong and Chong Zhe Wei, the team eventually evolved into the experiential firm we know today, as "Afternaut".

Afternaut studies the brief through a multitude of different lenses, to identify unique opportunities for their clients. Despite being based in Singapore, the firm completed its first project in China. This unique decision to move eastwards proved to be an astute choice. In a short two years, Afternaut has worked with some of the largest names in the Chinese market such as TenCent and major real estate developers; resulting in an impressive portfolio of live projects; including friction-less convenience stores and the annual Zero One Technology Festival — the world's first large-scale smart living carnival. In the past year, the firm decided to enter the local market as well.

"We wake up excited to make an impact on the world's largest asset class — real estate. Changing market needs and evolving technology are challenging business model norms in the built environment. We exist to help the different stakeholders — owners, developers, investors, operators, designers, and technologists make sense, stay relevant and spur growth in a time of unprecedented change."

— Chong Zhe Wei, Afternaut Co-Founder



Comma friction-less convenience store, China

Zero One Technology Festival 2018
at a refurbished glass factory, ShenZhen China

INSIGHT

teamLab

Simone Chung in conversation
with Takashi Kudo and Shogo Kawata

Photograph credits to
teamLab and Simone Chung

teamLab, Exhibition view, teamLab: 'Universe of Water Particles in the Tank', 2019, TANK Shanghai, Shanghai © teamLab

Editor's Note

With a dedicated exhibition and permanent installations in two museums in Singapore, an ongoing site-specific intervention at Jewel Changi Airport and temporary installation at Gardens by the Bay, Singapore audiences are undoubtedly familiar with the immersive and interactive digital artworks of teamLab — an international art collective with members from around the world and exhibitions in many different countries. For this issue on experience, Simone Chung (SC) spent an afternoon with teamLab's Takashi Kudo (TK) and Shogo Kawata (SW) of teamLab Architects to gain insights into the collective's practice, philosophy and projects at teamLab's office in Tokyo.

Translation assistance by Lee Kah Hui.

INTERVIEWER

Simone Chung— (SC)
The Singapore Architect

INTERVIEWEE

Takashi Kudo — (TK)
Communications Director,
teamLab

Shogo Kawata — (SW)
Founding Member,
teamLab Architects

Simone Chung: To begin, please tell the readers a bit about yourselves and how you ended up working in teamLab.

Takashi Kudo: My name is Takashi Kudo and I am from teamLab. Actually, I don't have a title on my business card. If you need some sort of designation then I would be the Communications Director — like a spokesperson, in charge of 'branding' from the communications aspect as well as projects in their initial stages that are yet to be defined. After graduating from Waseda University in Tokyo with a degree in literature and philosophy, I travelled for six years, from Thailand to the Middle East and all of Europe, and was at times, homeless. This is the reason why I have this ponytail — I shaved off all my hair except this part. Eventually I ended up in Stockholm and began working as an editor on a video game magazine before returning to Japan in 2010.

SC: Why?

TK: The founder of teamLab and I were friends from university and we've known each other since we were teenagers. When I was in Stockholm, I became interested in the 'digital'. When teamLab asked me to join them, they didn't have any provision for promotions or branding. So for the first two years here, I organised information about teamLab to be put up on the internet. Now there's a social branding team of around 15 people. It was only in my second year here that I began working on art projects.

SC: What about Kawata-san?

Shogo Kawata: Originally from Tottori, I studied architecture in the Kyoto Institute of Technology from 1997 to 2003, which coincided with the rise of mass internet usage. We were excited by this phenomenon. Nobody knew exactly the path it would take but everyone sensed the potential. Being from Kyoto, I am influenced by classical Japanese architecture. At the same time, this was the age of the internet, yet shrouded in uncertainty. We knew things were bound to change and I wanted to make a positive contribution. I conducted experiments to integrate the digital into explorations of space during university and after doing those, I wanted to pursue it more comprehensively, but understood that such projects are time-intensive and require dedication. That's when I came to know about teamLab.

SC: Did you practice as an architect before joining teamLab?

SK: Around the time I set up my own practice, Shogo Kawata studio, I joined teamLab as the founding member of teamLab Architects, which is oriented at projects in public space and use. We currently have 7 people. My own studio, on the other hand, focuses on private commissions (residences).

SC: How many employees are there currently in teamLab?

TK: About 650 people working full-time. Maybe 700. Almost nobody knows (laughs). We don't have sections or departments as you do in standard companies. We work in teams.

SC: What do you mean by 'teams'?

TK: There is no hierarchy here. The structure of teamLab is very flat. And we don't have (official) titles too. It's more of skillsets — everyone is a specialist. Think of it this way: if you play *Final Fantasy* or other role-playing games, there are different categories, like mages and warriors, with different abilities. They form teams and each team goes on its own journey, analogous to a teamLab project. When we create something, that's our output for that project.

Shogo Kawata (left) and Takashi Kudo (right)
Photograph: Simone Chung

teamLab, 'Autonomous Resonating Life on the Water and Resonating Trees - Dragonfly Lake', 2019, Interactive Digital Installation, Endless, Sound: Hideaki Takahashi © teamLab

SC: How do you monitor quality of work and output?

TK: There's no one person overseeing it — we're all in charge of ensuring the quality of our own performance and work.

SC: So team members stay together until the project is completed?

TK: Yes. But nobody works solely on one project. We juggle several at any one time. Some, I act as team leader; for the others, I'm a team member. At the moment, I'm on 11.

SK: And I'm on 9.

SC: How would you describe the type of work you do here?

TK: We view them as two types, or two phases. One is the design component or solution work and another is closer to art. Let's say, for installation work, we have a client for whom we develop an application or a database system. At the same time, we're an art collective.

We see ourselves as phenomena, existing as groups constituted out of specialists. So we might have a software engineer, hardware engineer, mathematician, sound engineer and an architect that make up a team. An output would be something that involves digital technology. The way we approach our work, we see no boundaries between science, technology, art and creativity. If you look at our website, we use keywords instead to describe each output as it's just not possible to categorise them. We simply publish the key information and allow visitors the freedom to decipher them.

SC: But then, how do you go about developing a brief with a client?

TK: When clients come to us, we set them up with a 'catalyst' team that serves as a 'contact window'. Catalysts help the client define the scope of the project, fix the contents to be developed, and of course, the budget and production schedule. Once a contract is in place, they put together a team according to the kind of 'language' required and output format, i.e. computing, CG animation, graphic design. Our artworks are also developed the same way. We work on those as teams so there is no specific artist. Our art collective name is teamLab. The same goes for our architectural projects.

SC: Can you tell us more about the types of projects that interest teamLab?

TK: Most of the time, we try to make something we've never seen, which is quite hard. For example, teamLab Borderless (a permanent teamLab museum in Odaiba, Tokyo) and teamLab Planets (a two-year teamLab museum in Toyosu, Tokyo, that opened in summer 2018). teamLab Planets was conceived out of pure imagination. We wanted to create large installations and an exhibition that was truly body immersive. It's about the relationship between our physical bodies and space. We know that space is highly malleable and we try to locate our visitors in this world we created.

For artworks that involve water, the experience is felt through the tactile body, not just with the eyes and the brain but also with your bare feet (visitors have to remove their shoes before entering). Most people don't understand that there's more to experience than just VR. In the West, the emphasis is about technology itself, rather than expanding the scope of humanities. We believe you still need physical space to achieve an expanded experience. This brings us to our desire to link physical space with the digital world.

You can visit teamLab Planets and teamLab Borderless without your smartphone and any other digital devices yet still feel the exhibitions are digital in nature. We try to bring this into the physical realm. In a romantic sense, the digital is another world. Technology does offer us convenience and personal computers present an accessible vehicle for seeing the world but they do so in a limited way, through a small 'window'. The relationship between humans and the world is much more physical. We understand much better through what we feel.

SC: You label yourselves as an art collective? How did this nomenclature come about?

TK: In 2011, Takashi Murakami (one of Japan's most influential contemporary artists) gave us the opportunity to participate in his exhibition in Taipei. We had gained a reputation as digital creatives but this was our entry into the art world. Since what we produce are neither conventional applications of technology nor science, but closer to art, calling ourselves an art collective in 2010 reflected our future-forward attitude.

Managing websites or designing applications have limited scope for growth domestically. Japan is a country with enough local demand to sustain us. But Japan is also isolated due to limited use of the language beyond. If we wanted to be competitive on a global level, we had to be novel and build another 'weapon'.

Think of it this way: there is the digital and technology; behind all that is a 'whole'. What we cannot explain with words is the territory of human beings and experience. For example, if we came up with nice ideas for which we could articulate precisely what needed to be developed, say, computer coding, then capitalist logic dictates that the client will source for a cheaper technician elsewhere. Furthermore, we now have A.I. (artificial intelligence) and self-learning programmes. So if it's something we can explain with words, we won't involve ourselves in the development since the cost of labour in Japan is high. What we cannot explain with words, then that part is art. I'm not speaking as a romantic here.

SC: True. This is a crucial, pragmatic concern.

TK: That is how we began viewing what we produce as art (rather than solution). There's merit from a branding point of view too. Art has its own dimension that transcends boundaries of language and culture — we can reach many more countries and people this way. And the cost to us is low. Maybe you've seen photographs of our work taken by others on the Internet and associate these as art without considering or seeing the technical solution aspect. That's what we want to convey. But actually, for teamLab Borderless, we developed the ticketing system and app in-house. Behind every artwork are multidisciplinary teams working closely together to realise them. The software and computer programmes — most people aren't even aware of them.

SC: What role do architects play in realising the artworks?

TK: We try to create all this in space in the physical world. Therefore the architect's input is already required at the start of each project, regardless of whether the materials for producing the artwork is tangible or not. It's actually quite an effort to manage software and programmes so that they're 'invisible' to the audience. This is because people are bound by material existence. In truth, what we create is experienced three-dimensionally. Sure, in projection, the digital artwork is two-dimensional. But once installed, space is altered, which is why we need to involve architects. Everything is connected.

SC: How did teamLab come to be featured in the Singapore Biennale?

TK: Through the Ikkan Art Gallery (the owner, Ikkan Sanada, is Japanese). We had our first exhibition in Singapore there. By happenstance the directors of both ArtScience and Singapore Art Museum visited the gallery. In Singapore, you're much more open-minded — unafraid of new challenges and ready to accept us. That's how we were given the opportunity to participate in the Singapore Biennale. This was actually a turning point for us as it marked our recognition on the global art scene. Before that, the art scene in Japan completely ignored us. The Singapore Biennale also led to a permanent exhibition at the ArtScience Museum.

SC: Is it true that teamLab has an office in Singapore?

TK: There is a contact window in Singapore. In fact, it's only in Singapore where we have an office besides Tokyo. Since we have a lot of work installed there, it's more about responding promptly to requests from our existing clients in Singapore. Otherwise, our base is here in Tokyo, where we develop all our projects. In other cities, we are represented by Pace Gallery, which has branches in London, Hong Kong, near San Francisco, and Beijing.

Table top featuring the TOKYO SKYTREE mural in teamLab office
Photograph: Simone Chung

SC: How do you convince clients if you're unable to quantify the output from the start?

TK: For our artworks, we don't have a client in mind. It's just something we make. In fact, only some of our art activities are sponsored. We finance our artworks ourselves. As you can imagine, it's hard to create something that even teamLab members themselves cannot describe. All we have are vague concepts but we persevere. Even for an idea that we like but doesn't make sense, it's important for us to test it out. It's the same with solution work when there's a paying client and what we deliver is different from what they expect. Then we have to convince them that this output is better. That's how we build our reputation — through word-of-mouth and testimonials. All we do is keep going and challenge ourselves to tackle new things, including this interview with The Singapore Architect.

SC: The theme for this issue is 'experience' so I think an interview with teamLab is fitting.

TK: One thing we won't do is reveal our trade secrets. It's akin to ruining a party trick or magic show. The feelings arising from the art experience is something we believe must be protected.

SC: On the subject of visitor experience, how do you gauge audience reception?

TK: It's easy to gauge. We can see them on Instagram.

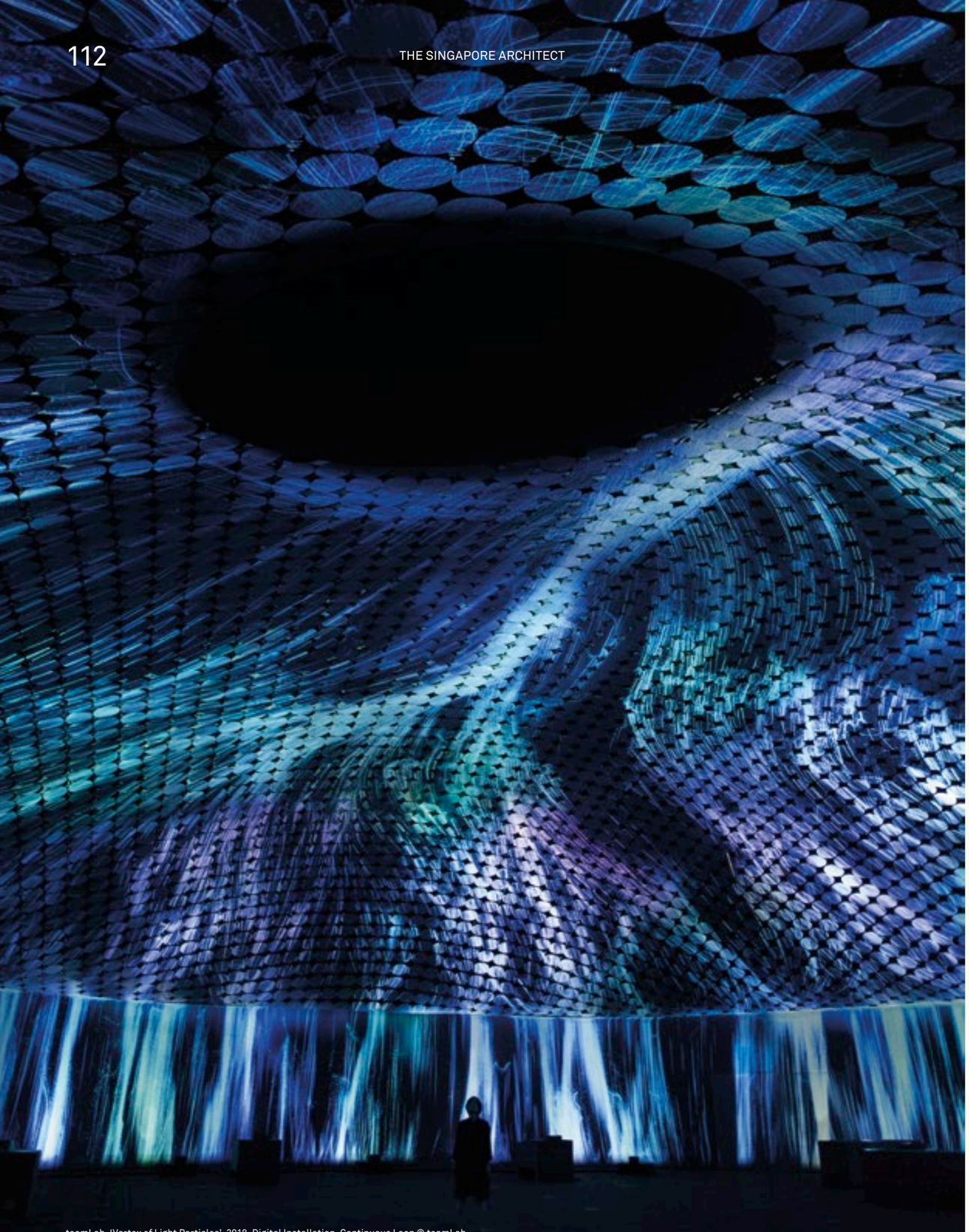
SC: But does teamLab conduct official surveys?

TK: Of course we do, in the same manner as consumer surveys where randomly selected visitors are approached for feedback. The management of teamLab Borderless is outsourced to a third party so they're in charge of this.

SC: How was the permanent exhibition in Tokyo (teamLab Borderless) initiated?

TK: Through joint venture. You know, Mori Building is a major developer, right? Actually, they own both real estate and museums. The Mori Building Digital Art Museum in Odaiba has only one exhibition – teamLab Borderless. With our other exhibitions, we adopt the same format. This way, we retain the right to change or refresh our artworks.

teamLab, 'Flower and Corpse Animation Diorama', 2008, Digital Installation, LED, 12 channels, 12 min 28 sec (loop), H: 2700 mm, Sound: Haleo Shiiya (Sound Director) + Shigetake Ao (Compose & Mixing & Recording) + Keiichiro Shibuya (The third term music) + Fuyuki Yamakawa (Khoomei) + Shuri (Voice) + Tomoko Takeda (Shinobue) + Tetsuro Naito (Wadaiko) + Koyasan Shingon Buddhism Sohonzan Kongobuji, Koyasan Wakayama (Field REC) © teamLab



teamLab, 'Vortex of Light Particles', 2018, Digital Installation, Continuous Loop © teamLab

SC: What about teamLab Planets in Toyosu?

TK: That's a joint venture with DMM, an IT conglomerate. Like us, they are not listed on the stock market.

SC: Can you share with our readers some of the on-site challenges you faced during construction and installation?

TK: I can state two that pertain to regulations. In teamLab Planets, visitors have to wade into a room that is a shallow pool. The water's depth, at 27cm, was considered too high. For this, we submitted a petition to the parliament of Tokyo Metropolis and it was accepted. Another concerns the placement of illuminated exit signs which are mandatory in cinema theatres but not for performance venues. We explained that although our work utilises projections, they shouldn't be classified as films due to the interactive component. Regulations vary in different countries, of course.

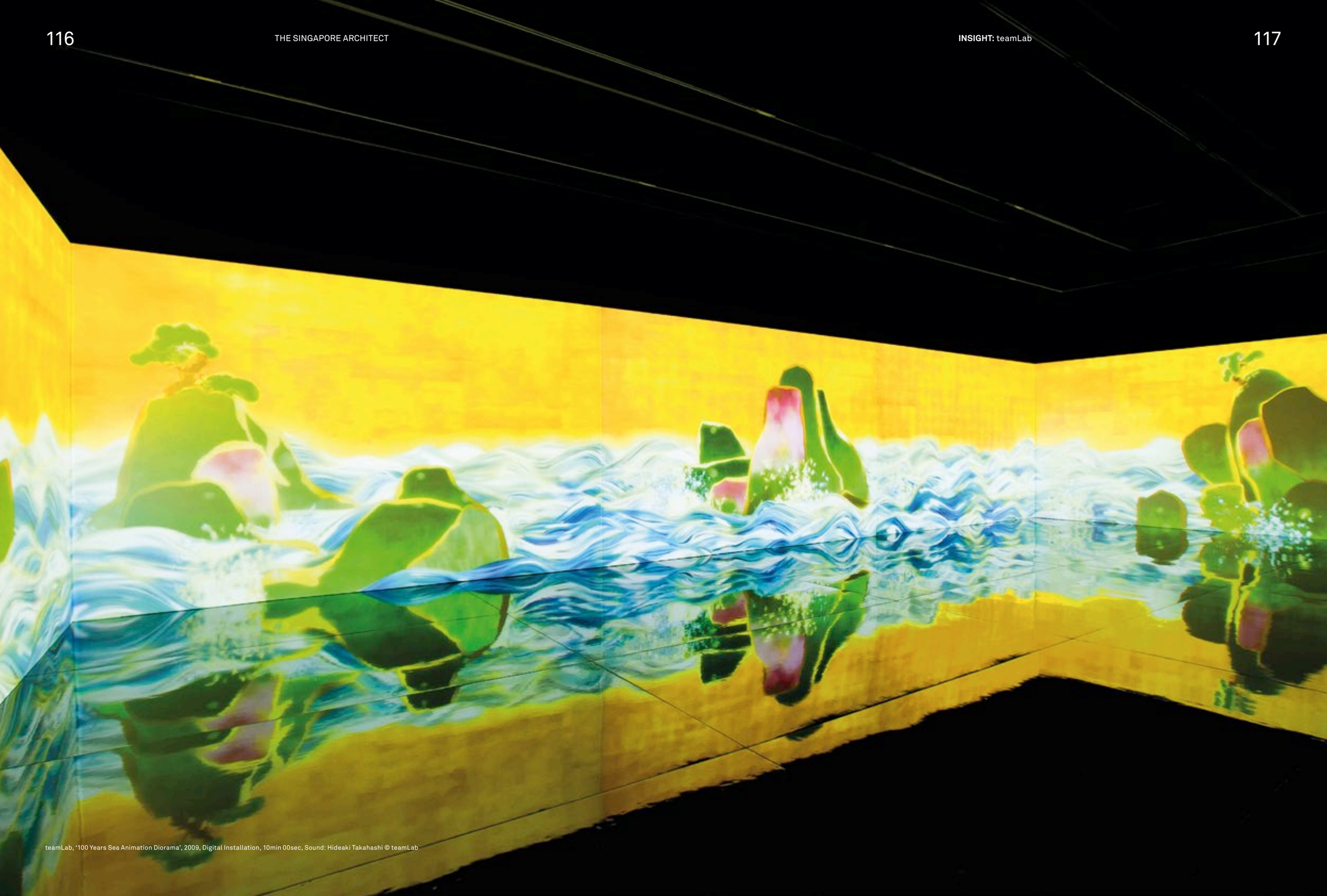
SC: Most of teamLab's artwork are site-specific installations. Let's say, for the digital installation you created for Amos Rex's inaugural exhibition in Helsinki, 'Vortex of Light Particles' (2018), was it designed especially for the venue?

TK: Yes and no. The animated flowing lines and (computer) programme are similar to our signature waterfall motif, but runs upwards instead. It's site-specific because our works, being digital, do not exist in material form. That's why they can be easily adapted to the architecture of the space. We looked at the given space and considered what's suitable. The space itself is not changed but transformed by the installation. Even before the museum's opening, we had begun discussions with the museum's curator two years before, continually refining our proposal until we arrived at the eventual output. Another complex project is 'The Universe of Water Particles in the Tank' (2019) in TANK Shanghai, where an interactive digital waterfall flows into an enclosure. It's a 360-degree space that is highly immersive. Although both works adopt the waterfall motif, the experience is very different.

SC: Since we're discussing spatial experience, can Kawata-san elaborate more on your philosophy on space and how you've applied this to the projects you've done at teamLab?

SK: Going back to my parallel interests in digital space and classical architecture, the problem occurs when we try to bring the digital into the material world. It results in limitations. We know the digital world is vast but when viewed through a computer monitor, it's small because of the boundary imposed. I began by thinking how the mouse, keyboard and monitor are physical associations of the internet. But if you view them as simply expressions of the 'internet', these can also be represented by something much bigger. For example, in lieu of a monitor are LED screens or the surfaces of a domed room, with our mobile bodies taking on the function of the computer mouse, while at the same time immersed in this interactive experience in an embodied manner. One of my earliest projects, 'Flowers are Crimson' (2005), involved linking 5 screens side-by-side to project a single video animation, as if the viewer is scanning an illustrated picture scroll (emaki). Even though it sounds simple enough, at the time this was quite difficult to achieve. The next stage was to insert the digital work into 3-D space. In 'Flower and Corpse Animation Diorama' (2008), the LED screens are distributed across the hall and a single video is split up into visual strips to be played simultaneously, thereby uniting segments of space visually. The final variation references the perceptual function of folding screens to introduce a 3-D element into digital space. Simply put, the act of folding invariably demarcates a space within the obtuse angle. These three experiments demonstrate how I can bring 2-D into 3-D space by increasing the number of screens, segmenting and folding space. In traditional Japanese architecture, people don't really walk and see but stop to look at something fixed in space. When we compare Japanese gardens with a formal European garden such as Versailles, the King surveys all from a central vantage point in the latter. But in the Japanese garden, there's no distinct centre. Happo-en near here is a wonderful example. I take inspiration from such gardens and try to apply these principles in digital space, to effect a lasting impact, experientially.

teamLab, Exhibition view, MORI Building DIGITAL ART MUSEUM: teamLab Borderless, 2018, Odaiba, Tokyo © teamLab



teamLab, '100 Years Sea Animation Diorama', 2009, Digital Installation, 10min 00sec, Sound: Hideaki Takahashi © teamLab

teamLab, 'Peace can be Realized Even without Order', 2013-2018, Interactive Digital Installation, Endless, Sound: Hideaki Takahashi, Voices: Yutaka Fukuoka, Yumiko Tanaka © teamLab

SC: This clarification of origins is really interesting. I really didn't realise there's such a strong grounding in Japanese understanding of space in teamLab's artworks until now. Have you ever encountered a project where you've been unable to merge the two (digital and physical space)?

SK: My answer is going to carry undertones of Zen Buddhism! The limitation I mentioned earlier is not only negative; like any limitation, there's also a positive side too. If you think about constraints on physical space: we can be in the same space physically with other people and the onus is on all of us to make this experience a positive one. It's like being at a live concert. You can listen to music on your own on Spotify. But if you're listening to music as it's being created, what you feel is the energy. We can't really pinpoint the reason but there's a good vibe to it. The same goes with social media: you contribute tweets and so forth to be part of the community in online space. With our projects, the negative part is the reliance on technology and also, hardware has its limitations, for example, projectors which aren't as effective in bright spaces. If there are limitations, we try to overcome this.

TK: ... such as the unconventional shape of the interior spaces and ceiling topography of the Amos Rex building we discussed earlier. It imposes limits but at the same time, the shape is a positive feature. It would be harder, I think, to come up with something from scratch or without given parameters.

SC: This is a question for both of you: which is your favourite project by teamLab, and why?

SK: 'Peace can be Realised Even without Order' (2013), an animated diorama of a folk dance with projections on screens that was featured in the Singapore Biennale. Although there isn't much emphasis on physical space, the project relied on a computer programme that allowed the holographic characters to interact with one another and with the audience. It was the first time we've managed to achieve this advanced form of multi-level interaction in a digital artwork so to me, it's especially memorable.

TK: teamLab Borderless Shanghai and the project I'm currently working on — teamLab SuperNature — a permanent exhibition at The Venetian in Macau that will open in 2020.

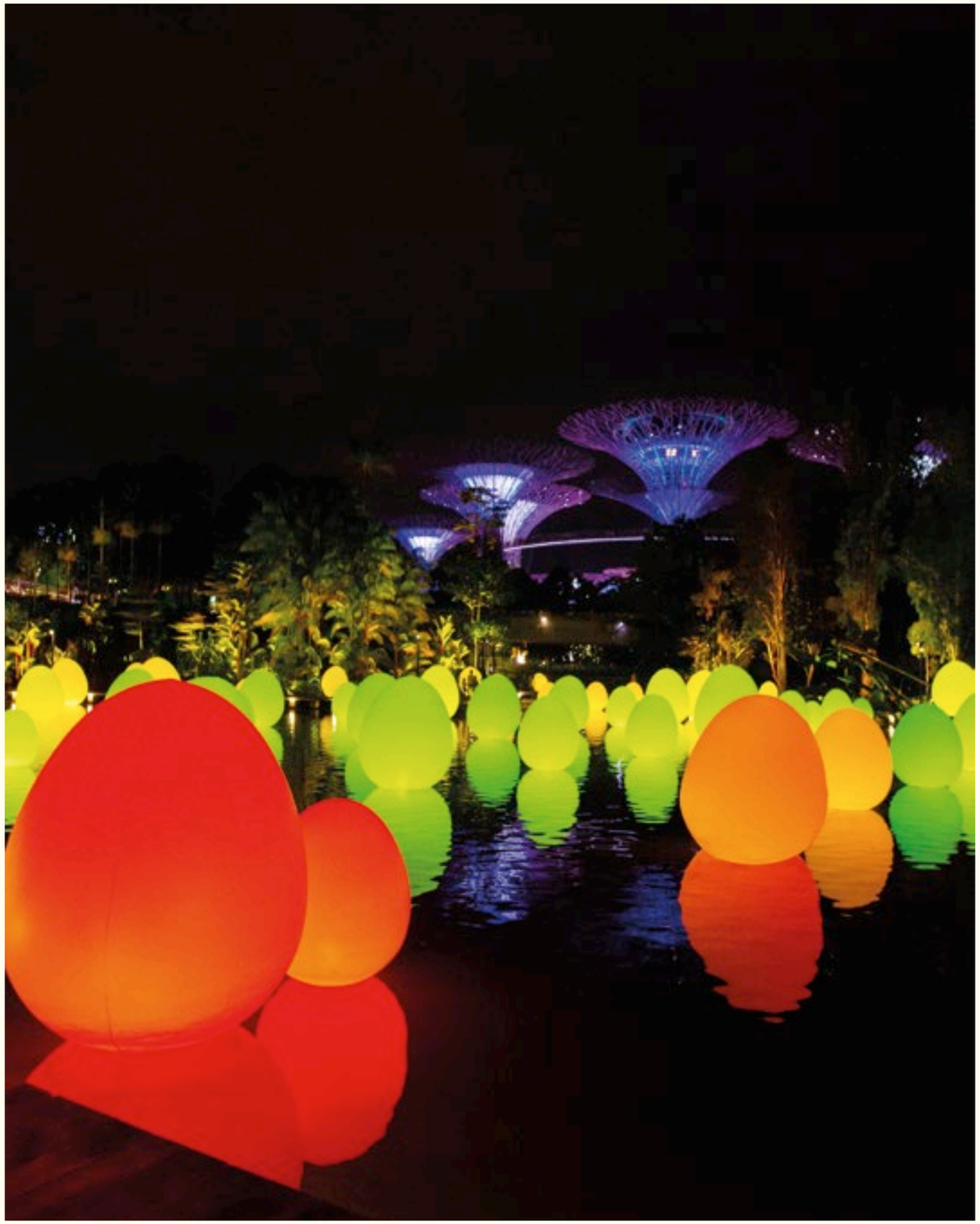
SC: Is teamLab SuperNature going to be very different from teamLab Borderless or teamLab Planets?

TK: First of all, the concept is different, but it doesn't detract from our fundamental aim of foregrounding the relationship between human beings and the world. Although some of teamLab's signature motifs also appear here, such as the flowers, the concept as well as the philosophy behind the artwork using these motifs are different from previous works. So you could take a photograph of part of the installation and it would seem similar to earlier projects we've done. But this doesn't capture our intent — the full effect must be experienced in person in the space itself. We use them (the flower motifs) the same way as a sculptor does with materials. In teamLab Borderless, the flowers are used in a maze, and the effect is quite different with the same motifs inside a domed enclosure like teamLab Planets. With the former, the mobile visitor can directly engage with the moving images. With the looped digital projections on the dome's surface, the audience is immersed in a sphere as the seasonal cycles, represented by the blossoming and wilting of flora, is played out in 12–15 minutes.

SC: What would you say is the philosophy behind the art produced by teamLab?

TK: If we can change people's minds, then it's art. Art raises questions and design provides answers. We human beings have emotions and we also have something we can't explain with words — it's cool, it's beautiful and it's fun. What our exhibitions, teamLab Borderless and teamLab Planets, do is underpin the impossibility to 'have'. None of our visitors can own the artworks: they can't 'have' but they can 'be' (following Shakespeare's immortal quote, 'To be or not to be'). Today's society drives us to 'have' which imposes limits and division. This simple structure of capitalism bounds us, but the internet and the digital world beyond have no limitations. At the same time, you don't technically own anything on Google or Facebook but you're part of the community. Therefore, you can't 'have' but you can 'be'. Our artwork is shared the same way. We wanted to make something that will reach people's hearts.

SC: This concludes my questions. Thank you so much for your time.



teamLab, 'Autonomous Resonating Life on the Water and Resonating Trees - Dragonfly Lake', 2019, Interactive Digital Installation, Endless, Sound: Hideaki Takahashi © teamLab

BOOK

01

Forensic Architecture: Violence at the Threshold of Detectability

Written by Eyal Weizman

Reviewed by Simone Shu-Yeng Chung

"Architecture and the built environment thus could be said to function as media, not because photographs of buildings might circulate in the public domain, but because they are both storage and inscription devices that perform variations on the three basic operations that define media: they sense or *prehend* their environment, they hold this information in their formal mutations, and they can later *diffuse* and externalize effects latent in their form."

— Weizman (2019: 53, original emphases)

Implicit in this statement by the author is the under-recognised contribution of spatial archaeology. This book details the foundations, influences, practices and collaborations of an interdisciplinary team based in London with specialised knowledge of the built environment who offer a different perspective and spatial-temporal clarity on events that violate human rights which would otherwise be subsumed under legal repartee and extraterritorial ambiguity. Founded in 2010 by Weizman — an architect himself — Forensic Architecture dub themselves a research agency who contribute in a legal context, working alongside lawyers, human rights and environment protection agencies. Taking advantage of the grey area he equates to the 'threshold of detectability', where visual evidence or documentation cannot be fully verified, the narratives constructed out of their painstaking investigations confront the exploitation of forensics as a state apparatus by offering a 'counter-forensics'. Having carved themselves a niche in this field and acknowledgement of their work from the architectural community (they were featured in the 2016 Venice Biennale of Architecture), Forensic Architecture garnered global attention when they were nominated for the Turner Prize in 2018, the highest accolade in the British art world. Although I find it inadequate to label what Forensic Architecture do as art, this exposure does elevate the critical issues they tackle to mainstream discourse.

For readers who are unfamiliar with the term forensic architecture, Part 2 of the book discusses developments in the field of forensic science selectively to address overlaps with architectural analysis and applied research. As professionals, forensic architects occupy a marginal existence in our discipline as their scope of work typically scrutinises 'architectural failure' since they are usually engaged by clients seeking damages from designers in insurance disputes. But when deployed to combat human rights injustices — as Forensic Architecture do — the empirical evidence gathered can give voice to minor individuals or overlooked groups who are unable to seek judicial recourse to accountability themselves. Most of the agency's work focuses on dense urban environments. By means of reverse-engineering, various sources in a variety of forms — digital photographs, material remnants, ammunition remains and survivor or witness testimonies — are consolidated and their relations carefully articulated to deliver coherent 'evidence assemblages'. The team's reliance on technological affordance is symptomatic of this era and aptly optimised. Publicly accessible satellite aerial images at resolutions too pixelated to render people visible, are effective for showing the before and after of an incident via changes rendered to the landscape or built environment. Meanwhile, synchronising video testimonies from crowdsourced videos and news footages can help reconstruct the sequence of events, concurrent with extrapolating visual spatial information captured by the moving camera to reconstruct the physical setting of an event. Walkthroughs of digital model reconstructions, a staple in architectural practice, are utilised here to empower victims of violence as collaborators in the documentation process and spatialise witness accounts with greater accuracy. Therefore, what sets Forensic Architecture apart from other forensic investigators is their foregrounding of architecture — as subject matter, methodology and a mode of representation.

This well-researched publication, made accessible by the author's concise writing and abundance of full-coloured images illustrating the agency's investigative practice and outputs, is deeply insightful. While some of the more harrowing cases undertaken by Forensic Architecture that uncover mistreatments in internment facilities, the uncovering of killing fields and mass destruction by (un)sanctioned air strikes test my faith in humankind, it is heartening to come across unconventional architectural practitioners whose oeuvre and commitment to human rights activism challenges us to seek an expanded role for architecture beyond the traditional confines we have become too comfortable in.

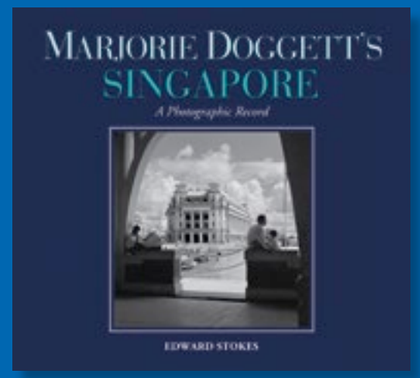
REVIEWS

02

Majorie Doggett's Singapore: A Photographic Record

Written by Edward Stokes.

Reviewed by Ian Tan



Majorie Doggett (née Millest) is not an unfamiliar name to architectural historians and heritage buffs. The two editions of her book *"Characters of Light"*, published in 1957 and 1985, remain the go-to source for architectural images of key buildings in Singapore during the 1950s. Coupled with other titles like Ray Tyers' *"Singapore: Then and Now"* (published in 1976) and Gretchen Liu's *"Pastel Portraits: Singapore's architectural heritage"* (1984), these books become visual repositories documenting Singapore's architectural development during a heady period of urban regeneration following decolonisation and independence. While other writers also documented rapid changes in the nascent country, Doggett and those aforementioned contextualised images with substantial captions, leaving valued records of bygone streetscapes that illustrated the magnitude of urban changes. The significance of her meticulous research extends beyond her humble aim to capture the lives of buildings and those associated with it.

Yet more than six decades after *"Characters of Light's"* release, Marjorie Doggett remains elusive. Like a spectre, historians cite her work but offer no further understanding of the woman behind the lens and the diminishing colonial era she had immortalised on film.

The new publication, aptly titled *"Marjorie Doggett's Singapore"*, does superb work in filling this yawning gap. It revolved around Doggett's extensive collection of architectural and travel images and formed a coherent story that joins up the past, present and future of her collection of negatives, prints and personal documents. The past, which covered her photographic career and legacy, carefully traced Doggett's life in Singapore from the 1950s to 2000s. As the book jacket described, having full access to Doggett's personal archive allowed author Edward Stokes to "humanise" her iconic images of colonial edifices and idyllic vernacular settings. Stokes' sensitive treatment of Singapore's post-war recovery propelled by hopes of self-determination contrasted strongly with the decadence of the expatriate community and its anxiety over imminent political change. Marjorie Doggett's identity as a maternity nurse and wife of a popular music instructor exposed her to both worlds and such understanding fired our imagination on how her experiences shaped her fascination with local architecture during her prolific photographic period in 1952–7.

The next phase of the narrative brings us to the present. The main protagonist has become Nick Doggett, Marjorie Doggett's son and the custodian of her personal effects after passing on in 2010. It sets out the genesis of the book, starting from Stokes' encounter with "Characters of Light", his meeting with Nick in 2011 and the many twists and turns leading not only to the publication of this book, but also the eventual donation of Doggett's life work to the National Archives Singapore (NAS) in 2016 as a cornerstone of Singapore's cultural treasures. This is not a long read, captivating enough to complete in a single reading yet satisfying to know the many benefactors involved in establishing the NAS Majorie Doggett Collection where her personal archives will be protected and made available for researchers in perpetuality.

The third narrative that points to the future is only subtly alluded to in the ending pages under Further Reading. "Given the diminishing access to materials existing in obsolete formats," Stokes points out soberly, "and without the ability to sift through original paper-based materials, researcher have little hope of recreating the life and work of a photographer of the second decade of the twenty-first century." It is a grave statement but also one that presents an opportunity for future researchers to challenge and overcome. As Singapore's cityscape continue to invents itself, the work of archivists and historians become ever more important to prevent the loss of valuable photographic records of the city at every crucial juncture, be they analogue or digital.

03

The Museum is Not Enough

Edited by Giovanna Borasi, Albert Ferré, Francesco Garutti, Jayne Kelley, Mirko Zardini

Reviewed by Jonathan Christian Chin

12 Hello, this is me
18 I look for gray areas
42 I seek content in display
64 And I keep revisiting archives
102 This is me, online
128 Education worries me
142 And I'm wary of the present
160 So I need a plan
180 Or I could reinvent myself

— Nine lines of thinking/ Contents page of *"The Museum is Not Enough"*

Narrated through the personification of the Canadian Centre for Architecture (CCA), *"The Museum is Not Enough"* tells of a museum facing an identity/existential crisis — a critical state quintessential to most contemporary civic institutions today. This book is the debut edition in an annual publication put forth by the CCA — an esteemed international research institution and museum premised on the belief that architecture is a public concern — to investigate the current paradigms of museology and curating architecture. In its pursuit for solutions to wicked problems, the publication provokes thought and raises further questions that revolve around architecture, the role of civic institutions and the zeitgeist of contemporary media. Documented through conversations and essays from a motley crew of writers, architects, curators, designers, scholars etc., it stirs the pot on a wide array of pressing issues and hard-truths that the museum has to confront.

"The Museum is Not Enough" begins by addressing its own gritty title; it attempts to define the concept of a museum through an introspective search for its raison d'être. Working from first principles, the book outlines CCA's curatorial approach and reasserts its position as an institution in pursuit of architectural advocacy: "I try to act as a frame for making sense of, anticipating, and projecting on the world. I do this by focusing on architecture." This preface establishes the tone of the book and sets its qualitative mode of inquiry for the ensuing thematic topics.

For avid museum-goers like me, this book is fascinating because it takes you behind the scenes and into the minds of the creatives responsible. In "Arguments, Generously Arranged", Wilfried Kuehn and James Voorhies ruminate on how to curate an exhibition experience. In "The Appeal of Tedious Folders", Kieran Long and Mark Wigley contemplate archives and why art not on display is most appealing. In "The Importance if Institutions, Again", Bernd Scherer reflects on how museums stay relevant in an ever-changing society.

Beyond the many apercus, what was intriguing was the etymology of the word "museum" which seemed to loom in the background and yet not directly addressed. While teased in title and some content, what could yield insight (for future issues, perhaps) is to trace the lineage of "museum" back to its origins as a collection of curiosities and study its evolution to what it is today and what it is not. Another brainwave I had while reading is the similarities between the craft of curation and architecture in terms of thought process. Fundamentally, both aspire to arouse passions and engage ideologies through movement, space and beauty.

Congruent to its museological ethos, the book is artfully curated with crisp text and delightful, telling pictures that amuse. Aptly presented akin to an exhibition, the hierarchy and composition of both word and image is deliberate and it is easy to follow the book's train of thought. Its content is well-balanced to suit all, from the scholar to the layperson. Although the bureaucrat in me finds myself wanting for more quantitative data, its qualitative, introspective mode of inquiry is what refreshes and gives the book a distinct character that makes it endearing to readers.

This review is not enough — I recommend you to read the book as well.

Studio

In Conversation with Zarch Collaboratives

STUDIO

Converging into Experience: In Conversation with Zarch Collaboratives

Interview by Ar. Ronald Lim MSIA RIBA

Editor's Note

Almost fifteen years ago, Zarch Collaboratives experimented at integrating the multimedia experience into architecture with its groundbreaking Singapore Pavilion at the 2005 World Expo in Aichi, Japan. Since then, the practice has rigorously challenged conventional boundaries with its diverse portfolio that spans architecture, pavilions, and curated installations.

In this issue's STUDIO feature, TSA Practice Editor Ar. Ronald Lim MSIA RIBA speaks with Ar. Randy Chan MSIA and Poh Weehao of Zarch Collaboratives on its unique culture of practice, and how it got to where it is today.

INTERVIEWER

Ar. Ronald Lim MSIA RIBA
Practice Editor
The Singapore Architect

INTERVIEWEE

Ar. Randy Chan MSIA — (R)
Founding Director

Poh Weehao — (W)
Architectural Designer

PRACTICE INFORMATION

ZARCH COLLABORATIVES PTE LTD

- **YEAR OF FOUNDING**
  1999
  Zarch (as a sole proprietorship)

  2011
  Zarch Collaboratives Pte Ltd

- **NUMBER OF EMPLOYEES**

  3 Directors
  2 Architects
  10 Architectural Graduates
  3 Technical
  2 Admin Support

Background & Beginnings

Thank you for agreeing to this interview. The issue's theme is Experience. We are interested in featuring Zarch for this issue because of the range of your portfolio — from real buildings to pavilions and curatorial installations. Many of them encapsulate the theme of experience — especially the commissions from Singapore Tourism Board.

To start, could you share with us your personal journey as an architect — where you studied, who you worked for, and how you came to set up Zarch Collaboratives?

Randy Chan: I graduated in 1997, into the Asian Financial Crisis. I worked with Alfred Wong for 2.5 years and earlier when I was a student, I interned with Tang Guan Bee for a year. This was a milestone in my career. As you know, he was the "*enfant terrible*" of that era. As someone who approached architecture as an art, he would infuse architecture with artistic approaches like painting to derive a concept. That, I learnt from him.

On the other hand, Alfred Wong was established and had contributed many handsome buildings - churches, hotels, etc. Back then, I was looking for a "master" to work for — if the term still exists. There was a legend that Alfred once got angry when an architect did something he did not like — he threw a pen and it landed on a table and just quivered there. So that legend spread and I felt that I had to meet this master.

Alfred Wong was still active in practice then?

R: He was starting to take a back seat. It was when the Singapore Tourism Board (STB) headquarters was being built. The turn of the century, with the Asian Financial Crisis, felt like a game-changer because jobs were fewer, architects' roles were downplayed, and everyone was suing everyone. We just came in too late. We thought six years of practice would land us a nice cushy job, but alas it was not to be. This was also an interesting period when many foreigners came here to practice — I'm just painting this context for when I started out. Life happens in a strange way. Had I graduated into an economic boom I may not be here in independent practice.

And you were working on STB headquarters in Alfred Wong's firm?

R: Honestly, I wasn't. There were no jobs for us. The firm tried to retain as many staff as possible. We would be assigned under a senior who gets the project "meat" — the director does the nice parts like the layout,

Oh you did! What was it like working for Tang Guan Bee?

R: He would pick me up in his car every morning at 8am since we lived near each other. We would go to the nearest coffee shop and my morning always started with a beer and *bah kut teh*. Imagine an internship with beer every morning!

unanimous laughter

Our practice-related conversations would all take place in Hokkien! Other architects my age like Ling Hao and Chang Yong Ter also practised with him during that period. Ling Hao was the architect and Yong Ter was my senior. How the internship worked was that I was supposed to recommend another like-minded student at NUS to take over from me — like how Yong Ter asked me to take over him. There was that kind of lineage.

How large was the office?

R: We were six, and in a dilapidated shophouse. Back then, all the architecture firms were in Chinatown — Chan Sau Yan, HYLA, K2LD — and we had jams and parties, and also serious debates. That taught me that architecture practice could extend beyond the firm to include a broader culture of discourse. Looking back, my experience was unusual — especially if you drank beer every morning and your mentor described space in Hokkien. It was a life experience that benefited me. I try to re-create parts of this experience in my own practice.

The Asian Financial Crisis taught me that I cannot confine my own practice narrowly to architecture per se. I possibly felt that way even as a student doing my thesis. Later on, key projects like the Singapore Pavilion to the World Expo would set me further along this path.

Experience Design and Inter-Disciplinary Practice

Could you speak about the Singapore Pavilion to the World Expo (Aichi, Japan) in 2005? It's probably an important early project for Zarch?

R: That World Expo project was a real turning point. STB — the agency in charge — wanted a presentation around certain themes like "Satay Man" and "Merlion." That was the brief! It didn't come through any open call for architects. Instead, I received a call one day from Glenn Goei, the filmmaker whom I knew through the artist group. He asked me, "Could you tell me the history of the World Expo?"

I gave him a rundown. He was probably testing me. He then asked if I was keen to design the Singapore Pavilion to the World Expo and I said, "Of course!"

That is a very cool way to get a project. You didn't have to tender for it?

R: We had to pitch for it. It was open to exhibition vendors but architects were not interested. When the brief calls for Satay Man, Merlion, and a fake 2D shophouse — which architect would be interested?

So here was Glenn's call and we wanted to do something architectural, taking Singapore's history and constructed ideology into account. This project was a godsend, especially after being exposed to Tang Guan Bee. It allowed us to combine architecture, interpretive experience and artist curation into a unified project. It's 3-in-1!

Were you already set on engaging these realms like art, installation and experience in your own practice — or did this project set you on that path?

R: It played a role in setting the direction. In the early years you try to push the limits. You may create an installation but it's still seen as an "art project." Or you place a piece of art inside a traditional project like a house. But people still see art as separate from architecture, however hard you try to marry them. Clients are scared of "artistic" architects because they probably cannot manage their time and money.

How do you see these different disciplines coming together? Some designers are explicitly cross-disciplinary while others use it to enrich architecture as their core discipline. How do you balance the mix between traditional architecture and another discipline?

R: All I can say is that it doesn't come naturally. Actually, we are at a moment when the various design disciplines are converging into Experience. People now tell me that we were ahead of our time back then but honestly, we could not have foreseen this. Nobody knew it back then. People said I was wasting my time mixing with artists because of the Singaporean mentality that an artist could not survive.

Actually, the "inter-disciplinary collaborative" was a very fashionable practice concept back then — in the mid-2000s. Maybe it was a way for young architects to break with conventional practice to gain more creative freedom. Practices like Zarch and FARM seem like generational counterparts to me — a product of their time.

R: It was partly because of economics. We started with pretty interiors as another source of income. Another reason is pedagogical. Some inter-disciplinary firms

R: I worked on that project!
The Windsor Park House (1997).
chuckles

1 Plastic Kinetic Worms (PKW) is a Singapore-based contemporary art collective co-founded by artists Vincent Leow and Yvonne Lee in 1998. PKW played a major role in developing Singapore's contemporary art scene by offering a platform for local artists to display their works.

(Opposite page)
The Windsor Park House (1997) — by Tangguanbee Architects — explores collage as a technique to create architecture. Randy Chan worked on this project during his internship with architect Tang Guan Bee.
Image source: Singapore-Architecture of a Global City by Robert Powell.

(Top)
The Singapore Pavilion to the 2005 World Expo in Aichi, Japan. This commission gave Zarch its first opportunity to integrate architecture, interpretive experience and art curation into a single project. It even included simulated rainfall as part of its interior experience.
Image courtesy of Zarch Collaboratives

R — Randy Chan • W — Poh Weehao

would insist that each job be infused with this other cross-disciplinary component. For me when I frame a project, we cannot explicitly demarcate or pre-determine but a project should encompass these various disciplines. Also, a traditional house project takes 3 years which is a long period. You therefore need short and mid-term projects to balance that interest.

Managing a Creative Practice

Your website has this interesting quote:

"The team works in a tightly-knit studio, where a buoyant open ecology of effervescent conversations and intensive dialogue is valued. Working across varying scales and complexities, our portfolio is continuously expanding as we confound expectations and re-write the rulebook as to what an architecture studio should be."

Do you have an ideal for what an architecture studio should be?

R: My ideal studio is a space where people from various disciplines come together to discuss and debate. This discourse is sacrosanct to me. Architects often struggle with this. We always end up talking about things like contract and cost. We are so conscious of this that we sometimes lose the plot.

A culture of debate is very important. If my staff think a circle-shaped plan is ideal whereas I prefer a square, and they can defend the circle with good reasons, it adds to our collective thinking. This departs from the idea of architecture as a craft — where you make something. So whether my staff agree with me or not, this attitude of a "thinking architect" is very important.

You seem very engaged in this practice of architecture as a broader culture — you even have a space for events, self-organized exhibitions, and open dialogues with others.

R: We see practice as not just what happens "within" the firm but also "without" — looking outwards. It probably relates to our psyche as a small country detached from the main continent. We keep looking out to this imaginary sphere that is bigger than our physical space — and try to construct that "bigger" space. This frames our approach to practice.

This also stems from my time with Tang Guan Bee. Back then, William Lim would organize these debates with fellow architects. I would tag along with Tang Guan Bee — and Chan Sau Yan and other veterans would bring along their assistants. They would debate intensely while we look on — a bit like children watching their parents play mahjong. That taught me that practice also happens "without," not just "within" the firm.

Interestingly, both William Lim and Tang Guan Bee ran their studios as creative ateliers and gave their staff a lot of freedom to design and develop a project. For example, William Lim's Unit 8 condominium on Holland Road was developed by Richard Ho — if I remember correctly. So there is this creative atelier tradition to practice.

It must be difficult to juggle between the creative part and the more practical business part of a practice.

R: We are struggling. My staff are the ones who remind me that the business part of practice is as important as the creative part, since they deal with it day-to-day. I then get a bit annoyed being reminded by it. There is also this thing which I call "the great conspiracy" — you need to have ISO and comply with all these criteria on paper so that you can tender for large projects like schools. So I cannot tender for a school project.

With the diversity of your work, how would you describe the common strand between your projects?

R: I also ask myself this question — why clients come to us. It's probably our ability to master the narrative to each project. It's a way of thinking. We don't just think in spatial terms since we're influenced by other things like film, storytelling, political ideologies, etc. We have been privileged to acquire certain kinds of knowledge — like understanding how a text is being read and understood. An architect must have this gift. And so, we always maintain for ourselves this narrative sub-layer that the owner does not need to know.

Practice Renewal

And how large is your practice currently?

R: We are about 20.

From where Zarch is right now, is there a direction that you are moving towards?

R: I actually started a renewal process 6 years ago and gave myself a 10-year rolling plan. In 2014 — 15 years into my practice — I had this realization that Zarch was not about me per se and I needed to give my staff space to grow. I'm not interested in legacy but the firm itself is an important project. Like small traditional Asian firms, I also work for Zarch and it's like looking after a family. Wee Hao is sitting here today because his generation is becoming more active in the firm.

Hopefully they can mature with the firm and form their own view of practice that stems from how I look at things — even take over it as they start their families. I hope they do not become cynical.

But you have successfully attracted employees who are independent-minded and have their own interests in architecture. Some have written for our magazine before, or they actively participate in architecture school reviews. A lot of firms out there are not that tolerant of independent-minded employees. They seem to prefer compliant, obedient staff — who have enough mind of their own to run a project — but not much more.

(Opposite page and Bottom)
The Pathfinder — part of the Singapore 2019 Bicentennial celebrations — is a series of temporary pavilions at Fort Canning Hill. The pavilions present 700 years of Singapore's history through mixed media like artefacts, maps, flora, and written word.
Photo by Finbarr Fallon

R — Randy Chan
W — Poh Weehao

W: If we re-examine the idea of the "collaborative," people who join Zarch understand that they open themselves to a lot of possibilities. If they do not have their own interests, the diversity of ideas here could scare them since the projects we deal with are very different. At any one time, they could manage two projects that are different from each other — including the required skill sets. We always have to be on our toes here.

That sounds stressful.

R: So there's a contradiction. When staff join the firm, they say they are interested because we do things besides architecture. And 3–5 years later when they leave and I ask for their reason, it's not because of issues like money. It's for that very same reason — that Zarch is too diverse and they need stability. Most of them move on to big firms.

R — Randy Chan • W — Poh Weehao

Current Projects & Challenges

Could you talk about some interesting projects you have done?

R: We recently completed the first public swimming pool that is in a park — at Jurong Lake District. Normally, a public pool is in an HDB estate but this one is part of a public park. It's a first experiment — and it's now open.

W: This was a collaboration between SportSG and NParks. They wanted to make sport readily available to everyone and bring it into a park. The site used to be a country club where there was an existing pool. We originally wanted to keep it. The new pool is at the very same location of the original one.

R: We used the same footprint and depression so there was no need to excavate. We just built and enlarged the pool from there.

Active SG Park at Jurong Lake Gardens. This recently completed facility is the first public swimming pool to be located in a public park. Its publicly accessible roof deck integrates seamlessly with the park's landscape.
Photo by Finbarr Fallon

Marina Barrage External Works. Increasingly, Zarch is taking on various public sector projects in outdoor settings like parks. This is one such project.
Photo by Finbarr Fallon

Interestingly, Singapore has this unique genre of buildings that I call the "government-sponsored typology." Some firms are lucky to get these commissions — like Kampung Admiralty, Our Tampines Hub — and the briefs are very interesting. This pool sounds like one of those projects.

R: Absolutely! You hit the nail on its head. The key word is "hub." It is based on integration and arises from one common narrative — we do not have enough land. If I have to build 10 facilities that take 10,000 sqm each, why not stack them up and release the 9 plots of land for other uses. It's really about combining it and making it "mega."

This project's typology is groundbreaking. The building deck integrates seamlessly with the jogger's experience in the park — a bit like an interchange where you can run up and run down. But you are right, the government has to be the one that initiates these projects.

To be fair they have done that.

R: Yes they have, so it gives us hope. On the other hand, because it is so complex to combine everything, you need technical capability.

Ar. Randy Chan sharing his experiences as an architect.

Ar. Randy Chan and Poh Wee Hao of Zarch in conversation with TSA Practice Editor Ar. Ronald Lim.

It's true that beyond a certain project size, technical responsibilities start to impact the creative goals of the practice. Do you have to limit the sizes of projects that you do?

R: We have to believe that we can be a practice that does a range of jobs and not be constrained by project size. If a big job comes in, you just have to figure the equation — and tap on the convenience of partnerships and collaborations. There is a critical mass when we combine our resources. It's like how Tang Guan Bee and William Lim collaborated on the Gallery Evason Hotel back then.

The 1-man, 3-man, and 5-man practices will forever exist because of their own conviction. But a large firm may have a large project where they need a more focused design agency to holistically integrate the design challenges because they lack that ability. Ideally, this should be where we are going. The equation does not have to be 50-50. The fee should equate with the job.

But the fee is tied to market conditions and there needs to be enough fee to split both ways for this to work. The bigger challenge we face is not in assembling the team with the right capabilities, but whether we can hit this point where the fees are sufficient to support creative work.

R: Let me use the analogy of small tech firms that create disruptive technologies to scare the big guys. For small architectural practices, there are certain "enabling" factors right now. Technology and the firm's ability to expand its sphere of practice beyond Singapore are now greater. This reality is always there.

I see Zarch as a disruptive practice that challenges our idea of what practice is — but in the process also makes a contribution to the profession. A small practice like us need not be restricted to small projects. It can be a small but impactful project, or it can be a big project but my practice remains small.

Memory Conduit. This installation was a key feature at the 2019 "Light to Night" festival commemorating the Singapore Bicentennial. The Memory Conduit is intended as a channel of collective memory, invoking history as a virtual and temporal experience.
Photo by Finbarr Fallon

Sustainable Singapore Gallery
Photo by Finbarr Fallon

Djitsun Mall at Bedok - a commercial building by Zarch Collaboratives.
Photo by Finbarr Fallon

Wild Rice Theatre
Photo by Finbarr Fallon

Closing Reflections

Are there any final reflections you'd like to share?

R: Looking at my involvement with the theatre company Wild Rice — it would be nice if architecture can be like a theatre practice where you can hold a mirror to society. Wild Rice is a game-changing theatre practice that comments on local culture and contemporary issues. Not in a direct way, but in a light-hearted, sometimes serious, and at times hilarious way. And we sometimes step on the government's toes, but that is the role of the artist. In some way the architect is an artist, and that is the spirit of what Zarch is about.

W: When I started at Zarch, we were still at Selegie and I was involved in everything. In Selegie, my first impression of Zarch was a boutique firm hidden in some dark corner of a shophouse with timber floors that had holes. And looking back at how the firm has progressed from those days, I can really see how the project scales changed. There is a change of having to deal with a tough client — like government clients. Project complexity is also different. Managing this change of project scale — it's a tough balance to maintain.

R: This change has been happening for 6 years, when we started to grow and give them space. My staff were still young unmarried bachelors then. I realized that the status quo could not continue and I needed to plan for them as well. If they join the firm, lay stake in it, form their families and stay with the firm — then I must provide. It comes with responsibilities.

As one grows older, we cannot act unilaterally. It doesn't mean that we betray ourselves to do what others want us to do — but I see it as the obligations that we have to our family and society. I see it as a natural process — and a sign that the firm has matured when it has to consider these questions.

Any advice for young architects setting up their own practice?

R: It's very fulfilling to have your own firm. You need companions to run the race with. Find like-minded practitioners and move your practice forward together. Mutual encouragement makes a difference. 90% of young firms out there start from the ground up and it's difficult. You don't have to run the race alone.

Along the journey, you'll be bombarded and sometimes you may lose your bearings of what your architecture is supposed to be because you want to fill your tummy. Between the devil and the angel, the devil will say "Take the *ah beng* job, take it." and the angel will say "No, you will be killed if you take this job." When you are lost, your companions are there to give you support and help you find your way.

Thank you for those wise words.

R & W: Thank you!

Practice

Technology, Data and Planning:
How architects can tap on URA's 3D model inventory
Written by Ar. Ronald Lim MSIA RIBA

PRACTICE

Technology, Data and Planning: How architects can tap on URA's 3D model inventory

WRITTEN BY
Ar. Ronald Lim MSIA RIBA

INFORMATION AND IMAGES COURTESY OF
URA (Urban Redevelopment Authority)

We are currently witnessing the Industrial Revolution 4.0 — where big data and technology coalesce to transform our societies in myriad ways. Technology will transform how architects work, including the upstream stages of urban planning and design. In this piece, we introduce key features of URA's *3D Planner Pro* application, a powerful technological platform that architects can use to access, integrate and visualise important planning data — augmenting architects' design workflow.

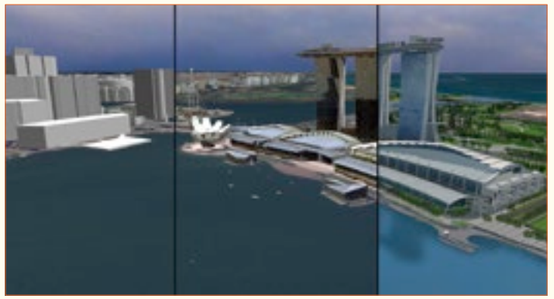
Overview — URA has an inventory of detailed 3D models of various buildings in Singapore

3D Planner Pro is a 3D Geographic Information System (GIS) software that URA developed. This platform integrates diverse types of data — like planning parameters for sites and detailed 3D models of buildings in Singapore. This software accepts different 3D file formats, including BIM files. By using this platform, planners and architects can quickly visualise important information to design holistically for unique sites. The software can:

- Simulate design options in realistic, detailed site contexts for their design implications
- Analyse specific aspects of a proposed design like urban view corridors, potential views, and the impact of sun shading.
- Generate renderings and urban fly-throughs for publicity materials.

In 2008, URA initiated the use of 3D modelling to better integrate technology and data into the urban planning process. While early efforts focused on gathering 3D data sets, URA eventually developed 3D Planner Pro to study selected areas like Marina Bay, Orchard Road, Jurong Lake District and Outram. Since then, URA has worked with other agencies like Singapore Land Authority to create an inventory of 3D models for numerous sites in Singapore. These 3D models can also be used on other commercial platforms like ArcGis Pro and City Engine.

URA is currently exploring ways to make these 3D models and related applications available for public use.
As this material becomes accessible, we present 8 key features below:

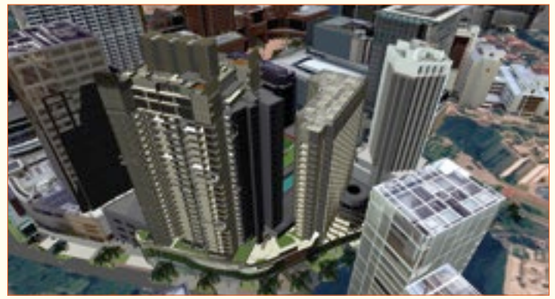


The software accommodates models with different levels of detail (LOD) depending on the need.

1. Access quality 3D models

URA has an inventory of 3D models at 3 different levels of detail (LOD) depending on what is needed.

- LOD 1: Generic models.
  These can be used as context models for vmassing simulations.
- LOD 2: Models with some details
  These can be used for analytical and design simulations.
- LOD 3: Detailed Models
  These are suitable for artist impressions and fly-through animations.



Importing a sketchup model into 3D Planner Pro

2. Inter-operability

The platform can receive and import different 3D files like GIS, BIM and Sketchup files. The aim is for it to be inter-operable so that it can easily adapt to different work flows.

Different design options can be reviewed holistically in their respective contexts once the right information and files are in place.

Massing simulations are quick and easy to generate.

3. Massing simulations are easy to carry out

Massing simulations of buildings and developments are a breeze on 3D Planner Pro.

The platform lets one seamlessly test different design options to assess their implications on site.

The software also has a parametric simulation tool that allows the user to test massing changes while the relevant parameters update simultaneously to reflect the live changes.

Example of a Shadow Study tool

4. Shadow studies

With the software's "Shadow Study" tool, users can analyse shadow patterns of buildings and developments within specific areas.

One can also track how these shadows vary and where they are cast — at all times of the day.

Green shows areas that can be seen from the chosen vantage point.

5. Identify vantage views

The "Viewshed Analysis" tool allows one to identify specific vantage views for proposed developments. For example, a hotel developer can use this tool to identify the best location in his proposed building for his deluxe suites — where the best views are expected.

By indicating the viewer's location and the extent of the view corridor, the "Viewshed Analysis" will indicate view fields that are unobstructed by other nearby buildings (in green). It also identifies view fields that are obstructed (in red).

Multiscreen Tool allows for quick comparison.

6. Simultaneously compare different design options

In a project's early design phases, there are often multiple design options. This software has a multi-window function that allows users to simultaneously compare up to 4 different proposals.

The camera view can rotate and pan simultaneously in all 4 windows (each window per design proposal). This function allows the user to thoroughly — and comparatively — evaluate each design proposal to make better informed design decisions.

Planning parameters simultaneously update based on the massing model

7. Design with "live" planning parameters

The software interface has a dashboard and summary feature that helps users track planning parameters. It does so by summarising figures into an intuitive interface, even as the design simulations are ongoing. These figures are "live" and can be exported to other software platforms.

Site elevations are quick and easy to generate

8. Site elevation drawings are easy to generate

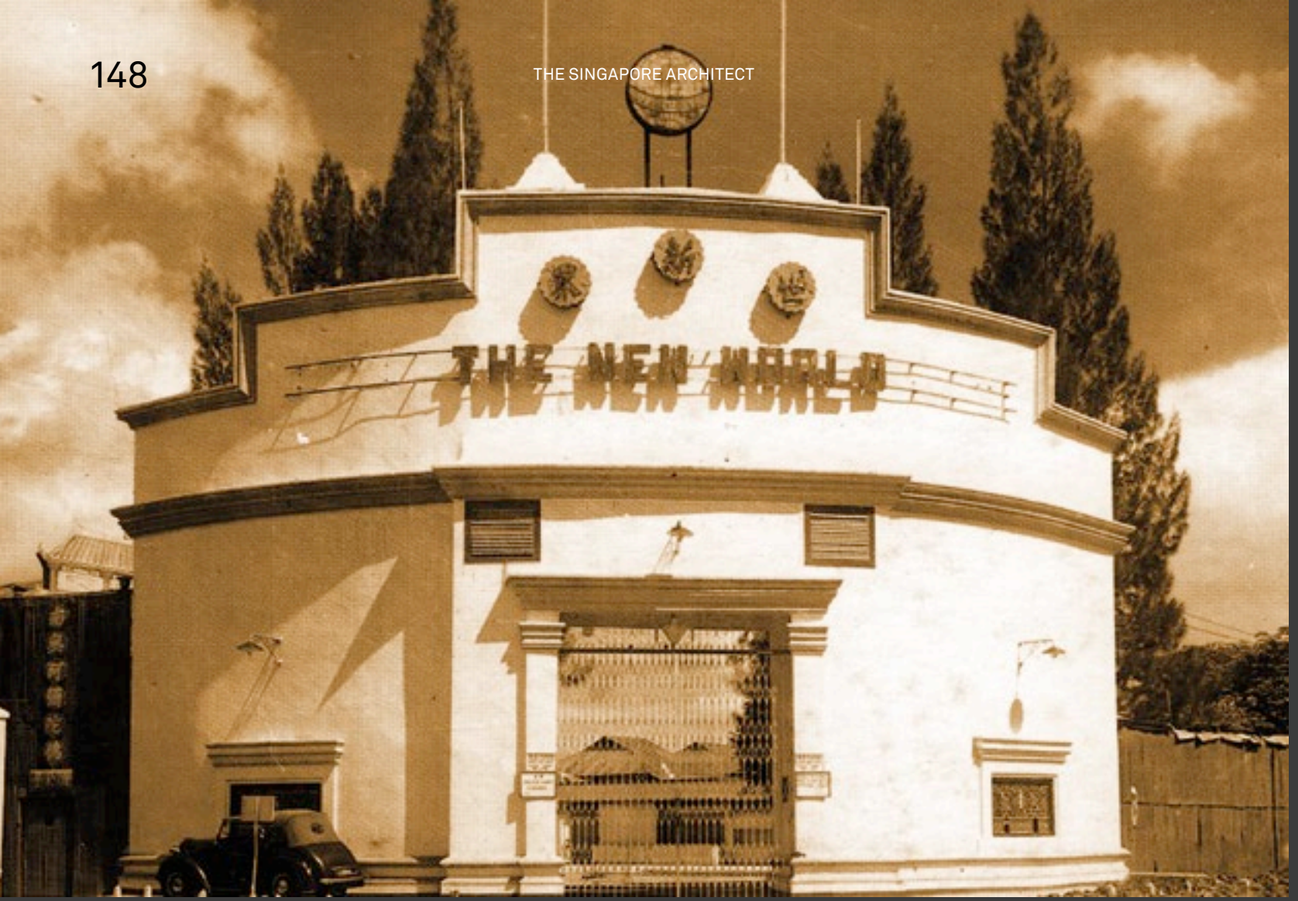
The model and software allows one to quickly generate site elevation drawings that are elaborate and detailed. This facilitates a more granular study of scale and streetscape.

Architects who are interested in using this software for initial feasibility studies or early design phases of their projects may reach out to URA (Eugene_lau@ura.gov.sg). URA will provide software training and make available 3D/GIS data and planning information for specific sites.

Heritage

Enter the Worlds

Text distilled from the paper “The Business of Spatial Transformations:
The ‘Worlds’ Urban Entertainment Parks of Singapore”
by Tan Kar Lin



Old Postcard image showing entrance to New World at Jalan Besar / Kitchener Road (1923–1987).

HERITAGE

Enter the Worlds

Text distilled from the paper “The Business of Spatial Transformations: The ‘Worlds’ Urban Entertainment Parks of Singapore” by Tan Kar Lin, first presented at the symposium Constructed Landscapes: Singapore in Southeast Asia, 2009.

All images from private collection of Tan Kar Lin

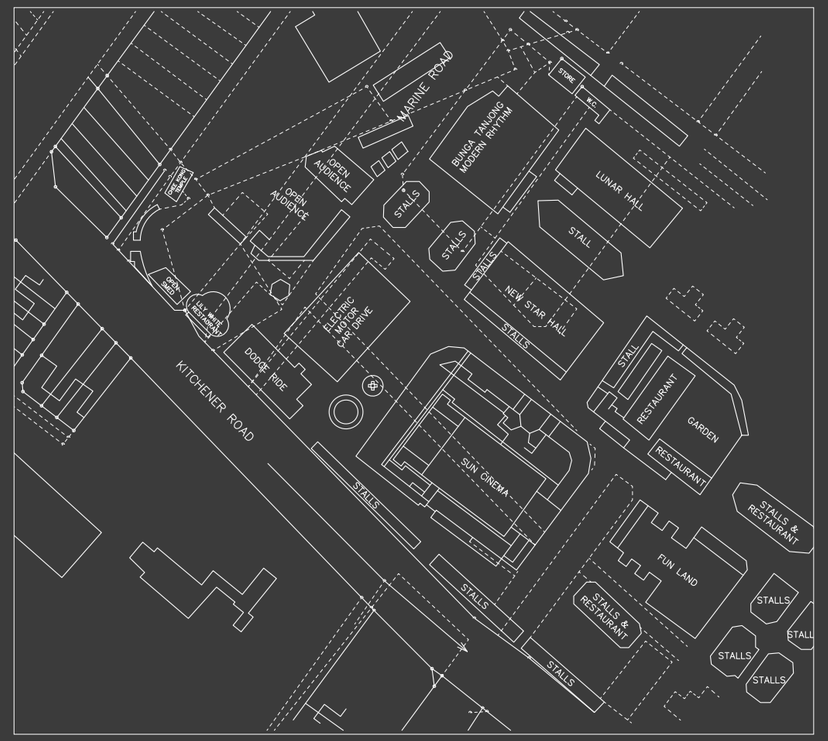
A new urban phenomena emerging under the wary gaze of the colonial elite, the ‘Worlds’ exemplified the role of non-European private capital and enterprise in developing infrastructure, catalyzing city expansion, creating a mass leisure market, and forming a robust urban culture. They present a rich hybridity of urban typologies and cultural forms drawn from the migrant communities and influences that converged at the shores of colonial Singapore.

City Fringe Playground

Founded in the 20s–30s, the New World, Great World, and Happy/Gay World survived the Japanese Occupation, experienced a second boom during the Korean War, and began their slow decline in the 60s. They are commonly referred to as “amusement parks”, but here the term “entertainment parks” will be used instead, as a closer translation of their Malay name, taman hiburan, and Chinese name, 游艺场.

The ‘Worlds’ were located at what were originally the marshy fringes of the city — Jalan Besar (New World), Kim Seng Road (Great World), and Geylang (Happy World). Each was served by a trunk road, and land prices were just low enough so that a land-intensive enterprise like entertainment parks could be viable. At the time, the majority of the population was living in the city, so the ‘Worlds’ were just within walkable distance — by the standards of those days.

Invitation card to Tai Tong Restaurant at New World



NEW WORLD SITE PLAN

Old postcard image of entrance to Great World at Kim Seng Road (1931–1990s)

The Show Is On

The most ‘high class’ places were cabarets, with their big jazz band stands and grand dance floors. Attractions and programmes changed according to trends. In the post-war years, ronggeng dancing came into vogue, as did basketball, and the two main draws of the 50–60s were getai and trade fairs.

Sports was catered for in the form of open arenas with a grand stand, skating rinks, ball courts, or a stadium, with popular matches drawing large spectator crowds.

Amusement rides like Ghost Train or Ferris Wheel were imported. There were modern service providers such as photo studios and radio shops. The parks were peppered with places to eat and drink — grand restaurants, coffeeshops, beer gardens, and hawkers, and innumerable stalls selling sundries.

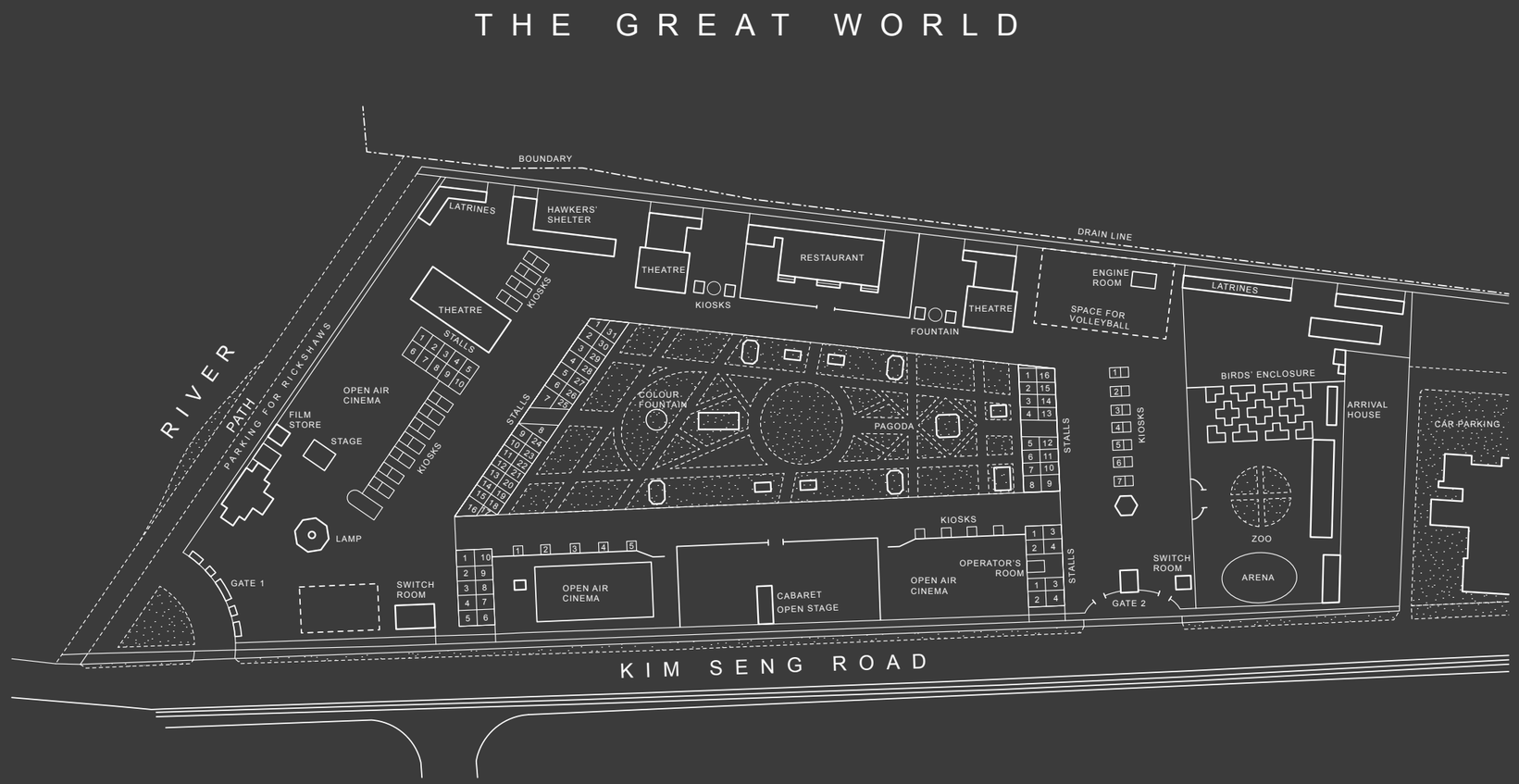
Apart from such stationed programmes, there were mobile operators like storytellers, buskers or matchmakers, who used the ‘Worlds’ as a captive base for their services.

The Singapore Free Press described the labyrinthine space in Happy World as a “maze of lanes” with “300 stalls“ devoted … to selling an amazing collection of goods and refreshments.” The spatial implication was that the layout of the entertainment parks were designed to maximise the number of stalls, and facilitate visitor circulation around them.

Stalls around popular programmes would fetch a higher rent, so these attractions, were distributed across the compound, each surrounded by ample circulation space, all lined with stalls.

More than just commercial playgrounds, the ‘Worlds’ hosted charity and community events, trade fairs and political rallies, especially in the post-war years. Though privately-funded, these parks played the role of a multi-purpose community infrastructure, at a time when the colonial government was reluctant to spend on public welfare.

While Raffles Place and the Padang were domains of colonials and the rich, the ‘Worlds’ provided an urban, quasi-public space that cut across both ethnic and class boundaries. These were characteristics unique to the Malayan entertainment parks.



GREAT WORLD SITE PLAN

The main draw at the ‘Worlds’ were performance-based entertainment or ‘shows’. There were theatres and pavilions, or semi-open stages, for bangsawan a popular Malay opera, Chinese operas, Hindustani plays, gewutuan or revue troupes from China, getai or singing acts, and Malay ronggeng dancing. Some theatres were converted to cinemas, though open air screens were cheaper alternatives.

Interior of the octagonal stadium within Happy World, often used as a competition arena for basketball matches.

The image always took precedence in the architecture of the ‘Worlds’. The chameleonic quality of the spaces and buildings characterised the ‘Worlds’ as a whole, transforming and adapting to the times and trends, as and when necessary.

Exterior of Stadium within Happy World

Form Follows Image

The Happy World Stadium, built in 1937, was the largest covered stadium in Southeast Asia, and the centrepiece of the park.

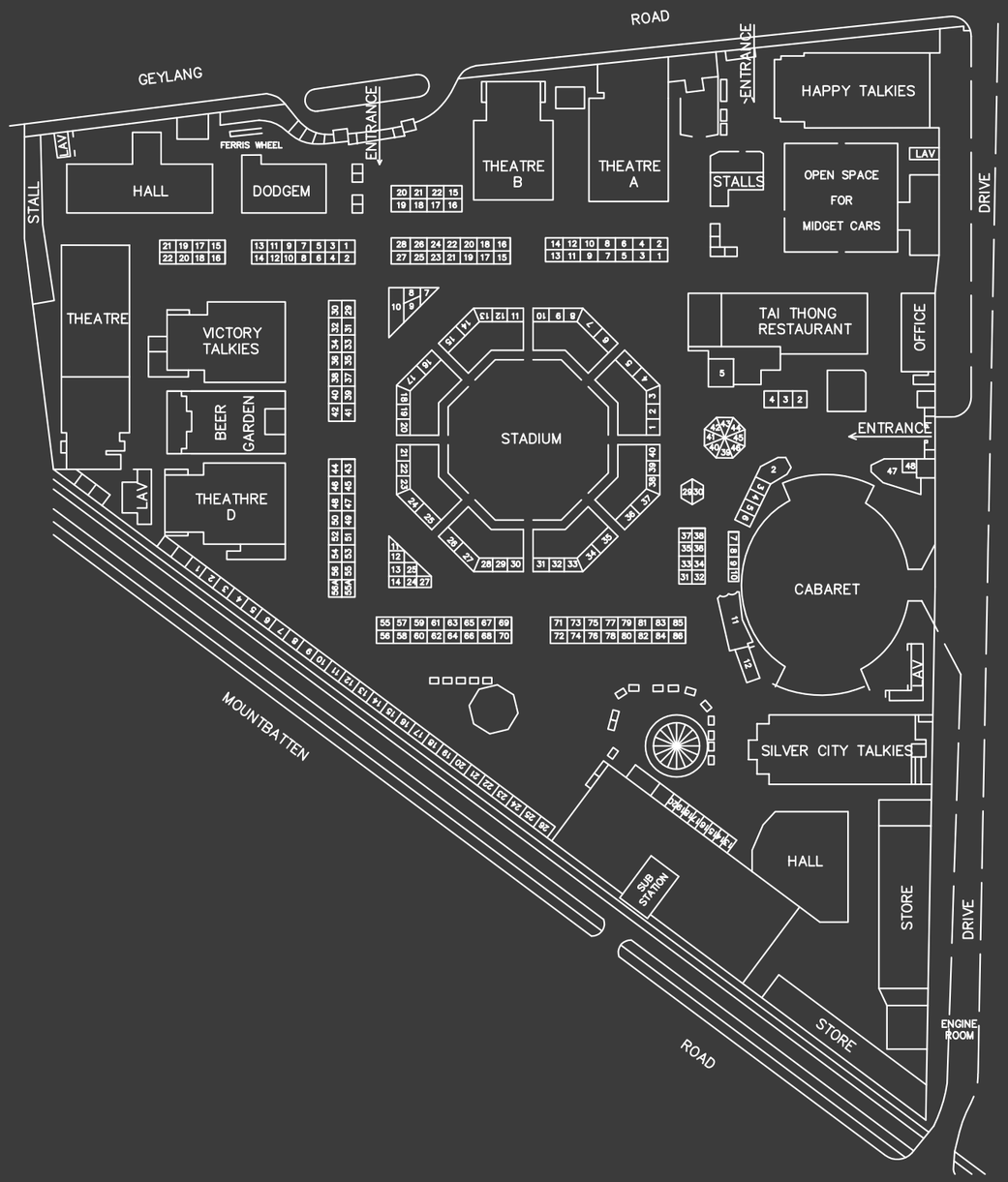
While a stadium today may be considered a purpose-built, specialised building for spectator sports or rock concerts, the Happy World Stadium has, through its 67 years of existence, been innovatively adapted for a wide range of functions by varying its layout and temporary installations.

During the 1939 Engineering Exhibition, timber gangways were put up along the tiered seating to become multi-level display galleries. In 1946, just after Happy World’s post war reopening, a projection room was erected in the stadium. Free movies were screened in a bid to win back visitors. By changing furniture arrangement, the arena was variously used for different exhibitions, and even hosting dinner events.

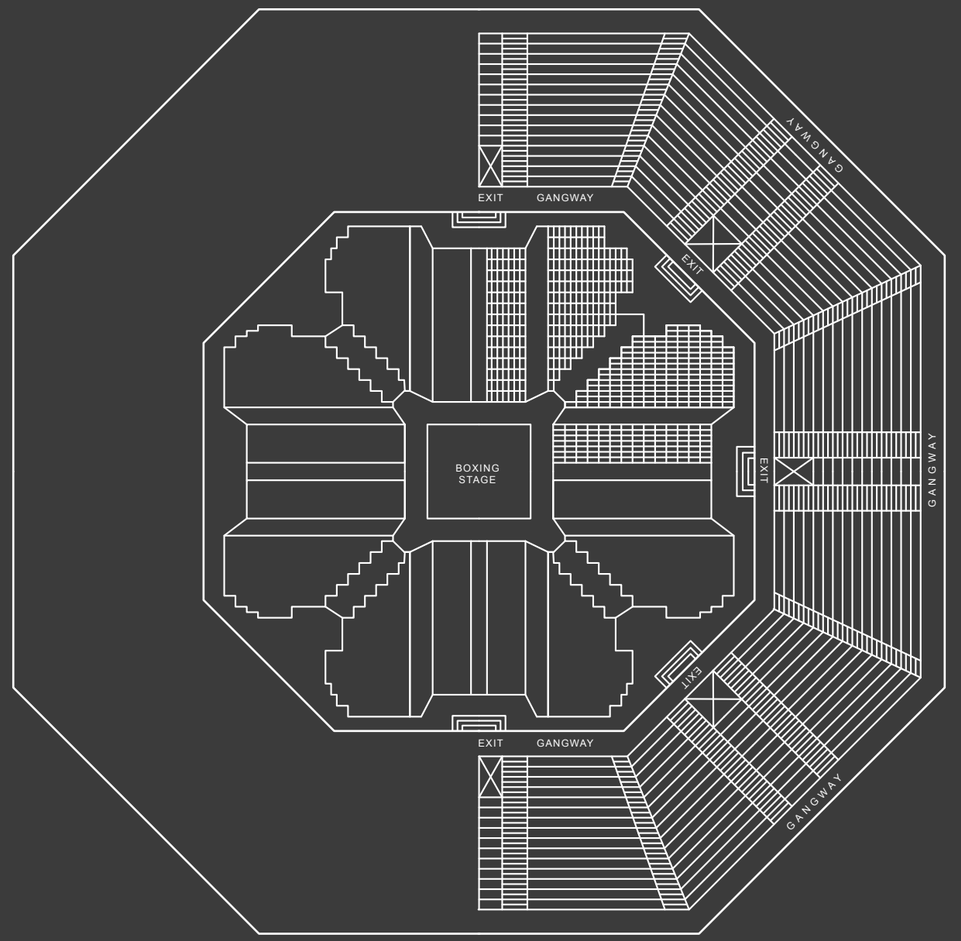
Buildings underwent extensive upgrading or rebuilding over the years. Sky Cinema in Great World which started as an open-air screening venue had a simple timber frame and tile roof shelter erected in 1948, fronted by a false art deco façade. In 1959, it was again redeveloped into a sizable purpose-built cinema in a flamboyant design by the firm Ho Kwong Yew & Sons.

The new building boasted novel ‘Cinerama’ technology with three projection rooms and a superwide curved screen. The grand opening was graced by none other than Elizabeth Taylor. Around the same time as Sky Cinema, the new Globe cinema designed by Gordon Dowsett was also completed.

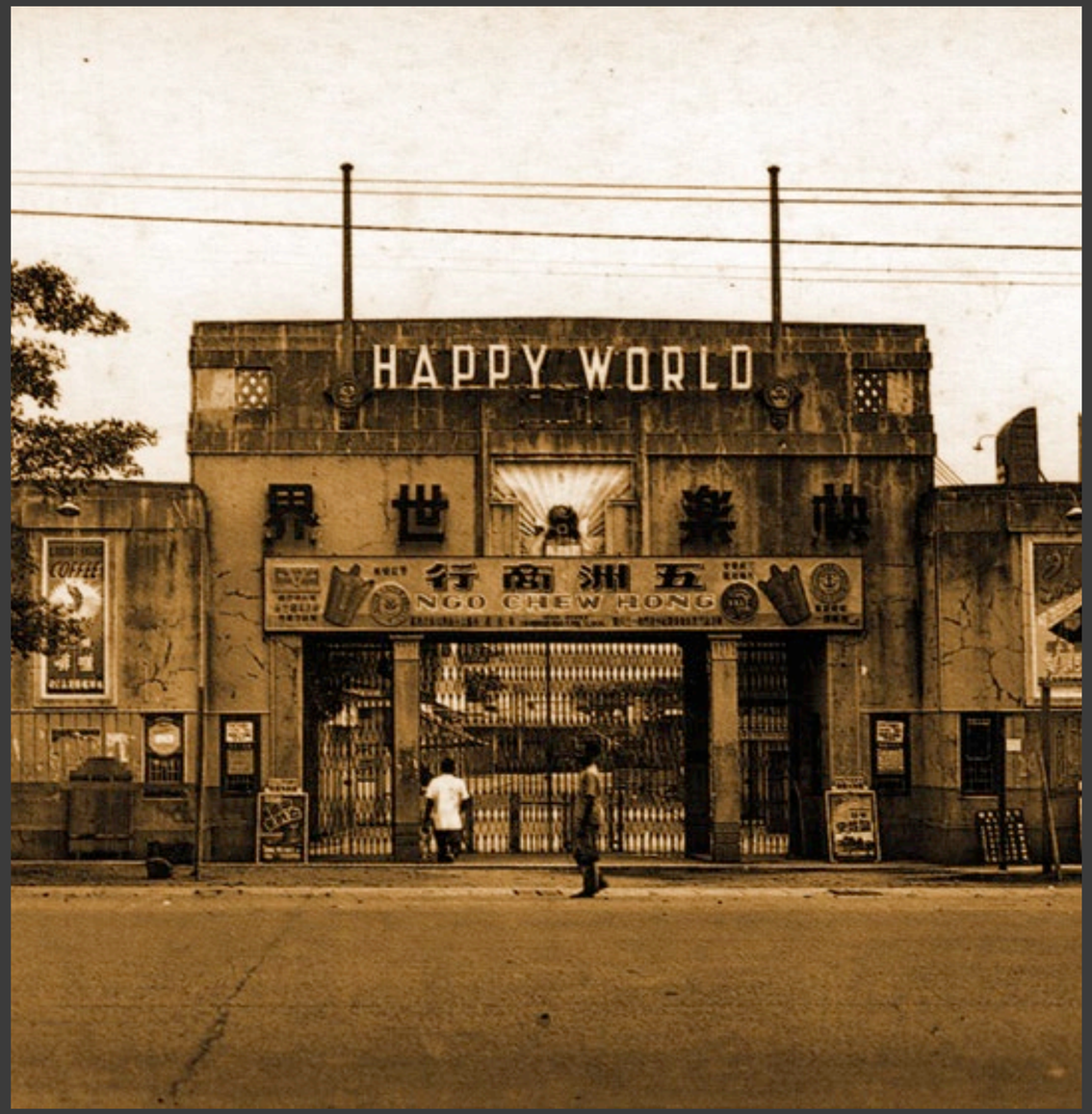
Unlike tamer modern cinemas in town — Lido for example, Sky & Globe were a pair of loud, iconic structures, in line with the party town style of the ‘Worlds’.



HAPPY WORLD SITE PLAN



HAPPY WORLD STADIUM



Happy World at Geylang Road / Grove Road (1937–2001)

SKY CINEMA ELEVATION

Worlds' End

The massive urban resettlement of the 60s–80s effectively emptied the city population to New Towns, removing the market base of the 'Worlds'.

The new government was hard at work developing public infrastructure and amenities. The completion of the World Trade Centre in 1978 symbolised the end of the public role played by the entertainment parks in hosting trade fairs.

People wanted whole-day shopping and entertainment, not just at night when there's a cool breeze. Rising expectations had to be met, and crowds shifted to new all-weather shopping centers, like People's Park Complex.

Along with the 'anti-yellow culture' movement in the 1950s-70s, strict censorship rules were put in place. Striptease was banned of course, but so was open air cinema, for fear that it attracted illegal gathering. All performances had to submit scripts through a lengthy approval process, effectively a straitjacket for the live entertainment shows in the 'Worlds', which thrived on nimble programme changes and spontaneity.

The relaxed inclusiveness and creative energy that the 'Worlds' embodied was on the wane. It was about business right till the end, when it made more commercial sense to close down the 'Worlds' and sell the property for a good price. The 'Worlds' were always adept at changing to remain attractive and relevant. But transformations in the real world eventually rendered them obsolete.

OPEN CALL

Call for Contributors

Calling for writers!

Those keen to contribute should have prior training in design, own an opinion on architecture and be able to write clearly and intelligently.

Interested parties may write to us at sa_editor@sia.org.sg with writing samples.

OPEN CALL

Call for Entries

We are looking for insightful essays and interesting projects, preferably built, for our upcoming issues:

TSA 19 Body

Architectures that continue to take the human body as its central referent. Examples are spaces for dance, sport, wellness and healthcare.

ABSTRACT SUBMISSION BY: END MARCH 2020

TSA 20 Order

An exploration of the structures, physical or virtual, of order and justice in society. Examples are educational and institutional buildings.

ABSTRACT SUBMISSION BY: END JUNE 2020

TSA 21 Houses

A showcase of the staple output of many firms — landed houses.

ABSTRACT SUBMISSION BY: END SEPTEMBER 2020

All proposals shall be emailed to sa_editor@sia.org.sg

Essay ideas to be submitted as 150-word abstracts.
Projects contributed shall be by SIA member firms.

For more details on membership, please go to www.sia.org.sg

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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.

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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.

Jason Lim is a Lecturer of Architecture and Sustainable Design at Singapore University of Technology and Design (SUTD). An educator with extensive international experience, he currently leads courses/studios that focus on design computation at the school. In addition, Jason is a director of TakahashiLim A+D, a consultancy focusing on interiors and installations. He is passionate about investigating the possibilities offered by computational techniques and emerging technology in both his academic and professional work. Jason received his doctorate from ETH Zurich, completing a dissertation on robotic programming in the context of architectural education at GramazioKohler Research. He also graduated with Bachelor of Architecture degree from Cornell University and was a recipient of the American Institute of Architects Henry Adams Merit Prize. He also holds a Master of Engineering from the Stevens Institute of Technology.

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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. Jia Xin Chum 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.

Jonathan Christian Chin completed his Master of Architecture at NUS (2017) and was awarded the Aedas Medal and Prize in Architectural Design for the best student achieving the highest average mark for the Design modules for the degree of Bachelor of Arts (Architecture), and the Lee Kip Lin Medal and Prize for Best Graduation Dissertation in History and Theory of Architecture for his paper titled: From Conserved Monuments To Populist Museum — A Case Study Of The National Gallery Singapore. He also received the Edward D'Silva Award — Dissertation/Design Thesis. In 2016, during his term as the 36th President of The Architecture Society (TAS) in NUS, he pushed for interaction amongst architecture students in Singapore by organising the inaugural TAS Inter-varsity debate between students of NUS and SUTD. Currently, his interest in all things architecture has led him to serve as the co-editor for SIA's quarterly INSIGHT publication. An aspiring architect, he is keen to explore what architecture is beyond the brick and mortar.

Simone Shu-Yeng Chung is Assistant Professor at the Department of Architecture, National University of Singapore. She holds a Ph.D. in Architecture from the University of Cambridge and has practiced as a chartered architect in London after completing her studies at the Architectural Association in London and Bartlett School of Architecture, University College London. Chung is currently the 2020 CCA Research Fellow in Architecture and a member of the curatorial team for the Singapore Pavilion in the upcoming Venice Biennale of Architecture.

Tan Kar Lin received her architecture degree, and subsequently an MA in research from the Department of Architecture, National University of Singapore. Her Masters thesis is a study of the transient urbanism and leisure consumption in the urban entertainment parks of Singapore and Malaya, and her published writings relate to built heritage conservation, urban history, and modern architecture of Singapore. From 2005-2007, she was the co-editor of Singapore Architect, the journal of the Singapore Institute of Architects. Her other publications include the monograph of pioneer architect Sonny Chan Sau Yan, Green Ink on an Envelope (2013), and Our Modern Past (2015), a three-volume photographic tribute to early modern architecture in Singapore published by SHS and SIA, which she co-authored. She is currently working on the 8-volume URA-ICOMOS Singapore Conservation Technical Handbooks as series editor.

Together with Ho Weng Hin, she is the founding partner of Studio Lapis, an architectural restoration and research-editorial consultancy based in Singapore. Major conservation projects overseen by the multi-disciplinary studio include the Cathedral of the Good Shepherd (Honourable Mention, 2017 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation), former St. James Power Station and former Kallang Airport. Kar Lin remains active in civil society work in relation to built heritage documentation and advocacy. Together with Weng Hin, she undertook the built heritage documentation and evaluation of the former KTM railway land (2012) in collaboration with the Singapore Heritage Society. She is also a founding director of ICOMOS Singapore, and founding member of Docomomo Singapore (Working-Group-in Progress).

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.

ANNOUNCEMENT

THE SINGAPORE ARCHITECT 19

The Body

With the global outbreak of COVID-19, the healthcare system of Singapore has come under extra scrutiny and thus far, emerged with high praise.

Not apparent to all may be that Singapore achieves good health for the population not only through reactive medicine, but more so through preventive programs. The promotion of regular health monitoring, a healthy lifestyle through sports and healthy eating are different prongs of a coordinated program to reduce the burden on the healthcare infrastructure. In the next issue, we will shine a spotlight on different hospitals and sporting spaces.

As great and abstract logics of capitalism and virtual telecommunications prevail, the human body is diminished in its role to determine architecture. The building types for healthcare and sports are indeed the few that still necessarily take the physical presence of the human body — its dimensions, its movement, even what it ingests and excretes — as the central referent.