

SEAB

SOUTHEAST ASIA BUILDING



Temasek Shophouse

Singapore

PROJECTS Preservation, Conservation & Restoration

ARCHITECT'S CORNER Interview with Dr. Ho Nyok Yong, President of Singapore Green Building Council

ISSN 2345-7066



9 772345 706008



New dimensions of design freedom



Schüco Seamless – the puristic solution for virtually frameless transparency with a guaranteed seamless transition between the façade and sliding system.

www.schueco.com | sea@schueco.com

Windows. Doors. Façades.

SCHÜCO

Innovative
products
make innovative
projects.



Large & Curved Honeycomb Panel
Produced Clean and Stunning Look
To Fuzhou Changle Digital
Convention Center, China

www.hunterdouglas.asia

100
1919-2019

HunterDouglas 
Architectural

CONTENTS

jan-feb 2020

Features

PROJECTS – Preservation, Conservation & Restoration

- 35 Temasek Shophouse
- 42 Sanctuary of the Madonna dell'Ambro – A project by Mapei
- 46 105 Onan Road
- 50 Hanoia Concept Stores
- 54 Vikram Sarabhai Library
- 58 Kaomai Museum
- 62 Nelson School of Music
- 66 Enrico Fermi School
- 70 Cassiope

ARCHITECT'S CORNER – Interview

- 73 An interview with Dr. Ho Nyok Yong, President of Singapore Green Building Council

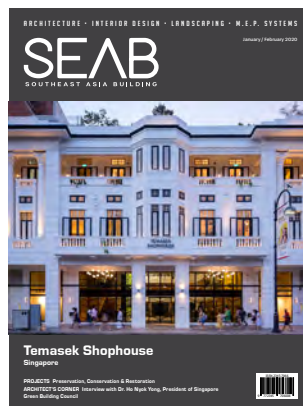
Regulars

NEWS

- 6 News from Asia Pacific, Middle East & World

EVENTS CALENDAR

- 87 Guide to international trade shows, expos & fairs



On the Cover: Temasek Shophouse in Singapore. Photo: © Surbana Jurong

Cover design by Fawzeeah Yamin

PUBLISHER

Steven Ooi (steven.ooi@tradelinkmedia.com.sg)

ASSOCIATE PUBLISHER

Eric Ooi (eric.ooi@tradelinkmedia.com.sg)

EDITOR

Amita Natverlal (seab@tradelinkmedia.com.sg)

MARKETING MANAGER

Felix Ooi (felix.ooi@tradelinkmedia.com.sg)

HEAD OF GRAPHIC DEPT/ADVERTISEMENT CO-ORDINATOR

Fawzeeah Yamin (fawzeeah@tradelinkmedia.com.sg)

GRAPHIC DESIGNER

Siti Nur Aishah (siti@tradelinkmedia.com.sg)

CIRCULATION

Yvonne Ooi (yvonne.ooi@tradelinkmedia.com.sg)

Disclaimer

All advertisers and contributors must ensure all promotional material and editorial information submitted for all our publications, must be free from any infringement on patent rights and copyrights laws in every jurisdiction. Failure of which, they must be fully liable and accountable for all legal consequences (if any) that may arise.

The Editor reserves the right to omit, amend or alter any press release submitted for publication. The publisher and the editor are unable to accept any liability for errors or omissions that may occur, although every effort has been taken to ensure that all information is correct at the time of going to press. No portion of this publication may be reproduced in whole or part without the written permission of the publisher.

The editorial contents contributed by consultant editor, editor, interviewee and other contributors for this publication, do not, in any way, represent the views of or endorsed by the Publisher or the Management of Trade Link Media Pte Ltd. Thus, the Publisher or Management of Trade Link Media will not be accountable for any legal implications to any party or organisation.

Southeast Asia Building is available free-of-charge to applicants in the building industry who meet the publication's terms of control. For applicants who do not qualify for free subscription, copies will be made available, subject to acceptance by the publisher, for a subscription fee, which varies according to the country of residence in the following manner:

Annual Subscription

Airmail: America/Europe – S\$185, Japan, Australia, New Zealand – S\$185, Middle East – \$185, Asia – S\$155, Malaysia / Brunei – S\$105

Surface mail: Singapore – S\$60

(Incl 7% GST Reg No: M2-0108708-2)

Printed in Singapore by Refine Printing Pte Ltd (L011/06/2019)

MCI (P) 076/07/2019 KDN No: 1560 (1270) - (6)

ISSN 2345-7066 (Print) and ISSN 2345-7074 (E-periodical)

Trade Link Media Pte Ltd also publishes:

- Bathroom + Kitchen Today
- Lighting Today
- Security Solutions Today
- Southeast Asia Construction

SOUTHEAST ASIA BUILDING is published bi-monthly by:

Trade Link Media Pte Ltd, 101 Lorong 23, Geylang,

#06-04, Prosper House, Singapore 388399

Tel: +65 6842-2580 Fax: +65 6842 2581

Editorial e-mail: seab@tradelinkmedia.com.sg

Website: www.tradelinkmedia.com.sg

Co. Reg. no: 199204277K

Scan QR Code



or visit our website
<http://seab.tradelinkmedia.biz>

Connect with us!



www.facebook.com/southeastasiabuilding



www.twitter.com/SEA_Building



www.instagram.com/seab1974



SEAMLESS,
DECORATIVE
FLOORING



Colourful Terrazzo, Flakes, Pebblewash Designs



FUNCTIONAL SPACE
WITH PERSONALITY

Mapei Far East Pte Ltd
28 Tuas West Road, Singapore 638383
T: +65 6862 3488 E: mapei@mapei.com.sg
Learn more on www.mapei.com.sg



 Mapei Singapore





When you receive this Jan/Feb issue of the magazine, we would have entered a new year and even a new decade 2020. On that note, let me first wish all our esteemed readers and advertisers a Happy New Year! It is an exciting time for the world to see what the new decade will bring. For SEAB, we will continue to provide high-quality content for our readers in both print and online media. For example, we hope to cover futuristic trends such as IoT technology, BIM, drones, AI, 3D printing in our editorials.

This issue is dedicated to conservation architecture so you will find a number of building projects, which have been beautifully restored to its original beauty. On the cover of this issue is Temasek Shophouse at 28 Orchard Road in Singapore. It was awarded the 2019 Award for Restoration at the annual URA Architectural Heritage Awards.

In March 2019, Dr. Ho Nyok Yong became the President of the Singapore Green Building Council (SGBC). We interviewed him on his role and his vision for SGBC, which celebrated its 10th anniversary in September 2019.

We hope you find the first issue of the year a great read!

Amita Natverlal

NEXT ISSUE THEMES

- Projects – Hotels
- Trends – Building Chemicals, Coatings & Waterproofing M.E.P. Systems
- Building Information Modeling (Advertorial)



Media Partners of SEAB

 Association of Myanmar Architects	 Bangladesh Green Building Council	 Design Council – Sri Lanka
 Emirates Green Building Council	 Foundation for Futuristic Cities	 Green Building Committee BEI MYANMAR
 Green Building Council Indonesia	 Green Building Council Italia	 Green Building Council Mauritius
 Green Building Council Namibia	 Green Building Council Sri Lanka	 Hong Kong Green Building Council
 Interior Design Confederation of Singapore	 Jordan Green Building Council	 Qatar Green Building Council
 Philippine Green Building Council	 Singapore Green Building Council	 Society of Interior Designers (Singapore)
 The Hong Kong Institute of Architects	 Vietnam Green Building Council	 Green Institute Nepal
 Interior Designers Association of Nepal		

“Winning the LafargeHolcim Awards brought us substantially closer to our dream”



Design competitions boost projects, careers, and networking opportunities. Be part of the 6th International LafargeHolcim Awards for exemplary projects and visionary concepts in sustainable construction. Prize money totals USD 2 million.

Independent expert juries evaluate submissions from architecture, engineering, urban planning, materials science, construction technology, and related fields using the “target issues” for sustainable construction of the LafargeHolcim Foundation.

www.lafargeholcim-awards.org

Singapore's Deputy Prime Minister Heng Swee Keat visits the Sino-Singapore Tianjin Eco-City

Singapore – Mr Heng Swee Keat, Singapore's Deputy Prime Minister (DPM) and Minister for Finance, visited the Sino-Singapore Tianjin Eco-City (Eco-City) on 16 October 2019 as part of his four-day visit to China.

DPM Heng was accompanied by Mr Desmond Lee, Minister for Social and Family Development and Second Minister for National Development, Ms Sim Ann, Senior Minister of State, Ministry of Communications and Information & Ministry of Culture, Community and Youth, Mr Sam Tan, Minister of State, Ministry of Foreign Affairs & Ministry of Social and Family Development, Mr Stanley Loh, Ambassador of the Republic of Singapore to the People's Republic of China, Dr Lee Boon Yang, Chairman of Keppel Corporation as well as distinguished guests from Singapore and China.

DPM Heng was joined by Mr Zhang Yuzhuo, Member of the Standing Committee of the Communist Party of China (CPC) Tianjin Municipal Committee and Party Secretary of the CPC Tianjin Binhai New Area District Committee, during his tour of the Eco-City. DPM Heng was briefed on the latest developments in the Eco-City and visited several sites, including the Eco-City Administrative Committee Service Centre, Smart City Operations Centre, a community centre, as well as Seasons Garden, an eco-friendly residential project developed by Keppel Land China.

At Seasons Garden, DPM Heng visited the home of one of its residents and was briefed on the smart and green features of the estate as well as the high quality of life in the Eco-City. Seasons Garden is the pilot site for a smart speaker installed in residents' homes. The smart speaker serves as an interactive virtual assistant that provides information relating to education, healthcare, energy consumption and lifestyle needs. This innovation was a result of Keppel Land China's collaboration with the Sino-Singapore Tianjin Eco-City Administrative Committee (ECAC) for smart city and smart community development. The smart speaker has so far only been deployed in Seasons Garden, but will progressively be rolled out to other Keppel projects.

Separately, Minister Desmond Lee also officiated at the opening of the Singapore Centre, a shared office initiative in the Eco-Business Park established by Sino-Singapore Tianjin Eco-City Investment and Development Co., Ltd. (SSTEC) and supported by Singapore's Ministry of National Development, Enterprise Singapore and ECAC. The initiative aims to support Singapore and Singapore-based international companies that are looking to establish and grow their presence in the Eco-City, greater Tianjin and North China markets. SSTEC, the master developer for the Eco-City, is a 50/50 joint venture between a Singapore Consortium led by the Keppel Group and a Chinese Consortium led by Tianjin TEDA Investment Holding Co., Ltd.

At the opening ceremony of the Singapore Centre, Keppel Land signed a non-binding Smart City Strategic Cooperation



DPM Heng Swee Keat (seated, third from left), accompanied by Mr Zhang Yuzhuo (seated, second from right), Party Secretary of the CPC Tianjin Binhai New Area District Committee, visited a family living in Seasons Garden, a residential project developed by Keppel Land China in the Sino-Singapore Tianjin Eco-City. Also present were Mr Desmond Lee (seated, first from right), Minister for Social and Family Development and Second Minister for National Development, Ms Sim Ann (standing, first from left), Senior Minister of State, Ministry of Communications and Information & Ministry of Culture, Community and Youth, Mr Sam Tan (standing, first from right), Minister of State, Ministry of Foreign Affairs & Ministry of Social and Family Development, Dr Lee Boon Yang (standing, second from left), Chairman of Keppel Corporation and senior executives from Keppel Land China. Photo: © Keppel Corporation

Agreement with ECAC. As part of the agreement, the partners will develop the Sino-Singapore Smart City Innovative Research Cooperation Platform where both parties will conduct research and explore various smart applications. The cooperation will focus on Keppel Land China's current residential and commercial projects in the Eco-City, as well as a future 166-hectare smart precinct in the northern district of the Eco-City to be jointly developed by Keppel Land China and Keppel Urban Solutions. The research and applications will look into areas such as smart buildings, smart energy management, clean energy, community living and environmental protection.

Dr Lee Boon Yang said, "For the past 11 years, the Keppel Group has been working closely with the two governments and our Chinese partners to develop the Sino-Singapore Tianjin Eco-City. The Keppel Group has also supported the Eco-City's development with our diverse capabilities in property, environmental infrastructure and connectivity to create a sustainable and highly liveable community. We are very pleased to extend our partnership with the Sino-Singapore Tianjin Eco-City Administrative Committee to enhance research and application of smart technologies, thus further strengthening the Eco-City's position not just as a model for sustainable development, but also a smart city."

DOMOTEX asia/*CHINA*FLOOR

Asia's Hub for Flooring

24-26 March, 2020-22nd Edition
Shanghai-China

domotexasiachinafloor.com

Visitor
Pre-Registration
is Open!

VNU | 万耀企龙



Deutsche Messe



Build Your Dream Group

DOMOTEX
asia *CHINA*FLOOR

HOK's Asia practice celebrates its 35th anniversary

Hong Kong – 2019 marked the 35th anniversary of HOK's presence in Asia, where the firm has offices in Hong Kong, Beijing and Shanghai.

HOK, a global design, architecture, engineering and planning practice ranked by both Architectural Record and Engineering News-Record magazines as the No.1 Architecture/Engineering firm, maintains 24 offices to serve the needs of its clients worldwide. The firm's projects span across regions and include a wide range of project types.

In 1984, HOK established its first office outside of the United States in Hong Kong, marking a milestone for the firm. To support increasing project opportunities throughout Mainland China, the firm added offices in Beijing and Shanghai in 2003 and 2006, respectively.

Over the past 35 years, HOK's Asia practice has experienced steady growth as its client base has spread across China and Southeast Asia, extending into India and the Middle East.

"Asia is perhaps the most culturally rich, geographically diverse and economically vibrant place in the world and remains an integral part of HOK's global business," said Paul Collins, RIBA, HKIA, Managing Director of HOK's Asia Pacific practice.

"Part of HOK's design ethos is to pay close attention to the cultural, geographical and environmental contexts in which we work. This enables us to deliver projects that elevate people's aspirations, inspire them in their daily lives and generate a sense of pride in their place, whether as a user, owner or simply as a fellow inhabitant of the city. Asia continues to provide us with wonderful challenges and opportunities to do just that with our clients," he added.

HOK has created large-scale master plans and designed significant buildings and interior environments across Asia. Current and recent projects include the InterContinental Beijing Sanlitun at Topwin Center; Jinan China Resources Center; China Construction Bank Shandong Headquarters; Shanghai China Overseas International Center; Le Meridien Hangzhou; Jiangxi Commerce Union Center; Chengdu Forte Financial Island; Fosun Lintong Resort Master Plan; Peninsula Hotel, Shanghai; Atlantis Hotel Sanya; Sanya Tianya Haijiao Hyatt Regency Resort; Ng Teng Fong General Hospital, Singapore; Mount Elizabeth Novena Hospital, Singapore; and Kempegowda International Airport Terminal 1 Expansion, Bengaluru, India.

As part of the anniversary celebration, Urban Environment



Atlantis Sanya in Hainan, China. Photo credit: Owen Raggett (Photographer) and HOK

Design Magazine featured HOK and its works in its "HOK Asia Pacific 35th Anniversary Special Edition" June issue, which highlighted the firm's sustainable, innovative and high-performance designs and its commitment to the environment.

With offices around the globe, HOK designs buildings and spaces that respond to the needs of people and the environment. HOK designers are rooted in technical excellence, driven by imagination and focused on a solitary goal: to deliver solutions that inspire clients and communities.

Do you have news?
Don't keep it to yourself....
Share it with us!
Email seab@tradelinkmedia.com.sg

Kiara Bay Masterplan by Lead8 showcases Eco-Aware Township in Kuala Lumpur

Hong Kong – Lead8 celebrated the launch of the KIARA BAY masterplan this month – joining UEM Sunrise and Melati Ehsan Group for the official unveiling event in Kuala Lumpur, Malaysia.

The 73-acre masterplan development is poised to transform one of Kuala Lumpur's earliest townships into an inspiring eco-living destination. Located next to the popular Kepong Metropolitan Park which covers 235 acres and nearby the historical 1357-acre FRIM (Forest Research Institute of Malaysia), the new masterplan offers a first-of-its-kind living experience in Malaysia's capital. Lead8's masterplan seeks to emulate the balance of city, nature and leisure and is comprised of three main districts – The Waters, The Walk and The Village. Embracing the 140-acre lake at the heart of the site, 'The Waters' district is defined by the landmark towers which provide the visual reference points for the development and sweeping views of the landscape.

The major leisure and retail district featuring integrated office, hotel and serviced apartments sits at the centre of the design. Known as 'The Walk', the area is the connective point to the retail destination, MRR2 interchange, MRT link road and a ten minute walk or three minute cycle to all parts of the township. Anchoring the east of KIARA BAY is the compact community cluster known as 'The Village', designed around a lively community park and fronted by a wellness centre, retirement living, community retail hub and education facility.

By activating the lakefront and interconnecting a series of



KIARA BAY Masterplan, Kuala Lumpur, Malaysia. Image Credit: Courtesy of UEM Sunrise and Melati Ehsan Group

retail, leisure and community spaces, the masterplan seeks to maximise the pedestrian and cycle experience for visitors and residents. Supporting healthier lifestyles, improving air quality and reducing vehicular traffic demand, helps to elevate the long term liveability and sustainability of KIARA BAY.

The design has been guided by the EIU Global Liveability Index, Mercer Quality of Living Factors and the UN Sustainable Development Goals emphasising sustainable cities and communities. The design will be realised over the next decade, integrating with the latest cellular network technology and becoming the home to a population of more than 40,000 once complete.

Singapore named top investment market in Asia Pacific, according to Emerging Trends in Real Estate® 2020 Report

Singapore – Singapore is the best prospect in the Asia Pacific region for investment according to Emerging Trends in Real Estate Asia Pacific® 2020, a real estate forecast jointly published by the Urban Land Institute (ULI) and PwC.

The Lion City witnessed a surge in transactions in the first half of 2019, with most activity driven by cross-border capital, and volumes in the second half of the year are expected to be strong. Today, the office sector in the market has largely absorbed the oversupply of recent years and with vacancies now at an all-time low, and a limited amount of new supply in the pipeline, confidence in medium-term prospects has returned.

"Singapore has continued to climb up the rankings to claim

top spot this year," added Ong Choon-Fah, Chair of Singapore for ULI. "This is for a number of reasons, including the fact that the office sector has largely absorbed any oversupply, transactions have surged in the city, and there is relatively little new space due to come to market in the near-to-medium term," added Ong Choon-Fah.

Tokyo, Sydney and Melbourne, that are mentioned below Singapore in the top five markets for investment prospects, reflect overall investor preference for regional markets that are large, liquid, and defensive while outlier Ho Chi Minh City, which is listed in third place, is the lone emerging market to be viewed favourably due to its strong economic growth as it absorbs Chinese manufacturing capacity moving offshore.

New Deputy CEO for MTC

Kuala Lumpur, Malaysia – On 1 November 2019, the Malaysian Timber Council (MTC) appointed Mr Wong Kah Cane as its new Deputy Chief Executive Officer.

Mr Wong, 52, who graduated with a degree in Business Administration from Universiti Utara Malaysia in 1992, started his career transforming SMEs into successful enterprises by bringing in experts for training programmes which centred on strategic management, quality control, sales and marketing.

He is most noted for his contributions in Eu Yan Sang which is a traditional Chinese medicine company. Wong joined Eu Yan Sang in 2000 as its Area Sales Manager and in 2006, he was appointed as General Manager of the company leading Eu Yan Sang's business development, sales and marketing operations as well as branding.

During his tenure at Eu Yan Sang, the number of outlets rose from 24 in 2000 to more than 90 in 2015. Wong was the key leader involved in transforming Eu Yan Sang from an exceedingly traditional venture into a modernised retail chain with new product lines, image and popular CSR programmes

such as the CNY Hamper Campaign and A Bucket of Gold, which are well-known till this day.

Mr Wong left Eu Yan Sang as its Senior General Manager to take up the post of General Manager at Everpro Sdn Bhd in 2016 and in 2018, he joined Vistage Malaysia as its Business Coach providing training for CEOs. In August the same year, Mr Wong was appointed as an Independent Member of MTC's Board of Trustee.



Mr Wong Kah Cane. Photo: MTC

"Wong has provided many effective management, marketing and branding strategies as well as training in his previous places of employment which have turned these companies into amazingly successful businesses. I believe he will be a great asset to MTC," said MTC Chairman Dato' Low Kian Chuan.

Bluewater Residences by 10 Design redefines island living in Dubai

Hong Kong – 10 DESIGN (10) has created the ultimate in island living for Bluewaters Residences. It is built on a new man-made island off the coast of Jumeirah Beach Residence in Dubai. To maximise this distinctive location, 10 has integrated a series of private landscape gardens elevated above sea level throughout the residential development, offering a unique viewing gallery to the blue azure horizon.

Bluewaters Residences comprises 10 elegant mid-rise buildings providing 698 apartments, 4 penthouses, and 17 townhouses. The development offers a premium lifestyle with residential amenities including state-of-the-art gymnasiums, swimming pools, landscape gardens, basketball courts, and children's play areas.

Design Partner, Nick Cordingley, said: "One of the key successful factors for the Bluewaters Residences is that we have been able to steer a challenge into multiple design opportunities. Due to



Photo: © Meraas

the construction technique of the island, basement space is limited and therefore the design team introduced a 'podium'

car park structure, which in turn lifted the residential ground floor 10 metres above the surrounding street level."

Malaysian Wood Expo (MWE) 2019 ends on a high note

Kuala Lumpur, Malaysia – At its inaugural Malaysian Wood Expo (MWE) 2019, the Malaysian Timber Council (MTC) chalked up sales of about RM140 million when it had only targeted RM25 million from the show citing an all-round success for the Council.

Held at the Putra World Trade Centre from 19–21 November 2019, MWE was the first international wood and woodworking machinery event organised by MTC in partnership with Panels & Furniture Group. The three-day expo attracted 135 renowned exhibitors from 22 countries and over 3,000 visitors. The expo served as a pivotal convergence point for every segment of players from the timber industry.

Spanning across 8,000 square metres, the exhibitors showcased a wide range of products such as tropical hardwoods, temperate softwoods, wooden flooring, sawntimber, wooden pallets, door and door frames, cutting tools, abrasives, adhesives, coatings, combined machines, dust collecting equipment, edge banding materials and machines, handling equipment as well as timber, woodworking and furniture production softwares.

Most of the exhibitors were from Germany, Italy, Australia, France, Belgium, Gabon, China, Chile, New Zealand, Taiwan and Singapore while the trade visitors were from France, New Zealand, South Africa, India, Singapore and Maldives.

"We are extremely happy with the outcome of the Malaysian Wood Expo. It was a commercial success with brisk sales, literally. The expo was well-attended by a broad spectrum of visitors and buyers from day one. And to our great surprise, our sales far exceeded the initial target of RM25 million," said MTC Chairman Dato' Low Kian Chuan.

To boost business at MWE, MTC had organised two business matching sessions – the Overseas Suppliers-Malaysian Importers/Manufacturers Exchange Programme and the Incoming Buying Mission (IBM). MTC also offered special incentives for the purchase of machinery under its Financial Incentive for Purchase of Machinery Programme (FIPM) as well as importation of raw materials under its Import Assistance Programme (IAP).

The Overseas Suppliers-Malaysian Importers/Manufacturers Exchange Programme facilitated the augmentation of raw materials from nine countries – New Zealand, Chile, Gabon, France, Romania, Sweden, Ukraine, Canada and the United States. A total of 55 companies placed their orders worth of



MTC Chairman Dato' Low Kian Chuan delivering his welcoming remarks at the opening ceremony. Photo: © MTC

RM6.10 million of raw materials under this programme.

As for the IBM, which was conducted in collaboration with the Malaysia External Trade Development Corporation (MATRADE) and MTC's regional offices, it generated an estimated sale of RM118.93 million.

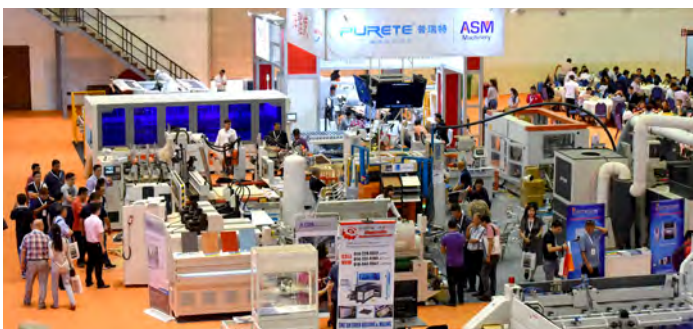
MTC had only targeted a sale of RM3 million from IBM, however, the interest for Malaysian-made products and the reputation of Malaysian timber-based manufacturers who are well-known to supply high-grade products promptly has held them in good stead once again. A total of 64 foreign buyers from 14 countries had over 470 meetings with 93 Malaysian suppliers during the IBM.

"Despite the rather sluggish economy, the Incoming Buying Mission has demonstrated that there are many strong investment plans in the timber sectors overseas and this creating a huge demand for our Malaysian timber-based products," added Dato' Low.

MTC's FIPM programme also served as a major boost for buyers as 86 Malaysian companies purchased machinery worth RM20.77 million. Most of the machinery exhibitors were also pleasantly taken aback by the sales they had garnered even on the first day of the expo.

MWE was officiated by the Minister of Primary Industries YB Pn Teresa Kok on 19 November 2019. Also present at the opening ceremony was the Secretary-General of the Ministry of Primary Industries Dato' Dr Tan Yew Chong, MTC Chairman Dato' Low Kian Chuan, MTC Board of Trustees and MTC CEO Mr Richard Yu. Among the dignitaries who also visited the expo was Deputy Minister of Primary Industries YB Datuk Seri Shamsul Iskandar Hj Mohd Akin.

MTC had also organised a series of pocket talks where industry experts shared their insights to a full house on market trends, e-trade, timber products and timber grading rules, among others. The Council also launched its e-guidebook titled "Schedule of Maintenance for Timber in Construction". The e-book is a manual on how to care and preserve timber-based materials used for construction purposes for both indoor and outdoor use.



An aerial view of MWE. Photo: © MTC

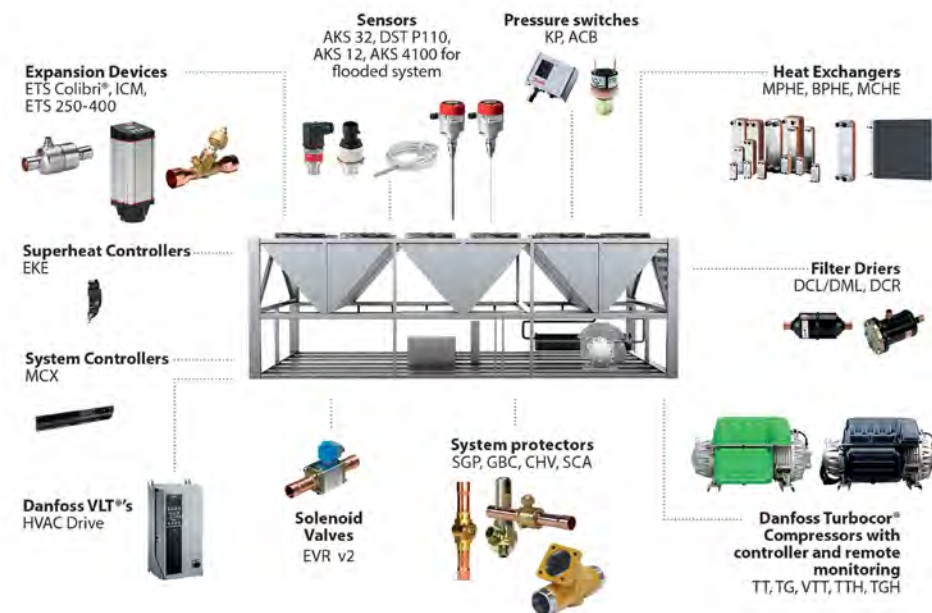
Danfoss adds new product to its extensive family of R1234ze and oil-free tested and qualified components

Kuala Lumpur, Malaysia – Danfoss has added to its extensive range of air-conditioning system components qualified for future-ready R1234ze and oil-free systems with the newly qualified Danfoss EVR V2 solenoid valves.

As part of Danfoss' wide range of servo-operated solenoid valves, its newly-qualified EVR valves have been designed to be used in liquid, suction, and hot gas lines, and are now compatible with R1234ze refrigerant and oil-free systems.

R1234ze is a viable, long-term refrigerant option for a wide range of applications, and enables OEMs and end users to reduce GWP, resulting in direct CO2 emissions and refrigerant cost reductions. What's more, oil-free systems help meet energy efficiency requirements and increase reliability, with industry-leading part load and excellent full load efficiency. The oil-free operation additionally helps guarantee long-term performance at rates levels.

Drew Turner, Global Marketing Manager for Danfoss Cooling Oil-free solutions stated: "Since we launched our pioneering Turbocor® TG compressor in 2013 and expanded to a full range portfolio in 2017, we've been market-leaders in R1234ze and oil-free component qualification testing. While other manufacturers test their components' performance and reliability using air, Danfoss uses refrigerant in



real-world conditions in its Application Development Centers.

"We believe testing in complete systems not only delivers greater accuracy, but also improves reliability and energy efficiency – a win-win situation for our customers, and indeed, their customers too."

Danfoss' qualified components are not only tested to the highest industry standards for leading levels of reliability, but they're also designed with the future in mind—with products like the ETS Calibri® valve designed to work with both oiled and newer oil-free systems. Oil-free compatibility also enables

significant sustainability advantages, with hermetically sealed components reducing the chance of leakage.

The clear advantages of using R1234ze in oil-free systems means that Danfoss expects demand for these qualified components will only increase over time.

Luigi Zamana, Senior Director of Marketing said: "The high standards and rigour to which Danfoss tests its components, combined with the sheer size of our component portfolio, means that we can offer leading levels of reliability along with the widest range of capabilities for OEMs."

Hitachi and Frasers Property sign S\$100 million MOU to drive digital transformation

Singapore – Hitachi Asia Ltd. ("Hitachi Asia") and Frasers Property Limited ("Frasers Property", and together with its group entities, the "Frasers Property Group"), announced that Hitachi Asia and Frasers Property, through its subsidiary, have signed a memorandum of understanding (MOU) involving an investment of up to S\$50 million each to collaborate and drive digital transformation in the real estate industry in Asia Pacific

over the next five years. The size of the addressable market for Asia Pacific, excluding Japan and China, is estimated to reach US\$82 billion by 2025¹.

According to the MOU, which was signed in Bangkok, the two companies will explore opportunities to help accelerate digital transformation for the Frasers Property Group and the real estate industry, starting with Singapore, Thailand and Australia,



MOU signing ceremony. From left to right: Kojin Nakakita, Vice President and Executive Officer, in charge of Regional Strategies (APAC), Hitachi, Ltd., Chairman of Hitachi Asia Ltd., and Chairman of Hitachi India Pvt. Ltd, Toshiaki Higashihara, President & CEO of Hitachi, Ltd., Charoen Sirivadhanabhakdi, Chairman, Frasers Property Limited and Panote Sirivadhanabhakdi, Group CEO, Frasers Property Limited. Photo: © Frasers Property Limited

and potentially co-develop and invest in new services.

Both companies have a common belief that technology and digital transformation will drive future business operating models and contribute to creating a better society. The technical and commercial teams in Hitachi Asia, the Frasers Property Group and Japanese financial institutions have been working closely to develop a new multigenerational approach to provide technology and Infrastructure as a Service (IaaS) solution for happiness and great experiences in the real estate industry. Both parties will draw upon their strengths and resources to jointly explore ways to future-proof Frasers Property Group's current property portfolio in a sustainable manner. This comes at the back of a project already initiated to look at the design of smart city services for facility management operational systems for the One Bangkok development, Thailand's first fully integrated district that is built on people-centric principles and a focus on environmental sustainability and smart city living.

Footnote:

¹ Based on Hitachi internal research.

Chengdu City Music Hall by Andrew Bromberg recognised at 2019 AIA International Region Design Awards

Hong Kong – The Chengdu City Music Hall designed by Andrew Bromberg (RIBA, Assoc. AIA), a Global Design Principal at Aedas, received a Merit Award for Urban Design at 2019 AIA International Region Design Awards.

Located at the central precinct of Chengdu, China, the Chengdu City Music Hall intends to gather world-class music culture and art exhibition facilities and resources to put the city on the map as one of the leading cultural capitals in the world. The design balances cultural components within a dense urban environment disconnected from its traditional connection to nature. The traditional Chinese landscape paintings are evolved from the surrounding Sichuan landscapes. The use of positive and negative spaces in this art form portrays an interesting balance between the physical and the ephemeral. These relationships were explored in how to balance the 'imagined' creations of the performance venues and school of arts with the 'tangibles' of the buildings.

The physical line between tangible and ephemeral was celebrated as a stepped public series of connected terraces. Beneath these terraces are the varying volumes of venues. Above these terraces are topographic bamboo gardens which provide an impression of the surrounding mountains. These accessible terraces step from the tall dense urban fabric towards the west and down to the more human scale pedestrian district to the east. The eastern edge is defined by an informal plaza which connects the project to the river and the arts district through the pedestrian 'Music Avenue'.



Rendering by AsymmetricA

Along the Northeast, an informal pedestrian connection flows from Music road carving and transitioning the mass down like a flowing river into the site creating a valley. Interconnected paths meander through thick bamboo forests, inducing breezes to create comfortable temperatures. The strong emphasis on the bamboo rooftops can be perceived as floating mountains above the city. Users can escape the busy streets of Chengdu and find sanctuary, re-acquaint with nature, and view the city from an absolutely unique experience. The Project Design is a competition entry.

YOO Studio arrives in Southeast Asia, creating a collection of personalised designer residences for private clients

Bangkok, Thailand – YOO Worldwide, the global designer residence and hospitality company, has announced the launch of YOO Studio in Southeast Asia, as it introduces a new era of exclusivity and personalisation to the region's residential design sector.

YOO Studio allows its clients to sit down with Head of Design, Mark Davison, to discuss their vision and create a bespoke concept for their private residence. This will give YOO's customers in Southeast Asia a unique opportunity to craft homes that are highly exclusive and tailored to their specific needs and desires.

In addition to YOO Studio's own in-house team of experts, the group works with many of the world's most celebrated designers, including Philippe Starck, Marcel Wanders, Jade Jagger, Steve Leung, Sussanne Khan and Kelly Hoppen, to make its clients' dreams of fully customised luxury living a reality.

YOO Studio has also introduced its cutting-edge services to India, with the completion of a breath-taking private residence in New Delhi. Shaped by more than 30 leading architects, interior



Thai property developer Sansiri's residential project designed by YOO Studio in Bangkok, Thailand. Photo: © YOO Studio

designers and product experts, this striking project is light and whimsical, reflecting the atmospheric contrast between day and night.

"We are extremely excited to launch YOO Studio in Southeast Asia. This is a natural progression for YOO especially since we opened our new

headquarters in Bangkok. Southeast Asian customers are increasingly discerning and demanding, with an exceptional eye for detail. At YOO Studio, we will aim to blend local elements with our global expertise to bring their visions to life," said Mark Davison, Head of Design, YOO Worldwide.

BCA introduces new Green Mark scheme for transit stations

Singapore – The Building and Construction Authority (BCA) has introduced a new Green Mark scheme for transit stations, which was developed in consultation with Land Transport Authority (LTA) and industry practitioners involved in station developments, to ensure that their design, construction and operation can be enhanced in an environmentally sustainable way. The scheme was piloted in four MRT stations over the past one year. Canberra Station is the first to be accorded the Green Mark Platinum award under the new scheme.

With increasing demands from urban development, the rail network in Singapore will be expanded over the next few decades. It is important for transit stations to be designed with environmental sustainability in mind to cut down on their carbon footprint. Adapted from the BCA Green Mark scheme established in 2005, the new Green Mark for Transit Stations scheme was tailored to the specific needs and operational requirement of transit stations in Singapore. Besides setting a high standard for energy performance,



Photo credit: Building and Construction Authority

the scheme also considers criteria such as integration with its surroundings with the seamless connectivity and accessibility to all public transports nodes such as bus stops and taxi stands. The scheme also places high emphasis on ventilation performance of the station design, which enhances the thermal comfort of users. At least 50 stations are estimated to be in the pipeline to meet the Green Mark Platinum standard, and from these developments, there is an estimated reduction in energy consumption of about 33 GWh per annum, which translates to the energy used to power up 7,500 4-room HDB flats per year.

BCA Chief Executive Officer Mr Hugh Lim said, "BCA has been constantly reviewing and improving the Green Mark scheme to ensure that it remains relevant to the evolving needs of the people and the built environment. With the increasing demand for transit facilities, this new addition to the suite of Green Mark schemes will provide a holistic framework to enhance the sustainability of transit stations. We are glad to have LTA's support in the development of this new scheme as we continue to push for higher environmental sustainability standards, as part of Singapore's efforts to mitigate the environmental impact of urbanisation."

Canberra station, the first to be accorded the BCA Green Mark Platinum award under the new scheme, was constructed with

an extensive use of environmentally-friendly materials and products. The station incorporates biophilic design to help liven and enhance commuters' experience with edge planting, green roof and vertical greenery along with daylighting provision within the platform, helping to provide thermal comfort as well as visual relief. During the design stage, the design team also conducted an in-depth study to ensure the effectiveness of weather protection measures against wind-driven rain for commuters' comfort. This ensures that the station remains well-ventilated at all times, even while minimising infiltration of rain during heavy showers. The station is also equipped with automatic dual speed escalators, energy efficient lift system, LED lighting, water-efficient fittings and an irrigation system with rain sensor.

Said Land Transport Authority Chief Executive Ngien Hoon Ping, "As part of our long-term vision to provide a transport network that is convenient and well-connected, we will be adding new stations to our existing network over the next few years. In tandem with our goal of improving rail connectivity, we are equally committed to implementing practices that promote environmental sustainability throughout the planning, design and construction of our stations. The Green Mark Platinum certification for Canberra station shows our efforts are on the right track and encourages us to strengthen our efforts."

OMA / Iyad Alsaka and Reinier de Graaf reveal design for residential tower in Kuwait City

Kuwait City – OMA / Iyad Alsaka and Reinier de Graaf, in collaboration with Kuwait-based consultant Pace as a local partner, have revealed their design for the Wafra tower, a residential tower in the Hessa Al Mubarak District along the Kuwait City waterfront. OMA's proposal was selected from three design entries in a competition organised by the Wafra Real Estate Company.

OMA's design consists of five residential blocks forming a stepped sequence, which modulates from a L-shaped volume to slab. This structure maximises occupancy on the lower floors and optimizes views along the vertical axis of the building. The apartment blocks offer views on both the seafront and the city and are connected by an exposed, monolithic core.

The tower holds a wide array of apartment typologies including 1, 2 and 3 bedroom apartments and large penthouses. Because of the unique geometry of the tower, all apartments have sweeping, frameless views across the gulf. Corner apartments have multiple orientations.

The stepped blocks generate lush terraces that provide space for recreation, a swimming pool and diwaniyas. The façade is marked by a rational, rectangular grid that enhances the visual effect of the skewed volumes of the tower blocks. On street level, the plinth accommodates a raised lobby with lounge areas and co-working spaces with seaside views.

The development of the masterplan for the Hessa Al Mubarak



Image by CGveron © OMA

District is part of a current construction boom in Kuwait, with projects worth over 460 billion USD currently active in the construction sector. The project is led by Iyad Alsaka, Reinier de Graaf, Jad Semaan and Adrienne Fisher. Construction is expected to start at the end of 2020. Upon completion the Wafra Tower will be OMA's first built project in Kuwait.

St. Joseph's Home By SAA Architects wins Silver At World Architecture News Awards

Singapore – SAA Architects (SAA), a member of Surbana Jurong Group, has earned international acclaim for St. Joseph's Home, clinching Silver in the healthcare category at the World Architecture News (WAN) Awards 2019. This is the highest accolade received by a Singapore firm at the awards. The WAN Awards is an international award that recognises architectural excellence from around the world.

Operated by Catholic Welfare Services, St. Joseph's Home provides nursing and hospice services for the elderly, regardless of race or religion. SAA designed and delivered the redevelopment of the 139-bed facility into an integrated 412-bed nursing home in 2017.

The design of the nursing home is guided by the Catholic Welfare Services' philosophy in maintaining a person-

centred home that upholds the values of human dignity. The architecture and landscape response imbues urban and universal design principles to create a space that not only enhances the patient and visitor experience, but also maximises engagement and operational efficiency for the care staff who run the home.

Michael Leong, Director, SAA shared, "In designing St. Joseph's Home, our design approach focused on three key pillars – designing for community, mobility and dignity. Each aspect of the design places residents' wellbeing at heart; providing for their mobility, engagement and comfort, and enhancing the total quality of care they would receive."

The redevelopment involves retaining an existing chapel and annex block, with the chapel as the spiritual heart of the home. SAA's design positions the chapel as the centre of the nursing home, and all communal pockets within the development are designed with vistas towards it – establishing the chapel as a beacon for the development.

To provide a comfortable home for residents, SAA maximised the natural ventilation, daylight and sun shading by orientating every ward at an angle determined by the prevailing winds and sunlight. The architects addressed the needs of each category of residents, paying special attention to those with dementia as they tend to be more sensitive to their environment.

Communal gardens, greenery-lined corridors, planters and vertical greenery are applied throughout the development to infuse pockets of green spaces on every floor. Hence, nature is accessible for even the bedridden and wheelchair-bound regardless of the level they reside on. Residents can enjoy fresh air, sunlight and greenery without having to descend to the ground floor. The result is a 'home in a garden' that recreates a domestic ambience conducive for rest and healing.



Photo credit: Aaron Pocock Photography

McGregor Coxall appoints new CEO

Sydney, Australia – It is a pivotal moment in the 21-year history of McGregor Coxall. Founding Director Adrian McGregor is handing over the reins as CEO, appointing George Panos as the design firm's new Chief Executive Officer. A qualified accountant, lawyer and MBA, George was most recently at Architectus. His extensive experience of the design industry will make a vital contribution to propelling McGregor Coxall forward as the firm continues to expand its global reach.

The appointment frees Adrian McGregor to focus his energies in a new role, Global Director of Design. Innovation, design vision and thought leadership will be among his core priorities as he leads the McGregor Coxall global practice. McGregor instigated the establishment of the practice's BioCity Research initiative, a realisation of his visionary commitment to designing sustainable cities and vibrant places.

McGregor, selected as one of Sydney's



George Panos

100 most creative people, said "With projects spanning three continents our landscape architecture, urbanism and environment teams are engaged in helping a number of cities tackle complex global growth and climate challenges. I look forward to spending more time with our clients on environmental innovation and design opportunities."

Philip Coxall will continue in his role as Chairman & Director, championing the vision to deliver an elevated level of service across all disciplines in studios in Australia, Europe and Asia. His strategic focus is on building talent, expanding the brand globally and fostering client relationships.

McGregor and Coxall congratulated

George and welcomed him to the team, "This is a step forward for McGregor Coxall, and we are thrilled to welcome George," said McGregor. "George adds key strengths to our leadership at a time when we are growing, nationally, in Asia, the UK and elsewhere internationally, which will be crucial to our future," added Coxall.

CDL and CapitaLand to redevelop Liang Court site into an integrated development with 700 residential apartments

Singapore – City Developments Limited (CDL), CapitaLand Limited (CapitaLand) and Ascott Residence Trust (Ascott Reit) have teamed up to redevelop the Liang Court site¹ into an integrated development following the proposed sale by CDL Hospitality Trusts (CDLHT) of its total interest in Novotel Singapore Clarke Quay, subject to the approval of CDLHT's unitholders at its extraordinary general meetings, to the 50:50 CDL-CapitaLand joint venture entities and CDL. Concurrently, Ascott Reit will sell part of its interest in Somerset Liang Court Singapore² to CDL.

Subject to approval from the relevant authorities, the proposed integrated development with a total gross floor area of 100,263 square metres will comprise two residential towers offering around 700 apartment units, a commercial component, a hotel and a serviced residence with a hotel licence. Upon completion, the 50:50 CDL-CapitaLand joint venture entities will own the residential and commercial components while Ascott Reit will own the 192-unit serviced residence with a hotel licence. CDLHT will own the hotel, which will have about 460 to 475 rooms³, under a forward purchase agreement with CDL⁴. The hotel will be operated under the



Photo: © CDL / CapitaLand

Moxy brand by Marriott International while the serviced residence will retain its Somerset branding. The proposed integrated development is targeted to open in phases from 2024.

Along with the redevelopment, the consortium plans to rejuvenate the river promenade flanking the property which

is in line with the Urban Redevelopment Authority's Draft Master Plan 2019 to enhance the area's vibrancy. This is expected to generate social activities around the proposed integrated development, increase footfall and improve pedestrian accessibility along the Singapore River.

¹ Liang Court site comprises Liang Court mall, Novotel Singapore Clarke Quay and Somerset Liang Court Singapore.

² Under the relevant put and call option agreement, Ascott Reit will sell 15,170 square metres of gross floor area to CDL and retain 13,034 square metres of gross floor area.

³ Subject to change.

⁴ Subject to the approval of CDLHT's unitholders at its extraordinary general meetings.

ASA and NEO hold press conference to launch Architect'20 "Refocus Heritage", ASEAN's largest building exposition to promote new approach on architectural heritage and conservation

Bangkok, Thailand – The Association of Siamese Architects Under the Royal Patronage (ASA) and N.C.C. Exhibition Organizer Co., Ltd. (NEO) held a press conference to launch the 34th edition of Architect Exposition, ASEAN's Largest Building Technology Exposition. Titled 'Architect'20, "Refocus Heritage", this edition will focus on architectural heritage and its conservation. The exposition is set to take place between 28 April – 3 May 2020, at Challenger Halls 1–3, IMPACT Arena, Exhibition & Convention Center, Muang Thong Thani.

Ajaphol Dusitnanond, President of ASA, commented on the organisation of the event: "ASA held its first edition of the Expo in 1986 and has maintained it over three decades. The Expo has evolved and expanded over the years and became the largest exhibition for architecture, materials, and construction technology in the ASEAN to date. The original goal of the Expo still remains: to showcase the potential and performance of architects in the society.

As for the theme of this edition, it has been chosen to bring back the architectural heritage from the past, as well as the conservation and maintenance of heritage sites for the next generations. Seeing conservation of architecture being the mission of the association, the Expo adopted the title of 'Refocus Heritage' for its 2020 edition."

Dr. Vasu Poshyanandana, the Chairperson of the Architect'20 committee spoke about the details of the event: "'Architect'20 – Refocus Heritage' aims to raise public awareness and understanding on the concept of 'heritage' in several dimensions. Many might suppose that conservation and maintenance of heritage sites is limited to government officers or conservators, and therefore is not relevant to them. However, it is present in everyday life and concerns everyone regardless of the jobs and roles that we hold. The owner of an old house in need of a maintenance, for example, will need information on the right materials and construction to use, as well as the cost incurred. Similarly, the renovation of an old building to create new business opportunity, can generate value added for the community and society, as we can see from the several creative communities that arose from the



old quarters throughout the country.

Architect'20, which spans the space of 75,000 square metres, is divided into two sections. The first section houses exhibitions from over 850 international exhibitors, while the other displays Thematic Exhibitions by ASA, covering the space of 5,000 square metres. The latter is constructed with environment-friendly materials and adopts a contemporary design, representing the forms of the past. Visitors will enjoy different exhibitions, including: Workmanship and Heritage Exhibition where rare traditional materials and technology in construction are displayed. Curious architectural knowledge from the past centuries is also put on exhibition in this section. Stop by the Film Screenings section to enjoy 63 heritage short films from 63 interviewees on the topic of heritage site conservation. The screenings will take place in a theatre made from bamboo – a local savoir-faire of the past.

Heritage Crisis on Online Platform Exhibition deals with the hot topics on social media including the dismantling of heritage sites, uninformed maintenance or renovation of temples etc. It aims to raise awareness of and invite the public to question the current heritage events, as well as provide relevant professional information.

The annual Architecture Competition for this event will be promoted to the National Architecture Competition, under the theme of 'Everyday Heritage'. The organisers aim to include every sector of the public, especially school students with

creative ideas, and for the competition to serve as a platform for further development.

Other exhibitions in the event include: 2020 ASA Award Exhibition, where the works of ASA-award recipients are displayed; Art and Architectural Conservation Award Exhibition, whose criteria this year has been developed to align with the UNESCO Asia-Pacific Awards, and Heritage in Danger Exhibition, where local architecture students are given space to exhibit their ideas on the recovery and maintenance of existing heritage buildings in the neighboring areas of their schools.

Other activities include ASA Clinic (Mobaan ASA), where architects, engineers and other professionals are available for advice and information on design and construction; ASA Place, an activity area for the public, where talks and workshops are available in rotation throughout the six days of the event. Demonstrations on the latest technology for conservation including 3-D object scan are also available.

The visitors, especially architects, can join ASA Forum, for talks on the newest happenings in the international architecture scene. ASA Club returns as always for ASA members to gather and mingle. ASA shop and ASA Book Club also return with the newest titles from all over the world and book launches.

The theme "Refocus Heritage" invites the public to look back on the heritage, as well as sharpen our vision and awareness on the topic. The theme also deals with the flexibility of the coexistence between our society and the heritage sites, in

order to preserve the values of the old buildings and the vivacity of their contemporary counterparts. The Expo aims to widen the public's focus on architecture and lend dimensions to the vision of the visitors of various age and background, encouraging them to re-consider their ownership of the heritage, and their contribution in the conservation and legacy of these valuables heritage of the future."

Sakchai Pattarapreechakul, President of NEO and one of Architect'20's committee members, revealed the latest progress of the event. "This year, NEO has been able to strategically promote the event into the status of international exhibition for architecture, material and construction technology. We are managing up to 75,000 square metres of exhibition space. Presently we have improved our insurance and IT Solution offers to support both international and local exhibitors. We have exhibitors from the Europe, USA, Australia, Russia, South Korea, Taiwan, Hong Kong, Japan, India, China and the ASEAN; accounting for 850 companies. 70 percent of our space has already been reserved at present by the leading international and local companies."

The event also includes Inno-talks, panels where gurus will make appearance to discuss the latest technology in architecture and construction. The visitors can also join the Buyer Program and meet with the exhibitors to learn more about business opportunities and become the local distributors for international suppliers in the expanding market of Asia.

For more information, visit <https://asa.or.th/architectexpo>.

FITCH designs the future of workplaces across Asia

Singapore – "The next wave of workplace design should be the antithesis of corporate," said Simon Bell, Managing Director, SE Asia, FITCH.

With a deep understanding of consumer and human needs across industries and markets, the brand experience design consultancy applied its creative approach 'Designing the Future' to challenge current conventions and create an engaging workplace driven by experience.

FITCH's vision for the future of workplace is to design a meaningful and purposeful experience that will foster passionate, innovative and committed employees to create a brand experience, not just another better-looking office.

This month, Microsoft launched its new regional headquarters in Singapore at Frasers Tower, designed by FITCH in partnership with SLA, where they reimagined the future of working environments by catering to individual employee needs and empowering a collective culture within the workplace.

As technology is at the heart of Microsoft, FITCH+SLA designed a Growth Core – an interactive digital and physical content wall that runs vertically through the 6 floors to connect the Microsoft community, immersing employees and guests in



FITCH+SLA designs Microsoft's new regional headquarters in Singapore at Frasers Tower.

information from its values, philanthropic initiatives, internal and global events, news to global ground-breaking service and product developments.

PT Mowilex Indonesia, Indonesia's first carbon neutral paint manufacturer announces wider sustainability initiatives



From left to right: IGG Maha Adi (National Communications Manager, Conservation International), Mahawa Karuniasa (University of Indonesia, member of Paris Committee on Capacity Building, UNFCCC), Susy Nurmayanti (Head of Environment and Forestry Standardization Ministry of Environment and Forestry), Niko Safavi (President Director of PT. Mowilex Indonesia), Imam B Prasodjo (Senior Advisor to the Minister of Environment and Forestry Republic of Indonesia), and Todd Frank (SCS Global Southeast Asia Regional Director). Photo: © PT Mowilex Indonesia

Jakarta, Indonesia – On 30 October 2019, paint manufacturer PT Mowilex Indonesia (Mowilex) announced major sustainability initiatives that it is undertaking with the help of its Singapore-based parent company, Asia Coatings Enterprises, Pte. Ltd. (ACE). The company's sustainability initiative focuses on: carbon emission reduction, reduction in plastics, and marine conservation.

One week before this announcement, Mowilex announced that it had become Indonesia's first manufacturing company, and the only paint manufacturer in the country to be certified carbon neutral. SCS Global Services, an internationally recognised certification body, conducted the third-party evaluation of Mowilex's emissions calculations, covering all their locations and operations.

Mowilex offset its carbon footprint following The CarbonNeutral Protocol developed by Natural Capital Partners, a global leader who pioneered the certification process and began developing the protocol in 2002.

The company has also pledged to reduce its new plastic

packaging materials by 80 percent within eight years. To achieve this, the company will look to bring back recyclable tin cans, source plastics with recycled content and work with suppliers and waste-management companies to explore packaging alternatives and collections.

Mowilex's press conference was attended by Indonesia's Ministry of Environment and Forestry, DKI Jakarta Provincial Government's Bina Marga Office, SCS Global Service, Conservation International and the Indonesian Forestry Climate Change Expert Network (APIKI).

"Mowilex has passed an important milestone in a country where customers are looking for leadership and corporate responsibility," said Nicole Munoz Managing Director, Environmental Certification Services at SCS Global Services.

"Being an industry leader means more than just bringing high quality paints and coatings to our customers, but also being responsible for the carbon emissions generated from our operations," said Niko Safavi, CEO of Mowilex.

dormakaba solutions for healthcare



Singapore – Whether hospitals, retirement and nursing homes, homes for dementia patients, psychiatric facilities, medical centres, doctors' practices and pharmacies – all these different types of facilities need to satisfy a host of complex requirements and legal provisions.

The optimisation of operational

processes plays an important role in saving time and planning resources. For all these facilities and your individual areas, dormakaba offers a wide range of access solutions and services.

dormakaba's modern hardware and software solutions let you organise and secure operations in your facility –

simply, reliably and on demand.

They control your people flow, grant various access rights for different groups of people and individuals and enable unhindered access for people with mobility limitations. dormakaba supports you in planning access concepts that are tailored to your individual needs.



Property protection

Extended security of your premises for increased safety.



Public visitor areas

Smart design for an aesthetic look and reliable function of public areas.



Building security

Innovative access control for a regulated flow of people.



Versatile accessibility

Barrier-free access solutions for ease of access to all properties and areas.



Indoor security

Customised access management for all rooms and areas in your facility.



Barrier-free access to WC

Automated door systems for higher security and convenience.



Secure access to private rooms

Good balance of secure access to private rooms and privacy.



Emergency access

Efficient prompt emergency service for hospitals.



Corridors and passageways

Compliant security of access points based on specific requirements.



Service

dormakaba's service portfolio ranges from planning to maintaining as well as installation of your access systems.

Rocco Design Architects Associates complete Hong Kong Skyscraper Church

Hong Kong – Wesleyan House Methodist Church embraces a challenging site in Wan Chai, Hong Kong. The building both provides a serene sanctuary space for worshippers in this bustling location and enriches the surrounding urban fabric. The project stands on a teardrop-shaped site at the corner of Queen's Road East – a major four-lane road, and Kennedy Road. The site itself is tight: as 11,000 square metres of program needs to fit on an 800 square metres plot, the building inevitably needs to go up.

As such, the design creates a vertical church, integrating the sanctuary, chapels, activity halls, social service floors, and pastoral offices into a tower. Wesleyan House building defines its skyline by slanting gently and subtly from the base to the top to project its image as a religious institution.

The resulting skyscraper church offers unique opportunities to create signature spaces for worship. The sky chapel on the top floor of the tower boasts sweeping views of the harbor to the north and the hills to the south, creating a unique space that takes advantage of the beauty of the surroundings. Carefully considered adjacencies optimise church operations. A large congregation hall sits above the main sanctuary, inviting worshippers to come together after the service. Church offices and pastoral residences sit on adjacent vertical floors, creating easy access between them while retaining distinct identities: a place to work on the one hand and a place to live on the other.

The exterior design creates an entry sequence that transitions from the busy streetscape to the peaceful sanctuary within. A gently curving facade manifests the notion of embracing and flowing, creating a robust presence on Queen's Road East while ushering visitors into a public plaza that separates the church from the street. This public plaza peels away to transition from the city towards the peaceful sanctuary within. Set on the intersection, it acts as a hinge that improves pedestrian connectivity between these two roads, creates open sightlines in the dense context, and offers a much needed public gathering space.

Various spatial entities also connect as a trajectory, leading from the street to the ground floor open space and to the sanctuary. People arrive greeted by the music from the carillon, pass by the historic stone wall, the tree of life, and the inscribed plaques through a blending of inside and outside spaces that helps to foster their mood for worship. The main sanctuary has a restrained material and color palette. To create a peaceful and solemn worship place, natural daylight focuses on the altar with a backdrop of an eight meters tall wall in pure solid white, punctuated along by a glazed cross-shaped opening. The lightscope above the ceiling softens and diffuses the sunlight onto the altar.

The building – which employs several innovative environmental sustainability features – expects to earn silver Hong Kong BeamPlus sustainability rating. With a solid core wall facing east, the design opts for casement windows instead of a curtain wall to minimize heat gain, particularly on the west elevation. Large windows on the north- and south-facing facades maximize daylighting and views in the sky chapel, congregation halls, and church offices. The orientation of the building creates cross-breezes in the residences, offering natural ventilation.



Exterior of Wesleyan House. Photo: © Rocco Design Architects



Sky Chapel inside Wesleyan House. Photo: © Rocco Design Architects

HASSELL wins big at Singapore's 2019 landscape architecture and planning awards



GSK Asia House, Singapore. Photo: © Peter Bennetts

Hong Kong – HASSELL has received two of the top five awards presented at the 2019 Singapore Landscape Architecture Awards gala held at Raffles City Convention Centre; with the Chengdu Panda Land Master Plan and Collect and Connect: Resilient South City, San Francisco, both receiving Outstanding Awards of Excellence for Analysis and Planning.

The HASSELL-designed GSK Asia House, Singapore, and Darling Harbour Public Realm, Sydney, also received Silver Awards in the Commercial Landscape and Parks & Recreational Landscape categories respectively.

The Singapore Institute of Landscape Architects (SILA) awards jury praised the Panda Land Master Plan's holistic scheme for prioritising conservation, saying it presents "a very strong vision" for Chengdu's environmentally-sensitive and sustainable development that includes community education, physical planning, promotion and branding that recognises and builds upon the attraction of the giant pandas.

HASSELL Head of Landscape Architecture, Angus Bruce said the awards signify the great importance HASSELL places on renewal, resilience and sustainability in design, and their relevance in Asian cities. "In Singapore, and across the wider region, landscapes that function beyond 'green amenity' are vital. We must design-in and maintain natural systems – as essential 'service providers' within the built environment – to help clean the air and water, mitigate the impacts of weather events, and sustain vulnerable urban ecosystems," said Angus.

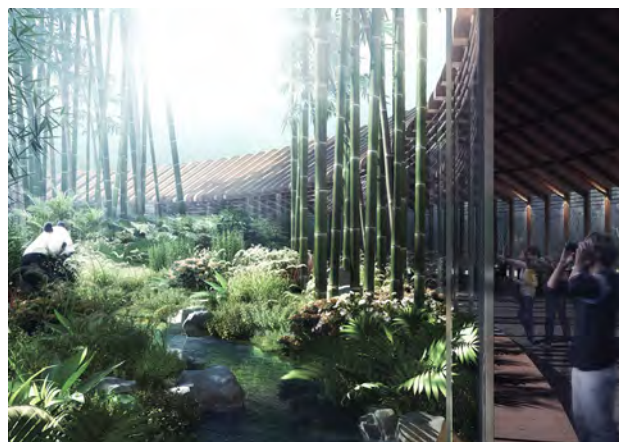
Three of these projects were also among those awarded at the 2019 Singapore Institute of Planners (SIP) Planning Awards. In the International Category, the Darling Harbour Transformation took out the top Gold award for Urban Design, Collect & Connect: Resilient South City was awarded Silver for Resilient Planning, and the Panda Land Master Plan received Bronze for Best Planning.



Collect and Connect: Resilient South city, San Francisco. Photo: © HASSELL



Darling Harbour Public Realm, Sydney. Photo: © Simon Wood



Chengdu Panda Land Master Plan, Chengdu. Photo: © HASSELL

LMN Architects breaks ground on the new Field Arts & Events Hall in Port Angeles



Rendering credit: Courtesy LMN Architects

Seattle, Washington, USA – LMN Architects is pleased to celebrate the design and construction of the Field Arts & Events Hall in Port Angeles, Washington. The new cultural centre aspires to strengthen the creative community of Port Angeles and establish a place for all to feel welcome, while embracing the natural beauty of the site.

The Field Arts & Events Hall, the first of three buildings dedicated to arts, culture and science planned for the Port

Angeles Waterfront Center, provides a new performing arts space and community gathering place on the city's waterfront. Aspiring to enhance the broader creative community of Port Angeles, the building is specifically designed to support numerous community arts organizations, Peninsula College, and the City.

The spectacular natural environment of Port Angeles, framed by the Strait of Juan de Fuca and the Olympic Mountains, is captured within the architectural gestures of the building. Public space that rises from the street to a second level provides wrap-around views of the city, the water, and the mountains. Aqua green tones and textures, wood ceilings and curtainwall mullions, and forest and waterfront beach inspired landscape materials connect the experience of the building with its broader surroundings.

The 40,140 square-foot building features a 500-seat multi-purpose Performance Hall designed with an acoustical environment and theatrical systems to accommodate orchestral music, dance, dramatic theater, and amplified music events and festivals. A flexible Conference Center composed of a large meeting area with 3 break-out spaces and a Founder's Room, convertible to 300 seats in banquet setup or 375 seats in a meeting format, complement the Performance Hall.

New spectacular square opens in Copenhagen

Copenhagen, Denmark – A new, major square in Copenhagen has officially opened. Called Karen Blixens Plads, the square has a unique undulating landscape with hollow hills and low bicyclebeds creating a new and innovative way to park bicycles. It is one of the largest public spaces in Copenhagen and has room for more than 2,000 parked bicycles. COBE, under Dan Stubbergaard's leadership, created the design in close collaboration with EKI Consulting Engineers.

At more than 20,000 square metres Karen Blixens Plads is one of the largest public squares in Copenhagen. Situated between the University of Copenhagen and the Danish Royal Library's buildings at the university's South Campus, the open and welcoming urban space is an innovative, spectacular and



Photo credit: Rasmus Hjortshøj – COAST

multi-functional architectural design that accommodates and promotes green transportation, climate change adaptation and biodiversity. The project was supported by a generous donation from the private foundation A.P Møller Fonden.

Innovative bicycle parking

The combined public square and university plaza is designed as a carpet that covers an undulating terrain of small hills and breaks the large space up into smaller zones with room for activities both on and inside the hills (domes). The three bicycle hills were created as cast concrete shells clad with hand-laid tiles in colors echoing the exteriors of the surrounding university buildings.

In addition to serving as an active meeting place for students, employees

and locals, the square also contains a high-capacity bicycle parking space for the many users of the university, including 16,000 students and 2,000 employees. The innovative and unique design has room for 2,000 bicycles.

Green profile

In a soft transition, Karen Blixens Plads brings together the university's need for urban spaces with the open landscape of the neighbouring Amager Fælled (Amager Commons). The north side of the square, where the three main entrances to the university are located, is an open and multi-purpose space. To the south, hilly, undulating meadowland connects the campus with the commons. In addition to bringing nature into the campus the landscape also contributes to climate change adaptation by adding a capacity to

handle stormwater. Delaying rainwater in depressions in the landscape utilizes the recreational values of the water and creates small wet biotopes that support biodiversity, enable rainwater evaporation and supplements the canal in case of extreme precipitation, thus contributing to climate change adaptation. The design uses simple, sturdy and durable materials, just as lighting and furnishings are kept to a few, simple elements to ensure a sustainable urban space. All the selected elements are low-maintenance and contribute to the square's green profile.

Outdoor auditorium

A central feature is an outdoor auditorium with seating for up to 1,000 people on the manmade hills. The hilltops offer additional standing room for concerts or other large public events.

Architecture firm Leibar & Seigneurin delivers three major mixed-use projects in the heart of Nantes

Nantes, France – The ambitious Désiré Colombe project by the architecture firm Leibar & Seigneurin completed a major project undertaken by the city of Nantes, jointly sponsored by Nantes Métropole Aménagement and ADI. This development has brought back to life an emblematic legacy of the built centre of Nantes and an abandoned landscape, including the particularly noteworthy former Bourse and the Salons Mauduit, on a surface area of approximately one hectare (2.47 acres). It brings together public and private uses with dwellings, meeting spaces, a nursery and a public garden.

The street's existing buildings have been restored and repurposed with the aim of preserving and enhancing local heritage. The narrowness of the Livet building is compensated by the creation of a volume alternating white concrete and glazing designed to frame the historical façade of the building. The Salon Mauduit is recreated and literally inserted into the site thanks to the topography of the place, thereby encouraging its acoustical insulation. Access to the Salon Mauduit opens broadly to the Pôle Associatif (Associations Center). Inside, the space has been restored to its original proportions and elements, with the utmost respect for the memory of the place.

The apartments are in a continuous line forming courtyards of a residential character, while also offering exceptional views of the broad urban cityscape and of the Say Garden. Their design was determined by two requirements: to propose



Photo: © Patrick Miara

apartments ensuring a pleasant environment and high degree of quality of life and comfort, and to offer a range of qualities and contrasts in the views and ambiances. Thus, the project was planned with only dual-aspect apartments, a maximum number of double loggias, the use of the volume under the roof, a limited number of apartments with a landing and an overall volume creating no visible distinction between social housing and the apartments for first-time buyers.

Prize-winning sports and leisure facilities

Cologne, Germany – At the festive gala on 5 November 2019, the International Olympic Committee (IOC), the International Paralympic Committee (IPC) and the International Association for Sports and Leisure Facilities (IAKS) presented the much-coveted medals for exemplary architecture.

The jury for the 2019 IOC IAKS Award is commending seven facilities with Gold, six with Silver and seven with Bronze. The IPC IAKS Distinction for accessible sports facilities is going to five participants. The prize-winning projects can be found in 14 countries worldwide.

This year, 98 projects had been competing from all continents, including ones in Malaysia, Mexico, Namibia, Taiwan and Qatar. Countries ranging from A for Australia to U for USA were all participating. This year's winners span the range of major international sports event venues in Australia and USA, to a universally accessible toboggan slide structure featuring a lookout tower in Canada.

Two firms of architects are happy to be awarded prizes each for two projects. MJMA from Canada are the creative minds behind the UBC Aquatic Centre in Vancouver and the Great Plains Recreation Center in Calgary. The internationally known architects of Populous also succeeded with two projects in Canada and the United Kingdom.

Outstanding are the six award-winning projects from Canada, which include multifunctional sports and recreation centres as well as arenas and non-organised public spaces for sports and leisure. Adjacent to this year's theme of the IAKS Congress "Facilitating an active world" the projects are exemplary and inspiring for the future trends of urban planning and the design of active spaces and buildings.

The five IPC IAKS award-winning projects are in Australia, Canada, Denmark, Poland, and the United Kingdom. Accessibility is gaining ground in local and community-orientated sports centers. The IPC IAKS Distinction thus honours three projects which as a public institution promote an active lifestyle, inclusion and the wellbeing of the community.

Winners in 2019 are:

IOC IAKS Award Gold

- Planica Nordic Center, Ratece Planica, Slovenia
Architects: Studio Abiro, STVAR, Studio AKKA
- Sportcampus Zuiderpark, Den Haag, Netherlands
Architects: FaulknerBrowns Architects
- Riviera Water Park, Brno, Czech Republic
Architects: A77 Architekti, Centroproject Group
- UBC Aquatic Centre, Vancouver, Canada
Architects: MJMA, Acton Ostry Architects
- Great Plains Recreation Facility, Calgary, Canada
Architects: MJMA, MTa
- Rogers Place, Edmonton, Canada
Architects: HOK Architects
- GAME Streetmekka Viborg, Viborg, Denmark
Architects: EFFEKT Arkitekter

IOC IAKS Award Silver and IPC IAKS Distinction

- Optus Stadium, Burswood, Australia
Architects: HASSELL, COX Architecture, HKS

IOC IAKS Award Silver

- Diösgyör Stadium, Miskolc, Hungary
Architects: KÖZTI Architects & Engineers
- World Archery Excellence Center, Lausanne, Switzerland
Architects: Tardin & Pittet Architectes
- P-Hus & Konditaget Lüders, Copenhagen, Denmark
Architects: JAJA Architects
- Videotron Center, Quebec, Canada
Architects: ABCP architecture, GLCRM architects, POPULOUS architects
- Oxygen Park, Doha, Qatar
Architects: AECOM

IOC IAKS Award Bronze and IPC IAKS Distinction

- Manitoboggan, Winnipeg, Canada
Architects: Public City Architecture
- Pulsen, Spøttrup, Denmark
Architects: Elkiær + Ebbeskov arkitekter, LETH & GORI

IOC IAKS Award Bronze

- KI Innsbruck, Innsbruck, Austria
Architects: Thomas Schnizer
- Termalija Family Wellness, Podcetrtek, Slovenia
Architects: ENOTA
- Quai de la Moselle Basketball Arena, Calais, France
Architects: Bureau faceB
- Banc of California Stadium, Los Angeles, United States
Architects: Gensler Sports
- More Awesome Now, Vancouver, Canada
Architects: HCMA Architecture & Design

IPC IAKS Distinction

- Kärcher Hala Cracovia Sport Center for the Disabled, Cracow, Poland
Architects: Bjuro Projektów Lewicki Latak
- The Warner Stand at Lord's Cricket Ground, London, United Kingdom
Architects: POPULOUS architects

The winners of the "2019 IOC IPC IAKS Architecture and Design Award for Students and Young Professionals" are:

Gold: Triamentum in Koblenz designed by Miriam Möller-Boldt, Germany

Silver: Experimental Teaching School in Oaxaca designed by Diego Eduardo Hernandez Santa Maria, Estefania Medina Duarte and Paola Andrea Rios Camacho, Mexico

Bronze: Connection Project in Montreal designed by Guillaume Ballart Terral, Switzerland

Connecting Russia and China with the first ever cross border cable car

Amsterdam, The Netherlands – Following the completion of cable car designs for the cities of Gothenburg and Amsterdam, UNStudio was recently selected as the winner in the competition for the first ever cross border cable car, which will carry passengers across the Amur River to connect Russia and China.

Following a vision round involving 12 practices in the invited competition managed by Strelka KB, UNStudio and Coop Himmelb(l)au were selected to submit design proposals for the Blagoveshchensk Terminal Station in Russia for the second phase. Strelka KB were also responsible for the economic and functional model of the Cable Car Terminal.

The new cable car line will connect the cities of Heihe in China and Blagoveshchensk in Russia in a matter of minutes. Comprising 2 lines and 4 cabins – each with a capacity of 60 passengers and extra space for luggage – journey time will be approximately 7:30 mins, while actual travel time will be 3:30 mins.

Ben van Berkel: "As it crosses the natural border of the Amur River, the Blagoveshchensk – Heihe cable car will be the first ever cable car system to join two countries and cultures. This context provided rich inspiration for the Blagoveshchensk terminal station, which not only responds to its immediate urban



Visualisation: PYXID

location, but also becomes an expression of cultural identity and a podium for the intermingling of cultures."

The Blagoveshchensk Cable Car Terminal is designed as an expression of the historic connection between two cities of Blagoveshchensk and Heihe. Since the mid-19th century, the Amur River has defined the natural boundary between Russia and China. However, when frozen over with thick ice, the river literally supports trade, commerce, social connection and a growing relationship between the two cities.

This frozen river became an important reference point for UNStudio's winning

Cable Car Terminal design. The building takes this historical connection as an inspiration for the organisation of programmes, materialisation, spatial quality and curated views of both cities. Much like the ice on the river, the building becomes an engine for creating social connections between two cultures and a beacon for a joint prosperous future between the two nations.

The terminal building is shaped as an open and welcoming gesture, allowing visitors to enjoy commercial spaces in one connected movement, with a clear navigational direction towards the departure platforms.

The shape of the building also enables the raising of the park towards the roof of the terminal. Beyond creating a space to greet arriving passengers, or to wave goodbye to those leaving, the terraces and green plateaus act as an elevated urban park, creating a green space for urban arts and sculptures, and viewing points over the whole Golden Mile river-scape.



Visualisation: PYXID

Daniels Wood Land constructs new headquarters, tripling size of current space

Paso Robles, California, USA – Known for their themed design and fabrication, shooting galleries, commercial playgrounds, animatronics, and tree houses, Daniels Wood Land has announced a new \$6 million corporate headquarters and shop in Paso Robles, California. The new building coincides with the company's launch of a new theming division, DWL Studios.

"We are excited to enter this next chapter of our business, which allows us to increase efficiency, capacity and future growth," said Daniels Wood Land EVP Business Development Andy Dauterman. "Furthermore, DWL Studios will be able to provide dedicated resources and services for our valued clients in the themed entertainment marketplace," added Dauterman.

Company co-founders and twin brothers Ron and John Daniels began to realize their current shop, located five miles from the new facilities, was approaching its limits with larger projects and a broader range of clients becoming the norm. The team began to search for a new site, which was purchased in 2018; construction started mid-2019. The four-acre property includes a 35,000 square foot building



Photo credit: Daniels Wood Land, Inc.

that includes a climate-controlled art department/studio as well as dedicated space for the company's theming, custom work, steel fabrication, shooting galleries and other departments.

The new facility will include upgraded equipment such as the Kuka CNC Milling Robot, new 3D printers, and their recently acquired large format 2D printer.

The space will also be a literal showcase for Daniels Wood Land's design capabilities. In addition to 1,500 square feet of showroom space, the

entire facility façade and interior office environments will be themed. The team even bought and renovated a classic Arrow Development 36" gauge train that will carry visitors on tours around the site. The train was built in the 1960s and sat neglected for many years after having been used at a Seattle shopping mall and various fairs and carnivals.

The company, which has been regularly adding to its staff, anticipates hiring additional workers once the building is ready for occupancy, currently scheduled for January 2020.

World Green Building Council launches new digital library of sustainable buildings from across the world

Atlanta, USA – On 19 November 2019, the World Green Building Council (WorldGBC) launched a new digital case study library showcasing examples of the world's most cutting-edge sustainable buildings.

Each case study demonstrates enhanced performance in relation to health benefits or through achieving net zero operational carbon, as verified by established certification schemes, rating tools or other third-party verification.

Buildings and construction together account for 36 percent of global final energy use and 39 percent of energy-related carbon dioxide (CO₂) emissions when upstream power generation is included. Additionally, people spend 90 percent

of their time in buildings, and there is a consistent association between unhealthy indoor environments and negative human health impacts, for example exposure to damp and mould is recognised to raise likelihood of asthma attacks by 40 percent. Building operations, therefore, represent a significant opportunity to reduce energy consumption and carbon emissions, improve air quality and create healthier places for people and communities.

WorldGBC has launched the case study library in recognition of growing market demand to highlight the 'best in class' buildings that excel in key areas of sustainability, and the role of certification schemes to provide third party



Image: © World Green Building Council

assurance of performance. The case study library will now be open for new submissions via WorldGBC's website on a rolling basis, following its launch at USGBC's Greenbuild conference in Atlanta in November 2019.

Submissions are reviewed against qualification criteria, developed by WorldGBC with input of an advisory committee of development partners. This process is to ensure that each project featured in the library represents an outstanding example of sustainability in the built environment, as a net zero carbon building or across different areas of health and wellbeing.

Net zero carbon case studies are existing buildings or spaces that can demonstrate they have achieved high levels of energy efficiency and either generate or procure sufficient renewable energy to meet the building's demand over 12 consecutive months. This can be demonstrated either through the use of Green Building Council or other market rating tools that certify net zero carbon performance, or by providing third party verified data to support the net zero claim.

Healthy case studies are existing buildings or spaces that can demonstrate they excel in the provision of features that enhance human health, as verified and certified using rating schemes demonstrating outstanding achievement of health elements of a holistic green building certification scheme, or achieve specific health-based certification, or demonstrate equivalent levels of performance using verified data.

The library also features industry "game changer" projects – those that have achieved the criteria for both healthy and net zero performance criteria – and information from the case studies about their specific features, lessons learned and additional useful project information. It is therefore a useful resource for sharing and learning about best practice approaches to achieving pioneering levels of sustainable performance.

Cristina Gamboa, CEO, World Green Building Council said: "As a global network committed to achieving a sustainable built environment, I'm delighted to launch our new case study library. It showcases the most cutting-edge examples of sustainable building worldwide as verified by our local Green Building Councils. Buildings are a vital part of the solution to the climate crisis as they are the fastest, most viable and cost-effective means to achieve emissions reductions. Therefore, our case study library will be a valuable resource to further inspire commitment towards improving human health and eliminating the building and construction sector's CO₂ emissions to reach net zero before 2050."

Southbank Tower announces partnership with Zaha Hadid Architects (ZHA) to transform the tower's lobby

London, UK – ZHA's first refurbishment of an apartment building interior introduces a new mezzanine and lift, concierge desk and lighting scheme for the lobby of the repurposed Southbank Tower. One of the UK's most ambitious renovation projects, the 30-storey office building completed by Richard Seifert in 1972 was converted by KPF in 2015 into a 41-storey mixed-use tower that incorporates two and three bedroom apartments.

The lobby's design by ZHA draws inspiration from the organic forms of flower petals that overlap to conceal the lobby's lighting scheme. The fluid curves of the structure house the tower's concierge on the ground floor, before peeling back at the top to reveal a new mezzanine level which serves as an additional lounge for residents and guests.

The sculptural petals in glass fibre reinforced gypsum and marble furniture pieces within the lobby are formed to precision in an off-site studio using 3D digital fabrication. This process minimises the duration of works in the lobby and disturbance to residents, while also creating original pieces at an architectural scale to a level of detail otherwise associated with intricate, hand-crafted design works.

Incorporating a colour palette and materials informed by the existing building, the lobby marries polished marble and concrete with walnut and leather. Construction of the 200 square metre lobby will commence in early 2020 and is due for completion in summer 2020.



Photo: Courtesy Zaha Hadid Architects

Vortex International wins 2nd World Waterpark Association Leading Edge Award

Montreal, Quebec, Canada – Vortex Aquatic Structures International, a manufacturer and world leader in water attractions, received a Leading Edge Award from the World Waterpark Association at its Annual Symposium & Trade Show, the water leisure industry's most popular market place, at Disney's Coronado Springs Resort. This is Vortex's second time winning a Leading Edge Award.

WWA's Board of Directors selected Vortex as part of a group that worked on The Wave Coventry, an indoor waterpark that will open on 21 October 2019. Owned by the City Council of Coventry, UK, The Wave Coventry consists of three floors filled with exciting state-of-the-art attractions including slides, a wave pool, lazy river and toddler splash zone as well as health and fitness centre and a spa. In addition to Vortex, which supplies products for the lazy river and toddler splash zone, partners receiving the award include The City Council of Coventry and FaulknerBrowns Architects, Neuman Aqua Ltd., Polin Waterparks, and Water Technology, Inc.

Vortex's mandate was to design an inclusive family waterpark attraction that would be accessible to all ages and abilities, and in particular those with physical challenges. It created a wheelchair accessible Elevations™ system and Splashpad® that were uniquely configured to the waterpark space, which was already under construction when the project called for additional functionality. Ustigate Waterplay (ustigatewaterplay.co.uk), Vortex's channel partner in the UK, was instrumental in the successful management and installation of the water attractions.

The Wave Coventry is an unbelievable aquatic facility. The architects had a bold, unique vision, which provided numerous design opportunities that Vortex was excited to undertake," said Virginie Guilbeault, Executive Vice President of Vortex Aquatic Structures International. "The flexibility of our Elevations™



Preview of Vortex's family water attraction during final installation and testing at The Wave Coventry in the UK, winner of a World Waterpark Association Leading Edge Award.

system allowed our team of creative designers to work with Neuman Aqua Ltd. and Water Technology, Inc. to create an interactive play experience that looks as though it grew out of the building structure itself. It's truly a one-of-a-kind facility. Winning industry awards is gratifying because it validates our approach to design and recognises our water attractions as those that delight children and their families," added Virginie. This is Vortex's second WWA Leading Edge Award, having previously won for its work with Camelback Lodge & Aquatopia Indoor Waterpark in 2015.

Hariri Pontarini Architects wins 2019 RAIC International \$100,000 (Cad) prize for excellence in architecture

Toronto, Canada – The Royal Architectural Institute of Canada (RAIC) is pleased to announce the Baha'i Temple of South America in Santiago, Chile as the winner of the 2019 RAIC International Prize. The architects are Hariri Pontarini Architects of Toronto, Canada.

The winner was revealed on October 25, 2019, during an awards ceremony and gala at the Westin Harbour Castle in Toronto, attended by over 260 members of the Canadian and international architecture community.

The Baha'i Temple of South America is designed to be a place of welcome and meaning for everyone. Its design aspires to commonality within diversity, and it has attracted over 1.4

million visitors since opening in 2016.

The jury said: "The result is timeless and inspiring, a building that uses a language of space and light, form and materials, to express an interpretation of Baha'i philosophy and teaching that becomes universally accessible as a shared spiritual and emotional experience."

The prize consists of a monetary award of CAD \$100,000 and a sculpture designed by Canadian designer Wei Yew. It celebrates a single work of architecture that is judged to be transformative within its societal context and expressive of the humanistic values of justice, respect, equality, and inclusiveness.

The Baha'i Temple of South America was selected by the six-member jury following site visits to each of the three shortlisted projects. In addition to the Baha'i Temple of South America, the finalists included:

- Edificio E, Lecture Building, University of Piura in Piura, Peru by Barclay & Crousse, of Lima, Peru; and
- Thread: Artists' Residency and Cultural Center in Sinthian, Senegal by Toshiko Mori Architect, of New York, USA.

Now in its third cycle, the biennial prize received submissions from 12 countries across six continents.

The prize was established in 2013 by Canadian architect Raymond Moriyama along with the RAIC and the RAIC Foundation and was originally called the Moriyama RAIC International Prize.

The prize is open to all architects, irrespective of nationality and location, for a building anywhere in the world. The winner is selected in an open, juried competition.

The temple's nine gracefully torqued wings, bound to an oculus at the top, are made of an outer layer of cast-glass panels and an interior layer of translucent marble from Portugal. The invention of this new material – cast-glass cladding – took four years of experimentation and collaboration with a Canadian glass artisan. The interior spaces of the temple are designed to invite people to come together and sit in quiet contemplation. An alcoved mezzanine offers a space to seek solitude while remaining connected with the community below.

The building holds an important place in the Chilean community, hosting community clubs, youth outreach programs, and children's activities in partnership with public schools.



Photo credit: Doublespace Photography

In addition to the main CAD \$100,000 prize, three scholarships of CAD \$5,000 were also awarded to students of Canadian schools of architecture on the basis of a written essay on the topic of 'the moment when they decided to become an architect.' The winners are Laure Nolte, Dalhousie University, Lucie Palombi, University of Montreal, and Odudu Umoessien, University of Manitoba.

LocHal Public Library named the World Building of the Year 2019 at World Architecture Festival

Amsterdam, The Netherlands – A public library in Tilburg, Netherlands, has been named the World Building of the Year 2019 at World Architecture Festival.

LocHal Public Library, designed by Civic Architects (lead architect), Braaksma & Roos Architectenbureau and Inside Outside / Petra Blaisse, was praised by a super jury for being able to meet a variety of purposes.

"This project transformed a significant building which had been planned for demolition. The result has created a physical facility in which a variety of users can meet for a variety of purposes, in this sense the building has become a social condenser. It celebrates and exploits local traditions of textile manufacture and it has an environmental strategy aimed at heating and cooling people, not the building. It provides spaces of very different scales to provide both communal and more intimate uses," noted the super jury on the winning project.



LocHal Public Library. Photo: © Stijn Bollaert

OMA wins competition for the new Kadewe Vienna Department Store



Image: © OMA

Vienna, Italy – OMA / Ellen van Loon and Ippolito Pestellini Laparelli will design the new KaDeWe department store and hotel in Vienna's Museumsquartier. This was announced after a final jury meeting on 1 October 2019, concluding a design competition organised by the developer Signa.

Ippolito Pestellini Laparelli and Ellen van Loon: "The value of department stores should be measured by their ability to engage the local context. We are very excited about the opportunity to work in the historical heart of Vienna, and with this project we intend to highlight its qualities. The building is not an icon but rather an architectural device that establishes new urban connections and public spaces through its own internal organisation."

The main program components are split in two volumes, retail up front and hotel in the rear, between which OMA created a green passage that invites people up to a series of public roof-gardens. The gardens range in quality and character – from tree groves to sun decks – generating unprecedented views from all sides of the building onto the city. The KaDeWe complex is connected to the pedestrian network of the area and provides new types of public spaces in the historical center. The façade is inspired by the gentle and sophisticated geometries of the architecture of the Vienna Secession.

Upon completion this will be OMA's first project in Vienna. OMA is currently also leading the renovation of KaDeWe Berlin.

The project is led by Ippolito Pestellini Laparelli, Ellen van Loon and Laurence Bolhaar. Landscape design is in collaboration with Vogt Landschaftsarchitekten, sustainability by IPJ Ingenieursbüro P. Jung and structural engineering and MEP by Vasko + Partner.

Conran and Partners designs new Conran Shop in Seoul

London, UK – International architecture and design practice Conran and Partners have completed a new flagship store for British lifestyle brand, The Conran Shop, in Seoul. The store – The Conran Shop's first in South Korea – opens in the city's Gangnam district this week.

Working closely with The Conran Shop's in-house creative team, Conran and Partners have evolved the brand experience to create a high-impact lifestyle-led retail environment. The practice's innovative design evokes the atmosphere and drama of a gallery space – rather than that of a conventional store – and allows for products to be curated in impactful, eye-catching ways. The store, specialising in furniture and homeware, responds to the vibrant retail culture of the city and the context of the site. The Conran Shop has partnered with retail conglomerate, Lotte, on this venture and the 2,300 square metres outlet spans the ground and first floors of Lotte's Gangnam annex building, adjacent to its main department store. These two floors were originally a multi-storey car-park. As a result, the building offers the positive attributes of large structure spans and a clear grid, but with the challenge of a lower ceiling than a typical new-build retail site.

The practice's design approach has opened up the perimeter to allow maximum light into the store, as well as to optimise views in and out. Switch-back escalators in the centre of the store act as a dramatic architectural feature and encourage circulation between the two floors.

The design adopts a strong graphic-led approach, showcasing all aspects of The Conran Shop's iconic product range, while enhancing Lotte's wider home furnishing offer as this market continues to grow both across South Korea and the wider the Asia region.

Simon Kincaid, Partner, Conran and Partners, said: "We wanted to create what is, effectively, a contemporary gallery space which allows The Conran Shop to curate its products and encourages customers to engage with those products in an atmospheric, dramatic and stimulating retail environment. The contrast between the two floors adds a sense of theatre and surprise to the experience, as well as giving variation and depth to the product merchandising."



Main entrance view of the new Conran Shop in Seoul with products. Photo: © Woo Jin Park

Connectivity offers efficiency, safety, security and convenience of tomorrow's urban spaces

Frankfurt, Germany – More and more people are moving into cities. And the growing shortage of space and resources is a huge challenge for municipalities. The smart city – a connected and intelligent conurbation – is a solution to these problems. The use of digital technologies makes cities safer, more efficient and increasingly sustainable. Light + Building 2020, the world's leading trade fair for the sector in Frankfurt, presents products for the smart city and provides a platform for smart building automation, intelligent energy management and connected safety and security.

Technological developments and innovations play a key role in the concepts of tomorrow's cities. The main prerequisite for the smart city of the future is the safe, secure and efficient connection of people, places and their infrastructure. Today, the intensive linkage and collection of data from building equipment is already reality.

Smart buildings – nucleus of a smart

The process of urbanisation means the amount of ground available is declining – and buildings are becoming ever bigger, higher and more complex. Collecting and evaluating a large volume of data can help improve the safety, security, energy efficiency and environmental friendliness of buildings and cities. By completely networking numerous sensors, the data amassed will be



Source: Messe Frankfurt Exhibition GmbH/ Jens Liebchen

available to all services and thus ensure, inter alia, lower energy consumption. According to the Association of the German Electrical Industry (ZVEI), intelligent building automation can generate savings of 20 to 30 percent in terms of energy demand and CO2 emissions. In this connection, self-learning systems can promote intensive user involvement through, for example, needs-based control of light, air conditioning and heating, or through the display of individual escape routes on mobile devices.

Smart Lighting – an important contribution to energy saving

According to the Working Group on

Energy Balances some 13 percent of electricity consumption in Germany goes on lighting. With energy savings of up to 80 percent, LED luminaires offer a huge potential compared to conventional lighting systems. Moreover, their light temperature and colour can be adjusted to suit individual requirements.

In this way, smart LED luminaires can be used to increase well-being and productivity (human centric lighting). In intelligent cities, LED streetlights fitted with WLAN, charging facilities for electric cars, an emergency-call button and other sensors are an important part of the Internet of Things (IoT).

Electric charging infrastructure – the core element for smart mobility

Smart cities are only possible with new mobility concepts and the intensive expansion of electromobility is one of the keys to this. Consequently, it will be necessary to provide charging points for electrical vehicles and an intelligent charge-management system in an intelligent electricity network (smart grid). In this connection, particular attention must be paid to the integration of charging points in the electrical infrastructure of a building, which must be adapted accordingly.

For more information on the show, visit www.light-building.com.



Source: Messe Frankfurt Exhibition GmbH/ Jens Liebchen

Portman Architects unveil plans to transform Union City, Georgia

Atlanta, Georgia, USA – Strategically located near Hartsfield Jackson Atlanta International Airport (HJIA), Union City has a vision for the future: to grow their city into a thriving destination to live, work, play and visit. The community leadership of Union City is investing in a conceptual master plan that seeks to boldly reimagine major portions of the city with significant re-planning and re-designing in order to achieve a more dynamic, adaptable, and sustainable urban environment. The plan was inspired by Mayor Vince Williams as well as a broad cross-section of Union City representatives and stakeholders. The plan aims to assist Union City in transforming the challenges the city currently faces into opportunities for positive and effective growth. Like many U.S. cities, Union City is affected by problems such as increased traffic congestion, health issues, environmental issues and social inequities. Portman Architects' helped craft a vision that tackles these issues head on by proposing a conceptual master plan that facilitates Union City to take the critical steps necessary to cultivate long-term environmental, financial and social sustainability.

Union City's new conceptual master plan focuses on three distinct zones: Zone A: Reclaim, Zone B: Renew, and Zone C: Reimagine. The plan puts the people of the community first by connecting each zone with a continuous open green space that forms a large park for residents and visitors to enjoy. This large green space also performs as an ecological corridor and creek preservation buffer, highlighting and protecting some of the beautiful natural assets of Union City like Morning Creek and Dixie Lakes. Complimented with a pedestrian and bicycle path, this area will boost recreational health and wellbeing, promote a healthy ecology for Union City's natural environment, and unify the city's neighborhoods to become more walkable and safe communities. Working together, the plan of these three zones serve to



Portman Architects stand with Union City's Mayor, Vince Williams, after presenting a conceptual master plan for the city and bold vision for the future at Hometown 2019. Pictured left to right: T. Coston Dickinson, Didier Porter, UC Mayor Vince Williams, Pierluca Maffey, and Norris Hunt.

revitalize and transform Union City into a thriving mixed-use community complete with more restaurants, retail, and entertainment, as well as civic and educational institutions, dense residential and office space, and innovative film industry facilities.

Zone A focuses on reclaiming and regenerating the natural landscape for outdoor recreation, health, and community gathering. By greening the land, Portman Architects are opening possible opportunity for a Union City Resort or the like by proposing to reclaim Dixie Lakes as a public amenity.

Zone B seeks to form the city's center of the community. By nourishing and renewing the city's central axis, this area will serve as the dynamic heart of the municipality headquarters and a focal point for community events and initiatives. With an appropriate mix of high-density living, municipal

structures, and restaurants, this area will become the soul of the city.

Zone C addresses the long-term economic vision and effective future impact growth of Union City. Portman Architects defined a vibrant, dense, and mixed-use commercial hub that is compact, walkable, and bustling with active public spaces reimagining the identity of Union City's future urban landscape. Moreover, the commercial hub edges along the green corridor and that preserves Morning Creek and creates a park-facing real estate opportunity.

As an internationally renowned architectural design firm, Portman Architects, focus on creating progressive, productive, and positive places that inspire people to live better. Together with the city's representatives, the firm strives to create a truly unified vision for the future that Union City can enjoy and prosper in for years to come.

Temasek Shophouse

Temasek Shophouse at 28 Orchard Road in Singapore has been awarded the 2019 Award for Restoration at the annual URA Architectural Heritage Awards that recognises exemplary restoration of gazetted heritage buildings.

The restoration project was commended for adhering to the three 'R' principles of maximum retention, sensitive restoration and careful repair. Surbana Jurong is the lead consultant for the project and is involved in the general space planning and architectural design, with Asylum coordinating the bulk of the interior design.

This three-storey building close to a century-old has been rejuvenated with a new mission of 'giving back' to society. It

now stands proudly in its former grandeur as a community space along the busy Orchard Road. Through thoughtful repair, re-imagination and sensitive reuse, it is a showcase of sustainable development.

Landmark changes

Built in 1928, this building was originally conceived as a shophouse with commercial space on the ground floor and



Facade facing Orchard Road, after restoration. Photo: © Surbana Jurong

two residential apartments above. The building was constructed during the post-war era (World War I) at Orchard Road. It was gazetted for conservation in 2000 for its rich and diverse architectural style, ranging from ornate and decorative classical features to a modern Art Deco style.

Over the years, it had served a variety of uses including being a furniture shop, an eatery, department store and even as a fashion retail shop. Today, with its restoration, this old landmark brings in a new sense of vibrancy to this historic stretch of Dhoby Ghaut.

Temasek Shophouse covers a site area of 835 square metres, with a floor area of 2,334 square metres. Visitors will immediately be drawn to an interior green wall of locally grown flora upon entry. There are also outdoor gardens attracting butterflies, birds and bees, as well as carefully conserved features such as outdoor spiral staircases and lighting which accentuate the building's historical facade at night.

Shaping a new form for use

The original spirit of the building was one adapted to the tropical climate of Singapore. This has now been enhanced in several ways. The former dingy rear court is transformed into a delightful garden lavishly planted with native vegetation, reintroducing city folks to the natural world while also supporting local biodiversity. The roof has also been reinvented as an open outdoor terrace. The beautiful verandas fronting Dhoby Ghaut, which were neglected over the years, are now rediscovered and refreshed as sheltered spaces designed to take in the cool tropical breeze with views of the city.

Internally, windows make it possible for the building to function with natural ventilation. Complementing these, the project team has introduced new environmentally sensitive technology such as ducted evaporative cooling system.

At the internal atrium, a multi-level green wall has been introduced, bringing the outdoors in and serving as a focal point feature that provides a sense of the grand and yet invoking a warm sense of coziness. The atrium also opens out at the front and rear on the first storey, encouraging flow through the building and creating new



Facade facing Orchard Road, before restoration. Photo: © Surbana Jurong

connections to the surroundings.

Biophilic design takes centre stage

The refurbishment of this heritage building, which has been unoccupied for nine years, was done over 18 months to sensitively preserve the façade and character of the building's history. Its renovation is inspired by conservation and biophilic design.

Biophilic design, or designing with nature, takes centre stage when refurbishing the Temasek Shophouse. Led by Surbana Jurong, great efforts have been made to creatively incorporate natural elements into the three-storey shophouses.

Upon entering the Temasek Shophouse, visitors are greeted by a green wall created for its ability to clean the air by reducing dust, carbon dioxide and sound abatement. Housing some 27 plant varieties, a special microclimate cooling system was also installed to help the flora thrive in the urban space.

Temasek Shophouse seeks to increase the biodiversity within a small footprint, and especially to mimic a habitat within a rainforest in the tropics. In consultation with urban greening specialist Greenology, more than 100 different local species of plants and trees were planted during the refurbishment of the building.

Interior design inspired by nature

Designed by Asylum, the interior of Temasek Shophouse is largely influenced by the distinct Art Deco architectural style of the building.

Visitors entering the Temasek Shophouse are greeted with an open

Atrium that connects Level 1 and Level 1 Mezzanine, through to Level 2. As the heart of Temasek Shophouse, this open Atrium with its lush green wall aims to bring nature closer to guests.

Recognised by its streamlined aesthetics, an Art Deco-inspired light feature suspends above the Atrium as a distinct centrepiece, bringing ambient lighting and a warm environment to welcome guests. A café sits on Level 1 – a centre for community gathering and budding ground for Temasek Shophouse, a cradle for social impact.

The design team aims to reflect the building's heritage and beauty through the design process and further reimagine it with modern lenses – all the while staying true to the building's origin and projecting a spirit of optimism to the interior space. Pockets of green and natural light are introduced throughout the Temasek Shophouse, including washrooms, for one to be close to nature on every level. A bright colour palette is selected to complement the nature within the space.

Offices, meeting rooms and lounge spaces are designed for organic use. Furthermore, meeting rooms are named after native bird species to amplify the biophilic design concept.

- On Level 1 – Bulbul and Dove
- On Level 1 Mezzanine – Flameback, Heron, Kingfisher, Koel and Red Shank
- On Level 2 – Sunbird and Swallow
- On Level 3 – Sparrow and Starling
- Sky Garden – Hornbill

Curated art pieces and a collection of furniture made from recycling waste



Facade facing Stamford Canal, after restoration.
Photo: © Surbana Jurong

materials can be found in selected spaces to reflect Temasek Shophouse's values and beliefs.

Recovering for the future

Facade features and details such as long hidden ceiling cornices, have been reinstated as part of the restoration works and now showcase the elegance on the public facing part of the building. With the removal of false ceilings at the five-footway, the restoration now accentuates the original double height columns. The bulky internal escalators from the 1980s have also been removed and in its place, a new two-storey atrium has been introduced to bring in a new sense of spaciousness.



Facade facing Stamford Canal, before restoration. Photo: © Surbana Jurong

The removal of the enclosure helps to recover the sense of form and space. This revealed a pair of spiral staircases and windows, allowing natural air and light into the building's atrium. These exposed features extend the building's conversations with the streetscape, allowing passers-by to look into the building which was previously obstructed.

New beginnings

With new life injected into the building, this project serves as a good showpiece of how our built heritage can work alongside and fit into our modern 21st century agenda. This is also symbolic of the building's new use as a cradle for social impact and how the first storey is now a public space that can engage with the communities. This almost forgotten building is now set to enliven the streetscape in the same way it had done so when it was first built almost a century ago.



The open design allows natural light and ventilation into the building.
Photo: © Stillusion Photography



Before restoration.



After restoration.

Five Foot Way. Photos: © Surbana Jurong



The original spiral staircase at the rear courtyard. Photo: © Stillusion Photography



Office with window to void, after restoration.
Photo: © Surbana Jurong



Interior after restoration. Photo: © Surbana Jurong



“As the shophouse was built over 90 years ago, there was limited information on how the interiors looked originally. We had to rely on available old blueprints to decipher the original design and layout. We also had to reimagine the space and be creative in how we convert the tight shophouse space to one that is open and welcoming for the public, as well as comfortable and conducive for the tenants.”

Ivy Koh, Senior Principal Architect
of Surbana Jurong and lead architect
for the project.



Rooftop meeting room, after restoration. Photo: © Surbana Jurong



Party lounge, after restoration. Photo: © Surbana Jurong



Atrium Spaces, after restoration. Photo: © Surbana Jurong



Atrium Spaces, before restoration. Photo: © Surbana Jurong

The Temasek Shophouse was awarded the Building and Construction Authority (BCA) Green Mark Gold^{Plus} Award for its efficient and energy saving cooling system, smart water system, use of sustainable building materials and furnishings, and greenery living.

PROJECT DATA

- Project Name:** Temasek Shophouse
- Location:** 28 Orchard Road, Singapore
- Owner:** Temasek Trustees Pte Ltd (Lessee) & Singapore Land Authority (Owner)
- Architect:** Surbana Jurong (design and interior fit out in collaboration with Asylum)
- Floor area:** 2,334 square metres
- Completion of restoration works:** 2019

Sanctuary of the Madonna dell'Ambro

Following the earthquake in 2016, the Sanctuary underwent delicate restoration and consolidation work before being handed back to visitors and worshippers on the 24th December 2018.

The Sanctuary dedicated to the Madonna dell'Ambro upon completion of the work.



Situated in the Monti Sibillini National Park, the Sanctuary of the Madonna dell'Ambro is the most ancient place of worship dedicated to the Madonna in the Marche Region (Central Italy). At the beginning of the 11th century a small church, the Church of Santa Maria in Amaro, was built in the place where the Madonna had made an appearance and was entrusted to Benedictine monks from the nearby Santi Vincenzo and Anastasio monastery. At the beginning of the 17th century, under the jurisdiction of the diocese of Fermo, it was decided to construct a larger church. The work was designed by the architect Ventura Venturi from the Santa Casa di Loreto, who was commissioned to design a church that incorporated the original Church of Santa Maria in Amaro and 6 lateral chapels alongside the aisle of the church.

Following the earthquake that struck the area on the 24th of August, 2016, the structure was badly damaged with serious cracks that compromised its general stability. Montefortino City Council made the Sanctuary safe by implementing a project by Luigino Dezi, a professor in Construction Technology at the Polytechnic University of Marche, and the engineer Massimo Conti.

The conservative restoration and seismic upgrading project

The work on the structure included consolidation of the brick vaulted ceiling



The Sanctuary was officially reopened in December 2018, on the 21st.

over the aisle; the insertion of 510 steel chains with 36 mm diameter around the main arches; the construction of a system of kerbs and tie-rods along the top of the roof, partly in breccia rock on the 1.5 metres thick walls to avoid creating too much transversal stiffness, and partly in reinforced masonry; the positioning of steel bars in the openings of the upper altar wall and of an embedded tie-rod to counteract out-of-plane loads; consolidation of the lateral chapels and the walls of the upper tombs; stitching of the dividing walls in the chapels; positioning of a band of carbon fibre to prevent the apse from collapsing; the insertion of DYWIDAG anchor bars to prevent the tympanum of the main facade collapsing; the insertion of chains around the belfry and in the filler material used to stitch various cracks.

The materials used for the renovation

The sponsor of the initiative, the Cassa di Risparmio di Fermo bank, asked for Mapei's collaboration to carry out the work and Mapei, as Technical Partner for the project, supplied experts from the company's Technical Services Department and various cutting-edge product systems.

Consolidation of the vaulted ceiling was carried out in two phases. Firstly, the damaged areas were repaired with a product chosen for its compatibility with the existing mortar's mechanical properties and level of porosity, its resistance to physical and chemical aggression (freeze-thaw cycles) acting on the ceiling and its compatibility with the frescoed surfaces.

A product suitable for repairing frescoed surfaces was chosen so that, during its application, the substrate would not need to be wetted and, while it was setting, it would not give off free lime that would have caused the formation of efflorescence and potentially damage the decorated surface. The ceiling was then consolidated by applying on the outer face a composite system with an inorganic matrix. All the products used contained no cement, as specified by the local Heritage Board. For the upper part of the apse, a composite system with an organic matrix was proposed, which consisted of carbon fibre fabric and epoxy resin to guarantee a constraint on mechanisms out-of-plane of the macro-element.

Intervention with Mapei systems

To consolidate the outer face of the existing vaulted roofs PLANITOP HDM RESTAURO was used, a product made of



The Sanctuary had to be shored up following the earthquake in 2016.

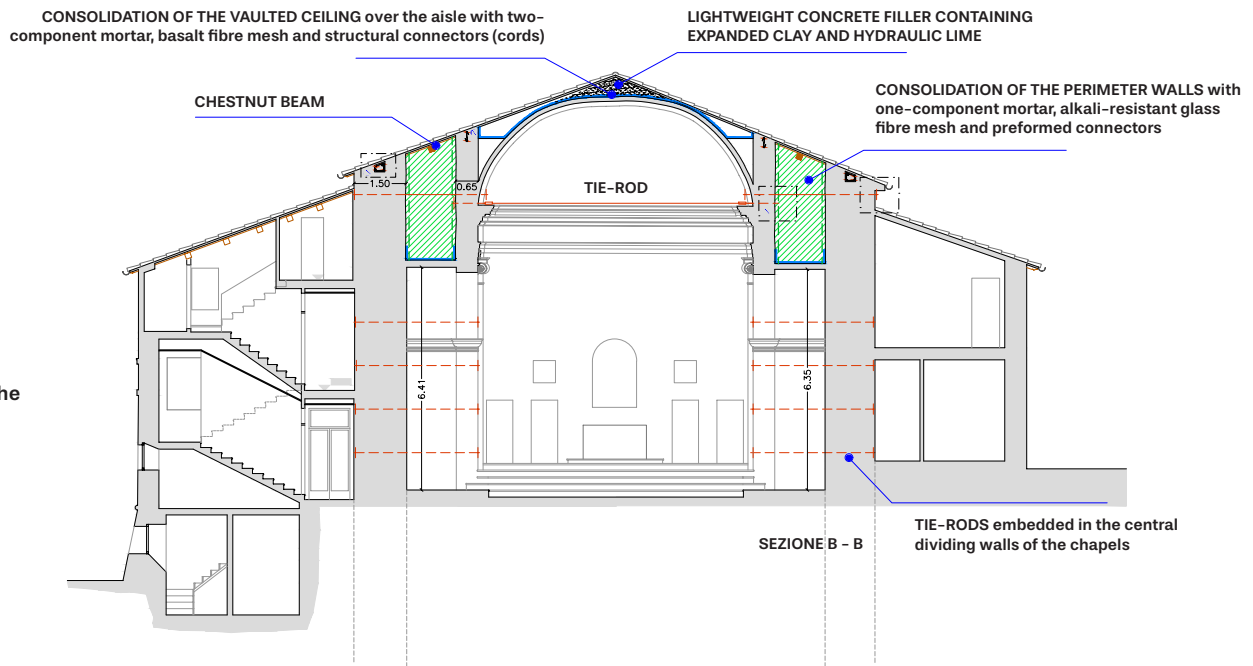


Restoration work on the Sanctuary was also used to carry out training in collaboration with the Fermo Association of Engineers (and particularly Antonio Zamponi, Marco Meconi and Daniele Ulissi). On the 26th of May 2018, around 100 professionals took part in a special day to learn more on the project and to visit the site where the work was being carried out.

an inorganic matrix of natural hydraulic lime and Eco-Pozzolan. This product, which was applied in an even layer using a flat, metal trowel, allows to smooth and level off masonry surfaces such as stone, brickwork and tuff. When used in combination with MAPEGRID B 250 alkali-resistant basalt fibre mesh, as in this case, it has the capacity to strengthen masonry and reinforced concrete elements. To ensure the strengthening of the side walls, MAPEWRAP B FIOCCO high strength basalt fibre cords were prepared and then bonded in place with MAPEFIX EP 470 SEISMIC pure epoxy resin-based chemical anchor for structural loads. MAPE-ANTIQUE F21 super-fluid, salt-resistant, fillerized hydraulic binder made from lime and Eco-Pozzolan was poured into the masonry, including the masonry decorated with frescoes.

To strengthen the masonry, it was rendered with MAPEANTIQUE STRUTTURALE NHL high-performance mortar made of hydraulic lime and Eco-Pozzolan, reinforced with MAPENET EM40 alkali-resistant glass fibre mesh and L-shaped MAPENET EM CONNECTOR fasteners made from alkali-resistant glass fibre and thermosetting vinylester-epoxy resin.

The design project for the renovation and seismic upgrading of the Sanctuary.



The vaulted ceilings before and after the renovation works.



The FRP SYSTEM was used to strengthen the apse.



MAPEWRAP C UNI-AX

In the apse area of the Sanctuary, the FRP SYSTEM was applied, consisting of MAPEWRAP C UNI-AX 600 high-strength, unidirectional, carbon fibre fabric with a high modulus of elasticity, MAPEWRAPPRIMER epoxy primer, MAPEWRAP 31 medium viscosity epoxy resin, which was used to

impregnate the fabric, MAPEWRAP 11 thixotropic epoxy paste and MAPEWRAP C FIOCCO unidirectional, high-strength carbon fibre cord to form structural ties.

Afterwards, the FRP system was protected with a layer of MAPE-ANTIQUÉ ECOLASTIC two-component, elastic, salt-resistant, cement-free, lime and Eco-Pozzolan based coating which is used for waterproofing and protecting construction elements, including those in listed buildings.

Mapei Products

Statical consolidation: Mape-Antique F21, MapeWrap B Fiocco, Planitop HDM Restauro, MapeGrid B 250

Structural strengthening: Mape-Antique Strutturale NHL, Mapefix EP 470 Seismic, Mapenet EM40, Mapenet EM Connector, MapeWrap 11, MapeWrap Primer 1, MapeWrap 31, MapeWrap C UNI-AX 600, MapeWrap C Fiocco

Protecting masonry surfaces: Mape-Antique Ecolastic

Article source: *Realtà Mapei International* no. 74/2019.

For more information, email mapei@mapei.com.sg.



The outer faces of the ceilings were consolidated by pouring in MAPE-ANTIQUÉ F21 and then applying PLANITOP HDM RESTAURO and MAPEGRID B 250 basalt fibre mesh.



The masonry was strengthened with MAPE-ANTIQUÉ STRUTTURALE NHL and MAPENET EM40.

PROJECT DATA

Project Name: Sanctuary of the Madonna dell'Ambro

Location: Montefortino, Italy

Original Design: Ventura Venturi

Period of Construction: 17th century

Year of the intervention: 2018

Intervention by Mapei: Supplying products for consolidation and structural strengthening, as well as for renovating the renders

Design: Diego Damen, Giulia Alessandrini, Luigino Dezi

Client: Cassa di Risparmio di Fermo, Amedeo Grilli MIBACT (Marche Regional Office for

Archaeological and Landscape Heritage and Fine Arts) Supervisor: Domenico Cardamone

Works Direction: Diego Damen, Giulia Alessandrini

Main Contractor: AR Alessandrini Nello Srl

Mapei Coordinators: Pasquale Zaffaroni, Daniele Arnone, Lorenzo De Carli, Massimiliano Petti,

Dominica Carbotti, Stefano Geminiani, Luca Consorti, and Francesco Carboni, Mapei SpA (Italy)

Photos: © Mapei

105 Onan Road

This year, the URA AHA 2019 Special Mention went to a two-storey residential shophouse at 105 Onan Road in Singapore for its thoughtful restoration that brings back the original intent of a shophouse that is to allow generous natural light and ventilation through the house.

The design team from EZRA Architects, creatively used recycled materials and upcycled discards in the restoration process, further adding sustainable elements to the low energy building. Today, the rejuvenated shophouse enlivens the street and serves as an inspiration to its neighbours. The deep involvement of the homeowners in the restoration process also encourages bold

partnership between architects and owners.

The pre-war shophouse was gazetted in 1993 as part of the Joo Chiat Conservation Area. Zoned for residential use, the current owner bought the property in the early 2000s and restored it as their own home. The close collaboration between owner and architect has injected new life into a humble building, enlivening the street and inspiring its neighbouring

Entrance of 105 Onan Road. Photo: © EZRA Architects





The restoration of the shophouse brought back its original intent of allowing light and ventilation through the house. Photo: © EZRA Architects

shophouses to be similarly refreshed.

It brought back the original intent of a shophouse such as reinstating the airwell to allow for natural light and ventilation into the space. The clever insertion of a new two-storey extension creates additional space but is sensitive to the existing building. The project also serves as a model of a traditional low energy building and the upcycling of materials help to add to the charm.

PROJECT DATA

Project Name: Two-storey residential shophouse
Location: 105 Onan Road, Singapore
Owner: Ms Sharon Tay
Architect Firm: EZRA Architects
Size: 197 square metres
Completion of restoration works: 2012
Photos: © EZRA Architects



The open concept staircase leads to a cosy corner on the second storey. Photo: © EZRA Architects



Greenery at the air well adds to the open concept look and feel.
Photo: © EZRA Architects



The airwell and glass windows allow generous light into the energy-saving house. Photo: © EZRA Architects



Intricate spiral staircase leading up to the top storey. Photo: © EZRA Architects



The design allows generous airflow through the house. Photo: © EZRA Architects



“The completed shophouse may look simple and even felt effortless in delivering the nostalgic charm of the pre-war architecture. However, there were actually tremendous amount of passionate hours spent in design with thorough planning and detailing - even to the extent of crafting out how services are to run and how the new structures should be tactfully inserted.”

Keith Khoo, Principal Architect,
EZRA Architects

Hanoia Concept Stores

Since 2014 a continued collaboration has existed between G8A Architecture & Urban Planning and Vietnamese luxury brand Hanoia. With now three completed projects in Hanoi and Ho Chi Minh City, and with others currently in development, the central design proposition pays witness to G8A's keen and long standing interest in Vietnamese cultural and urban typology.



Hanoia Metropole



Hanoia Metropole

With each project integrated into zones of historical importance, from the early Chinese shophouses of Old Hanoi, to the colonial courtyard block of the Metropole Hotel, and finally to the tubehouse mutation in Ho Chi Minh City, each project develops on the concept of the "architectural promenade". That is, the experience of space and movement directed by a series of sequences with 'constructed' views, vistas and understandings.

This Vietnamese Historical Journey is an opportunity to explore the capacity of these 3 typological configurations to create a specific and contextual experience linked to Vietnamese cultural identity.

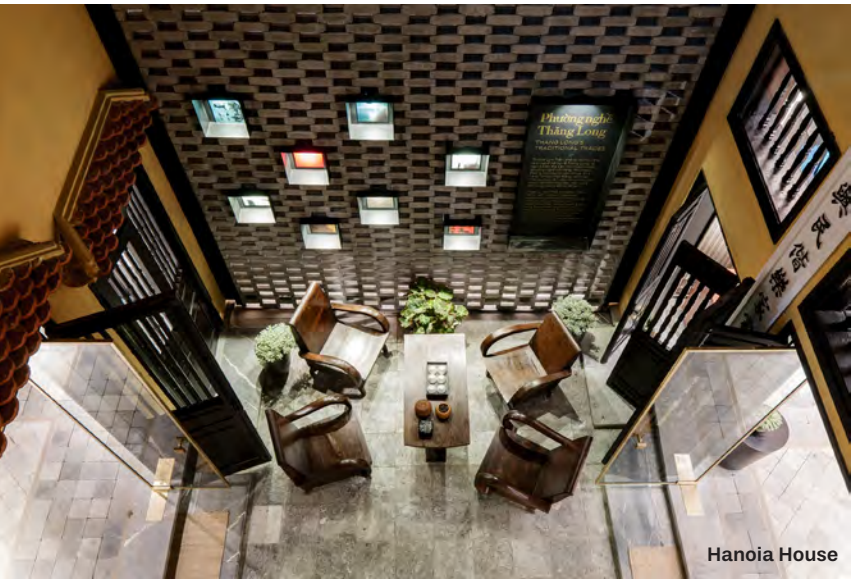
Hanoia House was the first completed project in the series. The horizontal voyage rhythms the passage through the rooms with openings onto skyview courtyards. This sensation of immersion is highlighted by the extraordinarily narrow configuration, drawing the visitor deep into the dense urban fabric of the Old Quarter. Choices of materials allow the user to revisit elements of the surrounding context, with the use of silk screening an echo to the past life of the street, the historical epicenter of regional silk trade.

"Hanoia Metropole" is nestled in the east wing of the Sofitel Metropole complex, steps from the Opera House in the historical French Quarter of Hanoi. Placed in a minimal plot, no bigger than a hotel room, G8A decides to transform the space into a "vitrine typology". In contrast to the experience of depth of Hanoia House, here is proposed a single-layered reduction in spatiality that can be lived by the viewer from the sidewalk. The use of moucharaby brick as background effectively absorbs dimensions of volume and highlights the powerful depth of materiality found in the lacquerware products on display.

The southern Hanoia counterpart in Ho Chi Minh City is found in the commercial epicentre



Hanoi House



Hanoi House



Hanoi House



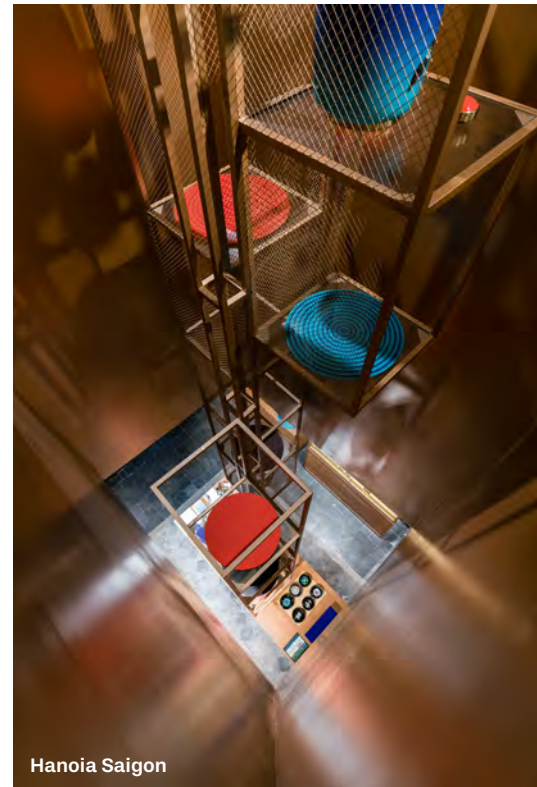
Hanoi Noi Bai



Hanoi Saigon



Hanoi Saigon



Hanoi Saigon

of District 1, in a context where the rise of land pricing has pushed the traditional courtyard typology to grow vertically while keeping its elongated footprint sacrificing natural light and ventilation. The multilevel space allows for further exploration of the "architectural promenade".

While entering the space, a boutique product lift hints at the continuation of the journey. Meandering up to the second level a pause is welcomed on the landing where users discover a "hidden" room displaying the making of Hanoia products and ancestral lacquer techniques. Further on through the brand's product collection and the voyage ends with a lounge area overlooking the street view. The visitor becomes part of the display, a cyclical promenade experience.

Hanoia Noi Bai presents a new exploration of typology for the latest retail space of luxury brand Hanoia. After having revamped an old Northern Vietnamese shophouse, a colonial heritage boutique and a tube house in the dense center of Ho Chi Minh City, G8A now completes the retail space of Noi Bai International Airport.

In 2015, the inauguration of the new terminal welcomed international travellers to and from Hanoi, the spaces lining the departure hall were offered to retail and hospitality and soon was to blossom a certain vitrine typology that had been awkwardly derived from Vietnamese market-booth typology. Products are displayed in abundance of numbers and types; the more choice you have the better. Shops present an overload of products, in a shell of poor-generic display.

Designing a retail space in this context led G8A to question the relevance of abundant displays, and to explore the potential of discovery and the imaginary. This is reflected in the proposition of a space guided by *decouverte* and curiosity, illustrated by the luxury designs Hanoia is known for.

The limit between public circulation and commercial zones in the airport is a blur. G8A intervenes by using a silk-cord curtain filter, enhancing the depth creating a porous foreground, the mousharaby brick wall becoming the scenic background. Following the materiality explored in the previously established retail spaces, G8A uses bricks, dark stone tiling, silk cording, and natural brut elements placed in contrast with details of polished brass and bright lacquer, to create an intimate and luxurious setting, a perfect balance between tradition and modernity.

The design of the Hanoia Noi Bai store also resulted in the development of a set of brand design guidelines that will be applicable in each new retail location. With this latest Hanoia store offered in such a way as to be attentive to visitors' needs, counterbalancing the market types typically on offer with an authentic experience of high end local products.



“Designing for Hanoia was a unique opportunity to explore the materiality of traditional Vietnamese craftsmanship and the relationship with a fine contemporary product line. Being a luxury brand we were able to travel deeply, integrate contrasts of fine detailing and contemporary views into the architectural proposition.”

Grégoire Du Pasquier, Partner,
G8A Architecture & Urban Planning

PROJECT DATA

Project Name: Hanoia Stores

Location: Hanoi old quarter, Vietnam
Sofitel Legend Metropole, Hanoi, Vietnam
Ho Chi Minh City, Vietnam
Hanoi International Airport, Vietnam

Client: OpenAsia Group

Architect Firm: G8A Architecture & Urban Planning

Size: Hanoia House: 81 square metres
Hanoia Metropole: 26 square metres
Hanoia Saigon: 87 square metres
Hanoia NoiBai: 36 square metres

Completion: Ongoing from 2015

Photos: © G8A (Le Hai Anh, Duy Thanh Nguyen) and © Quang Dam

Vikram Sarabhai Library

The Vikram Sarabhai Library is a part of the ongoing conservation project to preserve, restore and upgrade the built fabric of the iconic 20th Century (C.) Modern Heritage structures (site area 3.25 hectares approximately) of the Indian Institute of Management in Ahmedabad (IIM-A), India designed by the renowned American Architect Louis Isadore Kahn in the 1960s. The project received the Award of Distinction at the 2019 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation for the restoration works.



Post restoration, Vikram Sarabhai Library (View from Louis Kahn Plaza), 2018

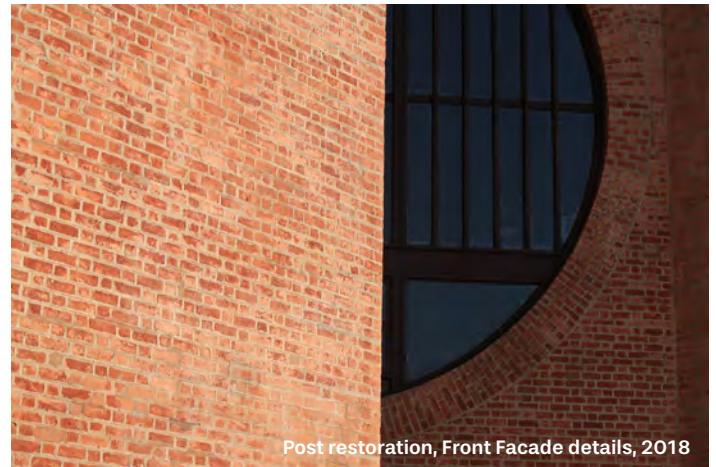
A part from the recently restored Library, this project also includes Faculty Blocks, Classroom Complex and 18 dormitories with a total built-up area of approximately 36,853 square metres. These buildings are internationally known for their architectural vocabulary defined by the exposed brickwork and concrete used for slabs, lintels, and beams. The grandeur of this architecture comes from its monumentality, timelessness and spirituality demonstrated through its extensive brick façades and massive brick arches with concrete lintels.

Somaya & Kalappa Consultants (SNK), Mumbai were appointed as the Conservation Architects for this project after winning the project competition in 2014.

With respect to the detailed study conducted for all the building from 2014 to 2015, Vikram Sarabhai Library required immediate attention. Hence, this building was taken up in the first phase of Main Complex in July 2016 and completed in December 2018.

The Vikram Sarabhai Library is an important and centric element of the Main Complex fronting the Louis Kahn Plaza court surrounded by Faculty Blocks and the Classroom Complex. Since the library was going to be the first building to be restored, the goal of the library project was for it to serve as a catalyst for the restoration of the other Kahn buildings on site.

With respect to SNK's proposal for the Library to be restored



Post restoration, Front Facade details, 2018

and to enable it to become it into a future-ready knowledge hub for digital learning and collaboration, TCS Foundation offered their support in 2016 for the Library project to IIM-A by funding INR 20,00,00,000 (Indian Rupees Twenty Crore).

In brief, the conservation work for the Library entailed restoration of exposed brickwork, repairing reinforced brick arches, repointing, treating rising damp, façade cleaning for removal of efflorescence and biological growth, terrace waterproofing, part-terrace slab and parapet reconstruction,



Post restoration, East Facade, 2018



Post restoration, the Main Reading Hall, Second Floor, 2018

“The question is also about how buildings are looked after. Louis Kahn’s buildings are not easy to look after. There’s a complexity both in the detailing and the structure. Besides, there’s also a huge change in today’s needs. The time buildings were built, systems such as plumbing and electrical services were quite different and there was no Internet; services that have now become such an important part of construction did not have the same importance at that time. So, interventions started to happen over the years, with later consequences. There is a need for “a bigger picture” approach, and I think that’s what’s great about what’s happening now. The board and the director of the IIMA are looking at the entire campus holistically. It’s the first time that 20th century buildings are being addressed in this way, in India, and I hope it will set a precedent for other buildings, like Corbusier’s buildings in Chandigarh.”



Brinda Somaya, Principal Architect,
SNK, Mumbai, India

structural stitching, concrete repairs, flooring restoration and restoration of doors and windows. It also included restoration and upgrading interiors as well as internal planning for barrier-free and upgrading services and lighting to cater to the current and the future needs.

On 14th October 2019, Somaya & Kalappa Consultants (SNK) received the Award of Distinction at the 2019 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation for its restoration and conservation work on the Vikram Sarabhai Library.

The UNESCO Award Jury cited on the conservation of Vikram Sarabhai Library: "The restoration of the monumental Vikram Sarabhai Library heralds an important step forward in the preservation of 20th century architecture in India. The linchpin of Louis Kahn's iconic Indian Institute of Management campus in Ahmedabad, the library was rehabilitated from a state of extensive material dilapidation. Through careful studies and extensive modelling, the conservation team has conquered a range of difficult technical challenges to extend the life of the composite brick and concrete structure with its distinctive geometric forms. The project has recovered configurations and uses of space in line with the architect's original vision, while upgrading functionality to ensure that the library is ready to meet contemporary requirements and provide universal access. With Modernist heritage enjoying increasing acclaim, but still facing the widespread threat of demolition, this initiative promises to have major policy impact within Ahmedabad and throughout India."



Post restoration, Silent zone, Third Floor, 2018

PROJECT DATA

Project Name: Vikram Sarabhai Library
Location: Indian Institute of Management, Ahmedabad
Client: Indian Institute of Management, Ahmedabad
Architect Firm: Somaya & Kalappa Consultants Pvt Ltd (SNK)
Size: 4,580 square metres
Completion: 2018
Photos: © Somaya & Kalappa Consultants Pvt. Ltd.



Post restoration, Main Staircase, 2018

Kaomai Museum

Kaomai Museum is an adaptive-reused project within Kaomai Estate 1955, the revitalized project of sixty-three-year old tobacco processing plant estate in Chiang Mai, once a glorious local community's economic centre. This project was awarded the 2018 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation in New Design in Heritage Contexts category.



Entrance of Kaomai Museum.

PAVA Architects designed the museum by considering "the site as a museum", in which contains the valuable historical and natural heritage. Therefore, Kaomai Estate 1955 is narrated by the "histo-eco museum" routes. The museum barns serve as an introduction to the estate. The historic routes with different types of preserved tobacco drying barns, shady big trees and informative signs along the lanes exhibit the real evidences of time. The museum was respectfully designed to conserve the values and authenticity of the tobacco drying barns, while ensuring the sustainable coexistence of the surrounding multi-decade big trees.

With comprehensive researches on the estate collaborating with several consultants, ex-workers, and local artisans, the original features of the barns were preserved and reinstalled and the arboriculture techniques were adopted to maintain the mature trees. Also, the stories on the timeline and signs were informed by the eye witnesses from the past. The small intervention on the derelict structures integrates the new programs and structures into the old tobacco drying barns, aiming to remind and educate the visitors about the past legacy.

Preserved tobacco drying barns

The museum was respectfully designed to conserve the values and authenticity of the tobacco drying barn. The original features; such as tobacco leaf sticks, furnaces, fuel pipes, and all three-generation walls, were preserved and reinstalled by using original materials and techniques. Former workers and artisans were invited to revitalize the project, providing advice and detailed information about the historic buildings and the story around them.

Adaptive-reuse tobacco drying barns

Inside the museum barn, the new steel structure was added to strengthen the existing reinforced concrete structure, while maintaining the subtle assimilation by its dark grey color. The museum shows the authentic brick surfaces and powerful space inside by removing all hanging sticks and illuminating the dimensional walls.



Exterior of Tobacco Drying Barn Museum.



Interior of Kaomai Museum.



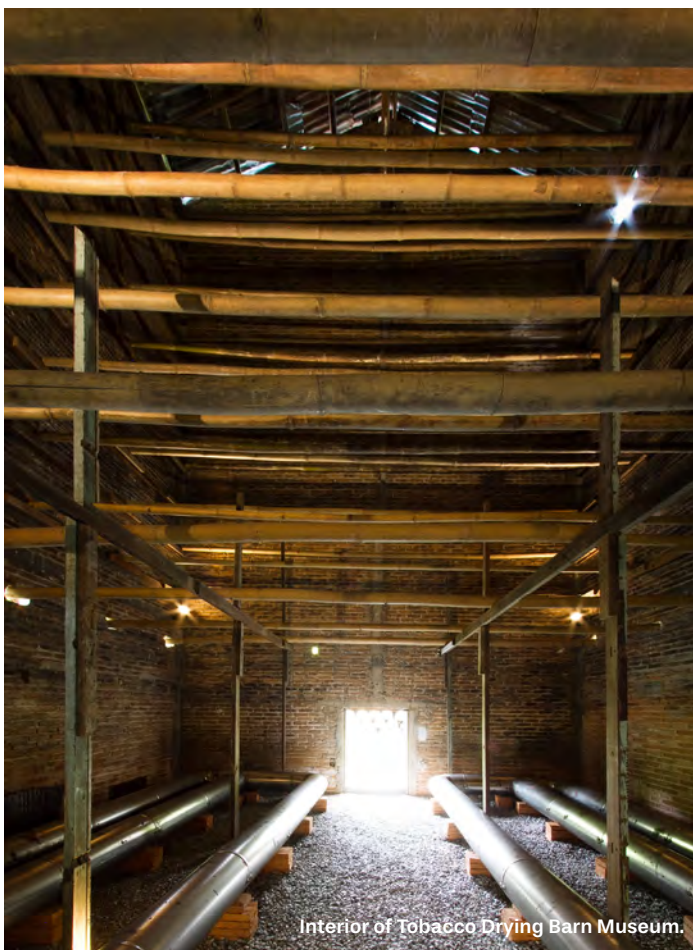
Temperature window on the Kaomai Museum.

Site as a museum

Along the historic routes, the architectural and natural heritage present themselves to the visitors along the way, the building signs explaining the background story and conservation techniques of the barns, and the tree labels giving botanical information. All of the information and directional signs, and the tree labels are made of metal plates because of their durability and subtlety. All of the construction techniques of the steel structure and signs slightly touched the existing built and trees.



Pacharapan Ratananakorn (left) and Varat Limwibul, Founders of PAVA Architects



Interior of Tobacco Drying Barn Museum.

“Sustaining a symbiosis of the adaptive-reused tobacco processing estate and abundant surrounding nature of Kaomai Estate 1955 is our goal, which reflects the values and authenticity of the site and contexts. The design demonstrates an act of reverence toward the estate’s history by articulating the subtle integration of the new design with not only the physical context, but also with environmental and socioeconomic contexts.”

Pacharapan Ratananakorn, Co-Founder, PAVA Architects

PROJECT DATA

Project Name: Kaomai Museum
Location: Sanpatong, Chiang Mai, Thailand
Client: Kaomai Estate 1955
Architect Firm: PAVA Architects
Size: 72 square metres (Museum Built Area), 13,350 square metres (Museum Site Area)
Completion: 2018
Photos: © Pacharapan Ratananakorn

Nelson School of Music

The refurbishment of the Nelson School of Music is a project that commenced in 2013, when the complex was closed due to seismic strength issues. Irving Smith Architects reinstated the original form and heritage features of the building, internally and externally.



The Nelson School of Music Building was designed by Frederick de Jersey Clere in the late 19th century, and completed in 1901; the original building formed an important part of the early development of Nelson City.

Subsequently, the building has been subject to a series of insensitive additions;

- A brutal seismic redesign occurred in 1970, removing all ornament and



installing a series of ill proportioned buttresses and bond beams to the exterior.

- A new neighbouring building was installed on site in 1971.
- A new central entry structure and ill placed secondary performance space was installed in 1983.

The building was listed as an Historic Place Category I by Heritage New Zealand (previously known as the New Zealand Historic Places Trust) in 1998.

Of note the building has been recognised as having world class acoustic properties. In particular it is a recognised international venue for String Quartet performance.

When ordered closed, the building was assessed as being earthquake prone, less than 33 percent of the New Zealand Seismic Building Standard, and a threat to human life occupied.

Major goals and objectives

The Refurbishment Project sought to:

- Seismically strengthen the existing heritage building.
- Complete the seismic works in a fashion that minimises any impact on heritage features.
- Reinstate the original form and heritage features of the building, internally and externally.



- Retain, unaltered, the internationally renowned acoustics, particularly for String Performance.
- Enhance the existing auditorium with considered insertion of HVAC, Electrical Building systems to make a state of the art facility.
- Add well considered entry, foyer, practice, administration, teaching and rehearsal spaces to extend the buildings use.
- Extend the buildings use for at least another 120 years.







1901



1985



Current



Andrew Irving (left) and Jeremy Smith of Irving Smith Architects.

“This is an important project, it establishes a noteworthy model for seismic upgrades which can be applied to other historic buildings.”

Andrew Irving, Project Architect,
Irving Smith Architects

The overall intention was to create a building complex that retained the existing, and added to it, yielding a classroom and performance venue that could extend this buildings use, within the community, for another hundred years at least.

Key interventions

The key structural intervention was to install a post tensioned solution to the existing masonry to achieve the required structural strength.

The proposed solution installed new foundations to the building perimeter and installed tensioned vertical bars at key locations to the building perimeter, to tension the existing masonry to the required level. In addition a new roof diaphragm was installed to the existing roof to strengthen hold the building in a seismic event.

Throughout, the structural works are concealed internally, or attach only to non-original works to reduce the impact on the heritage structure.

The latest design intervention attempts to take a more sensitive

approach; it looks to what is important. The hall is acknowledged as a teaching auditorium and fitted back to its community with the practice, recording, stage and audience spaces that a modern music school and performance venue requires.

The Auditorium is refitted to operate as a 21st Century performance space. Original detailing is rediscovered or reinstated throughout, lighting, services and seating are updated, a workable stage circulation system installed. Heritage values are retained to the highest ICOMOS principles, with no impact on the acoustics that have won this building international renown.

Externally the 'damage' done in 1972 is reversed, the building roof is returned to its original configuration and ornament integral to the original design reinstated. These works utilise a sophisticated matrix of steelwork and Glass Reinforced Cement to add durable, lightweight elements in a seismically acceptable fashion.

New additions represent an open space framework strewn between

buildings and under a waterfall veranda roof that opens high to the auditorium and low to its residential neighbours. New works serve the existing auditorium, giving back the corners and grandeur to the auditorium while re-finding its fit in its community.

A restrained palette of black brick and white surfaces allow modern insertions to stand apart while maintaining a conversation with the traditional brick and plasterwork of the heritage building.

PROJECT DATA

Project Name: Nelson School of Music

Location: Nelson, New Zealand

Client: Nelson School of Music Trust

Architect Firm: Irving Smith Architects, Ian Bowman Architect & Conservator

Completion: 2018

Photos: © Patrick Reynolds

Enrico Fermi School

Turin-based architectural firm BDR bureau has completed the transformation of the new Enrico Fermi School in Turin, the winning project of an international competition launched in 2016 by “Torino Fa Scuola”.

The initiative, promoted by the Compagnia di San Paolo and the Fondazione Agnelli, in collaboration with the City of Turin and “Fondazione per la Scuola”, embodies a cultural, pedagogical and architectural reflection on the new learning spaces of the Italian school.

The existing school building, built in the 1960s in the Nizza Millefonti district between the former industrial area of the Lingotto and the Po river in the south-east area of Turin, has been extended and it is functionally rethought. The new educational needs – in which the school becomes an integral





part of the community and merges with the urban fabric – represents the future of education and architecture for the Italian school.

The Fermi School, a middle school, opens up to the urban sphere through the reorganisation of its entrances and of its external spaces. The back of the existing building becomes the large new main entrance, shaping a green space while unfolding to the neighborhood and emphasising the concept of a community school. The ground floor is an extension of the public space: integrating a series of services open to everyone, such as the gym, the library, the auditorium and the cafeteria.

BDR bureau mainly operates by addition: a new steel structure creates an inhabited envelope where the terraces are an integral part of the teaching program, embraces new connective spaces and works as a passive shield. The modularity of the new frame outlines a thread-like backbone, completed by a metal net that highlights the visual permeability and the relationship with the outside.

The frame's compositional scheme is also repeated in the old building, whose façades are treated with a multigrain plaster creating depth variations. The façades of the new front and those facing towards the courtyards maintain large windows that enhance the relation between the various different volumes and the outdoor spaces, bringing new meaning to the original layout.

The ground floor is designed as a civic centre, where the

different functions are gathered in the atrium, directly connected with the garden and the two entrances. The atrium stretches to the upper floors thanks to a vertical element, a stairwell that evokes the external architectural language. The flexible library and auditorium space, the cafeteria and the gym complete the public spaces on the ground floor.

On the two upper floors, the atrium accommodates recreational and collective spaces, while the educational activities are organised in clusters – spatial units composed of classrooms, cloakrooms, services and informal learning spaces. The classrooms become the meeting point and the linkage between inside and outside, retaining a visual connection to the common space and giving access to the terraces. Just like in the experimental en plein air schools, the educational and recreational activities take place outdoors. In these open spaces, the green areas and the dialog with the surrounding landscape encourage students and professors to meet and exchange ideas in their daily activities, thus adding great value.

The planning project shared with the community carries an explicit and higher ambition as well: "to set the standard by building a school in both the pedagogical and educational sense". At the same time, the innovation of the school structure and the inclusion of new architectural and spatial elements make the Fermi School by BDR bureau a case study, a replicable model for the requalification of the school building heritage.





Simona Della Rocca (left) and Alberto Bottero. Photo: © BDR bureau

“We wanted a project able to dialogue with the existing building and revolutionize its function at the same time. New spatial elements, transparencies and additions reinterpret the original structure with the aim of opening the school to the city.”

Alberto Bottero and Simona Della Rocca,
Founders of BDR bureau

PROJECT DATA

Project Name: Enrico Fermi School
Location: via Biglieri 19, Turin, Italy
Client: Fondazione Agnelli, Compagnia di San Paolo
Architect Firm: BDR bureau
Gross Floor Area: 5,096 square metres
Area Surface: 5,579 square metres
Construction Phase: July 2018 – September 2019
Photos: © Simone Boss



Cassiope

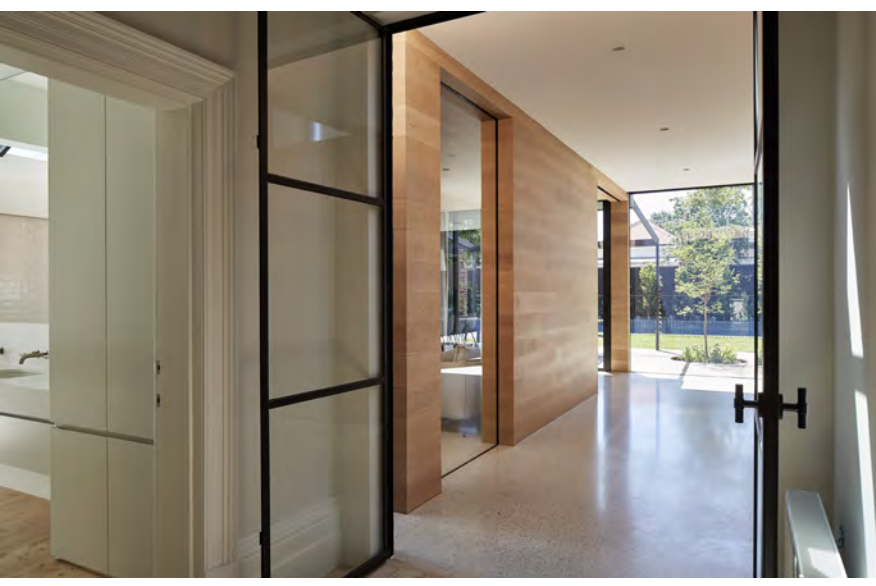
In line with the contemporary heritage conservation philosophy of the RBA practice, the Lewisham Road residence alterations and additions project is foremost an evidence-based, respectful, while adventurous, adaptation response to the heritage asset and its immediate neighbourhood.

It is a project which has forensically rediscovered, restored and reinvigorated a century-old middle-class Victorian villa into a contemporary home which now exists comfortably across the three centuries within which it has lived.

Originally constructed as one of the finer Italianate villas in nineteenth century working class Windsor, the Lewisham Road residence has, through a process of meticulous research, forensic conservation and architecturally informed and confident design by RBA Architects + Conservation Consultants, evolved into an elegant and contemporary family home with a rich and freshly interpreted historical narrative that spans centuries. The found villa of approximately 155 square metres had been typically neglected and unsympathetically altered over a lengthy period, but was otherwise quite intact retaining many of its original features including: its plan form, facades, slate roof and verandah presentation and decorative features so particular to the Italianate style.

All these original features have been retained and restored while the later rear additions have been removed and replaced with a significant new addition. To provide for the clients' family contemporary needs, the Victorian planning of the house has in part been reconfigured but the core architecture has been retained and celebrated with a modern programmatic arrangement.





In any heritage adaptation project, the intersection/transition/marriage of old and new is cause for great care and celebration. At Lewisham Road, this meeting point between heritage and the contemporary has been boldly celebrated with the careful reveal of the original red-brick rear wall to serve as the feature to the newly attached communal family space. To amplify this intersection, a dramatic continuous skylight has been installed overhead providing a dedicated illuminated interstice.

Conserving and adapting the substantially retained front heritage sensitive section while attaching a contemporary addition which stands separated, but artfully intersected with the heritage asset, this project integrates the best of heritage conservation principles with contemporary architectural design, resulting in a sensitive, creative design that reinterprets the former villa as a relevant contemporary home for a professional family.



“In many ways this was a dream project. The client family was a close friend - patient, dedicated, sensitive, realistic and, in some instances, quite brave. Perhaps one of the key challenges was to overcome the fact that the found building was, hitherto, unrecognised for having any heritage value. The client and the architect knew better however. It is with a sense of delicious irony that we find the place heritage listed after the restoration and adaptation process!”

Roger Beeston, Director + Project Architect,
RBA Architects + Conservation Consultants

PROJECT DATA

Project Name: Cassiope
Location: Windsor, Victoria, Australia
Client: JP & Kathy Cellier
Architect Firm: RBA Architects + Conservation Consultants
Size: 336.5 square metres
Completion: 2017
Photos: © Peter Bennetts

“SGBC will continue championing new frontiers and technologies while staying connected to many like-minded “Green Warriors” who are green enthusiasts such as myself to forge a greener, healthier, climate-resilient and future-ready built environment.”

**– An interview with Dr. Ho Nyok Yong,
President of Singapore Green Building Council**



Dr. Ho Nyok Yong.
Photo: © Samwoh Corporation

The Singapore Green Building Council (SGBC) celebrated its 10th anniversary in September 2019. This non-profit organisation with a concerted private-public sector partnership aims to achieve a world-class and sustainable built-environment in Singapore. SEAB spoke to Dr. Ho Nyok Yong, the current president of SGBC on his role and his vision for SGBC in its anniversary and the coming years.

SEAB: You took on the role of President of SGBC in March 2019. Prior to this appointment, you were the Immediate Past President of the Singapore Contractors Association Limited as well as the current Chief Operating Officer of Samwoh Corporation. How is your background and experience in the construction industry helping you in the presidency role of SGBC?

DR HO: Growing up, I always dreamed of becoming an Engineer, just as my brother did. My interest in Civil Engineering developed after having understood the job scope: planning, designing, overseeing construction and also the maintenance of building structures and infrastructure work. I thought to myself: “This is a profession

that can contribute significantly to the wellbeing of a community.”

Even at that young and tender age, I understood that a Civil engineer is both planner and designer, and I wanted to be the one to find better ways to build structures. I strongly believe that this profession was a stepping stone to making a positive impact on how people live, work, play and learn. To this day, that belief has given me a sense of responsibility towards humanity, and I have enjoyed every stage of my career.

I have more than 30 years of diversified experience in civil & environmental engineering, project management, design & consultancy, business development and management,



SGBC celebrated its 10th anniversary with a cake cutting ceremony in the presence of Dr. Amy Khor, past presidents of SGBC and industry partners at the SGBC Gala Dinner 2019. Photo: © Singapore Green Building Council

materials research as well as academic work. In those years, I also worked with a number of large construction organisations which gave me the opportunity to undertake a wide range of projects including industrial and residential buildings, wafer-fabrication factories, flyovers, bridges, jetties and airports using various construction techniques in Singapore as well as in overseas markets such as China, Hong Kong, Taiwan, Malaysia, Thailand, Indonesia, India, and Australia.

Presently, I am the Chief Operating Officer and a Board Member with the Samwoh Group of Companies, a leading integrated engineering and construction enterprise. I hold a Doctorate in Civil Engineering from the University of Dundee in Scotland, and am also a registered Professional Engineer of Singapore and Malaysia, and Chartered Structural Engineer of

United Kingdom.

During my tenure as the President of Singapore Contractors Association Ltd (SCAL), the largest association championing the construction industry in Singapore, I initiated various initiatives to promote and proliferate environmental sustainability to many stakeholders. I successfully established various platforms to create awareness about sustainable construction and to encourage the industry players to minimize environmental impact of businesses. For instance, I organised the inaugural annual Environment Sustainability Conference in my first presidency term and to date, this conference has become an important green event for the industry.

Additionally, I serve on the boards of several professional bodies, as well as chairpersons / committee members for a number of building and construction

related committees. Currently, I am the co-chair of the BCA Green Building Masterplan committee. I am also invited to sit on the advisory panels for a few institutions of higher learning. I have previously held positions as the Chairman of the Construction Industry Joint Committee and President of the Singapore Concrete Institute.

These industry appointments, coupled with decades of practical expertise in Singapore's building and construction scene, has equipped me for the presidency of SGBC. Building on the solid foundations, I work closely with fellow Board Members as well as the SGBC Secretariat to accelerate green building as the norm for all construction as a concrete climate action.

SEAB: What are some of the issues that you wish to address as the President of SGBC?

DR HO: Singapore is committed to play our part as a responsible member of the global community even though we only contribute around 0.11 percent (or 52.5 million tons in 2017) of global carbon emissions. However, this does not mean there is nothing we can do to help as concerted international effort is required to achieve a significant cut in global carbon emissions.

While the green building efforts of our property developers and real estate owners are well-publicised, the emphasis on green placed by contractors and builders are not so immediately apparent.

As an ardent green campaigner of the industry, I recognise the need to optimise the use of natural resources and to improve Singapore's resource resilience. I delved into numerous ground-breaking research and innovation projects in close collaboration with government agencies and industry institutions for recycling materials and green technologies. One of my high-profile research projects on the use of recycled materials for construction applications resulted in an innovative breakthrough with the construction of the Samwoh Eco-Green Building. This landmark building structure, a first in the region to be constructed using up to 100 percent recycled concrete aggregate, is a prime example of reducing Singapore's dependency on raw materials imported from foreign countries.

As an integral part of the green building ecosystem, the builders and contractors must also be onboard, for they are the ones who put the materials together into a high-performance structure.

Recently, I am taking my green journey to the next level with the construction of the first positive-energy industrial building in Singapore (as well as in the region) – the Samwoh Smart Hub. This 5-storey building is an ambitious project, which aims to surpass BCA's latest Green Mark Platinum Super Low Energy building standards.

The Samwoh Smart Hub will adopt numerous state-of-the-art technologies to lower its energy consumption. These include a solar powered DC water chiller plant, smart fan coil units (FCU), smart plugs, intelligent sensors and IoT sensors for the efficient

use of energy. When completed in the third quarter in 2020, the building will be a showcase and champion of sustainable construction. This positive energy building will also be constructed with various types of recycled materials, processed from construction and industrial wastes. In addition, the Smart Hub will incorporate extensive greenery to blend in seamlessly with the green corridor of the 150km Round Island Route (RIR) park connector, right outside the compound.

I hope that this iconic building will continue to spur the onus towards greater sustainability among the built environment community, create a learning eco-system to nurture our next generation and push the boundaries of innovations beyond the shore of Singapore.

Many of our Founding Members found that SGBC's vision and mission to create more sustainable cities struck a chord with their own business beliefs and pathways, that sustainability is the way forward. Hence, they looked to SGBC for knowledge, expertise and access to green building resources in Singapore and worldwide. Companies in the business of manufacturing building materials also came to SGBC to get their products assessed and certified in order to more meaningfully contribute to the germinating green building scene in Singapore.

As global emphasis on climate change shifted for the positive after the ratification of the historic Paris Agreement in 2016, the building and construction industry began to embrace green building and infrastructure in a

"As an integral part of the green building ecosystem, the builders and contractors must also be onboard, for they are the ones who put the materials together into a high-performance structure."

– Dr. Ho Nyok Yong

SEAB: SGBC has achieved a lot over the past 10 years. It has seen a big increase in the number of its members and it has also rolled out a number of initiatives to help the building and construction industry to grow and achieve positive results. Upon your interaction with the members, what concerns did they have back then and what concerns do they have now?

DR HO: When SGBC first started in 2009, the green building and infrastructure movement was only starting to take off, spurred by the fledging Green Mark certification programme by BCA along with steadily growing demand for greener, more sustainable buildings.

bigger way. While companies continued to come to SGBC to get their building materials certified, new members joined to gain access to the burgeoning green building scene in the region, and Singapore was steadily establishing itself as a leader for tropical green building. In order to get in on the action, so to speak, joining SGBC as a Member was the fastest way to meet the movers and shakers of the green building industry.

Ten years on, the green building and infrastructure movement is accelerating and growing at unprecedented rates, catalyzed by growing awareness of the effects of climate change as people

began to fully experience extreme weather phenomena and other impacts on their daily lives. Green buildings and infrastructures have also been identified and recognised as a valuable ally in any climate mitigation strategy both in Singapore through the Construction Industry Transformation Map as well as worldwide through the work of the World Green Building Council. Our members now see SGBC as a thought leader and facilitator for all things green building, from the organisations involved to the materials, professionals and the actual green buildings themselves.

SEAB: How do you think technology is impacting the way green buildings are being constructed in Singapore?

DR HO: For the past decade or so, sustainable building design has always been an integral part of all architecture and construction. We have been incorporating sustainable design principles to build healthy, liveable places that are in harmony with local natural environmental conditions.

With every other industry, technological advancements permeate building and construction as well, with buzzwords such as smart buildings just interchangeably or in conjunction

with green building. Indeed, we are seeing novel ways of designing, building operation buildings with the help of technology.

Advances in Building Information Modelling (BIM) software help designers to better visualise and actualise their designs, advances at worksites improve productivity and safety and smart building control systems help facility managers keep a better handle on their portfolios' building performance. Technology not traditionally utilised in the building and construction industry such as blockchain are also being slowly adapted for the building scene, used to optimise energy management among other uses.

Besides, technological breakthroughs in materials science offer more options of sustainable construction materials for stakeholders. The ever-expanding list of SGBC certified green building products exemplifies our efforts in green, sustainable construction. Under this certification scheme, SGBC not only focuses on the environmental performance of each green building product but also on its embodied carbon emissions.

Even though green building initiatives have successfully promoted

the adoption of sustainable design practices and materials over the years, green buildings still remain fixated on standards and compliance. In a nutshell, the focus is still very much on design and materials whereby building operations are rarely being addressed.

Thanks to the emergence of Industrial 4.0 and disruptive technologies, I envisage there will be a paradigm shift in passive design principles towards more active ones. Today, green buildings need to provide a dynamic response to occupant needs, operating policies and changes in space management. Definitely, technology will drive operational efficiencies, reduce energy consumption, improve occupant experiences and enhance financial performance in the long-run.

The rapid pace of technology advancement has created a multitude of new opportunities for SGBC to address green building challenges. Presented with such a golden opportunity, I opine to marry the existing green buildings with smart technologies to bring sustainability to new heights.

SEAB: Compared to other countries in the ASEAN region, where does Singapore currently stand for its green building efforts?

DR HO: According to a Solidiance study published in 2016, Singapore is second in the world for green buildings, behind Paris. Cities worldwide were assessed for their green building performance across four categories: city-wide green building landscape, building efficiency and performance, green building policies and targets and, green city culture and environment.

Singapore stood out as a forerunner by topping the category of green building policies and targets, chief of which is the aim of greening 80 percent of its built-stock by 2030. Singapore has set an ambitious vision of becoming a global leader in green buildings, especially for the tropical and sub-tropics. Amendments in the city-state's Building Control Act in 2008 also requires all new buildings and existing ones to undergo major retrofitting to achieve, at the minimum, a certified rating under the Green Mark

"Advances in Building Information Modelling (BIM) software help designers to better visualise and actualise their designs, advances at worksites improve productivity and safety and smart building control systems help facility managers keep a better handle on their portfolios' building performance."

— Dr. Ho Nyok Yong

Scheme, Singapore's green building certification scheme. By 2014, more than 25 percent of the city's entire built-stock were green buildings and the number is close to 40 percent as of 2019.

Then-CEO of the World Green Building Council, Ms Terri Willis said: "Singapore can certainly be considered a leader in the field of green building. The city target for 80 percent of buildings to achieve BCA Green Mark standards by 2030 is ambitious but achievable, and the Singapore Green Building Council (SGBC) will play a key role in delivering this.

Moreover, in order to push the envelope of building energy efficiency, Singapore has just rolled out the next wave of support for the green building movement: BCA's Super Low Energy (SLE) Programme. It aims to harness cost-effective energy efficiency and renewable energy solutions in the Built Environment.

SGBC has also played mentorship roles to budding green building councils in the region and as far as Tanzania, providing much-needed advisory for these organisations to get their operations up and running and begin to green their own built environments.

SEAB: What is your vision for SGBC in 2020?

DRHO: SGBC will continue championing new frontiers and technologies while staying connected to many like-minded "Green Warriors" who are green enthusiasts such as myself to forge a greener, healthier, climate-resilient and future-ready Built Environment.

In 2020, SGBC will ramp up activities and initiatives designed to help the built environment address embodied carbon emissions. As put forth by the World Green Building Council's recent report on bringing embodied carbon up front, global emphasis is now shifting towards reducing embodied carbon emissions of buildings. Alongside the SGBP certification scheme which is designed to take into consideration a building product's (and its manufacturer's) carbon footprint specifically when the product is in use, SGBC also runs a regular course intended to impart familiarity on the environmental impact of building products as well as acquire

"In 2020, SGBC will ramp up activities and initiatives designed to help the built environment address embodied carbon emissions." – Dr. Ho Nyok Yong

knowledge to produce a recognised assessment report to communicate a product's carbon footprint. SGBC will also build general awareness on embodied carbon emissions and why it matters through educational campaigns and cognizance programmes.

The other area that SGBC will be focusing on is educating the general community through intensified public outreach efforts. SGBC will step up efforts to share knowledge and expertise with the general public to help everyone understand what green buildings and infrastructures are about, and how to make more informed, sustainable decisions on the buildings that we spend our time in and how to also make our homes greener and healthier.

Another important field for SGBC to focus is engaging and upscaling of professionalism of the green building workforce. By 2025, BCA expects the green industry to need 25,000 trained professionals in order to support the Green building pillar of the construction ITM. Just a few months ago, SGBC has taken over the management and administration of the Green Mark Specialists Scheme from BCA now refreshed as the Green Mark Professional Qualification Scheme. We have introduced many new enhancements on the scheme to raise the standard of the accreditation. Moving forward, we will work even more closely with the industry and all relevant government agencies to better understand the future needs of the nation's green building talents. We will then further enhance the existing professional scheme to suit the market different needs.

The impact of climate change on the world cannot be ignored any longer. As the warning call of global warming increases in severity, scale and volume, the built environment is in a prime position to mitigate the effects of climate change while providing better places for people to live, work and play in.

Indeed, going green and sustainable must no longer be the exception rather than the norm: going green must become the new "business as usual".

A holistic approach must be taken to fully address the issue. While the government and authorities institute legislation and policies from the top down, demand for a greener, healthier built environment can be simultaneously aggregated from the bottom up. SGBC will proactively lead the charge, working closely with both the public and private sectors to champion green building.

We will ramp up activities and events to drive green building awareness, hold leadership dialogues to engage with key appointment holders, support the growing climate action movement led by youths and the younger generation as well as encourage the business community to institute greener and more sustainable features into their operations, such as opting for renewable energy to power their businesses.

Last but not least, I would like to reiterate that going green should not be just a symbolic gesture but should be the aspiration of all socially responsible businesses and individuals. It is the duty of everyone to drive the common goals of mitigating climate change as well as shaping Singapore into an active and gracious nation supported by a leading green economy.

architect'20

REFOCUS HERITAGE

มองเก่า ให้ใหม่



28 APR -
3 MAY 2020

IMPACT

Challenger Hall 1-3
BANGKOK, THAILAND

Tel: (+66) 2 203 4279
www.asa.or.th/architectexpo



asa





future**build**
southeast asia



**HEAVY
MACH**

23 - 25 JUNE 2020

**MALAYSIA INTERNATIONAL TRADE
AND EXHIBITION CENTRE (MITEC)**



www.ecobuildsea.com
www.super8asean.com



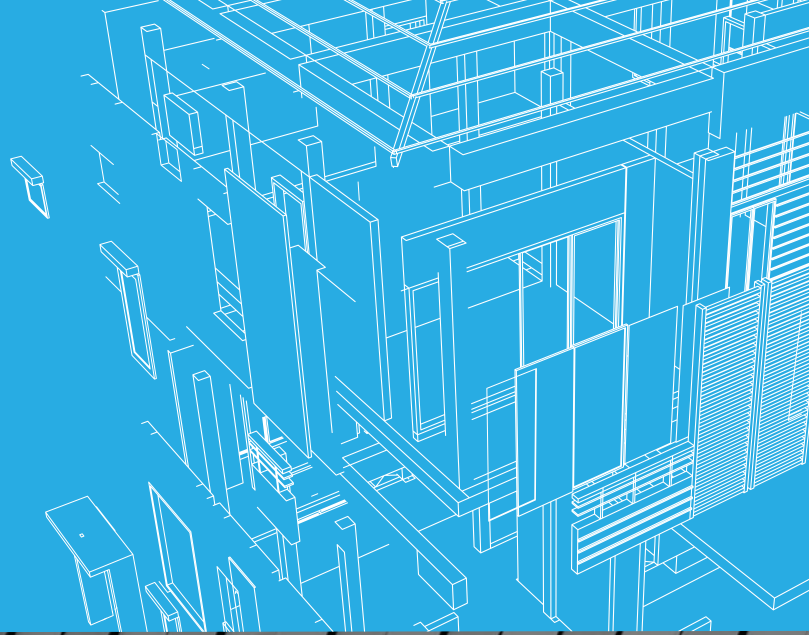
 **MEGABUILD**
INDONESIA

2020

BE INSPIRED

19 - 22 MARCH 2020

JAKARTA CONVENTION CENTER



**THE 19TH
INDONESIA MOST
COMPREHENSIVE
BUILDING MATERIALS,
DESIGN AND
ARCHITECTURE EVENT**

ROOF &
FLOORING

BATHROOM &
KITCHEN

CONSTRUCTION
MATERIALS

DOORS &
WINDOW

BUILDING
MATERIALS

INTERIOR
FURNISHING

**PROGRAM & ACTIVITY
MEGABUILD 2020**

Seminar & Conference | Architecture Gallery | Trade Exhibitions | House of Indonesia Showcase

**BOOK YOUR
SPACE NOW!**

**CALL OUR
REPRESENTATIVE**

International Sales Manager

Ms. Astri Ratnasari

+62 811 9910 689

astri.ratnasari@reedpanorama.com

www.megabuild.co.id

 [megabuildexpo](https://www.instagram.com/megabuildexpo)

 [Megabuild Expo](https://www.linkedin.com/company/megabuild-expo)

 [megabuildid](https://www.facebook.com/megabuildid)

Co-Located with



Organised by



JOIN US AGAIN NEXT MARCH
SYDNEY BUILD IS MOVING TO THE ICC

HOW STRONG IS YOUR BRAND?

TRANSFORM

REGISTER TO ATTEND FOR FREE
www.sydneybuildexpo.com



19 - 20 MARCH
ICC SYDNEY



ATTEND AUSTRALIA'S
**LEADING CONSTRUCTION,
ARCHITECTURE &
INFRASTRUCTURE EXHIBITION**

EVENT FEATURES

350+ EXHIBITORS | **25,000+ REGISTERED ATTENDEES** | **300+ TOP LEVEL SPEAKERS**

20 SUMMITS ACROSS 8 STAGES:



INTERESTED IN EXHIBITING? GET IN TOUCH WITH OUR TEAM:
enquiries@sydneybuildexpo.com | 02 8006 7557 | www.sydneybuildexpo.com



THE 26TH CHINA WINDOW DOOR FAÇADE EXPO

www.windoorexpo.com | +86 20 2231 5830

MOST COMPREHENSIVE SOURCING PLATFORM FOR WINDOW, DOOR AND FAÇADE PRODUCTS IN CHINA

MARCH 5-7, 2020 | PWTC & NICEC, GUANGZHOU, CHINA

700

EXHIBITORS

100,000+

SQUARE METERS

65,000

VISITORS

(2020 FORECAST)

APPROVED BY



ALUMINIUM WINDOW, DOOR AND CURTAIN WALL COMMITTEE OF CHINA CONSTRUCTION METAL STRUCTURE ASSOCIATION

SUPPORTED BY



CHINA REAL ESTATE INDUSTRY ASSOCIATION

ORGANIZED BY

城+博展 伙伴天下

citiexpo
being your partner

informa markets
AFFILIATES

PROFESSIONAL



AIA
International Region



Register Now to Get Your Free Badge



Secure
your stand



CONNECTED
LIGHTING
For a Better Life
www.ledexpo thailand.com

ASEAN's Show on LED Technology & Lighting Solutions
**Let's gain access to the lucrative of lighting
& LED market in ASEAN**

THAILAND
LED
EXPO 2020

+  **LIGHT**
ASEAN

24 - 26 JUNE 2020
HALL 5-6

IMPACT EXHIBITION CENTER BANGKOK THAILAND

☎ 02 833 5347

f in t v LED Expo Thailand

LINE @ledexpo

✉ Wishjanondv@impact.co.th



Total Area
182,000 m²

Exhibitors
2,000+

Featured Events
50+

CHINA XIAMEN INTERNATIONAL STONE FAIR

MARCH 16-19, 2020
XIAMEN, CHINA

+86-592-5959616 info@stonefair.org.cn www.stonefair.org.cn



guangzhou international lighting exhibition

25th

**The most influential and comprehensive lighting
and LED event in Asia**

9 – 12 June 2020

China Import and Export Fair Complex
Guangzhou, China

www.light.messefrankfurt.com.cn

Contact

Messe Frankfurt (HK) Ltd

Tel: +852 2238 9969

Fax: +852 2519 6079

light@china.messefrankfurt.com



光亞 · Guang ya



messe frankfurt

SUBSCRIPTION FORM

Fax your order to +65 6842 2581 or email us at info@tradelinkmedia.com.sg

Please (✓) tick in the boxes.



Southeast Asia Building
Since 1974



Southeast Asia Construction
Since 1994



Security Solutions Today
Since 1992

**1 year (6 issues)
per magazine**

Singapore	SGD\$60.00
Malaysia / Brunei	SGD\$105.00
Asia	SGD\$155.00
America, Europe	SGD\$185.00
Japan, Australia, New Zealand	SGD\$185.00
Middle East	SGD\$185.00



Bathroom + Kitchen Today
Since 2001

1 year (4 issues)

Singapore	SGD\$32.00
Malaysia / Brunei	SGD\$70.00
Asia	SGD\$85.00
America, Europe	SGD\$135.00
Japan, Australia, New Zealand	SGD\$135.00
Middle East	SGD\$135.00



Lighting Today
Since 2002

Lighting Today is available on digital platform. To download free PDF copy please visit:

<http://lt.tradelinkmedia.biz>

Personal Particulars

Name: _____
 Position: _____
 Company: _____
 Address: _____

 Tel: _____ Fax: _____
 E-Mail: _____

IMPORTANT

Please commence my subscription in _____ (month/year)

Professionals (choose one):

- | | | | |
|---|--|--|--|
| <input type="checkbox"/> Architect | <input type="checkbox"/> Landscape Architect | <input type="checkbox"/> Interior Designer | <input type="checkbox"/> Developer/Owner |
| <input type="checkbox"/> Property Manager | <input type="checkbox"/> Manufacturer/Supplier | <input type="checkbox"/> Engineer | <input type="checkbox"/> Others |

I am sending a cheque/bank draft payable to:

Trade Link Media Pte Ltd, 101 Lorong 23, Geylang, #06-04, Prosper House, Singapore 388399
 Co. Reg. No: 199204277K * GST inclusive (GST Reg. No: M2-0108708-2)

Please charge my credit card (circle one): Amex / Diner's Club

Card Number: _____ Expiry Date: _____

Name of Card Holder: _____ Signature: _____

**5-7
MAR****Windoorexpo China 2020**

Poly World Trade Center (PWTC)
& Nan Fung International
Convention & Exhibition Center (NICEC)
Guangzhou, China
T: +86 20 22315830
E: wdos@informa.com
W: www.windoorexpo.com/en/
default.aspx

**16-19
MAR****Xiamen International
Stone Fair 2020**

Xiamen International Conference
& Exhibition Center
Xiamen, China
T: +86 592 5959 616
F: +86 592 5959 615
E: info@stonefair.org.cn
W: www.stonefair.org.cn

**19-20
MAR****Sydney Build 2020**

ICC Sydney,
Australia
T: +61 2 800 67557
E: marketing@sydneybuildexpo.com
W: www.sydneybuildexpo.com

**19-22
MAR****Megabuild 2020**

Jakarta Convention Center
Jakarta, Indonesia
T: +62 21 2556 5022
F: +62 21 2556 5040
E: megabuild@reedpanorama.com
W: www.megabuild.co.id

**24-26
MAR****Domotex asia / CHINAFLOOR**

SNIEC, Shanghai
China
T: 400 821 3388
F: +86 21 6195 7533
E: info@domotexasiachinafloor.com
W: www.domotexasiachinafloor.com

**28 APR
-
3 MAY****Architect'20 Expo**

IMPACT Exhibition & Convention Center
Bangkok, Thailand
T: +66 2 203 4279
E: architect@ncceexhibition.com
W: https://asa.or.th/architectexpo

**9-12
JUN****Guangzhou International Lighting
Exhibition 2020**

China Import and Export Fair Complex
Guangzhou, China
T: +852 2238 9969
F: +852 2519 6079
E: light@china.messefrankfurt.com
W: www.light.messefrankfurt.com.cn

**23-25
JUN****Futurebuild Southeast Asia
(SEA) Expo**

Malaysia International Trade And Exhibition
Centre (MITEC)
Kuala Lumpur, Malaysia
T: +60 3 9771 2688
F: +60 3 9771 2799
E: ecobuild-sea@ubm.com
W: www.ecobuildsea.com

**24-26
JUN****LED Expo Thailand 2020**

IMPACT Exhibition Center Hall 5-6
Bangkok, Thailand
T: +66 2 833 5347
E: wishjanondv@impact.co.th
W: www.ledexpo thailand.com

**1-4
JUL****Archidex 2020**

Kuala Lumpur Convention Centre
Kuala Lumpur, Malaysia
T: +60 3 7982 4668
F: +60 3 7982 1648
E: info@archidex.com.my
W: www.archidex.com.my

PLATINUM PARTNERS
SEAB

dormakaba Singapore	Singapore	+65 6268 7633	helen.tan@dormakaba.com	www.dormakaba.com.sg	OBC
Hunter Douglas	Malaysia	+603 5191 2020	luxalon@hunterdouglas.com.my	www.hunterdouglas.com.my	1
Mapei Far East	Singapore	+65 6862 3488	mapei@mapei.com.sg	www.mapei.com.sg	3

GOLD PARTNERS
SEAB

Schüco Singapore	Singapore	+65 6681 7480	sea@schueco.com	www.schueco.com	IFC
------------------	-----------	---------------	-----------------	-----------------	-----

SILVER PARTNERS
SEAB

LafargeHolcim	Switzerland	+41 58 858 82 92	info@lafargeholcim-foundation.org	www.lafargeholcim-awards.org	5
---------------	-------------	------------------	-----------------------------------	------------------------------	---

See us at following upcoming events!

Event	Date	City	Country	Website	Page
Windoorexpo China 2020	5 - 7 Mar 2020	Guangzhou	China	www.windoorexpo.com/en/default.aspx	82
Xiamen International Stone Fair 2020	16 - 19 Mar 2020	Xiamen	China	www.stonefair.org.cn	84
Sydney Build 2020	19 - 20 Mar 2020	Sydney	Australia	www.sydneybuildexpo.com	81
Megabuild 2020	19 - 22 Mar 2020	Jakarta	Indonesia	www.megabuild.co.id	80
Domotex asia / CHINAFLOOR	24 - 26 Mar 2020	Shanghai	China	www.domotexasiachinafloor.com	7
Architect'20 Expo	28 Apr - 3 May 2020	Bangkok	Thailand	https://asa.or.th/architectexpo	78
GILE 2020	9 - 12 Jun 2020	Guangzhou	China	www.light.messefrankfurt.com.cn	85
Futurebuild Southeast Asia (SEA) Expo	23 - 25 Jun 2020	Kuala Lumpur	Malaysia	www.ecobuildsea.com	79
LED Expo Thailand 2020	24 - 25 Jun 2020	Bangkok	Thailand	www.ledexpothailand.com	83
Archidex 2020	1 - 4 Jul 2020	Kuala Lumpur	Malaysia	www.archidex.com.my	IBC

1 - 4 KLCC

JULY 2020
10AM - 7PM

**KUALA LUMPUR
CONVENTION
CENTRE, MALAYSIA**

An Event Of:

KLAF2020
KUALA LUMPUR ARCHITECTURE FESTIVAL

ARCHIDEX®

**THE 21ST INTERNATIONAL ARCHITECTURE, INTERIOR
DESIGN & BUILDING EXHIBITION 2020, MALAYSIA**

**BUILDING
BEYOND
TOMORROW**

**THE REGION'S LEADING
ARCHITECTURE BUSINESS EVENT**

SCAN HERE to
PRE-REGISTER
to visit



Featuring:



Concurrent Exhibitions:



www.ARCHIDEX.com.my



Jointly Organised By:



dormakaba for Healthcare. Smart access solutions for increased well- being and efficiency.



Whether hospitals, retirement and nursing homes or private practices – we offer a wide range of access solutions and services for all these facilities.

Our modern hardware and software solutions let you optimize processes and secure operations in your facility – simply, reliably and on demand.

We support you in planning access concepts that are tailored to your individual needs.

dormakaba offices in ASEAN:

Singapore

Tel : +65 6268 7633

Malaysia / Brunei

Tel : +603 8081 8009

Philippines

Tel : +63 2 8893 4077

Indonesia

Tel : +62 21 2930 3762

Vietnam

Tel : +84 903 823111

Thailand/Cambodia/
Myanmar/Laos

Tel : +66 2059 2612

www.dormakaba.com.sg

dormakaba 