
HKIUD
Ten+

Introduction

June 17, 2010 was a special day. The Hong Kong Institute of Urban Design (HKIUD) was established as a professional institute focused towards promoting urban design through accreditation, discussion and education.

Why Urban Design Matters

What is it that draws people to places in a city? What makes their outside experiences better? It is the essential form, function, character and relationship between groups of buildings and the spaces between, whether they be streets, plazas, parks or waterfront. Urban design is about making quality places that function primarily for people, a vital activity in Hong Kong where land is particularly precious and continually subject to competing user demands. The profession draws together architecture, landscape architecture, engineering and city planning to fully connect people with the places where they live, work and play. It cherishes the natural environment, supports cultural heritage and promotes social equity with economic vitality in public areas.

Our TEN OBJECTIVES are to :

1. promote urban design excellence in education, research and practice;
2. support education and research in urban design;
3. establish professional qualifications for urban designers;
4. accredit the urban design curriculum of university courses;
5. create urban design platforms for information sharing;
6. strengthen the communication between urban designers;
7. enable continuing professional development of urban designers;
8. improve urban design standards and services;
9. raise community awareness of the value and need of urban design; and
10. provide advice for younger urban designers, graduates and students.

Over the last decade HKIUD has arranged an annual award ceremony that provides the opportunity to gather and celebrate the achievements of the urban design community in Hong Kong. This 10th anniversary publication includes a selection of 10 of the awarded projects

In 2019, HKIUD commenced publication of an open-access urban design journal entitled ‘Urbanie and Urbanus’. The journal is a communication tool to develop a dialogue between the institute members, related professions, decision makers and the local community.

Commencing with a focus on the city and community of Hong Kong, from this local perspective it reaches out to China, Asia and internationally. As part of this 10th anniversary publication, 6 articles have been included that highlight how new tools and methods can be used to assess and raise awareness to the pressing issues facing the contemporary urban environment and society.

Tung Chung East Waterfront

A Water-friendly and Eco-friendly Waterfront for Tung Chung New Town Extension

PROJECT DESCRIPTION

Development of Tung Chung East (TCE) is part of the Tung Chung New Town Extension Project to meet Hong Kong's medium-to-long-term needs for housing, economic and social developments. Tung Chung East Eco-shoreline Waterfront Concept Plan has a vision for reshaping the common perception of a lifeless, gigantic infrastructure within an urban living context. A new type of urban seaside interface / platform is invented to establish a symbiotic relationship between human, fauna and flora Eco-shoreline is a poetic, yet functional land art that complements the engineering infrastructure.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
AECOM Asia Company Limited	**Sustainable Lantau Office, Civil Engineering and Development Department, HKSAR Government**	**Tung Chung, Hong Kong**	**The project aims for timely delivery of the reclaimed land and all essential engineering infrastructure necessary for housing development to take place ready to receive the first population intake in the early 2020s. Meanwhile coastal enhancements with an eco-shoreline waterfront generate natural systems and human enjoyment.**	**N/A**	**2017/2027**

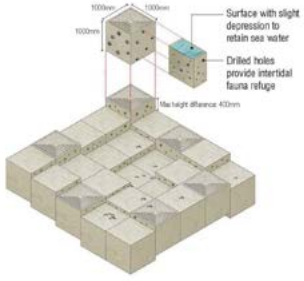

~5 km
约5公里
红树林生态海岸线
MANGROVE ECO-SHORELINE
岩石生态海岸线
ROCKY ECO-SHORELINE
垂直生态海岸线
VERTICAL ECO-SHORELINE
RESIDENTIAL住宅
COMMERCIAL (G/F)
商业（地面层）
HOTEL 酒店
RESIDENTIAL
住宅
SPORTS GROUND
运动场
POST SECONDARY SCHOOL
专上院校
PROPOSED TCE STATION
拟建东涌东铁路站
TO SIU HO WAN
往小蚝湾

A WATER-FRIENDLY WATERFRONT - A SOCIAL SHORELINE

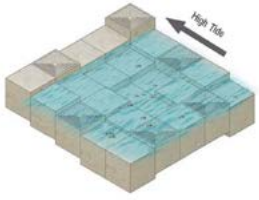
Innovative encouragement of public interaction with the sea, that promotes a water-friendly culture has always been at the heart of the design of the eco-shoreline. A new type of outdoor classroom/ public exhibition space, the 'Viewing Gallery' is introduced along the vertical seawall on the west coast of TCE reclamation. It showcases the tidal (marine life) habitats that can establish on the 'eco-tiles'. A further type of rocky shoreline is installed with bio-blocks of various levels to form tidal pools in order to enhance the connection with the sea. The physical connection to the water is further enhanced with the availability of various water recreational opportunities. The waterfront offers excellent educational opportunities to display the value of marine ecology and enriches the visitors' experience.

AN ECO-FRIENDLY WATERFRONT - A LIVING SHORELINE

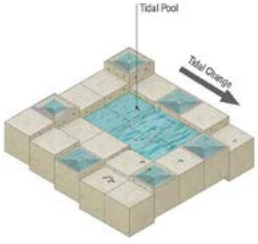
The TCE waterfront represents a distinct move away from the creation of static, sea defense infrastructure towards an ecologically driven seawall design with multi-functional layering.
The design team envisaged creating a 'Living Infrastructure' that not only aims to mitigate the loss of marine habitats due to reclamation but expands its scope of eco-services and biodiversity.
Utilising an innovative, modular, concrete block and eco-tile system, the eco-friendly design seeks to create habitats for mangrove, intertidal and subtidal epifauna.



Scenario 1: Low Tide



Scenario 2: High Tide

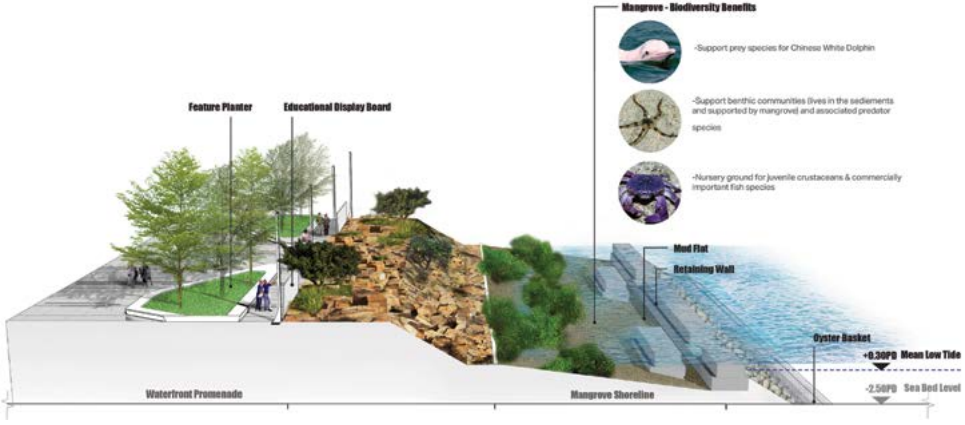


Scenario 3: The Formation of Pools under Tide Change

A CLOSER LOOK INTO THE ECO-FEATURES

THE MANGROVE ECO-SHORELINE

Mangrove forests are areas of high ecological productivity that greatly contribute to the food chains of coastal oceanic areas. They provide diverse habitats, breeding sites and feeding grounds for a large variety of coastal species, where the fallen leaves are important food for shrimps, crabs and fishes. Mangroves also maintain the stability and ecological balance of coastal and marine ecosystems. Aside from their biodiversity value, they provide a range of other ecosystem functions, including water quality improvement, shoreline protection, landscape amenity and enhanced fishery production. Native mangrove species will be planted in TCE so as to reduce the risk of introducing invasive species.

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THE ROCKY ECO-SHORELINE

The rocky eco-shoreline typology is to be constructed with modular precast concrete blocks, facilitating fast, but low-cost production in combination with high performance specification, textured surface treatment and shaping to increase structural complexity.

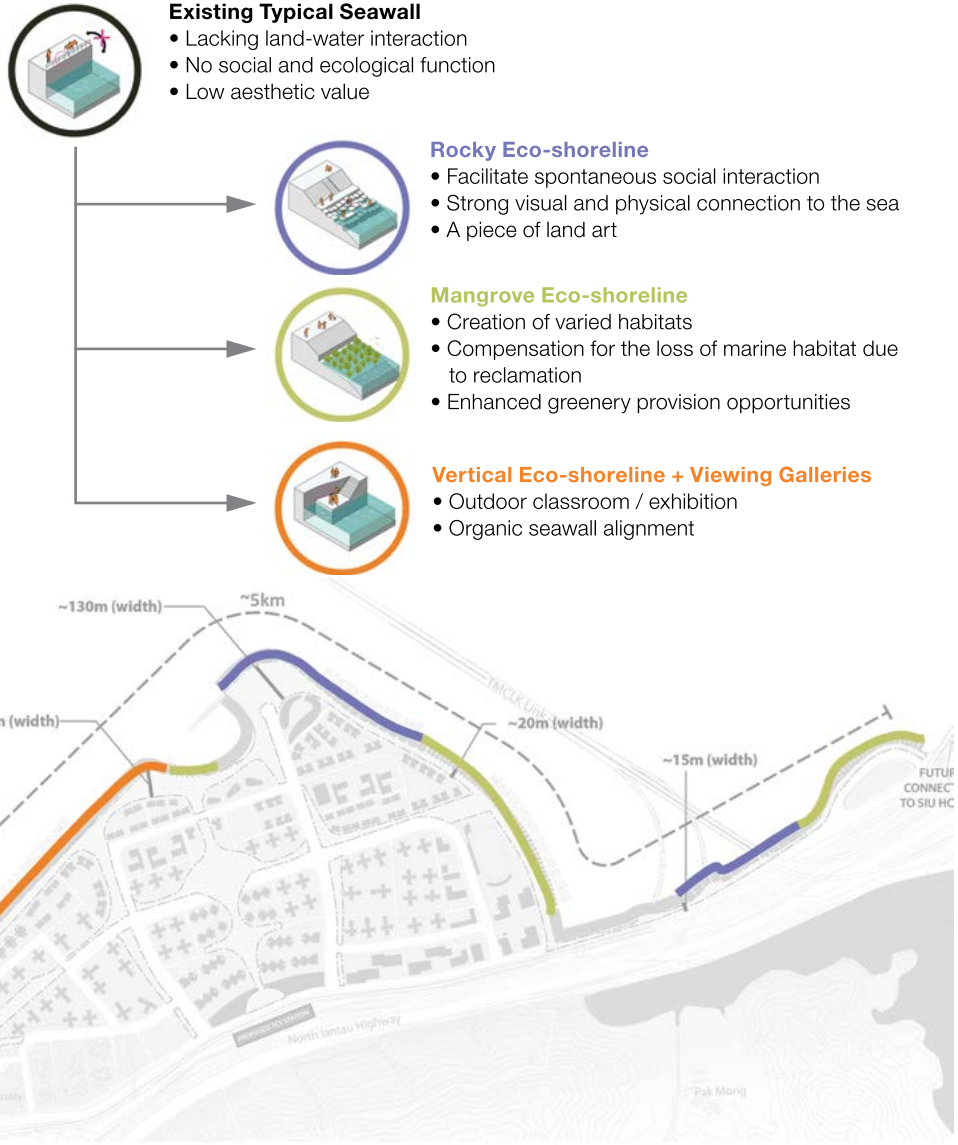
The block arrangement is at a very gentle gradient compared to traditional seawall construction, increasing the overall area of the inter-tidal zone and expanding the number of ecological niches available. By increasing the overall size of the inter-tidal zone, the area of suitable habitat available for inter-tidal species can be greatly expanded. The modular units are designed for arrangement that allows rock pools to form at low tide; these pools form a valuable refuge from heat stress and desiccation for inter-tidal species.

CURRENT UPDATE – REALISING THE ROCKY AND MANGROVE ECO-SHORELINE

In order to continue with innovation through design, environmental science and engineering, site trials are being conducted to optimise the design performance. Through the site trials, the design of the eco-shoreline waterfront can be further enhanced with respect to its cost, buildability, operability, aesthetic and environmental values.

ACKNOWLEDGEMENTS

The project team gratefully acknowledge the tremendous contribution of Prof. Kenneth M.Y. Leung and the various experts for their advice on the development of the design and site trials.



Guangzhou Tianhe Central Business District Comprehensive Improvement Action Plan

Introduction of Project Implementation

PROJECT DESCRIPTION

The Tianhe CBD Comprehensive Improvement Action Plan is the first statutory action plan in China which sets out a framework to catalyze sustainable growth to 2035 by implementing a list of micro-renewal projects. The Plan, covering an area of 12 square kilometers, is an exemplar of holistic planning incorporating a range of environment, economic, transportation, branding and public services improvement plans. Through excellent partnership with local government and stakeholders, the collaborative team has pioneered an innovative approach of city governance by reinventing public realm as the social infrastructure connecting bottom-up and top-down engagement to foster a thriving business and vibrant community.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
AECOM Master Planning and Landscape Design Team	**Guangzhou Tianhe Central Business District Administrative Committee**	**Guangzhou China**	**Foster a booming CBD**	**3,404,479 sqm**	**100% Completed**

Renderings Of EAST 7 Pocket Garden

1. INTRODUCTION OF TIANHE CBD

Guangzhou Tianhe CBD is one of the three major Central Business Districts in China; the vice president unit of the Global Business District Innovation Club and acts as deputy secretary to the China Business District Alliance. Tianhe CBD stretches along a planned city axis from Guangzhou East Railway Station in the north to the Pearl River waterfront at the south. A modern service industrial system, it is dominated by modern commerce including financial, business and digital services, with a 'headquarters economy' formed within the 12 square kilometers of CBD.

Tianhe CBD is a provincial demonstration base for Guangdong/Hongkong/Macau Trade Liberalization, rated as 'China's Happiest City - Innovation Paradigm Green CBD' and the most dynamic CBD in China. Currently, the modern service industrial cluster and Greater Bay Metropolitan service trade liberalization demonstration area are being constructed.

2. PROJECT OVERVIEW

Reviewing the development of the past 30 years, the Tianhe District Government wanted to explore a creative development path for the next 25 years and make a framework for future action to foster a booming CBD as a livable community with local identity. In April 2017, through worldwide public bidding, AECOM and Guangzhou Urban Planning & Design Survey Research Institute were employed as the design team to carry out the overall Improvement Action Plan. With the three principles of legalization, guidance, and projectization, the design team drew up a blueprint of Zhujiang New Town, including the following six aspects of the improvement: ecological and environmental system; transportation system; city identity and branding; global cooperation and investment promotion; cultural advancement; public service and smart management. Since the overall improvement action plan was initiated in April 2017, it has attracted 200,000 people to participate, mobilised more than 100,000 people to vote, collected 807 opinions and suggestions, and sorted out 30 key issues of public concern. The PLAN passed the expert review in July 2018 and the Guangzhou Municipal Government officially legitimised it in the City Planning Committee Meeting in October 2019, which makes the PLAN become the official follow-up guide to the Tianhe CBD future development.
At the same time, the PLAN was acknowledged by professional institutions' honorary awards - American Institution of Architects Hong Kong Chapter 2019- Honor Award for Urban Design and Hong Kong Institute of Urban Design 2019 -Grand Award for the Plan/Concept Category.

3. IMPLEMENTED PROJECTS AND ON-GOING WORKS

(1) EAST 7 POCKET GARDEN

In order to promote the implementation of the PLAN, EAST 7 POCKET GARDEN was selected as a demonstrative project to formulate further design masterplanning. This pocket garden is the pedestrian space of about 3000^{m2} shared by Guangzhou Library and East Tower. The project aims to create an integrated high-quality public space encouraging communication by optimising outdoor landscape planting, pedestrian connection and service facilities.

(2) MICRO-RENEWAL PROJECT UNDER LIEDE BRIDGE

In order to create a liveable Lingnan urban environment and activate gray space in Zhujiang New Town, two nodes under Liede Bridge were selected to revitalise as new public space according to the PLAN. One node located at the intersection of Liede Bridge and Linjiang Avenue is designed as dragon boat cultural park to restore the 900-year cultural traditional activities of Liede Ancient Village called "Dragon Boat Greeting Scenery". Another node at the intersection of Huangpu Avenue and Liede Avenue was designed as a "miniature museum" carrying the memory of Xian Village and gathering the residents from surrounding communities within 500 metres.

Following the micro-renewal plan of improving service facilities, optimising walking paths and adding creative night time lighting, the nodes under the bridge were turned from passive, gray space into active, cultural and artistic venues to encourage people to experience local culture and Lingnan lifestyle anytime, anywhere.

(3) SMART COMMERCE PROJECT OF HUACHENG SQUARE

In response to the micro-renewal of Huacheng Plaza, the PLAN proposed a commercial improvement project to activate the economic and social interactions. The PLAN has defined diverse commercial activities for different zones of Huacheng Plaza to meet the needs of different people and provide enjoyable and differentiated commercial experiences.

In early 2020, Huachenghui launched an underground space smart business project. The big data of the passenger specific trajectory in Huachenghui is being collected and analysed to provide strong data support for the commercial operation and management. Meanwhile, real-time mobile phone navigation was implemented in the Huachenghui area to provide customers with an immersive store navigation experience.

(4) POPS REVITALISATION PROJECT IN ZHUJIANG NEW TOWN

Huacheng Square is the gateway of Tianhe CBD. The design team found that most of the urban environmental problems are concentrated in the public realm. It is hoped that the promotion of POPS will start to improve the quality of public spaces in private properties. Based on the inventory of ground floor space around Huacheng Square, the design team proposed design strategies for different typologies of POPS to improve the accessibility and recognition, whilst diversifying the functionality and connecting POPS to surrounding plazas to leverage the public realm network.
At present, the demonstrative revitalisation projects of POPS are in the Guangzhou Automobile Center and the Guangzhou International Financial Center. With the next step, the management committee will actively communicate and negotiate with other surrounding owners to promote the implementation of more POPS projects.

Renderings Of EAST 7 Pocket Garden


N
BLUE GREEN
PLAZA
STREET
PUBLIC BUILIDNG
Open First Floor
Open Outdoor Plaza
POPS
Open Outdoor Plaza
Open Lobby


PEARL RIVER PARK
OPEN THE WALL TO SEE THE GREEN
LIEDE CANAL
IMPROVE WATER QUALITY
COMMUNITY EVENT
BRING BACK DRAGON BOAT RACE


COMMUNITY EVENT
LAWN MUSIC FESTIVAL
GUIDE SYSTEM
CREATE RECOGNIZABLE GUIDE SYSTEM
SOFTSCAPE
CREATE MORE Flexible activity space
RAINWATER MANAGEMENT
APPLY SPONGE CITY TOOLS

Project. 3/10

Kwun Tong Promenade

PROJECT DESCRIPTION

Kwun Tong Promenade is a 1 Kilometre long waterfront to bring “Nature” into our “City”.
Everyone can freely enjoy the sun, the green, the fresh air, and the Victoria Harbour.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
Architectural Services Department	**Leisure and Cultural Services Department**	**Kwun Tong**	**Public Open Space**	**Approx. 2800sqm**	**Stage 1- 2010** **Stage 2- 2014**

THE PAST & THE PRESENT

Located at the shoreline of a traditional industrial area which used to be a public cargo working area in handling piles of recycled papers and scrapped metal, the Kwun Tong waterfront adjacent to Hoi Bun Road was one of the most polluted areas in Hong Kong. A 3 metre-high wall was built along the road in order to deter people from going near the water, and so despite its prime location, the Hoi Bun Road waterfront was hardly accessible by the public. At the turn of the century, under the Conceptual Master Plan (CMP) for the Development of Kowloon East, the Government adopted an integrated approach to transform Kwun Tong Promenade from a sterile space into one of the most beloved leisure hotspots in Hong Kong by collaborative efforts of different stakeholders and professionals. Focusing on “Connectivity”, “Branding”, “Design” and “Diversity”, the waterfront was transformed through public engagement processes, dedicated urban design, architectural and planning inputs. Its success accelerates the transformation of the Kowloon East from an obsolete industrial area to vibrant CBD2 of Hong Kong.

ACCESSIBLE AND ENJOYABLE KWUN TONG PROMENADE

Kwun Tong Promenade, a 1-kilometre long and 41,000m^2 urban waterfront, has become a jewel in the district. Ever since the opening of Kwun Tong Promenade (Stage 1) in 2010, and subsequent completion of Stage 2 development in 2014, it has attracted tens of thousands of visitors to this accessible and enjoyable recreational space to enjoy diversified activities. At planning stage, a place-making approach was adopted; public representatives, local stakeholders, professional bodies, urban design experts and the Government officials worked together to draft the master plan of the waterfront area. Architectural installations, reminiscent of lifting cranes or stacks of recycled paper, were strategically placed at the end of visual corridors to evoke memories of its industrial historical context and to create landmarks in the city. Today, people from all walks of life enjoy the space round the clock; in the daytime, there are numerous activities varying from family gatherings at sitting-out areas, music busking at pavilions, elderly working-out at fitness areas, photo shooting of the magnificent sunset views, to hip-hop/ pop dance practices at the multi-purpose plaza; at nighttime, the area turns into a place full of animated mist and ever-changing light show.

The waterfront has been successfully transformed and has become a vibrant, attractive and people-orientated public space by the Victoria Harbour, enhancing quality of life and giving a unique identity to the neighbourhood. Since Kwun Tong Promenade was still dissected by Kwun Tong Bypass, an elevated expressway that runs alongside Hoi Bun Road, the Government explored opportunities to face-lift the spaces beneath Kwun Tong Bypass and dissolve the boundary between land and water through the strategy of “Energizing Hoi Bun Road”.


CREATE 創意 / PLATFORM 平台 /
CULTIVATE 培養 / LOVE 愛心 /
CULTURE 文化 / GREEN 綠色 /
INCULSION 共融 / CARING 關顧 /
SHARE 分享 / EXPERIENCE

FROM KWUN TONG PROMENADE TO ENERGIZING HOI BUN ROAD

The metamorphosis of Hoi Bun Road is in the making and is geared by the steadfast efforts of the Government in collaboration with other professionals, stakeholders and community counterparts under the Energizing Kowloon East (EKE) initiative. A series of face-lifting public realm enhancement works have been carried out including “Fly the Flyover Operation”, the face-lifting works at Drainage Services Department’s pumping station, the passageway at Kwun Tong Dangerous Good Vehicular Pier, Hoi Bun Road Sitting-out Area, Lai Yip Street Refuse Collection Point and the improvement of Hoi Bun Road Park.

With an aim to revitalisie sterile unused spaces beneath Kwun Tong Bypass, the “Fly the Flyover Operation” has transformed several leftover spaces into arts and cultural venues to complement the promenade. Since the opening of Fly the Flyover Site 01 (FF01) in 2013 and subsequent openings of FF02 and FF03 in 2017, various organisations have hosted hundreds of events, attracting more than twenty thousand participants. It comprises of open stages, an indoor gallery, multi-purpose rooms, restaurant, food kiosks, pop-up store and urban farms. The Operation adopts a partnership approach between Energizing Kowloon East Office and a non-profit making organisation to manage and operate these sites to bring enriched experiences to the public.

The last phase of “Energizing Hoi Bun Road”, the improvement of Hoi Bun Road Park, a 9,300 m^2 urban park adjacent to Kwun Tong Promenade will be completed by end 2020. The park together with the newly built passage and car parking area at FF04, will become a green connector between the hinterland and the waterfront.

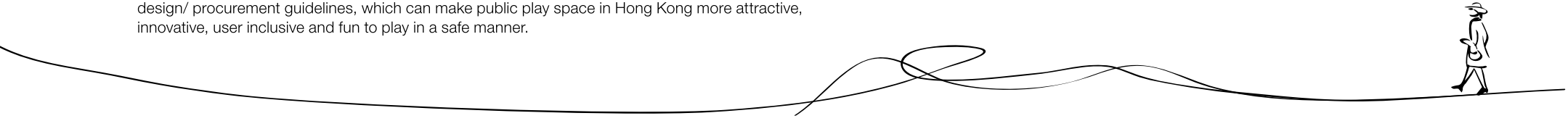
WAY FORWARD

Kwun Tong Promenade is the first project completed under the strategic CMP of Kai Tak Development, kick starting subsequent harbourfront enhancement projects in Kowloon East. Creating a connected, accessible and vibrant harbourfront has been the vision of the Government and the Harbourfront Commission. There has been strong aspiration for connecting Kwun Tong Promenade to other promenades at Kai Tak Development Area in the west and to Cha Kwo Ling in the east to create an inter-connected promenade for public enjoyment. A continuous cycle track system in Kowloon East is also under planning to infuse vibrancy to the waterfront. Kwun Tong Promenade plays a crucial role to create territorial-wide synergy by connecting people from the hinterland to the waterfront and also from Kwun Tong to its neighbouring districts.

Design of Play Space for Children in Hong Kong

PROJECT DESCRIPTION

In recent years, the design of local play space for children has been criticised as giving ultimate priority to safety over fun and excitement. There are growing concerns from the Legislative Council, some interest groups, media and members of the general public over the attractiveness of public play space in Hong Kong. A child's need for outdoor play spaces has been recognised a century ago and many nations have responded by introducing public playgrounds and playspaces into their local communities. As playgrounds flourished, different guidelines and standards were also developed by governments, municipal authorities, education institutions and NGOs, in the hope that their children may benefit from better playspaces. The consultancy study was commissioned by Architectural Services Department from 2017 to 2019 aiming to review current local practices and develop new design/ procurement guidelines, which can make public play space in Hong Kong more attractive, innovative, user inclusive and fun to play in a safe manner.



Research Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
Architectural Services Department and Groundwork Architects+Associates Ltd.	**Architectural Services Department**	**Hong Kong**	**To review current local practices and develop new design/procurement guidelines, which can make the public play space in Hong Kong more attractive, innovative, user inclusive and fun to play in a safe manner.**	**Not applicable**	**May 2019**

The consultant team involved relevant experts including architects, a child psychologist and a professor in product design. The study started with the research of play space, systematically and scientifically, from the macro to the micro scales; from the published theories on play and their psychological embodiment, gradually moving into investigations on the designing of play elements and its entailed procurement strategies. In the research phase, data was collected by conducting literature review, field survey and a public engagement programme. This data was then analysed with findings to support the identification of the key play elements in the local context and the related procurement strategies. Based on the findings identified in the research and formulation process, the study was concluded by the compilation of a “Guide for Design of Play Space” (Design Guide).

The four principles of ‘Quantity’, ‘Quality’, ‘Good Practice’ and ‘Vision’, as stipulated in the Hong Kong Planning Standards and Guidelines for planning recreational facilities, can be attributed to this ‘Design Guide’. After analysing the strengths and merits of both local and overseas studies concerning the four principles, it was recognised that, developing a vision for the planning of playspace and reviewing the current provision should form the paramount priority.

The majority of local literature available for review were technical papers and standard driven guidelines (i.e. preventive measures) rather than vision documents. From the few recent vision documents that were available, all of these papers were advocating playspaces to be challenging and fun. In the past, the general attitude towards playspace designs mostly gravitated towards safety concerns, which had in turn, prevented the introduction of challenging and fun playspaces into Hong Kong.

The overall findings outlined below were analytically presented in detail through various working papers throughout the entire research study process:

- Expectation for More Challenging Design
- Expectation for More Unique Design
- Identification of Popular Play Elements
- Need for “Inclusiveness” in Design
- Need for Community Engagement
- Lack of Supporting Amenity Facilities
- Limitations of Prescriptive Safety Standards

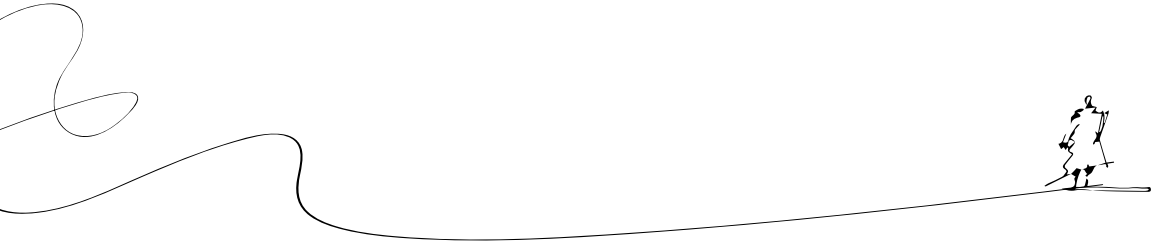
The recommendations outlined below as a conclusion to the study were concisely presented by means of texts and graphics in simple and easy to read format in the booklet “Design Guide” :

- Need to set up Hierarchy
- Introduction of Non-prescriptive Play
- Importance of Challenge & Fun
- Considerations of Natural Elements
- Exploration of Sand Pool
- Compliance of Safety Standard
- Considerations of Bespoke Design & Safety Certification
- Proximity of Amenity Facilities
- Need for Community Engagement

The children’s playground in Tuen Mun Park under LCSD was recently converted into an innovative inclusive play space named as “The Tuen Mun Park Inclusive Playground”, which incorporated many recommendations from this study. It was built under a pilot scheme adopting the winning concepts of the Inclusive Play Space Design Ideas Competition with the collaboration of LCSD and ArchSD. This pilot project was the first barrier-free play space for children in Hong Kong incorporating two natural elements, water and sand, in its design. It provides diversified inclusive play facilities for children of different ages and abilities to play together in a harmonious and happy environment.

ArchSD will continue to work with LCSD and other departments in the continual improvement of play space with the ‘Design Guide’ as a reference, consolidating experience gained from the Tuen Mun Park Inclusive Playground project to provide the necessary technical/ professional support to project proponents to develop more inclusive playspaces in other districts.

Design of Play Space for Children in Hong Kong



What's the potential 1m^3?

A Temporary Placemaking Project in Hong Kong

PROJECT DESCRIPTION

Seating for Socialising (SOS) was designed to explore how the use of tactical urban design actions can be a valuable strategy in transforming lifeless public spaces into vibrant components of the urban environment. This urban prototype, based on the dynamic interactions between people and informal seating cubes, has the objective to re-socialise some of the underused public spaces in Hong Kong by using a low-cost, temporary and replicable placemaking intervention.

The project consists of 27 low-density polyethylene seating cubes contained in a metal box with overall dimensions of one cubic metre. During the intervention, the people have to interact with SOS by taking the cubes out of the box or by moving the cubes already distributed in the space by other users.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
N/A	**University Grant Council / The Chinese University of Hong Kong**	**Hong Kong Island, varies locations**	**Education / Research**	**1m2**	**2016**

In the 1950s and 1960s, the Situationist International, a movement that had its origins in the avant-garde artistic traditions of Paris, proposed the idea of a flexible urban space that is in harmony with the desires of local inhabitants. Situationists were critical about the static effects of functionalist planning and envisioned an urban system in continuous transformation in which the time factor plays a considerable role. Their utopian concept of urbanism considered the urban environment to be a playing field of participation, wherein the inhabitants play an essential part.

Inspired by this approach Seating for Socialising (SOS) had the objective to explore how the use of temporary urban design interventions can be a valuable strategy in transforming lifeless public spaces into vibrant components of the urban environment. Hong Kong is a world-class metropolis, but regrettably, most of the open public spaces in old urban areas were created adopting a rigid, top-down approach and by applying general, prescribed solutions to a variety of different sites and urban conditions *(Fig.1)*

This urban prototype, based on the dynamic interactions between people and informal seating cubes, was designed to re-socialise some of the underused public spaces in Hong Kong island using a low-cost, temporary and replicable placemaking intervention.
The project consists of 27 low-density polyethylene seating cubes contained in a metal box with overall dimensions of one cubic metre. During the intervention, the people have to interact with SOS by taking the cubes out of the box or by moving the cubes already distributed in the space by other users *(Fig.2)*

Once installed in a public space, SOS acts as an external stimulus by providing a social bond between people and encouraging them to talk and interact with each other, a phenomenon which Whyte (1980) describes as ‘triangulation’.
As observed, the playful component generated by the interaction and self-construction of the space generated different moments of social aggregation. The research was conducted by combining quantitative and qualitative methods in order to understand the impact of the intervention in various types of open public spaces *(Fig.3)*

Findings revealed that SOS had a positive impact on the capacity to re-activate underused public spaces, suggesting that these types of temporary urban interventions can provide an effective, low-cost solution that positively impacts the urban environment. They can also provide a useful tool for experimentation, offering not only a flexible and quick solution, but also an important bridge between the municipal authorities and the community *(Fig.4)*

As with the case of cities, the concept of public spaces is one that evolves and accrues more complex meanings over time. Currently, new forms of urban activism are flourishing. They generally aim to complement and integrate generic urban spaces generated by the more formal, top-down approach (Bishop and Williams 2012). This dynamic and flexible bottom-up urbanism is challenging established planning processes by offering a more specific response to the contemporary needs of citizens.

The concept of ‘making places’ engenders a framework that allows creative concepts to guide and understand a new collective effort to improve the conditions of dysfunctional urban areas. This open process, in the form of a flexible and incremental community-driven approach, allows the people themselves to actively transform their urban environment, offering great potential to address critical issues and challenges at the district level.

Creating opportunities for citizens to interact and meet new people is crucial as it adds to the sociability of public spaces. Bottom-up activities and temporary urban design actions can be a valuable tool for promoting new social relations, and in recent years many projects have demonstrated how the engagement of the people in public spaces can be achieved with tactical urban interventions *(Fig.5)*

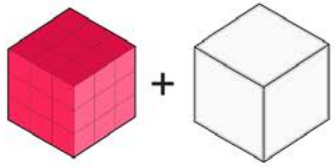
Fig.1 On the right, the unwelcoming signage that limit the social activities in most of Hong Kong’s public spaces. On the left a typical lifeless public open space in old urban areas.

flexibility

People have to interact with SOS by taking the cubes out of the box or by moving the ones already distributed in the space by other users. These dynamic actions allow the one-cubic-meter of cubes to assume infinite spatial configurations, thereby creating a mutable and flexible space.

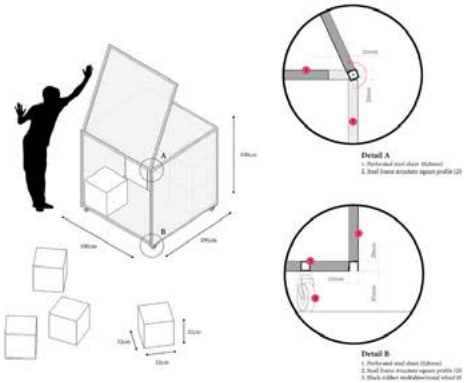
compactness

SOS consist of 27 low-density polyethylene seating cubes contained in a metal box with overall dimensions of one cubic metre. Due to its compactness, SOS can be easily moved and tranported to different sites by using a small vehicle such a van.



27
seating cubes

1
steel framed box



01_Sheung Wan

02_Central

03_Taikoo

sociability

The playful component generated by the interaction and self-construction of the space may represent a moment of social aggregation. SOS acts as an external stimulus by providing a social bond between people and encouraging them to interact with each other.

Fig.2 The graphic shows the conceptual approach of SOS.

It is time to move beyond normal planning practices to more fundamental, active and sustained forms of participation. The lack of social interaction in most of the public spaces in old urban areas is a serious deficit in a world-class city such as Hong Kong and represent a missed opportunity for the development of an inclusive and sustainable urban environment.

According to Silva (2016), planning institutions have much to gain from tactical urbanism initiatives, because the non-permanent nature of these actions can be a valuable tool with which to test solutions before a long-term investment is made. Lydon and Garcia (2015) argue that these experimental projects can bring immediate benefits to the community in the short-term, while in the long-term, the impact of these tactical actions become more evident as they are integrated into the planning process and brought to neighbourhoods across the city.

Although the inadequacy of Hong Kong's public spaces has been well documented, few studies have examined how to upgrade and re-socialise these important resources in such a high-density environment. The main objective of my research is the development of an alternative theoretical framework, which is focused on how to make use of tactical urban design interventions so as to reactivate underused public spaces in old urban areas in Hong Kong and to widen the sphere of public engagement and social participation.

	Sitting	Stacking	Playing	Chatting	Photo	Eating
General Post Office	45%	14%	18%	11%	8%	4%
Taikoo Park	34%	11%	24%	13%	6%	12%
Grand Millennium Plaza	59%	15%	8%	6%	6%	6%
	46%	**13%**	**16%**	**10%**	**7%**	**7%**

Fig.3 The percentage of how people interacted with the informal cubes in the three study areas.

Fig.4 Examples of how the installation of SOS changed the character of the space by introducing a new component – the user's interaction.

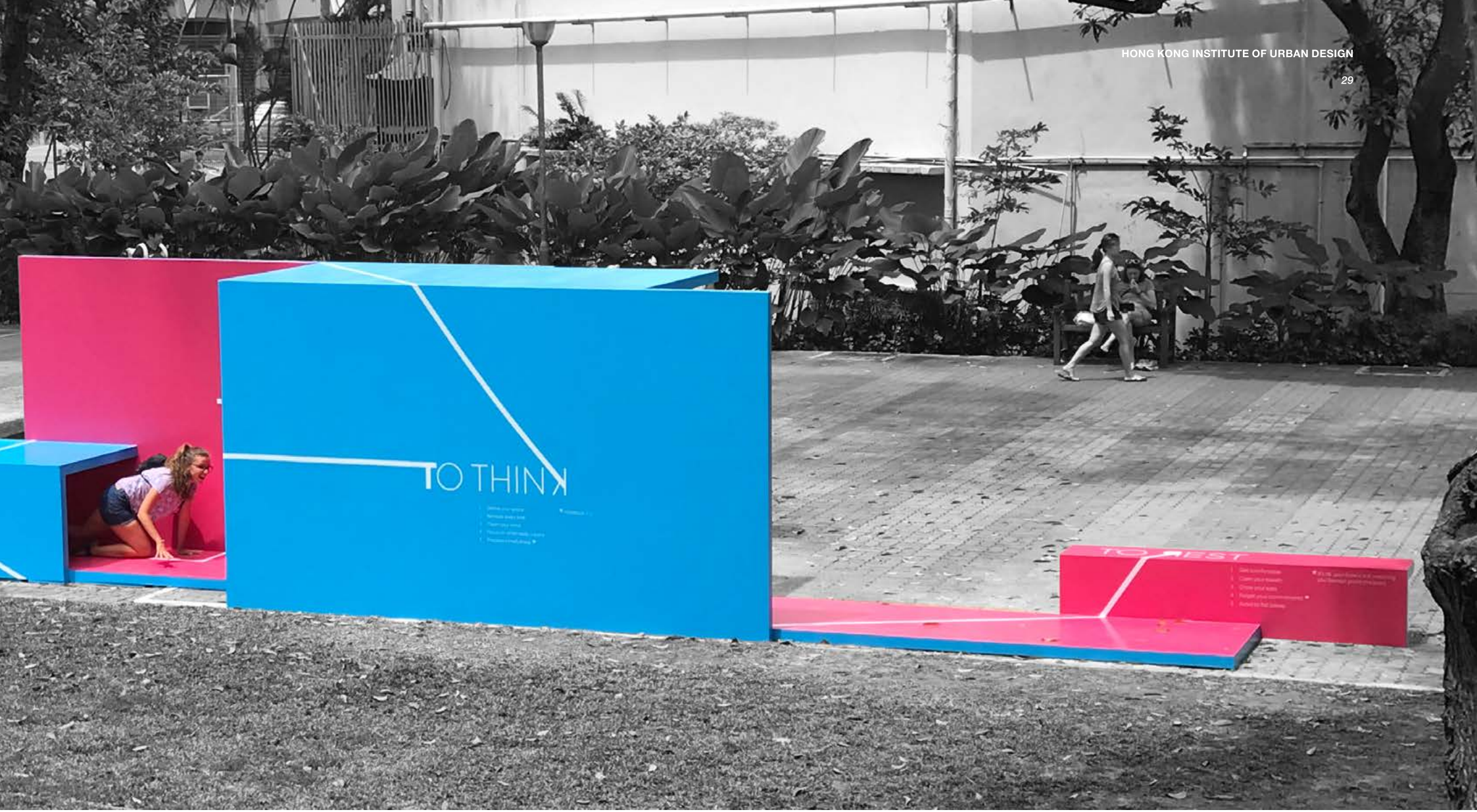


Fig.5 This placemaking intervention was realised for the Urban Design Festival in collaboration with Singapore Design Week. The intervention, entitled 'What's the Potential of 7.6m2', was conceived as a reflection on the qualitative dimensions of public spaces in the city, with the aim of transforming a generic space into something meaningful for the community (Design and implementation by Francesco Rossini).

Urban Redevelopment `SKYPARK'-

Redevelopment In The Dense City

PROJECT DESCRIPTION

SKYPARK is located along Sai Yee Street, Nelson Street and Fa Yuen Street, known for its proliferation of sports-shoe shops and nicknamed 'Sneakers Street.' It is a mixed-use urban redevelopment project over a site area of 2400m^2 and with a height restriction of 100m, incorporating 3 floors of commercial mall and a 20 floor residential tower with 439 units. The average unit size is about 32m^2, aimed towards young singles and couples attracted to the vibrant, energetic and fascinating lifestyle of the neighbourhood. *(Fig.1)*

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
P&T Architects & Engineers Ltd.	**Urban Renewal Authority & New World Development Company Ltd.**	**Mong Kok, Hong Kong**	**Residential & Shopping Mall**	**22,302 sqm**	**2017**

Fig.

COMMON URBAN ISSUES IN DENSE CITY

LACK OF OPEN & LEISURE SPACE IN MONGKOK

The open space ratio of Mongkok is 0.6m^2/ person, which is far less than the Hong Kong planning standards (2.2 m^2/ person). Moreover, air quality in the district is poor and severe pollution exceeds World Health Organization guidelines in three main quality indexes (PM2.5, PM10 & NO2). As an urban redevelopment project, every opportunity was explored to provide open space with improved air quality and enhanced environment to achieve the aim of improved living quality.

HIGH PROPERTY PRICE AND CHANGE OF FAMILY SIZE

Responding to high property prices and a demographic trends towards smaller family size, the developer reduced average flat sizes and in return explored providing a better common living environment and increased open space provision in order to create more value to the market and with a vision to build a sustainable community. *(Fig.2)*

URBAN DESIGN CONCEPT

SKY COMMUNAL LIVING IN MODERN ERA

As a respond to common urban issues in dense city - Mongkok, in contrary to typical residential buildings in Hong Kong where the clubhouse is placed at the podium level, SKYPARK strategically positioned the residential clubhouse and landscaped garden at the best location - top floor and the roof. The open space in the sky provides an escape from the dense city with openness, spectacular city views, greenery, fresh air and sunlight. It is also the communal-living space for the residents and visitors, the concept to build a sustainable community where young singles and couples can live, relax, gather, interact and even ‘Picnic in Mongkok’ could be achieved. SKYPARK redefines the mode of urban living by providing a communal-living space in the sky of Mongkok *(Fig. 3 & 4)*

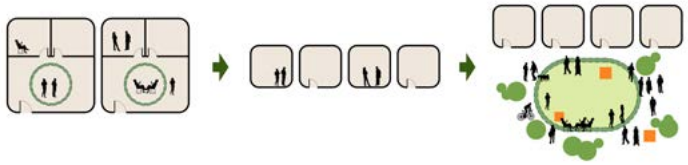


Fig.5

Fig.2

Fig. 3


THE FOREST
TheFOREST
ACTIVATE
NEW URBAN
STYLE
Coming Soon
adidas

Fig.4

CULTURE AND STREET SHOPPING EXPERIENCE

At the base of the tower, ‘The FOREST’ mall in the podium fronts ‘Sneaker Street’, a famous tourist spot for street shopping. The generic, tightly-enclosed podium massing was broken down into smaller blocks to create an ‘urban village’ more in harmony with the human-scale urban fabric in the surrounding context (Fig. 6), whilst the ground level, open plaza at the junction of surrounding shopping streets aims to create a buffer space to the dense city *(Fig. 4)*, and internal streets encourage human-scale shopping experience *(Fig. 7)*.
A grand staircase was introduced on the ground level to seamlessly extend the street shopping experience into mall at first floor level *(Figs. 4 & 8)*, meanwhile the existing culture and experience of street shopping along ‘Sneaker Street’ was retained or enhanced.

URBAN OPEN SPACES ENJOYED BY THE PUBLIC

The ‘Open Plaza’, ‘Internal Street’ and ‘, ‘Grand Staircase’ were created on the important ground level of the development, together with the ‘Green Atrium’ within the mall not just as open spaces, but green buffer spaces for the overcrowded district to enhance the air flow, allocated pedestrian space and overall quality of gathering space in the neighbourhood. The seating spaces and ledges in the ‘urban village’ are important for resting and refreshment in the densely populated area. *(Fig. 8)*

CONDITIONED-AIR FREE MALL (WINTER MODE)

The podium mall was designed as the first commercial mall free of conditioned-air in Hong Kong. Openable windows and door-free entrances were incorporated into the common arcade space which is open to external air, such that an energy efficient mode with natural ventilation could be operated in autumn and winter.

PERMEABLE FACADE

The openable windows on both sides of the facade as well as the door-free entrance were designed for permeability of the facade. It allows natural ventilation to traverse the building and enhances air movement at street level.

CONCEPT OF SKYPARK AND FUTURE OF HONG KONG

SKYPARK as a green building concept within the dense Mongkok neighbourhood, experiments with an ‘Urban Oasis’ approach to urban redevelopment. Taking this concept further in future can achieve enhanced urban outcomes within other dense urban neighbourhoods.

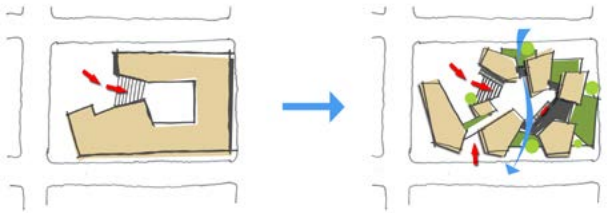


Fig.5

Fig.7

EXTENDED STREET SHOPPING EXPERIENCE FROM STREET TO MALL

The **grandstair** provide a strong physical and visual **connection** between the mall, entrance plaza and the existing street, the internal space of the mall merged with the streets and the community seamlessly.

The incorporation of **natural lighting, natural ventilation, greenery and large windows for visual connection with existing street** enhance the atmosphere and experience of indoor streetscape. It helps to extend the **street shopping experience** into the mall interior. The podium design of SKYPARK sets a new model for **socially** and **culturally sustainable urban redevelopment** in a dense and culturally-rich urban site.

Fig.8

Lingnan New World City Square

Baiyun, Guangzhou

PROJECT DESCRIPTION

The New World city - standardise measurements Square is a mixed use development that is composed of cultural, sports, commercial and hospitality facilities for local residents and tourist in Guangzhou. It is a multi-function community hub in the heart of a residential neighbourhood. To promote social interaction in the community, there is a multi-level pedestrian Cultural Avenue connecting Sports and Cultural Centre (19,000 m^2), Indoor Market (3,100 m^2), Hotel (61,000 m^2) and Restaurant (3,100 m^2) seamlessly via landscaped plazas, footbridges and subways. It forms an organic network diffused into the local community and embracing human interaction.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
P&T Architects and Engineers Ltd.	**New World China Land (Southern China)**	**Guangzhou**	**Cultural, Sports, commercial and Hospitality**	**88,000 sqm**	**In progress**

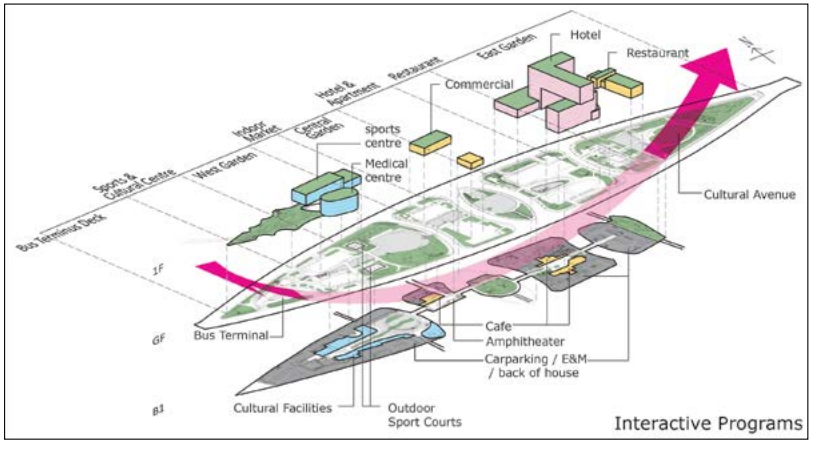
LANDSCAPE

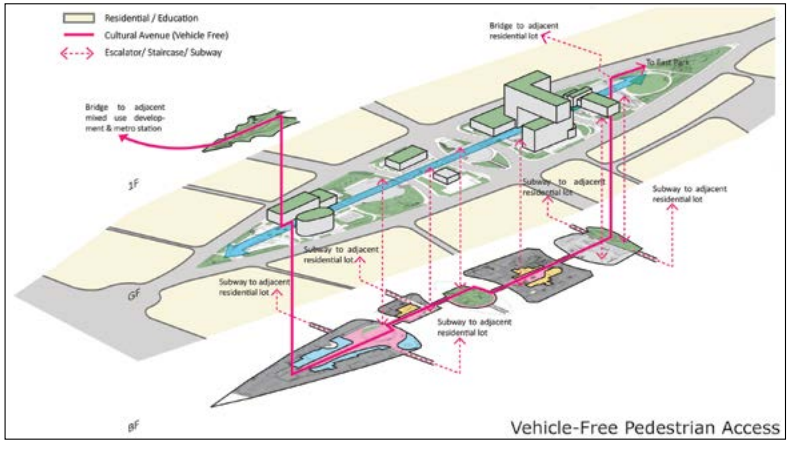
Seasonally themed planting is designed to diffuse into lush landscape pockets along the Cultural Avenue to enrich the experience of the vehicle free pedestrian zone. Plazas of different scales scattered along the spine aim to create an varied experience of multi-level heirarchy.

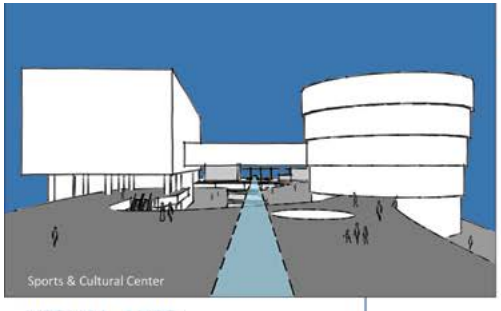
CONNECTIVITY

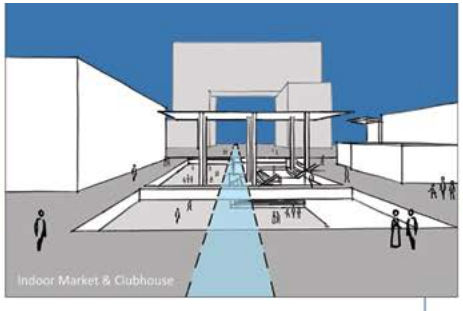
Within the development area, the landscape covered bus terminus located at the west connects to the park in the east via the seamless connection of the Cultural Avenue.

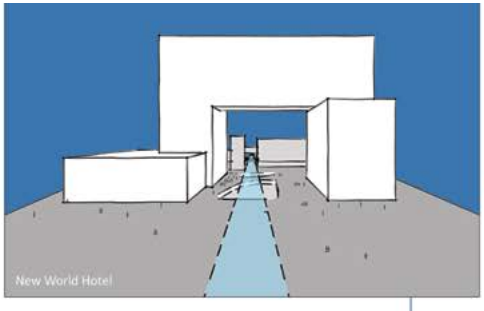
The elevated landscape deck together with the Sport and Cultural Centre provide the landmark arrival gateways for those coming from the adjacent shopping mall and metro station, whilst the Avenue connects beyond the development area into the surrounding urban fabric through landscape decks, bridges and subways.

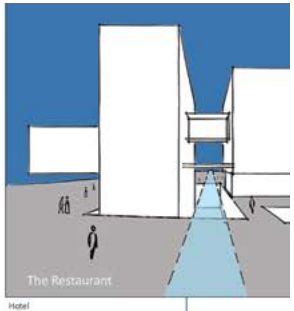

Hotel
Restaurant
East Garden
Commercial
Hotel & Apartment
Restaurant
Indoor Market
Central Garden
sports centre
Medical centre
Sports & Cultural Centre
West Garden
Bus Terminus Deck
Cultural Avenue
1F
GF
B1
Bus Terminal
Cafe
Amphitheater
Carparking / E&M / back of house
Cultural Facilities
Outdoor Sport Courts
Interactive Programs

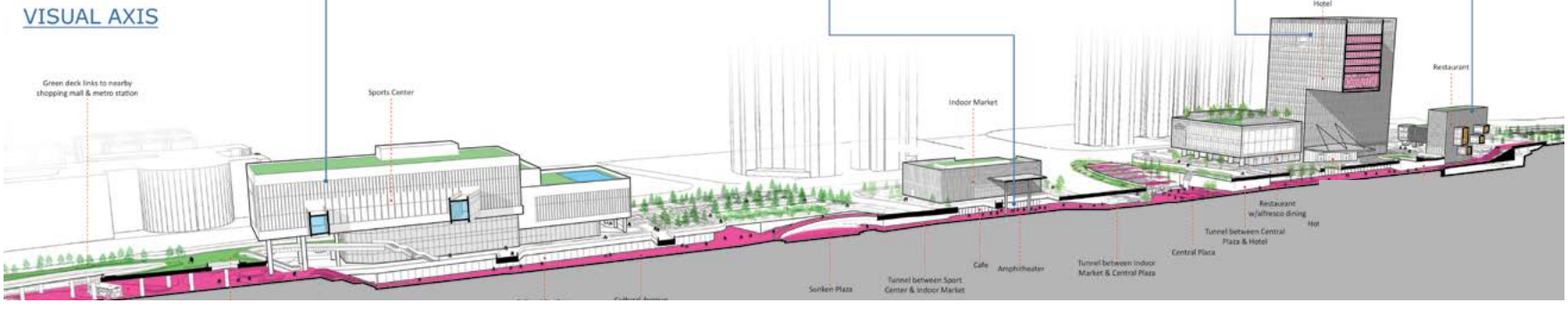

Residential / Education
Cultural Avenue (Vehicle Free)
Escalator/ Staircase/ Subway
Bridge to adjacent residential lot
To East Park
Bridge to adjacent mixed use develop-ment & metro station
1F
GF
Subway to adjacent residential lot
Subway to adjacent residential lot
Subway to adjacent residential lot
Subway to adjacent residential lot
Subway to adjacent residential lot
BF
Vehicle-Free Pedestrian Access


Sports & Cultural Center


Indoor Market & Clubhouse


New World Hotel


The Restaurant


VISUAL AXIS
Green deck links to nearby shopping mall & metro station
Sports Center
Indoor Market
Hotel
Restaurant
Restaurant w/alfresco dining
Hot
Tunnel between Central Plaza & Hotel
Central Plaza
Cafe
Amphitheater
Tunnel between Indoor Market & Central Plaza
Sunken Plaza
Tunnel between Sport Center & Indoor Market

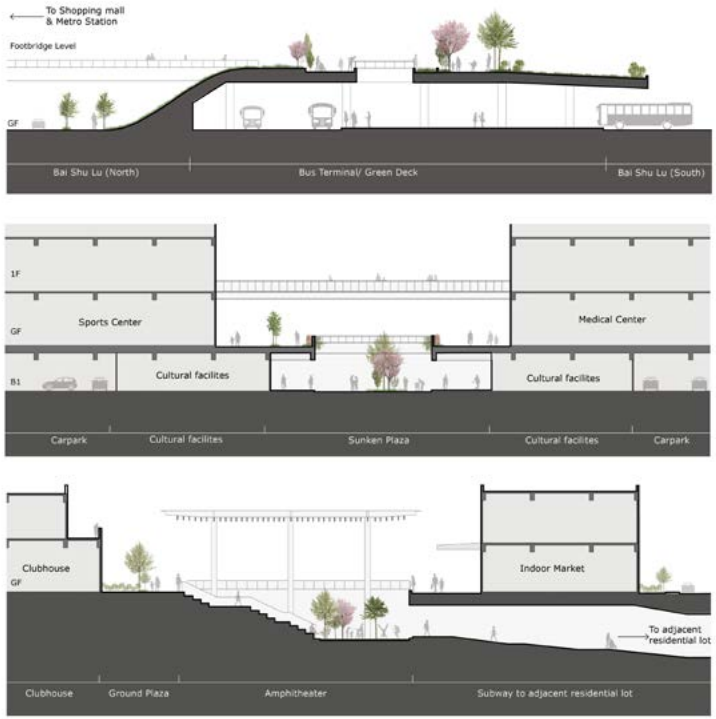
WALKWAYS

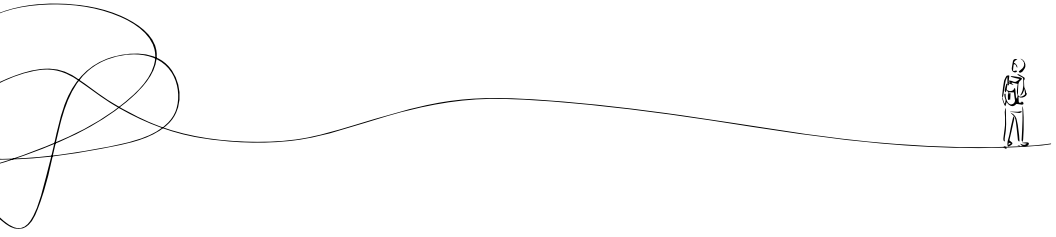
Utilising a three-dimensional integration network through multi-level connections a more efficient and dynamic pedestrian environment is created. Pedestrian flows aim to stimulate public interaction points and lively social spaces.

PROGRESS

The project has been gradually realized according to a phased master planning concept that connects the four isolated pieces of land. The restaurant building in the east has been finished in 2014 linking by its underground parking to the East Park through a sunken courtyard.

The hotel building superstructure was completed in 2019, and will open presently. As the most iconic building of the masterplan, the portal form highlights the strong axis that visually and physically bridges the separated building blocks. Construction of the Sport and Cultural Centre commenced in 2019.





The Civic Corridor

Tamar Development Project and the New Central Harbourfront

PROJECT DESCRIPTION

The Tamar Development Project is an intricately composed complex integrating four principal facilities of the Hong Kong Special Administrative Region (HKSAR): the Chief Executive's Office, the Central Government Offices, the Legislative Council Complex, and the Tamar Park (Green Carpet). In front of the Tamar Development Project, there are the temporary pet garden and public open space that connect the pedestrian circulation from Tamar Park to the promenade. They together form an integral part of the open space / pedestrian network of the Central Harbourfront.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
Rocco Design Architects Ltd.	**The Government of the Hong Kong SAR**	**Tamar (Admiralty Area)**	**Chief Executive's Office, Central Government Offices, Legislative Council Complex, Tamar Park**	**131,000 sq.m. (approx.)**	**September 2011**

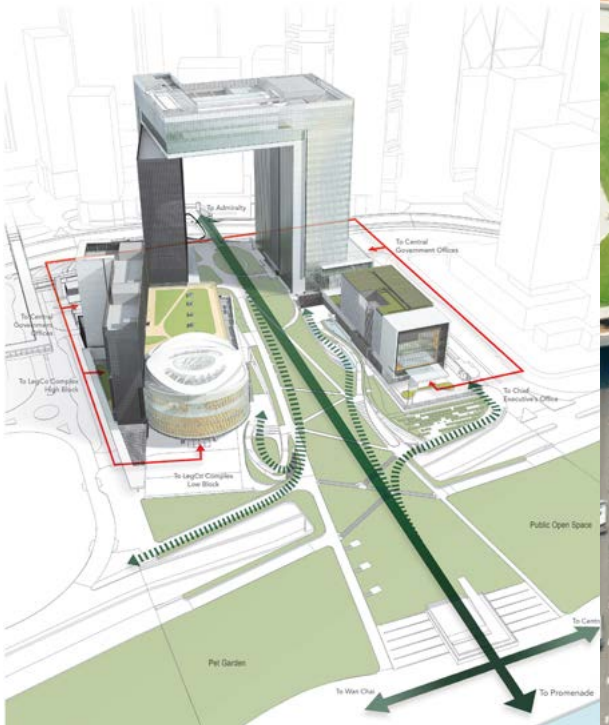

ZURICH
LIPPO
POAD

The ‘Green Carpet’ forms the spine of a north-south green corridor linking the open space of the waterfront promenade and the mountain greenery backdrop. This corridor provides for civic and public events with the Central Government Complex and Legislative Council Complex as the key anchors in this prime civic core. To enhance the connectivity from the city centre to the waterfront promenade, the Legislative Council Complex and the Chief Executive’s Office are located on either sides of the site, flanking the Tamar Park and angling towards the waterfront to provide a gesture of unity for the whole development. It also creates a harmonious and coherent character as the prime civic core in Hong Kong.

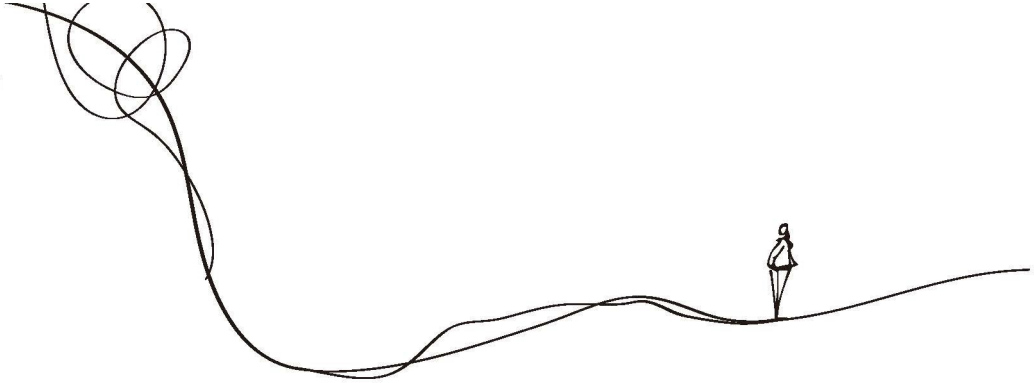
In addition to providing a primary connection between the Central Harbourfront and Admiralty, the Tamar Park creates a feeling of expansiveness and connectivity for the public. The gentle contouring of the Tamar Park as it (flows) towards the waterfront features the integration of footpaths and seating areas within a contoured surface, the creation of a soft massed canopy of vegetation at the edges of the space, the consideration of suitable locations for sculpture and artwork installations and an overall smooth, sculptural quality to the space through the careful detailing of landscape elements. Taken together, the gentle and natural curves define the edges in contrast to the angularity of the buildings to help accentuate the public feel of the space.

Above all, it is about the spirit of sharing: how a prime site in the centre of the city could be shared not only by the legislators and the civil servants, but also by the public in such a way that all parties could enjoy their spaces independently, while at the same time sharing the common attribute of the city, such as the harbour and the waterfront. The Civic Corridor is a direct links that bring Admiralty, through the Tamar Development Project, to the new Central Habourfront. It embraces a large public open space in the form of a ‘Green Carpet’ in the Tamar Development and terminates in a waterfront event plaza at the Waterfront Promenade. The Green Carpet is a design feature that conveys two gestures, one civic order and the other giving back the back parkland to the city.

The success of Tamar is on its influence to the city. It functions on a daily basis as a vibrant, integral part of the city’s life, particularly in urban terms. It becomes a place of passage as much as a destination, given life through energetic everyday use. Being a green public connector that brings the city to the new Central Harbourfront, the project enhances the city’s connectivity.




INFINITI
LIPPO
World's Best Investment Bank



Revitalizing Old Wanchai

Tamar Development Project and the New Central Harbourfront

PROJECT DESCRIPTION

The objective of the proposal for the revitalisation of Old Wan Chai is to enhance the shared streetscape and adjacent open spaces through improvements to the street furniture, paving, lighting, railings and signage. This allows us to focus on ways to rebuild a sense of identity and purpose in the area by promoting local features and by integrating the established historical and cultural heritage with a modern, sustainable environment that is attractive to residents, visitors and businesses alike.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
The Oval Partnership	**Swire Properties Limited**	**Wanchai, Hong Kong**	**Public Space and Community Design**	**Approx 13,000 square metres**	**2014**


LE GARÇON
SAÏGON

2010 REVITALISING THE PAST

Wan Chai started to grow in the 1900s, when it was known for its Edwardian terraced buildings, a catholic mission, numerous small workshops, and the first electrical plant. At the request of the Old Wan Chai Revitalisation Initiatives Special Committee, Swire Properties submitted to the Government a proposal for a Public-Private Partnership for the Revitalisation of Old Wan Chai in general, and streetscape improvement works in and around St. Francis Street, Sun Street and Moon Street in particular. The proposal is built on the belief that Hong Kong's cultural fabric is one of its greatest assets, and that it is possible to develop a sustainable urban future through the development of this strength.

This community based revitalisation project set out to build on the existing low-rise urban environment of Old Wanchai, seeking to add value to an urban living room of cul-de-sacs, mature trees and sitting out areas. The uniquely local spaces provide a place for rest and contemplation in an oasis at the heart of a bustling city. The project began as a 'Public Private Partnership' (PPP) between Swire Properties and the Wanchai District Council. During the concept stage, public consultation included a pop up exhibition on Sun Street, visitors were invited to post their views in order to help shape the design development of the project. The revitalisation process aimed to enhance the shared streetscape and adjacent open spaces whilst conserving the historic nature of the area and rebuilding a sense of identity. The project illustrates the shared values that exist between residential, commercial and environmental interests and the potential for organic growth of the existing urban fabric of Hong Kong.

2020 EMBRACING THE FUTURE

Subsequent activities and events include a pop-up street market and open days with the area enjoying a resurgence in the adoption of public open space embraced by the local community, street-side eateries and artisan shops. The quiet and leafy backstreet setting offering a slow-paced alternative to conventional venues with an eclectic mix of retailers and tucked-away night spots that continue to thrive within a tenement typology. In retrospect the critical success factors stem back to the public consultation exercise that helped to identify the real needs and aspirations of the local community resulting in facilities and features celebrated in the design in the form of: retained heritage elements; opening up of the Open Space with retained and enhanced greenery; the use of simple and natural materials in a low-key design; improved hygiene and accessibility through re-paving; enlivening the area through the promotion of local businesses in addition to vocal support for extending the project, a process that continues to evolve on an organic basis.


灣仔舊區街道改善
Old Wan Chai
street improvement works

Kai Tak River Improvement Works

Wong Tai Sin Section

PROJECT DESCRIPTION

Kai Tak Nullah (KTN) is a 3km long major drainage channel serving a wide catchment in the urban area of Kowloon, however it was a foul smelling and unattractive bare concrete channel prone to major flooding problems. The Project Brief was therefore to carry out vital drainage improvement works to prevent flooding and, in doing so, to revitalise the drainage channel to become the first urban green river corridor in Hong Kong.

Design Unit	*Client*	*Location*	*Purpose*	*GFA*	*Start / Completion*
URBIS Limited	**Drainage Services Department, HKSAR Government**	**Kowloon, Hong Kong**	**drainage channel**	**3 km**	**2010 - 2011**


東匯邨
TUNG WUI ESTATE
LOK SIN TONG WONG CHUNG NING SECONDARY SCHOOL
WAH CATHOLIC SECONDARY SCHOOL

Fig.1

PROJECT DETAILS

A 2-stage public consultation was undertaken in 2010-11, firstly to determine the public's ideas and aspirations for the project and secondly to present the team's design proposals responding to those ideas for the public's further review and comment. The key public aspirations were to:

- improve the drainage capacity;
- create a landscape within the river that resembles a natural river;
- create more greening;
- preserve and incorporate the existing granite parapet walls.

Local schools and local artists were also invited to take part in activities and events that explored and reinforced the connection between the 'river' and the community.

The overall Design Vision for the project was to convert Kai Tak Nullah into an attractive urban green river corridor – Kai Tak River (KTR) – and to service community needs whilst meeting the need for flood protection. Drainage Services Department developed a multi-pronged strategic plan to prevent future flooding and improve the channel hydraulics by capturing illegal foul drains before they entered the channel; removing unsightly utility pipes and ducts that criss-crossed the channel, and piping treated grey water from Tolo Harbour to the head of the river so as to provide a constant flow of river water in all seasons.

To support the Design Vision, the landscape design concept promotes a 'storyline' in which the ancient natural KTR has been gradually encroached upon by urban development, necessitating the construction of man-made walls on top of the natural river bedrock, both to contain the river and prevent flooding of the adjacent urban areas. Thus for any given section through the River channel, the lower portion is 'natural' and the upper portion is man-made.

The surrounding dense urban environment meant the essential hydraulic improvements had to be contained within the existing channel footprint, necessitating some deepening of the channel and also greatly constraining the physical extent of 'greening' measures within the channel. For this reason artificial rock was adopted as a measure to create a streamlined simulated natural river-bed whilst also providing the ability to incorporate hidden soil pockets with large soil volume to enable greening of the river banks and channel walls.

Fig.1 Aerial View of Kai Tak River passing through the dense urban area of Kowloon City

Fig.2 The artificial rock protects the soil from erosion from fast river currents during storm surges

Fig.3 Landscape 'Storyline' realised: man-made channel walls built onto simulated 'natural Kai Tak River bedrock'

Fig.4 Using hollow artificial rock to simulate natural bedrock enables large soil pockets for riverbank planting in the reconstructed channel profile

Fig.5 Preservation of existing trees along the riverside was a key consideration from the project outset

Fig.6 The artificial rock along the riverbed and riverbank is applied on an irregular basis to achieve a natural effect

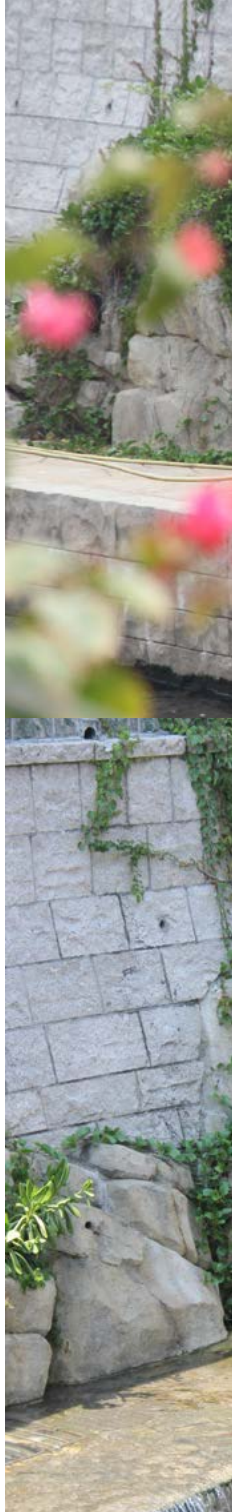


Fig.2

Fig.3

Fig.4

Fig.5

Fig.6

Planting is provided in the widest sections of the submerged river bed, in pockets along the river bank, and in continuous parapet planters along the top of the channel walls. Primarily native species are used so as to encourage insects and birds to colonize the river corridor. Clusters of artificial boulders in the river bed provide shelter for fish which have repopulated the river in large numbers, so attracting more birds and effectively bringing nature back into the city.

Sustainability is promoted in a number of ways including:

- preservation of all existing Ficus trees along the channel edge - they provide a beautiful greening effect, cooling shade and an important habitat for wildlife;
- preservation of the existing old granite parapet walls;
- use of locally/regionally quarried granite for the channel wall cladding, to match the retained parapet walls;
- use of Tolo Harbour Effluent Export Scheme grey water to maintain minimum river flow during dry winter season;
- use of native plants to attract insects and birds and promote biodiversity;
- careful design of rockwork and boulders along the river edge to create swirls, eddies and calmer water for fish to rest;
- use of river bed planting of emergent plant species (with roots secured in submerged ‘grasscrete’ panels) to provide potential habitat for young fish and amphibians;
- use of recycled and permeable concrete block paving in adjacent public footpath improvements so as to promote SUDS.

Key problems/challenges and their solutions included:

- The dense urban context meant that the channel footprint could not be widened, hence all critical hydraulic improvements had to be achieved by manipulating the channel cross-sections.
- Landscape within the channel must withstand vastly different seasonal conditions and occasionally strong river currents. Species are selected that can survive dry conditions with occasional inundation during summer floodwaters. Hollow artificial rock enables plant roots to establish within soil pockets protected from erosion.

The project outcome is that KTR is revitalised as Hong Kong’s first urban green river corridor serving as a major drainage channel, a visual resource for public enjoyment and an ecological resource bringing nature back into the city.
It has been very well received by the local residents.

Fig.7 Trial Planting: Riverbed planting with roots in “grasscrete” for stability

Fig.8 Riverbed planting including mangrove species is incorporated into submerged grasscrete panels in wider sections of the river

Fig.9 The rockwork along the riverbanks creates ideal perches for birds who feed on the fish

Fig.10 Riverbank plant species are selected for tolerance of occasional inundation during high water levels during storm surges

Fig.7

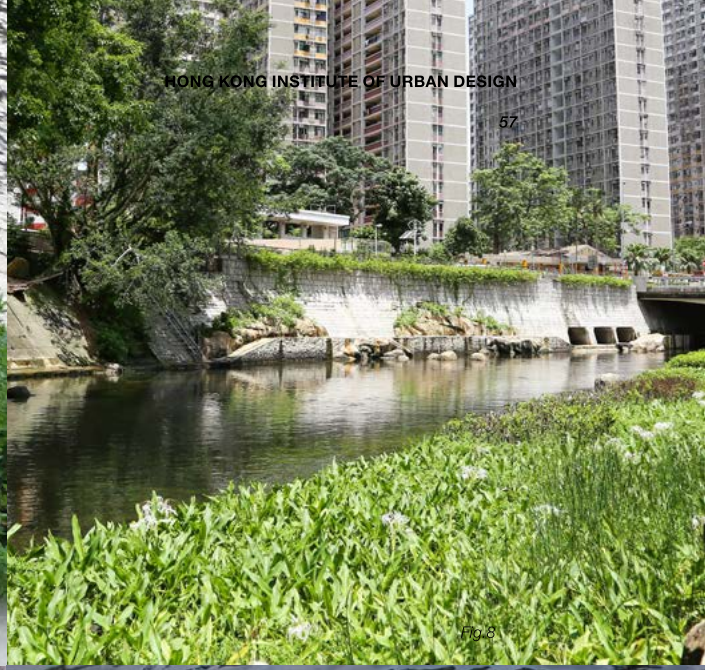


Fig.8

Fig.9

Fig.10

Open To
Explore

Inauguration of HKIUD

17 JUN 2010

Setting up of Public Affairs Committee and Membership and Education Committee

06 JUN 2011 | 119 Members

Participation in the Archi Fest 2011 in Shanghai

HKIUD Urban Design Conference 2012: "Urban Design as Public Policy"

31 MAR 2012 | 181 Members

10 OCT 2012

Participation in the 6th World Bank Urban Research and Knowledge Symposium in city of Barcelona

"City Edge" HKIUD Cross Border Urban Design Visit to Shenzhen

23 APR 2013 | 221 Members

Setting up of Young Members Committee

Hong Kong–Barcelona Urban Exchange: A Dual approach to Waterfront Regeneration Symposium

22 FEB 2014 | 268 Members

26 NOV 2013

HKG/BCN Urban Exchange Platform in Barcelona

HKIUD Macau Visit 2015

07 FEB 2015

05 SEP 2014

HKIUD Urban Design Awards 2014

HKIUD Urban Design Conference 2016: Betterment of the City

22 APR 2016

9-10 MAR 2015 | 316 Members

Barcelona / Hong Kong Urban Exchange Platform - A Dual Approach to Waterfront Regeneration 2 Days Symposium in Barcelona

05 SEP 2016 | 329 Members

HKIUD Urban Design Awards 2016

HKIUD + Planning Department: Dialogue on Hong Kong 2030+

07 JAN 2017

09 AUG 2017 | 332 Members

HKIUD+PQBC talk – Kai Tak - Urban Design adds Value

Ageing in Hong Kong Urban Environment - Experiential Workshop

17 MAR 2018

24 MAY & 02 JUN 2018

Accreditation of Master of Science in Urban Design, Chinese University of Hong Kong and Master of Urban Design, University of Hong Kong

HKIUD Conference 2018- Actions for Active Ageing - Urban Design for All

22 JUN 2018 | 357 Members

Setting up of Membership and Accreditation Committee, Research and Education Committee and International and Mainland Affairs Committee

Receiving award for Influential Agencies of China's Urbanization in the 10th International China Urbanization Summit

16 DEC 2018

9-21 NOV 2018

HKIUD Urban Design Awards 2018 and Exhibition from 9 to 21 Nov 2018 in City Gallery Central.

Urban Design Awards 2019 Exhibition Opening and Awards Presentation Ceremony in Qianhai, Shenzhen.

20 SEP 2019 | 391 Members

29 JAN 2019

HKIUD + PQBC Urban Design creates Value – Place Making from New York to Hong Kong

16 NOV 2019

CPD Visit to K11 MUSEA

Discussion Forum on Lantau Tomorrow Vision for Future Generations

17 JAN 2020

17 JUN 2020

Inauguration of the Greater Bay Area Urban Designer Alliance

Evolving and Transforming Place-identities

Professor Georgia Butina Watson
Faculty of the Built Environment
Oxford Brookes University

Abstract There have been many concerns over the last three decades about the way we build cities and their neighbourhoods. Many critics claim that this is the result of the globalization processes through which built-form components are produced. This inevitably leads to the homogenous places, where similar patterns are replicated and the users as well as the critics see such places as anonymous, anywhere places.

In response to this phenomenon many theorists have engaged in a critical discourse about place, identity and place-identity. Practitioners dealing with the form-production processes have also focused their work on designing places that would be seen as unique, distinctive, and responsive to the local cultural contexts whilst also aiming to generate new typology of buildings and open spaces which would respond to new and evolving human needs.

Particularly challenging have been transformations of rundown housing estates, where the users have a negative relationship with such areas, and claim that there is no sense of place, no sense of place-identity. The paper will first discuss some of the key theoretical ideas which will serve as a basis for discussing urban transformation of a former rundown area in South Islington, London.

Keywords: place-identity, morphological transformations, community engagement.

There is a widespread concern today for the changes being made in many cities across the world as a result of the globalised form-production processes that are contributing to the erosion of the place-identity. This is particularly evident in the transformation of historic urban areas where new urban form patterns have little respect for the inherited urban past. With the same architectural building and open space typology being applied in different parts of the world, usually in the form of tall buildings or large urban complexes, some critics call such developments as the ‘citadels of power’ or what Elizabeth Wilson refers to as the ‘sphynx in the city’ (1992). This phenomenon is also influenced by the accumulation of capital and investments by large finance corporations and development companies that move their capital globally and invest their resources in schemes that ensure a safe return on their investment. As a result, many critics (Abel, 2000; Graham and Howard, 2008; Castells (2006) and Sassen (2012) as well as the ordinary users of such places see these changes as anonymous, anywhere places. Castells (2006) argues that there is a broken sense of continuity with the past leading to the loss of the distinctive cultural landscapes and the erosion of the way of life. Harvey (2013) also argues that the space -time continuum is compressed and the ideas that took ages to travel in the past are now communicated virtually and instantly, which creates similar visual landscapes that can be shared across the world.

In order to respond to these concerns, it is important to theorise about these issues to form a common platform for debate and to find potential solutions. In that regard, there is no shortage of the published material and theories that cut across many disciplines from earlier work published by environmental psychologists and sociologists (Castells, 2006); urban geographers (Graham and Howard, 2008); and planning, architecture and urban design experts (Butina Watson and Bentley, 2007; Southworth and Ruggeri, 2011). The loss of place-identity, some argue (Castells, 2006; Butina Watson and Bentley, 2007) can diminish and alter distinctive characteristics of places that were historically rooted in the local context and can therefore potentially reduce the interaction between
people and place. Castells states (2006) that the sense of continuity over time is important in constructing a set of images and ideas about places we inhabit. However, as Butina Watson and Bentley (2007) and Sepe (2013) argue place-identities are formed over time, they are also evolving and transforming through the interaction of people and place. Through the interaction between people and place we form meanings and interpretations of places, construct our own identity and therefore place-identity.

There are many definitions of place-identity, but the ideas put forward by Butina Watson and Bentley who state that …’place-identity is the set of meanings associated with any particular cultural landscape which any particular person or group of people draws on in the construction of their own personal and social identities’ (2007,p..6), is still most commonly used today. It is therefore very important that we design places that allow interaction between place and people, which is also what Harvey (2013) refers to as the idea of ‘public sphere’ as an arena of political, and therefore also potentially democratic deliberation and participation, where political ideals may be attained and where associations between people and place can contribute to the interpretation of identity and place-identity. It is important to state the way we use our cities and neighbourhoods and interpret place-identity goes beyond the mere visual interpretations. We experience places through our daily lives and patterns of human use and therefore through all our senses; it is a total environment which is what Scott Lash describes as ‘inhabitation’ (1999). Through these practices of daily use and experience we also contribute to the enhancement of such places through what David Novitz refers to as the ‘participatory aesthetics’ (2001).

So, what happens when the places we inhabit are seen negatively by their users, when we live in the landscapes of fear, where our democratic right to use and inhabit such places is reduced? Many users and critics see such places as lacking in character and lacking in supporting our positive interpretations of place-identity. This is most obvious and of some concern in some of the urban areas where we can see the broken linkages with the past and where the ability to ‘inhabit’ such spaces is reduced due to a variety of factors. For example, the inappropriate infrastructure systems such as those evident in the former Boston’s Downtown Artery before it was replaced by a system of streets and open spaces (Butina Watson and Bentley, 2007). We can also see that from some of the modernist housing estates where we experience fear of crime, high levels of pollution, social deprivation and the building typology and morphology that fragments our cities?

The question is how do we engage with these issues through practice of planning, urban design and architecture? As we shall see the methodology put forward by Butina Watson and Bentley in their book Identity by Design (2007) is still valid, and useful in shaping existing and in designing new places. As urban critics and designers we operate at different morphological levels: the landscape components; the overall spatial structure (streets and public open spaces); the overall patterns of use; block and plot structures; and the level of building and open space typology. However, these morphological and typological components also require qualitative dimensions, to reflect on how human experiences and perceptions form part of our place-identity interpretations.

From the operational point of view these qualitative components are summarised as co-dwelling with nature; the sense of empowerment (derived from the responsive environments criteria such as permeability/connectivity/ accessibility; variety; legibility; robustness/resilience; personalisation; and richness); sense of rootedness and continuity with the past; and transculturality (accommodating the needs of different communities). In the following section of this paper we shall discuss how urban transformations that are taking place in the part of London, known as South Islington EC1, have changed and are changing the interpretations of place-identity. The evaluation methodology employed over the last decade by the author of this paper includes a longitudinal study consisting of morphological and typological surveys; semi-structured interviews with key players; focus group discussions with residents, planners, urban designers and landscape architects; and some 350 conducted walks with various groups of users.

The EC1 area of South Islington is one of the central London Boroughs located next to the City of London, the very heart of its global financial investments and international trade. EC1 evolved historically as a historic district composed of a typical morphology that evolved over time accommodating a variety of Georgian and Victorian houses. Due to its proximity to the City it suffered a radical destruction as a result of the Second World War Two bombing of London during the Blitz of 1941. This part of the city became a disaster zone that lost many of its inhabitants as well as buildings destroyed during the attacks. The damaged areas of Islington were rebuilt in the post war reconstruction period during 1950s, 1960s and 1970s based on the modernist morphology and typology that was the favoured approach by the Greater London Council responsible for planning and city building at the time. As a result, the morphology of South Islington changed whereby traditional Georgian and Victorian town houses were combined with modernist housing estates. This also reflected the varied social demographic structure of the area with poorer residents living in high rise tower blocks, whilst the rest of the richer residents living in more traditional neighbourhoods. This led to the double-coded interpretations of place-identity, depending in which part of Islington people lived, worked and socialised. *(Fig.1)*

By the early 2000 the area experienced a serious decline economically and socially and suffered from the lack of investment in the maintenance of its area and showed all the signs of other similar areas of deprivation. It felt neglected, rundown, bleak, unsafe and lacked quality buildings and green open spaces. As a result, most journeys made by the residents were car-bound which further contributed to the rundown image of the area as instead of streets there were roads full of cracks and asphalt. Children's play areas were also tarmacked and there was no one about. Open spaces around tower blocks and other buildings were poorly defined, interrupted by abandoned and vandalised garages and there was no clear distinction of what was public or private space and as a result suffered from anti-social behaviour and vandalism. From a residents' point of view the area was seen as negative, with no sense of place and place-identity. *(Fig.2)*

In order to turn the area around, a bid was placed by Islington Borough Council under the Central Government scheme known as the New Deal for Communities and in 2004 EC1 became one of the 39 NDC areas which required a community engagement and partnership working between different professionals and local government officers in order for funds to be released. This resulted in the creation of a vision for the area, formulated between various stakeholders and articulated through:

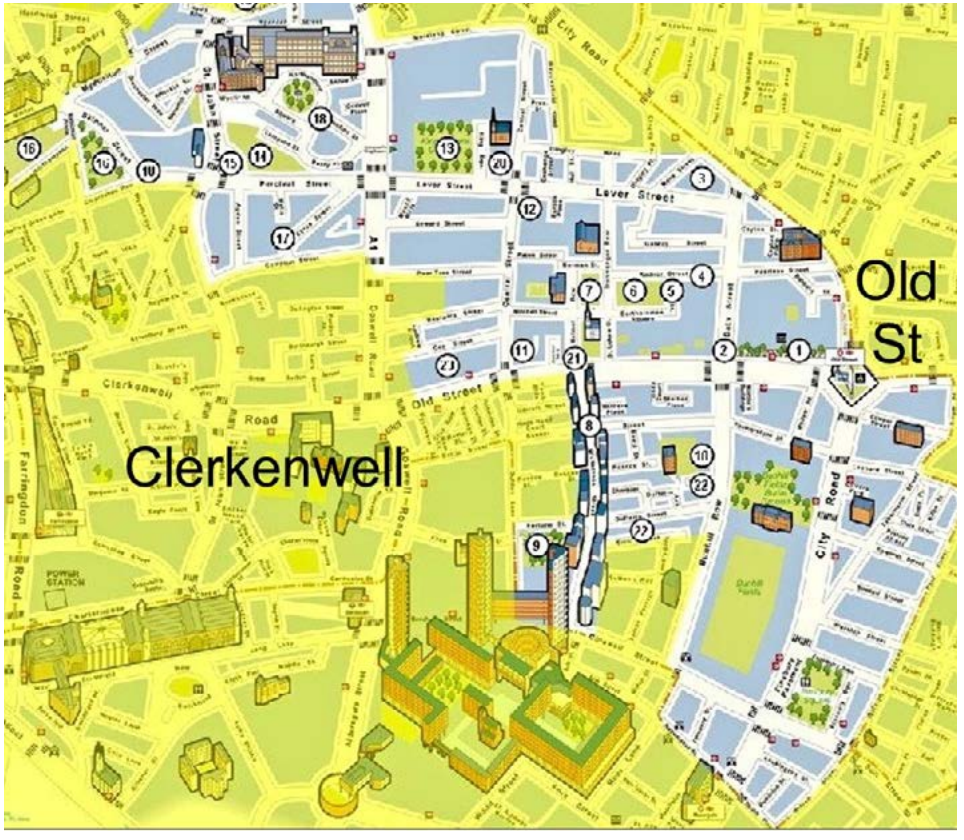


Figure 1 (Source By Author)

1	A Public space strategy
2	Urban Design Framework Plans, Action Plans and project design
3	Appointment of a multi-professional team
4	Collaborative engagement with residents
5	Interdepartmental working

The Open Space strategy led to the formulation of the so called ‘Green Chain’ which basically included 7 housing estates, a system of 19 streets, 8 parks, markets and various business and social facilities. The green chain is a connector between different parts and it ties all different areas together. The visioning events were particularly focused on how to enhance and improve a sense of place-identity in the neighbourhood. The initial funding of some £50 Million (2004-2011) finished in 2011 but the ongoing work is being supplemented by other Local Authority (LB Islington) funding mechanisms and other resources, including contributions being made from other high-profile developments in the area under the planning mechanism known as Section 106.

The area evaluations carried out by the author over the last decade has identified that significant improvements made to the area have also changed the users’ perception in terms of a very positive interpretation in place-identity terms. Improved and connected open spaces are full of people which has increased the area’s vitality and safety. Children are out and about playing in new green areas and there is also a positive sense of community spirit and local pride. These findings also support Lash’s concept of place-identity in terms of ‘inhabitation’ and Watson’s and Bentley’s definition of place-identity, explained earlier. The revitalised White Cross Street Market is also contributing positively, economically and socially through local events and festivals and through public art, which is another dimension of place-identity. The open space strategy also made morphological improvements in terms of connecting different urban tissues so that different parts are seen as part of one single whole. *(Figure 3,4,5,6,7)*

In conclusion, we can say that place-identities are not static; they are evolving in order to support different societal needs. Places also need to be cared for, be managed, improved and loved by their communities as they are part of our own changing and evolving identities. Bringing together theory and practice is important if we are to generate solutions that can support places with a positive sense of place-identity

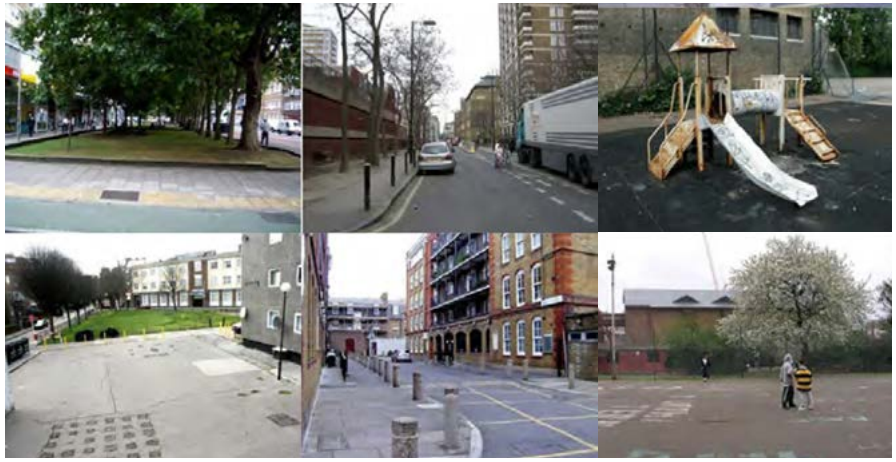


Figure 2 (Source By Author)

GEORGIA BUTINA WATSON BIOGRAPHY:

She is Professor in Urban Design and Associate Lecturer in Planning and Urban Design at Oxford Brookes University, UK. Her professional expertise lies in the area of urban morphology; urban regeneration; local community involvement including different age groups; the improvement of local urban areas; place-identity; retrofitting cities for sustainability; urban growth management; and healthy cities. p0054496@brookes.ac.uk

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HONG KONG-ZHUHAI-MACAO BRIDGE: CROSSING THE LINE?

By Austin Williams
Bsc, Dip Arch, RIBA

Abstract The Outline Development Plan for the Guangdong-Hong Kong-Macau Greater Bay Area (the "Outline") was published on 18 February 2019. It includes technical details of the longest sea-bridge in the world running from Macau Special Administrative Region to Zhuhai on the southern coast of Guangdong province (on China's mainland) to Hong Kong's Lantau island that was inaugurated in October 2018 after almost ten years of construction. But more than that, the Outline reveals a series of political and policy objectives tied to the implementation of the bridge project. The Chinese government's development plans for its southern-coast include the islands of Macau and Hong Kong. It has been clear for some time that the Hong Kong-Zhuhai-Macau Bridge had the intention of bringing these dynamic island regions into the embrace of the Chinese mainland and more efficiently consolidating their economic promise with that of the Pearl River Delta.

The Outline also covers the implementation period from 2022 to 2035 and states that China intends to "fully leverage the composite advantages of Guangdong, Hong Kong and Macau (and) deepen cooperation among the Mainland, Hong Kong and Macau". As well as making a physical connection and a means of further economic integration, China has constructed a socio-political bridge that, for some, is not built on the most solid foundations. This paper examines whether infrastructural links and political progress are synonymous, and whether both sides of the divide will automatically benefit from physical connectivity.

Keywords: Greater Bay Area, city clusters, Hong Kong, urban development, China

Introduction

Even though China's rate or urbanisation has slowed somewhat, the number of people entering the metropolitan and urban and administrative regions of China is still relentlessly high. The massive spike between 1976 and 1980 saw the rate of urban population growth shoot up from 1.76% to 5.26% per annum as Deng Xiaoping's "Opening Up" policy took hold. This was reflected in the accelerated development of new and revivified urban centres. In 1978, for example, China had 198 (or 193[2]) cities but, two years later in 1980, that figure had grown to 229. By 2003, it laid claim to 660 cities[3] and this figure has remained reasonable consistent for ten years or so even though the ambition is still to be home to a total of 926 cities by 2025[4]. Admittedly, much of the official urban data should be looked at with healthy scepticism but there has undoubtedly been a major rebalancing from rural to urban in recent years.

It is well documented that the last quarter of the 20th century saw the biggest urban transformation in history predominantly as a result of China's development. In 1970, its urban population was 167 million and five years later was 195 million but still only 23% of the national population. Since then, China's urban population rose to 49% of the overall population in 2000, is now just over 60% (813 million)[5] and the government is preparing the way for its urban population to hit 1 billion by 2030.[6]

The World Bank observes that "not all of the population increase in Chinese cities has come from an influx of rural inhabitants; 9% of the urban population growth from 2000 to 2010 was due to the natural birth-led population increase, 35% from the reclassification of non-urban land to urban land (and hence the change of status from rural to urban hukou), while the remaining 56% came from migration from rural to urban areas".[7] The question of 'where should these people go?' is addressed in a dialogue between urban versus rural development, and fundamentally in the debate between the agricultural and no-agricultural hukou. The question of how China pays for this construction boom is equally fraught given that even though GDP from construction is increasing year on year, quarter on quarter since 2016[8] the financial sector seems to be displaying slower annual growth trends.
Hong Kong is similarly immersed in a population/land resource debate. It is an overcrowded island with a population (at the time of writing) of around 7.5 million, equivalent to Greater London. It is predicted to grow slowly and steadily to 8 million by 2030.[9] With little buildable land remaining it is crowded; and with the most expensive real estate in the world it seems that the world's least affordable housing market is preparing for another boom in prices.[10] The something-must-be-done approach has revived government plans to build artificial islands in North Lantau creating an additional development potential of 1,700 hectares. The cost will be approximately HK$624 billion (more than half Hong Kong's financial reserves).

Having developed rapidly, mainland China is clearly now revising its urban policies and practices to remove inherent inefficiencies: sometimes by benevolent means, sometimes less so. One of the more benign globally-established mechanisms is to develop co-regional urbanisation to provide socio-economic benefits due to the potential for shared densities and networks. Urban geographer, Jean Gottmann's early work on the Megalopolis exposed and reified the real interlinkages that have evolved between neighbouring administrations. He saw "Greater Boston to Greater Washington not as conventionally urban, but as a 'one great system'… 'an incubator of important socio-economic trends'.[11] Such inter-linkages have been shown to reap socio-economic rewards in clusters such as San Francisco, Sacramento and San Jose, or UK's pharmaceutical golden triangle of London, Oxford and Cambridge, for example.

Conversely, Mexico City has been described as a predominantly monocentric urban form[12] whereas many other super-large cities, like Dubai, or a range of Chinese urban agglomerations often demonstrate a polycentric tendency to contain many urban centres within one city container. It is a way of creating cities within cities: of bringing down the scale within mega-city regions to manageable proportions. Academics Arribas-Bel and Sanz-Gracia have shown that "larger and more dense (cities) have higher per capita incomes with lower poverty rates compared with monocentric equivalents."[13] As Chinese cities develop and metamorphose into mega-cities and even super-regions, so the government is learning from the Western experience with a more expansive form of polycentrism. An unmanageable urban form is, after all, something that the control-centric Chinese state cannot countenance.

The Pearl River Delta (PRD) is one such polycentric opportunity that comes with its own particular set of difficulties. It is a potential growth area that crosses three notionally independent jurisdictions. As far as the Chinese state is concerned, keen on the maintenance of its authority, it is a region in need of Chinese integrative stabilisation. As China becomes ever more global, so it views stable economic dynamism arising from a rebalancing away from exports to domestic consumption-led growth. It is a contradictory desire to look outwards while being pulled ever inwards.[14] There is an unquestionable desire on behalf of Chinese businesses and local regional leadership to buy into the liberal markets while at the same time constrained by the impact on political hegemony that liberal freedoms may bring.

In this instance, the Hong Kong-Zhuhai-Macao Bridge is intended to encourage economic integration between Hong Kong and the western Pearl River Delta to enliven the competitiveness of the more sluggish (in relative terms) western area of the PRD region. In 2008, the government announced a regulatory framework designed to minimise "idle land" and to introduce economic incentives to make more efficient use of that land. By the 13th Five-Year Plan (2016-20), the Chinese state had formulated demands that master-planners should identify 19 city clusters – or super-regions – in order to intensify urban growth, counteract sprawl and to rationalise regional development. One such is the Greater Bay Area (GBA) along the southern coastline with Hong Kong.

Hong Kong is a major player in world trade. It is a Special Administrative Region of China since being handed back from British colonial rule on 1 July 1997 (since the Treaty of Nanking ended the First Opium War ceding Hong Kong to the British in 1841). It is a series of small islands that form an Anglophone entrepôt to mainland China[15] enabling it to maintain its continued high economic performance (which has depended, to some extent, on it being a genuine free market economy in distinction to China's more managed economy). According to the Hong Kong Trade Development Council, it is the world's most services-oriented economy, with services sectors accounting for more than 90% of its GDP. It is a major trade and cargo port and one of the largest banking and financial centres in the Asia Pacific.

On the other side of the bridge sits Zhuhai on the western bank of the Pearl River estuary adjacent to South China Sea. For several years it has been voted the most liveable city in China by the Chinese Academy of Social Sciences. By contrast, former Portuguese colony Macau – the other western landing point for the bridge - is the most densely populated region in the world. It is maintained as a capitalist gambling enclave operating a free trade arrangement with mainland China. Dispensations mean that, for instance, prostitution is legal in Macau, unlike in mainland China where it is officially illegal but tolerated… and flourishing.

Clearly, this project is genuinely crossing boundaries and hoping to "unite" significantly contradictory social and political traditions. Reaching out over 55,000 km2, the Guangdong- Hong Kong-Macao cluster comprises a land area twice the size of Belgium. It includes the Hong Kong Special Administrative Region, the Macao Special Administrative Region, and the nine Pearl River Delta municipalities of Zhuhai, Foshan, Huizhou, Dongguan, Zhongshan, Jiangmen, Zhaoqing, Guangzhou, and Shenzhen. A snapshot of a few more of these regions will give an indication of what is at stake: In 2014, Foshan was described by Hong Kong think-tank, the Fung Global Institute (FGI) as China's "emerging economic frontier".[16] In 2015, Guangzhou established China's first urban renewal authority. Dongguan is known to many as "the world's factory" and not necessarily in a flattering way. Indeed China Labor Watch regularly reports on employment abuses, such as low pay, poor conditions and breaches in safety standards. South of Donguan is Shenzhen, a city that has amassed a population of around 15-20 million[17] and is officially classified as one of the fastest growing megacities in the world[18] and the largest migrant city in China.[19] Shenzhen was one of the primary Special Economic Development areas in 1980 (as recounted in Deng Xiaoping folklore). Since then, the Shenzhen government has shown itself keen on meaningful urban renewal; "more so than any other city in China"[20] but is but a fraction of the ambitious Greater Bay Area regional development zone that will incorporate around 70 million people. As Shenzhen flourishes, Guangzhou on the other hand fell short of its economic growth targets for 2018.

Regardless of occasional seasonal fluctuations in local or regional economies the general trend is up. In 2017, the gross domestic product of the Greater Bay Area stood at around RMB 10 trillion. Research by PWC reveals that the eastern cities of Hong Kong, Shenzhen, Dongguan and Huizhou are responsible for 56% of the economic activity in the GBA, whereas Macau, Zhuhai, Zhongshan and Jiangmen on the west with just 15% of the population are responsible for just 12% of the regional economy.[21] With this in mind, it is a little clearer that the Hong Kong- Zhuhai-Macao Bridge is intended to spread the dynamism a little. It is expected to raise productivity rather than simply spread the existing pot of wealth a little more thinly and evenly.

There is clearly an interest, as far as the Chinese state is concerned in tapping into the foreign currency potential of Hong Kong's trade wealth. With China internationalising its currency, the recent relaxation in the use of the Renminbi in Hong Kong will certainly advance the island's prime location as a financial link to the rest of the world. Hong Kong will also benefit by tapping into China's Silk Road Initiative and the Greater Bay Area development to give new impetus to the economy.[22]
The HK$7billion capital costs of the bridge are shared in a unique tripartite arrangement - also sharing the HK$2 million maintenance charges - but as Caixin financial magazine notes, mutual access to enlarged capital flows have made it a no-brainer proposition for both sides.[23] Indeed, Huizhou is already budgeting for intercity highways and up to 11 high-speed railway stations to facilitate new 30-minute commutes – reduced from over two hours - to Shenzhen and Guangzhou.

Of course, the bridge cannot be the answer to all of the PRD's problems. Indeed, there are simple technical conflicts that have stymied progress, let alone the broader political issues. The Chinese engineering team, for instance, had to bow to the superior internationally-accepted technical standards employed by Hong Kong engineering practices over the more anodyne and risky Chinese regulations. The design also had to contend with resolving the confusion of "three customs zones, three legal systems and two hard borders (Guangdong's with Hong Kong and Macau)."[24] Each of the three distinct regions connected together have border control issues to contend with, with travellers required to obtain a permit to travel to the former colonies from the mainland and vice versa, not to mention specific highway regulations (China drives on the right, Hong Kong on the left, for example). But more significantly maybe, the bridge is also intended to bring Hong Kong and Macau into even greater allegiance with the mainland. The Outline report states that inter alia, the project will "enable compatriots in Hong Kong and Macao to share with the people in the motherland both the historic responsibility of national rejuvenation and the pride of a strong and prosperous motherland". As The Economist pointed out, this is not without difficulty – more so for Hong Kong than Macau – in terms of Hong Kong's western allegiances and the former colony's much-vaunted democratic autonomy.

Conclusion

On 1 July 2017, President Xi Jinping oversaw the signing of the Framework Agreement on Deepening Guangdong-Hong Kong-Macao Cooperation in the Development of the Greater Bay Area, an agreement whereby the three regions will "pool innovation resources". In several forums, Hong Kong residents have expressed nervousness about potentially being the provider rather than beneficiary in this relationship.[25]

However, the nervousness works both ways, with Party officials monitoring society's Gini coefficient (a measurement of income disparity in which 0 represents social equality and 1 represents total inequality). It is said that 0.4 is the point at which the tensions arising from economic inequality give rise to instability and unrest (although there is no theoretical framework for this assertion). For the Chinese state, social stability remains the central Party's foremost concern and worryingly for them, by the end of 2018 according to the International Monetary Fund, the national Gini coefficient was 0.5[26] with China predicted to run its first annual current-account deficit for 25 years. Hong Kong itself has a Gini coefficient of 0.54. When this is measured across the PRD cluster (although no accurate figure yet exists) this can only be even higher. However, the Chinese report acknowledges that there exists a "relatively wide development gap"[27] – comparing Hong Kong's record as the world's most expensive city to the peasant economies of north-Guangzhou.

While there is some cause for concern, rapid economic improvements in living standards from a low base are eminently feasible in these poorer regions (as Shenzhen's miraculous rise has demonstrated). In other words, it is relatively easy to see how China's poorer PRD regions might benefit from material improvements mandated by the central party. But Hong Kong under a notionally autonomous Legislative Council (LegCo) might have higher stakes in the game.

China needs to attract net capital inflow[28] and is making it easier for foreign investors by liberalising funding regimes and opening up the market due, in part, to the downturn in its economic performance. Allying itself with Hong Kong is a straightforward means for China to allay the problems associated with its status as a "non-market economy" as defined in World Trade Organisation terms.[29]

There are clear and immediate benefits to lives and living standards. The report points out that bridge connectivity will "bring more convenience to the lives of people in the Greater Bay Area, raise the quality of living of residents, provide more convenience for Hong Kong and Macao residents studying, working, starting businesses and living on the Mainland, strengthen exchange and integration across different cultures, and build a beautiful bay area that is ecologically safe, environmentally attractive, socially stable and culturally vibrant." China states that this arrangement is based on "open cooperation, mutual benefit and win-win situation".[30] What's not to like? Lu Kang, a Chinese foreign ministry spokesman reassures Hong Kong residents that, given its allegiance with China "everyone can see that Hong Kong's society and economy has achieved progress."[31] But economic growth is not the be all and end all in this highly charged debate.

For example, the U.S. Hong Kong Policy Act of 1992 provides Hong Kong with special trading relationship status with the United States whereby the US treats it as it would an independent economic entity. But this is a condition dependent on Hong Kong maintaining its economic and political identity sufficiently distinct from that of the mainland.

China's continued endorsement of Hong Kong's Basic Law – the mechanism by which China facilitates "one country, two systems" while at the same time maintaining the overall governance of the Central Committee – is as jarring to Hong Kong democracy activists today as it ever has been. In this tense atmosphere, the idea that, as some observers put it, "future urban development in China should be focusing more on efficient growth and effective governance"[32] may not, for some, be as simple or benign as it sounds. Indeed, in 2017, China's President Xi is reported to have "warned Hong Kongers not to cross a 'red line' by 'endangering China's sovereignty and security' or 'challenging the power of the central government'."[33]

The report on the new bridge, covers a lot of the development, economic, environmental and planning considerations that were contained in the broad plan for official urban redevelopment guideline document: "Outline of Development Planning for the Guangdong, Hong Kong and Macau Dawan District" and published on the official party news agency Xinhua. This report details both the short-term objectives (up to 2022, by which time China should have reached its first of President Xi's Chinese Dream milestones of becoming a "moderately well-off society").

The report then examines plans for the region's long-term prospects to 2035. It speaks of the "Pan Pearl River Delta" referencing the integrated connectedness of all places in the region.[34] There will certainly be prizes for all provided that everyone plays their cards right. After all, China promises to financially support the development of airports, expressways, shipping, high-speed rail connections, as well as five R&D centres in Hong Kong, including logistics and supply chain management application technology, textiles and garments, information and communication technology, automotive parts, nano and advanced materials, as well as the construction of a Science Park and Cyberport. [35] On the mainland, the proposed revitalisation intends to "radiate" improvements in urban and rural infrastructure across the region: to "promote urban renewal according to local conditions, transform urban villages, merge small villages, strengthen the construction of supporting facilities, and improve urban and rural human settlements environment."[36]

There will also be even more bridges. For many, this is not contentious: China is merely bringing Hong Kong home.

Pragmatically, Hong Kong becomes China's credible and legitimate window on the world and its simplest means of tapping into international standards of business behaviour and performance. This can only be a good thing. For example, China already has been morally obliged to pledge that it will denounce fake products, to engage with international trade regulations and to outlaw intellectual property theft. Hong Kong will be the place through which China can earn the respect of the world. Even though Shenzhen has notionally outperformed Hong Kong in terms of GDP (but not GDP per capita), Hong Kong retains its democratic superiority in terms of having "a clean and accountable government, an independent judicial system, academic and press freedom, and protection of individual liberties and human rights, which are more important criteria in the measurement of a society's modernity."[37] China, on the other hand wants to "encourage" young people from Hong Kong and Macao to study in mainland schools, to integrate the economy of the former colony further and to maintain tighter control. Recent evidence of the Hong Kong LegCo relaxing rules on extradition have worried those who prize the differences rather than the similarities between Hong Kong and China. And this, clearly is of historic international concern rather than it simply being a minor domestic policy shift. The "fact" that Hong Kong is Chinese is indisputable in terms of international law. The fact that it is another system will be tested increasingly as the borders become looser. In a global period where borders, autonomy, democracy and sovereignty are being called into question, it is worth asking whether the new bridge represents an attempt to erase, or respect, the frontier?
Only time will tell.

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IS THE 2030+ VISION VISIONARY?

By Barry Wilson
HKIUD Vice President

Hong Kong has a land crisis, but it goes beyond mere availability. Not only does there seem to be a fundamental lack of consensus in the actual quantity of new land creation required, if in fact new land is required at all, but more than that, there appears to be a fundamental flaw in the development decision-making process.

Despite the concerns continually voiced by professionals and public alike about the lack of quality objectives, solid data and visionary thinking in a changing world that should inspire the population and justify key decision-making, Hong Kong just cannot break away from building by numbers.

THE DEVELOPMENT PRECEDENT

Hong Kong develops. That's what it does. It builds and expands and has done so for its entire history. But to what end? After all this growth experience, wealth creation, employment generation and skills development you would have thought the city would, by now, have been able to develop the best living experience money can buy? But no, the mass of the population is seriously unhappy.

In fact, they are the least happy people in the developed world and even less happy than most of the populous of the developing world.

Racking of Happiness

Ranks	*Countries/Regions*
1	Finland
2	Norway
3	Denmark
...	...
7	Canada
...	...
34	Singapore
...	...
70	Libya
71	Philippines
72	Honduras
73	Belarus
74	Turkey
75	Pakistan
76	Hong Kong SAR
77	Protugal
78	Serbia
79	Greece
80	Tajikistan
...	...
86	China

Quality of Living Ranking

Ranks	*Cities*
1	Vienna
2	Zürich
3	Auckland
3	Munich
7	Vancouver
...	...
25	Singapore
...	...
68	Belfast
69	Prague
70	St.Louis, MO
71	Detroit, MI
71	Hong Kong SAR
73	Pointe-à-Pitre
74	Dubai
75	Ljubljana
76	Budapest
77	Abu Dhabi
78	Monte video
...	...
119	Beijing

Fig.1 World Happiness Report & Quality of Living Ranking (source: BWPI)

Fig.2 Salt Pans at Tai O, Lantau Island circa 1960. (source: industrialhistoryhk.org)

Hong Kong ranks 76th in the 'World Happiness Report' of the United Nations' Sustainable Development Solutions Network (SDSN) 1 and 71st on the Mercer 'Quality of Living' index. How will things ever change?

There seems to have always been a need for new land in Hong Kong, started by the reclamation of coastal fields for salt production going back thousands of years. Major reclamation projects started in the mid-19th century with the ambitious 'Praya reclamation' of 1890's by Hong Kong Land, establishing some 24ha of waterfront area in Central.

The development of the New Towns since the 1970's has been mostly built on reclamation including Tuen Mun, Tai Po, Sha Tin, Ma On Shan, West Kowloon, Kwun Tong and Tseung Kwan O. The first phase new towns were primarily aimed at providing housing for the more than a million people living in temporary shacks on hillsides and on boats in typhoon shelters, as well as addressing the continuous migration of refugees from China. The simple, fast techniques for establishing such extensive housing areas at that time were a necessary and bold response to a serious and continued crisis on a huge scale.

Fig.3 Praya Reclamation set the early precedents for continued Hong Kong land development in the 19C. (source: HK Museum of History)

Fig.4 West Kowloon Reclamation as viewed from the Peak in 1994. (source: gakei.com)

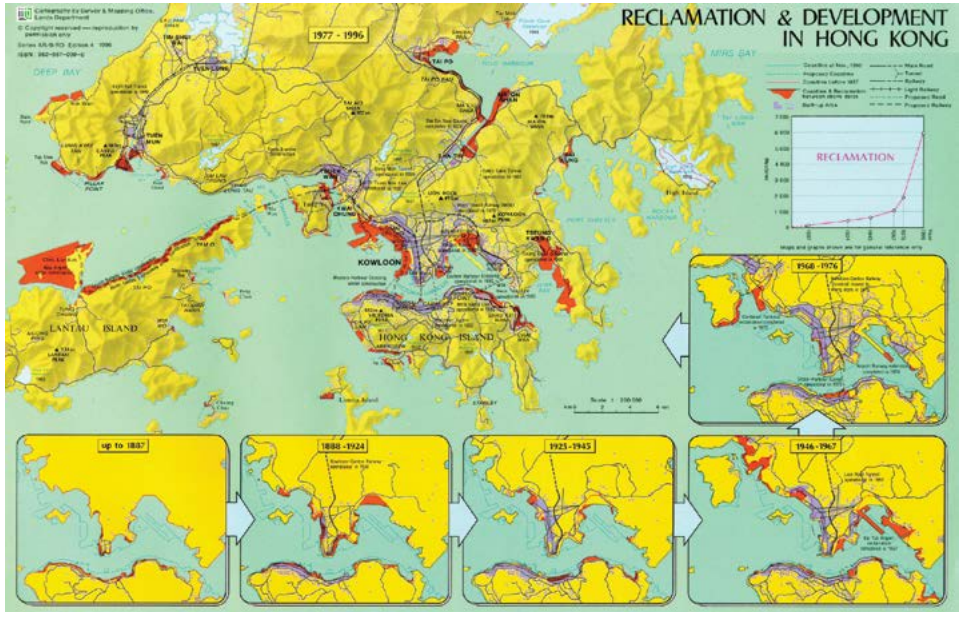

Fig.5 Land reclamation map of Hong Kong from 1851 to 1996. (source: Lands Department, HK)

The achievements of those periods are well acknowledged in rapidly alleviating overpopulation and improving basic quality of life. However, the further planning intent to provide local jobs near to these new developments was unsuccessful as the planners failed to foresee the movement of manufacturing industry to China just several years later in the 1980's. The industrial estates of the first-generation new towns remain largely under-utilised and the populations commute extensively to central urban locations. A clear lesson that time doesn't stand still and planning for the future is an inaccurate science, one where anticipating future trends rather repeating those of the past is paramount. Later new towns, like Tin Shui Wai and Tung Chung, as a result of the industrial shift, did not include significant local job creation as a major objective and were merely provided as distant commuter settlements, albeit that Tung Chung could service the new airport. However, the planning principles and tenets of new town development have changed relatively little since the 1970's.

Modular construction facilitated super rapid development of Tin Shui Wai for example, officially opened in 1993 with 30,000 residents, it took a further 10 years to connect the town by metro, during which time a series of suicides and family tragedies saw it become known as the "city of sadness". Many of the inhabitants in the cramped public housing were new immigrants from mainland China, often unemployed and unaccustomed to urban life. Situated far away from central areas, disconnected, without jobs, activities or services. Could this not have been foreseen?

IS THE 2030+ VISION VISIONARY?

Today's land crisis is unlike that of the 1970's. However, we still address it in the same, economic and quantitive terms. Reading the pages of the government's 'long term' policy vision document, "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030," amongst the plethora of statistics, benchmarks and generalities, one word is conspicuous in its almost total absence, "quality". The document states its 'Aspirations and Vision' as "To become a liveable, competitive and sustainable Asia's World City" but gives little clue as to what liveable should mean, provides no measurable liveability targets or addresses what is a suitable term of vision in the lead up to a critical 2047 and beyond? Edinburgh by contrast has a '2050 City Vision' campaign, initiated 2 years ago.

Fig.6 HK2030+ "towards a planning vision". With climate catastrophe imminent, the vague notions of Hong Kong's future, without any sustainable targets, are totally deficient. (source: hk2030plus.hk)

Vancouver, now widely recognized as one of the most liveable cities in the world, set clear quality goals in 2011 with measurable and attainable targets addressing three overarching areas of focus: Zero Carbon, Zero Waste, and Healthy Ecosystems in its clear vision to become the 'greenest city in the world by 2020.' More than 35,000 people participated in the development of the Greenest City Action Plan which has now been rolled out to a commitment for the city to become 100% renewable by 20502.

Singapore can of course point to its "garden city" quality vision back in 1967 as a strong policy driver to transform itself into a clean environment in order to make life more pleasant for the people3. Nowadays however, the city-state's "Smart Nation" initiatives directly lead to "support better living, create more opportunities, and to support stronger communities4. Singapore is already the 'most liveable city' in Asia according to Mercer.

Hong Kong 2030+ is now shaping development decision-making, including the decision to create a new East Lantau Metropolis and puts forward three aspirations: - planning for a liveable high-density city; embracing new economic challenges and opportunities; and creating capacity for sustainable growth. That's all well and good but where are the clear living quality targets to meet these aspirations, there's no intent to directly make citizens happier. Does this document really reflect the peoples' aspirations or does it more reflect development inertia? Is this really what the public asked for during consultation on how their future lives will look?

Were the right questions even being asked?

Our future thus being planned for us, fails to go much beyond catering to the most basic linear projections based on population change, guesswork and holding the fanciful notion that Hong Kong will continue to grow in much the same way as it has always done. Census and Statistics Department project a peak population of 8.22m in 2043 from 7.4m today. Funny enough that's an annual growth of 32,000 a year, the current figure, extrapolated for the next 25 years. But why that figure should stay constant is not clear.

Fig.7 Vancouver has clear targets to become the world's 'greenest city' by 2020. (source: morethangreen.es)

Eminent Hong Kong Architect, Planner, and Urban Designer, Peter Cookson Smith, highlights that the increased economic collaboration of Hong Kong in the Greater Bay Area (GBA) currently being promoted, including potential tax and identity card integration, should lead to more living opportunities in the GBA for Hong Kong residents, where housing costs are significantly lower than in Hong Kong. Around 530,000 Hong Kong residents stayed in Guangdong province for more than 6 out of 12 months in 2017 and in the two months since a new initiative in September, more than 70,000 Hong Kong residents have already submitted an application for a residence permit in the mainland. So, whilst Government appears to be encouraging its population to live and work in the GBA, he points out that it paradoxically expects a continued increase in the population of Hong Kong itself. Whatever does happen towards 2047, one thing we can expect is that stable and linear population growth is unlikely to be one of the scenarios.

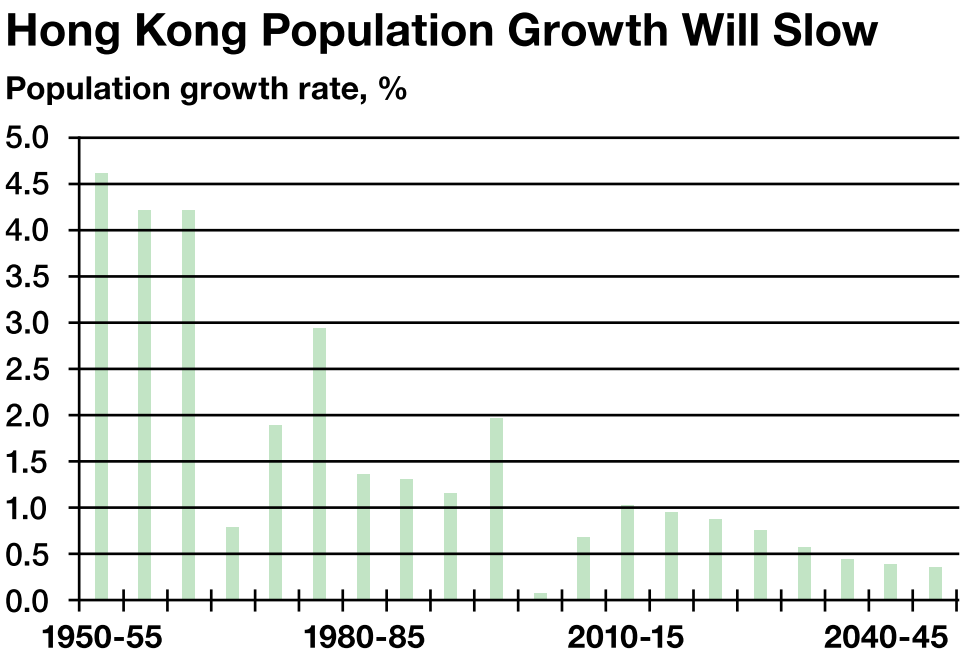

Fig.8 Could the trend be for Hong Kong to move to negative population growth in the near future? (source:United Nations Medium Variant estimate, Moody's Analytics)

It's also worth considering that we have now entered a new epoch; the Anthropocene, and have hurtled into the fourth industrial revolution which will inevitably lead to a shift of the economy's pillar industries. The speed of current breakthroughs has no historical precedent with evolution at an exponential rather than a linear pace and disrupting almost every industry in every country around the world. 2030+ fails to identify and respond to the paradigm shift arriving with automated transportation and inadequately references the implications of increased integration with Mainland towards 2047. The plans and maps exist in virtual isolation from the burgeoning development of Shenzhen.

Back in 2007, when the original 'Hong Kong 2030 Planning Vision and Strategy' was released, population change, integration and technology shift were all highlighted as key issues. What got lost in the intervening ten years?

Fig.9 Population Growth (source: Mecometer.com)

DEVELOPMENT IN THE RIGHT PLACE

Which brings me to land supply. The current discussion has become overly politicised and focused on rapidly objectifying a dubious target of 1200-hectares of land most easily available for housing rather than taking an approach that identifies specific land units that are clearly the best and most appropriate to create quality mass housing. Is the tail wagging the dog? A numbers game again rather than being about the optimum use of limited resources. In all cases the tenet of “right development in the right place” should be adhered to in order to ensure finite land resources are utilised appropriately and optimally.

Rapid development to a high-density city in the past decades has already witnessed the significant loss of valuable cultural and landscape resources; the cost of which is only recently being appreciated and citizens continue to remain short of provision and access to connected, quality open space that can make them happier. Cultural heritage and natural landscape, once lost, can never be replaced and needs to be considered as a primary asset in any land use debate. Furthermore, the health, wellness and economic benefits to the population ofproviding easy access to greenspace, quality cultural resources and unique and special places is well researched. Contemporary planning overseas is increasingly driven by green infrastructure (GI) approaches, where ‘green’ and ‘blue’ landscape elements set clear parameters providing ‘go/ no go’ areas for future development. The components of GI can be cultural, ecological, agricultural or recreational and include both managed and unmanaged green and blue space. Resources might include cultural heritage attractions, watercourses and drainage reserves, agriculture, sports facilities, urban forests, open space, roadside margins and wetlands that can be linked and used to frame where future development should easily take place around them in a low impact, sustainable model that protects essential ecological processes and systems, performs environmental services such as managing stormwater, recharging groundwater, reducing the urban heat island effect and cleaning air and water.

Such planning puts into place regulatory and planning policy mechanisms that primarily safeguard valuable land resources, integrate sustainable practices and mitigate against disaster risk whilst importantly identifying the land most appropriate for development. The multi-functionality of this approach is key to the efficient and sustainable use of land, especially in compact and dense situations like Hong Kong where pressures on land are particularly acute. Currently no such green infrastructure mapping has been undertaken for Hong Kong.

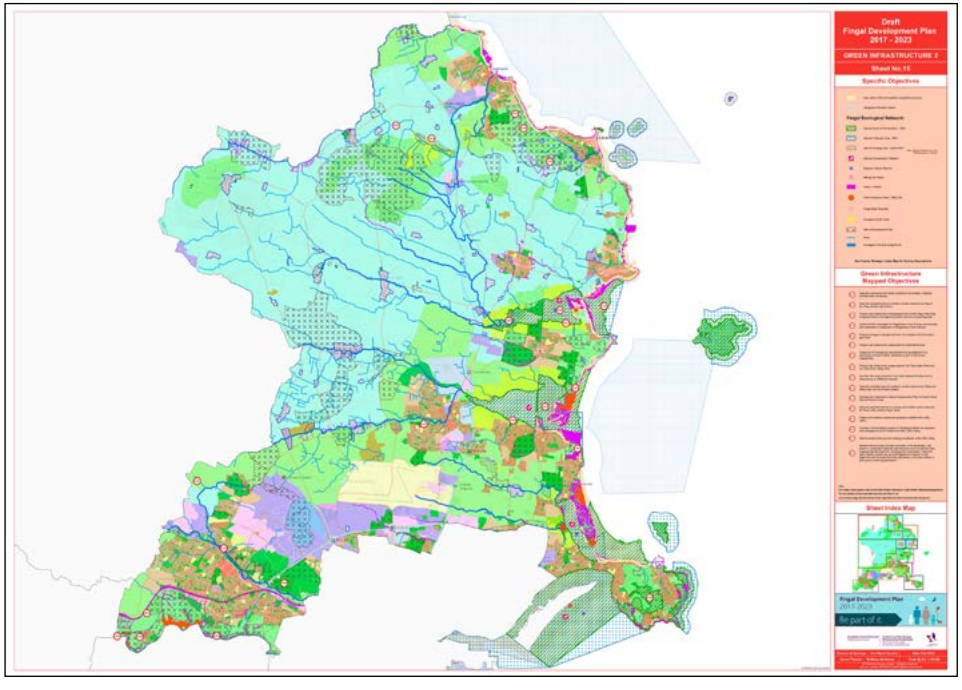

Fig.10 Development Plan demonstrating Green Infrastructure planning for Fingal County, Dublin, Ireland. (source: fingal.ie)

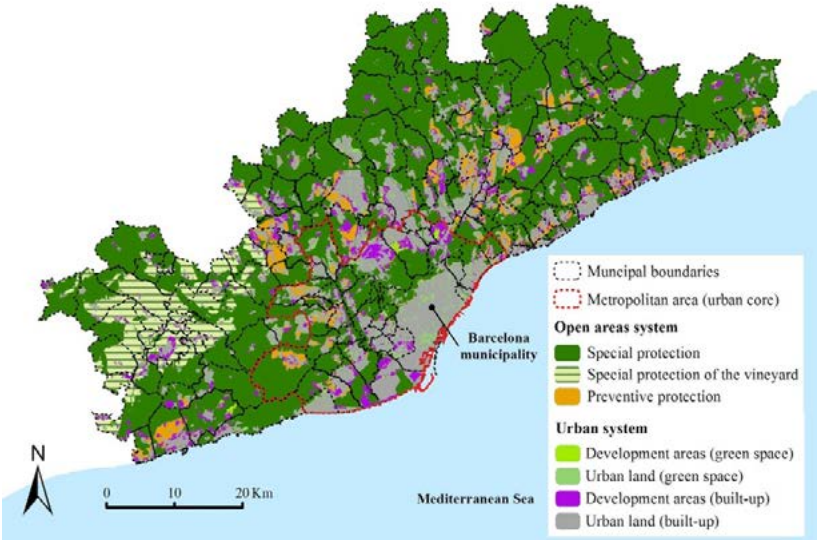

Fig.11 Green Infrastructure planning systems of the Territorial Metropolitan Plan of Barcelona. (source: PTMB)

Our development of land must place a higher intrinsic value on its social, ecological and amenity value, where accessibility, rarity and uniqueness are essential in contributing to the vitality of life. For instance, Fanling Golf Course is a unique cultural, heritage and landscape asset and would form a definitive part of any green infrastructure plan. The suggestion of its use for housing is derived from a social equity issue above a land resource issue. Its promotion for housing further demonstrates poor appreciation in optimisation of land, whilst it may be appropriate for more public access, its necessity for protection as a cultural and working landscape is paramount.

The undertaking of comprehensive, strategic, landscape and environmental infrastructure planning should be the first method to objectively highlight the best opportunities for all future land development and thus avoid scattergun land utilisation based on metrics and legalities.

HOUSING OR QUALITY HOUSING

Public housing models developed over the last 50 years have typically been based on household sizes of over 5 persons. This has been falling rapidly in the last 20 years, and households now average 2.8 persons meaning more space per person but more demand for units. The move towards single person living is a clear trend meaning Hong Kong public housing size models are no longer fit for the future, regardless of other systematic failings regarding availability and occupancy. With more new towns already in the pipeline will we get the housing mix right? Kwu Tung North, Fanling North and Hung Shui Kiu are targeted for about 400,000 people; further expansions at Yuen Long South; Kam Tin South; Tung Chung Extension; and Kai Tak – Kowloon East should provide another 400,000 population. These new developments should include a majority percentage of single and double occupancy units which would mean upwards of 400,000 units that could and should already be on track. But what is are the living quality aspirations beyond the norm for these new communities?

The Hong Kong track record doesn't inspire. The happiness and quality indexes don't lie. If people could live on bridges and roads then Hong Kong would be a world beater. Our development and management model engineers miserable places to live, planned not around people but the vehicle. The ten years between 2003 and 2013 saw the number of road vehicles in Hong Kong rise by 30% despite the known impacts to social equity and population health. Cities such as Paris are currently preparing plans to make public transit entirely free and banish petrol cars by 2030. Meanwhile a recent study suggests that private car ownership across the US will decrease 80 percent by 2030, with stranded assets in traditional motor vehicles by 2025, as manufacturers are fully switched to electric production and municipalities fully automate public transport systems5. Hong Kong seems to be behind the curve in transitioning and the vast amount of land currently allocated to roads, on / off street parking, fuel stations and transport depots needs urgent reassessment. All new housing provision needs to be based on innovative, car-free development models and prototypes urgently need to be put in place that can form a modern generation of housing stock types.

Land development options can only therefore be based on a much more sophisticated and integrated planning vision, that goes well beyond that set out in 2030+. Priority must be given to already disturbed sites, in particular brownfields, village type development area, development on infrastructure and public utilities sites, and military sites. Any land options involving irreversible impact on the natural environment and construction of extensive infrastructure, such as large-scale reclamation, or development of East Lantau should in no way prevail over primary development of alternative and disturbed sites.

Preliminary concepts provided for a new Metropolis at East Lantau, use all the right 'buzzwords' about a "smart" "green" and "resilient" city, that provides commerce and tech jobs with images of green idyllic islands of development. But this is greenwashing, there are no measurable quality targets and this is Hong Kong; can we really deliver that through our existing, siloed and engineering-led development processes? The Preliminary Concept Report perhaps more reliably outlines the reality when is describes "provision of infrastructure and delivery of services, cost-effectiveness of infrastructure investment, etc". along with the need for "a new central business district (CBD3) connected by rail and strategic highway." In other words, economic not quality growth. For me this conjures up familiar images of long bridges, highway interchanges, barriers, ramps, slopes and lots of wasted space left over; real 'Hong Kong' stuff and what we do best. Our development process is not quality-led, it's not even very functional, it's purely infrastructure for growth and it aims first and foremost at creating work, jobs and profits whilst obtaining the cheapest development product for the taxpayer. 'You get what you pay for' as they say.

*Fig.*12 Recently Developed Public Housing at Kai-Tak. (source:Danny Chung)

WHERE DO WE GO FROM HERE?

With the large-scale changes to the logistics industry resulting from the development of port facilities both in Shenzhen and within the Greater Bay Area, strategic re-evaluation of the extensive land supply dedicated to this industry, particularly the container terminals in existing integrated urban areas, would appear more expedient, whilst providing opportunities for extensive, mixed development on sustainable principles. In the face of such opportunities, high risk approaches on greenfield or isolated sites, like islands off East Lantau, would appear misplaced.

The housing shortage can act to provide the government with an opportunity to radically rethink how they want the city to evolve, planning positively where quality public housing really needs to be, rather than simply utilising the land most easily available. The anticipation of new and future transport and communications technology, coupled with development of the 'Greater Bay Area' should inspire clear, quality of life targets that are at the forefront of such thinking in creating a radically different, inclusive and liveable Hong Kong.

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SMART AND SUSTAINABLE CITY FRAMEWORK WITH SMART CULTURAL PRECINCT AS CASE STUDY

By Dr. Sujata Govada,
CEO and Managing Director, UDP International
Founding Director, Institute for Sustainable Urbanisation

Abstract The Smart and Sustainable City Framework (SSCF) redefines the idea of 'Smart City' to having "Smart Thinking, Planning and Design" as fundamental for smart and sustainable city development. The framework focuses on the core values of "Smart People, Smart Place, and Smart Planet" that helps shape the city through innovative solutions with technology embedded as an enabler to create more liveable, walkable, resilient and happy cities for all. Six elements of the Smart and Sustainable City Framework are discussed, which consists of "Smart Living", "Smart Environment", "Smart Mobility", "Smart Infrastructure", "Smart Governance", and Smart Economy".

The Smart Cultural Precinct (SCP) with the Cultural Triangle at its core in Central Hong Kong will be used as a case study to demonstrate the use of the SSCF, together with recommendations for Hong Kong and suggestions for the broader application of the SSCF to help shape better cities.

Keywords: Area Based Cultural Heritage Conservation, Smart Cultural Precinct with Cultural

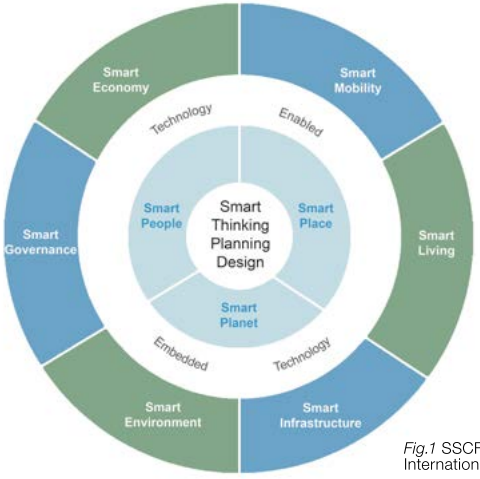

Fig.1 SSCF Wheel (ISU & UDP International, 2019)

1. INTRODUCTION

Smart City represents the vision of the future urban development (Song et al, 2017). Many cities worldwide have adopted such principles. Often the concept comes with the digitisation of services, including the use of information and communication technologies to monitor, assess, disseminate and manage cities. Smart city aims to create a productive, efficient and growing city while making the best use of the existing resources.

Although there are many different definitions, frameworks and approaches regarding the components of Smart City, they mostly focus on technology as the key driver, without emphasizing the importance of good planning and design to create great places for people while safeguarding the environment. Technology alone cannot create cities that are truly smart and sustainable. Therefore, a comprehensive Smart and Sustainable City Framework (SSCF) has been developed by the Institute for Sustainable Urbanisation (ISU) and UDP International to emphasise the importance of smart thinking, planning and design with a focus on people, place and planet.

2. SMART AND SUSTAINABLE CITY FRAMEWORK

SSCF rethinks the idea of the Smart City, involving Smart Thinking, Planning and Design as the fundamental concepts. Smart Thinking includes the initial ideas, thoughts, visions and processes of developing smart and sustainable cities with different stakeholders working together to make sound decisions to implement and manage the city. It reflects the principles and values of people and communities with a vision to create smart and sustainable cities in the future. Technology is important as an enabler and should be treated as a tool, so that the fundamental premise of planning and designing the city well will not be lost (Govada et al, 2017a).

With Smart Thinking as the foundation of a Smart City, the core values of Smart People, Place and Planet will help shape the city through the use of innovative solutions to build a walkable, liveable, affordable and resilient city for everyone to enjoy. The concept of Smart People refers to citizens having a Smart Thinking mind-set and behaviour as it has direct influence on the development of a smart and sustainable city. A Smart Place means that the city is planned, designed, and built for the human scale and has considered Smart Thinking and Smart People in the planning and design process. Smart Planet refers to the harmonious and resilient relationship between the natural environment and the built environment, in which the adverse impact of development is limited and mitigated as far as possible.

The SSCF emphasizes the importance of incorporating People, Place and Planet as the fundamental core values of a smart and sustainable city. It is a more holistic and comprehensive approach than focusing solely on technological advancement in creating new and transforming existing cities to be smart and sustainable. With the core values in place and technology as an enabler, six smart and sustainable city elements should be considered, which include Smart Living, Smart Mobility, Smart Infrastructure, Smart Environment, Smart Governance and Smart Economy.

2.1 SMART LIVING

Smart Living focuses on all aspects of human life affecting one's happiness and health, considering people first as a top priority. Access to affordable housing and a decent living environment with high quality public space for all is fundamental for Smart Living. In addition, offering education, employment and leisure opportunities for all, combined with community and health care facilities, are key while promoting heritage, art and culture to improve the quality of life for people. Smart Living aims to offer an active and healthy lifestyle with social cohesion, equity and equality to encourage people to become more responsible, collaborative, compassionate and spiritual by connecting mind, body and soul as well as treating everyone equally. Resources including education and healthcare should be available and accessible, not only for the current but also for future generations. Moreover, a safe and secure environment both during the day and at night is essential for people to feel comfortable living in, working and experiencing the city.

2.2 SMART ENVIRONMENT

Smart Environment concerns resource efficiency and the sustainable city development with the built environment giving sensitive consideration to the natural environment. A smart environment should aim to provide plentiful, public open space with smart resource management, ecological protection and biodiversity (Govada et al, 2019). People have social interactions, leisure, recreation, and entertainment activities in open space, facilitating a diverse and cohesive society, ensuring physical, social, psychological well-being and mental health which is essential for people and beneficial for the community as well.

Smart Environment encourages a sustainable built environment beyond green building design and sustainable neighbourhoods. Negative environmental impacts should be reduced for better quality of life by using energy-efficient technologies and sustainable materials to manage water, waste and electricity effectively. The government should implement and monitor environment protection in close collaboration with society and various stakeholders to raise the awareness of the importance and benefit of sustainable policies and regulations to ensure that the built environment is protected and in harmony with the natural environment.

2.3 SMART MOBILITY

Smart Mobility aims to promote the efficient and sustainable movement of people and goods locally, regionally and internationally with sustainable modes of transport such as public transit walking and cycling. Multi-modal public transit should be primary to addressing mobility needs and handling a large amount of people movement within the urban environment, supported by clean, non-motorised transit (NMT) options as the basis for last mile connectivity. Moreover, public transportation integrated with information and communications technology (ICT) services to provide traffic and transport information, including schedules, routing and real-time tracking is essential. Smart Mobility aims, through multi-modal transport options, to reduce the use of private vehicles: the most inefficient mode of travel. Cities should promote zero-carbon emission options, such as electric vehicles for cars, taxis and buses, or even driverless cars to reduce the negative impacts of motorised transport. Roadside Green House Gases emissions will be further reduced while the walking environment for pedestrians will be greatly enhanced as a result. To integrate the different elements in Smart Mobility, SSCF with a central focus on mass transit and NMT is fundamental. Transit and Pedestrian Oriented Development (TPOD) should become the development model for the future to ensure smart and sustainable cities.

2.4 SMART INFRASTRUCTURE

Smart Infrastructure provides for high quality infrastructure including the physical and non-physical elements. Physical infrastructure refers to road network, utilities, public realm and sensors, while non-physical infrastructure refers to the ICT. Physical and non-physical infrastructure should be integrated and inter-connected, which enables communication and data transfer for efficient resource management. For example, the use of smart grid and sensors to monitor the usage of public utilities facilitates smart resource management for water, energy and waste.

Moreover, the use of smart applications and Internet of Things (IoT) provides transparent data management for all parties including the public, the government and businesses through the internet and various smartphone applications. In addition, all infrastructures should be resilient to disasters and emergencies, so the city can react promptly and has sufficient level of security to deal with cyber-attacks. Citizen engagement, education, awareness and preparedness for resiliency are key for a smart and sustainable city.

2.5 SMART GOVERNANCE

Smart Governance requires strong leadership and commitment to ensure good governance with an agreed common city vision and proper decision-making processes supported by the political will, administrative skill and resources to implement the decisions. The public sector should offer proper services and work together with multiple stakeholders' engagement, including private sector, civil society, professional, academia, NGOs and community to make sound decisions in order to achieve the common city vision and ensure smart and sustainable city development. Smart Governance is achieved with proper, transparent and inclusive management that ensures information is accessible to all sections of society.

Sustainable policies should be implemented efficiently and effectively in order to inspire positive improvement and ensure impartial policy implementation. E-governance is an important tool for government to strengthen community engagement, public participation and public welfare (Govada et al, 2017b). It ensures that all citizens can enjoy adequate and appropriate public services with high quality efficiency, in-person engagement through workshops and forums with face-to-face interact. It allows government decisions to be more transparent to all citizens thanks to more integrated and accessible information, thereby enhancing the efficiency of public services.

2.6 SMART ECONOMY

Smart Economy refers to a diverse economy that is open and transparent including multi-sectoral, flexible market opportunities for business and employment, as well as promoting entrepreneurship, innovation and higher productivity through local, regional and global collaborations. These characteristics reflect a strong local, regional and global competitiveness within a well-connected economy. Smart Economy promotes an effective and efficient business environment for the entrepreneurs and encourages innovation in industry. It also ensures a stable, skilled labour force with rich resources and an ability to transform the city, as well as enhance the livelihood of its citizens while promoting a healthy lifestyle. It is essential that government should be locally proactive and innovative with locally sensitivity and regionally and globally-connected policies in order to enhance and maintain attractiveness and competitiveness in the regional and global economic environment

3. SMART CULTURAL PRECINCT

The Smart Cultural Precinct (SCP) is a comprehensive conservation and revitalisation concept initially proposed by UDP International and more recently involving bottom-up public engagement activities together with the ISU and in collaboration with YWCA to create a great place in Central, enhance heritage and cultural conservation and support the government's "Conserving Central" Initiative. At the core of SCP is the Cultural Triangle formed by the three historic landmarks, Police Married Quarters (PMQ), Central Police Station (CPS) and Central Market (CM) in Central. All three landmarks are part of Government's conservation policy, promoting adaptive reuse of buildings of cultural significance with compatible uses. PMQ was successfully completed in 2014 and is considered a landmark for creative industries (PMQ, 2018), and CPS, also known as Tai Kwun, was completed in 2018 and is now a popular centre for Heritage and Arts (Tai Kwun, 2018). CM is currently under renovation and will be completed by 2021/2022, which will be transformed into a landmark for market and leisure activities including affordable and unique retail for everyone to enjoy (Central Market, 2018). Currently the three buildings are functioning in isolation, which limits heritage conservation at a building scale and does not capitalise the full potential of revitalising the district as a whole. SCP will help further strengthen the Cultural Triangle and the linkages between these three buildings and also help integrate the area in between, including Pak Tze Lane, Yu Lok Lane, Graham Street Market, and Wing Lok Lane in order to form a cultural precinct. Existing connections such as the Mid-Levels Escalator, Staunton Street and Hollywood Road will be key pedestrian linkages of the cultural precinct. SCP aspires to be a catalyst to re-energise and transform Central into one of Hong Kong's most vibrant areas filled with culture and local character. *(Fig 2)*

Fig.2 Cultural Triangle (ISU & UDP International, 2019)

3.1 PRESERVING THE CULTURAL HERITAGE

Aside from the three key buildings, Central District is unique with its combination of the old and new developments juxtaposed right next to each other within the district. Moreover, the district is a vibrant place full of heritage, culture and creativity with many art galleries and street art including art works, paintings and graffiti within the area, drawing both local and international visitors. The cultural precinct area has been a distinct and major component contributing to Central's vibrant characteristics and also contributing to the unique image and identity of Hong Kong.

Rebranding PMQ, Tai Kwun and CM as the Cultural Triangle at the core of SCP will bring all the important sites together physically and virtually along with the Mid-level Escalator, H6 Conet, and Dr Sun Yat-Sen Historical Trail and bring Hong Kong's culture and heritage back to life. The SCP takes on a more holistic approach to developing an area-based cultural and heritage conservation plan including streetscape improvement with community and place- making initiatives to further enhance and revitalise the district. SCP is a demonstration of Smart Living, creating a walkable, cultural precinct to improve a quality of life that is socially inclusive, integrated, smart and sustainable for the enjoyment of the local residents and visitors alike. SCP could become a model for revitalising other areas such as Sham Shui Po and Yau Ma Tei in Hong Kong and beyond.

3.2 ENHANCING THE ENVIRONMENT

The SCP envisioned a walkable and pedestrian-friendly environment that showcases the local heritage and culture within the cultural precinct in Central. Currently, many of the streets within the cultural precinct are car-oriented and congested with traffic, which leaves pedestrians with narrow sidewalks and creates an unpleasant environment that is uncomfortable and unsafe for people to walk. There is also a lack of users and activities within open spaces of the area as they are not properly connected with the pedestrian network. The current environment of the area is very utilitarian and of poor quality in terms of streetscape and open space. As a result, the three landmark building(s) within the Cultural Triangle together with the streets and open spaces can become integral part of an open space network within SCP. The street activities in the area create a favourable social environment to build a platform for collaborations in various forms between community, businesses, culture and performance. Paved pedestrianised and shared streets along with traffic calming measures as well as wayfinding and signage would help create a more walkable and pedestrian-friendly environment to attract locals and tourists to enjoy the Cultural Triangle and SCP. Staunton Street is proposed to become a pedestrianised street given its vibrancy and direct linkage between Tai Kwun and PMQ. Hollywood Road is identified as having the potential to become a shared street as a main street in the cultural precinct. Gage Street and Aberdeen Street are also suggested to become shared streets to offer better connectivity for pedestrians and reduce the current vehicle-dominant situation to build a safe and pleasant, walkable neighbourhood. Also, landscaping should be provided as much as possible, for example Queens Road Central can be transformed into a landscaped boulevard. Technical assessments would need to be conducted for the feasibility of the suggested streetscape improvements as well as a mindset change among Hong Kong people to make this vision a reality.

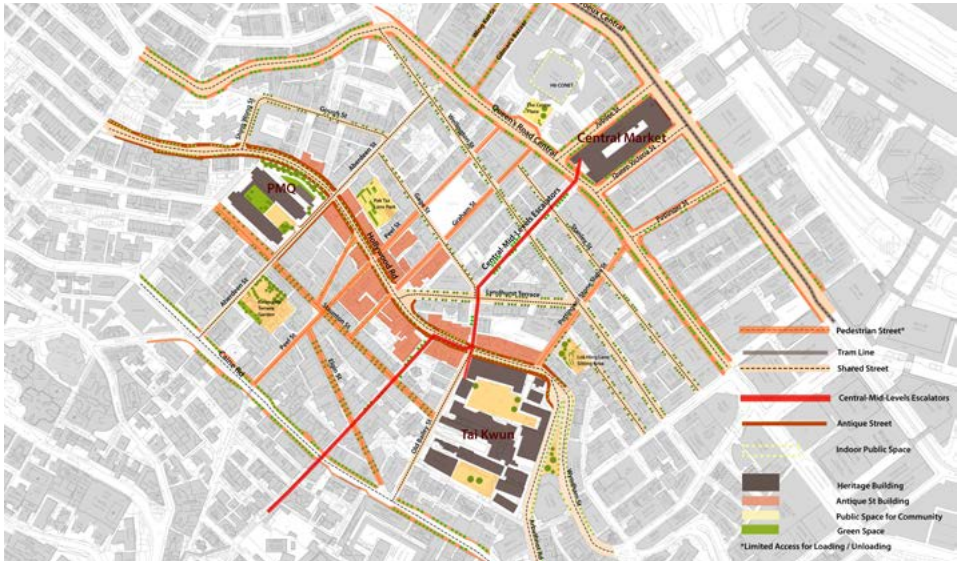

Fig.3 SCP Master Plan (ISU & UDP International, 2019)

Fig.4 & Fig. 5 Artist Impression of Hollywood Road (ISU & UDP International, 2019) & Staunton Street (ISU & UDP International, 2019)

3.3 IMPROVING WALKABILITY

The SCP also aims to overcome the poor walking conditions by improving the permeability and legibility of the area. Currently, the Mid-Levels Escalator has demonstrated smart mobility as a highly effective response to the hilly topography of Central District and provided a walkable, continuous connection with gradual level changes (Cho et al, 2015). It also enhances the permeability and legibility of the area to the needs of the locals and visitors as well as it functions as a tourist attraction. It not only serves as a viewing platform to observe the city life on the various streets that cross within the area, but the Mid-Levels Escalator has also proved successful in organically regenerating the area as a result of the many street level connections.

On the other hand, the revitalisation and adaptive reuse of PMQ, Tai Kwun and CM, have proved to be useful as way-finding cues because of their local character and unique built-form. This can be further improved by linking digitally the Cultural Triangle and the area in between and beyond through a public sharing platform, such as an app and/or blog of the precinct to provide information on local heritage, tourist attractions and shopping areas. Users can learn about and explore the area as a result of improvements in the precinct's wayfinding.

The SCP can become a walkable and connected precinct within the Cultural Triangle, the precinct and beyond. This will help create a smart and sustainable precinct that is pedestrian and environmental-friendly for people to live, work, play and learn. It also helps to create a healthy, happy and liveable environment, enhancing people's quality of life and achieving principles in Smart Mobility, Smart Living and Smart Environment.

Fig. 6 & Fig. 7 Mid-Level Escalator (ISU & UDP International, 2019) & Central Market Public Passageway Exhibition (ISU & UDP International, 2019)

3.4 COMMUNITY ENGAGEMENT

More recently ISU and UDP International worked together with YWCA, with funding support from the Central and Western District Council, to host a series of events and activities in 2019 to educate and raise awareness of SCP and the Cultural Triangle in Central among the local community. The SCP Kick-off Event, Walk and Workshop, Walk and Building Tours, Community and Place Making Event, and Arts and Crafts Workshop as well as the Public Forum on Walkable Cities were very successful in engaging the local community in raising awareness about the cultural heritage and getting positive feedback regarding the cultural precinct in Central.

The walk tours and workshops were held to introduce SCP and gather feedback from the local community by introducing the different aspects of the cultural precinct to allow the public to reimagine the possibilities of this area in Central. Elderly participants were engaged and shared about the local cultural heritage from their childhood stories and experiences. A number of topics were discussed, including ways to improve the walkability within the cultural precinct by making it more pedestrian-friendly; provide a better linkage between the three building(s) and the area in between physically and digitally to strengthen the Cultural Triangle as the core of the precinct; more cooperation between key stakeholders such as residents, shop owners and renters to emphasize a sense of community within the cultural precinct; promoting local F&B, arts and crafts; promoting other programs, events and activities through social media; realizing SCP at Central to help enhance the overall city image and identity; and becoming a model for other areas in Hong Kong and beyond.

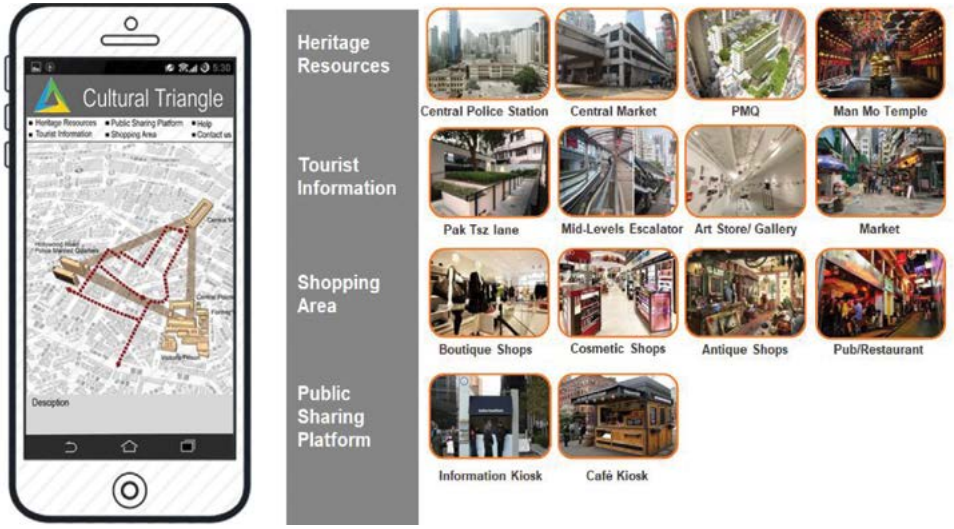

Fig.8 Illustration of Possible Navigation App for SCP (ISU & UDP International, 2019)

A Community and Place Making Event was held in Lok Hing Lane Temporary Sitting-Out Area on a Saturday afternoon. Using simple decorations such as balloons, mats and bean bags in vivid colours, the sitting-out area was transformed into a lively place that was attractive and welcoming. The Community and Place Making Event aimed to demonstrate the potential of underutilised spaces that can be used as a more engaging and active space for the community and visitors with games, food and music attracting people passing by as well. In addition, a map of SCP was provided to engage participants to find key street features and buildings within the area, thereby initiating discussions and raising awareness of the local culture and heritage within the cultural precinct. The event has successfully attracted the local community, students, tourists and professionals to experience a different Lok Hing Lane Temporary Sitting-Out Area than they are normally accustomed to. Many of the participants appreciated the change in environment and had expressed interest in making this a regular event in the future.

Fig.9 & Fig.10 Walk Tours and Workshops (ISU & UDP International, 2019)

Fig.11 & Fig.12 Community and Place Making Event (ISU & UDP International, 2019)

The Public Forum and Walkable Cities event presented the Cultural Triangle and SCP vision and shared the various public outreach and community engagement events undertaken by ISU and UDP International together with YWCA. During the event, elderly and young participants performed, shared their experiences and celebrated the cultural heritage in Central and Hong Kong. In addition, the Public Forum became a platform for discuss how to use SCP as a model to promote cultural precincts in other districts in Hong Kong and beyond. A SCP Map illustrating the heritage and culture of the precinct was showcased to the participants for their feedback. All guests and participants received a SCP T-shirt as a souvenir that is designed with hand sketches of the three key landmark buildings showcasing the Cultural Triangle as the core within SCP, the walkable cultural precinct in Central.

To further engage the community and raise awareness of the concept of SCP, ISU and UDP International have teamed up with AIA Hong Kong along with THEi's support with the students' model of the larger Central area to showcase SCP as an exhibit in the 2019 Hong Kong Biennale of Urbanism\Architecture that is currently underway. Walking tours and workshops are planned to be organised to raise awareness and receive further feedback from a wider audience.

Fig.15 SCP Map (ISU & UDP International, 2019)

Fig.16 & Fig.17 ISU UDP & YWCA Team (ISU & UDP International, 2019) & Hong Kong Biennale of Urbanism\Architecture (ISU & UDP International, 2019)

4. CONCLUSION

The SSCF shows that Smart Cities should not be just technology-driven but, through the 'Smart Thinking, Planning and Design' focus on Smart People, Place and Planet, smart and sustainable development can be ensured. Key elements such as smart Living, Environment, Mobility, Infrastructure, Governance and Economy can help shape the city through innovative solutions with technology embedded and enabled to create more walkable, liveable and enjoyable places to be in.

Using the SCP with the Cultural Triangle at its core as a case study, we hope to showcase SSCF as a tool to assess cities systematically and strengthen the good qualities, address the weaknesses and shape better cities. SSCF can also be further developed to incorporate different assessment and measuring tools such as rating system and performance indicators. It can be used to assist in policy development as well as planning and design process in the initial planning and design, implementation and evaluation stages. The SSCF can provide a clearer direction on Smart and Sustainable City development and help shape better cities that are more inclusive, liveable, walkable, resilient and happy cities for all.

DR. SUJATA GOVADA'S BIOGRAPHY

- CEO and Managing Director, UDP International
- Founding Director, Institute for Sustainable Urbanisation (ISU)
- Adjunct Associate Professor, School of Architecture, Chinese University of Hong Kong
- Global Trustee, Urban Land Institute
- Past President, AIA Hong Kong
- Founding Vice President, Hong Kong Institute of Urban Design
- Registered Architect, Council of Architecture India

Dr. Sujata S. Govada is an award-winning urban designer and town planner with over thirty years of diverse international experience in urban design and planning. Her work has been recognised for innovation and influence in increasing awareness on sustainable development that shapes liveable and walkable cities. She has received over 10 major urban design and planning awards for projects including the HBF's Harbour-front Connectivity Study, the Graham Market Area – WCC Alternative Proposal and Designing Hong Kong's Central Waterfront Planning and Urban Design Competition Award Winning Entry, "Central Harbourfront Promenade – "Emerald Necklace", a joint submission with RTKL.

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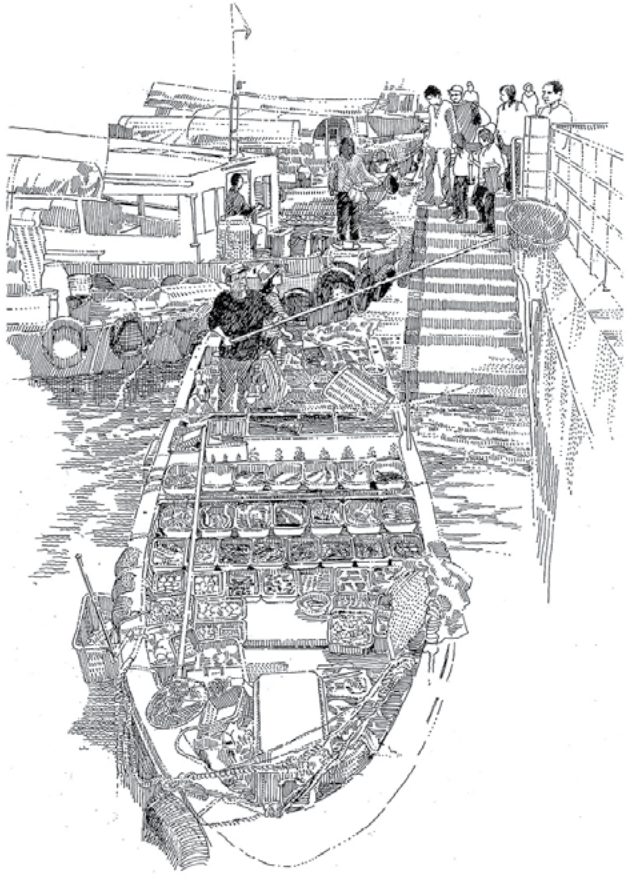
SUSTAINABLE CITIES:
THE NEED FOR REGENERATIVE URBAN DESIGN

By Dr. Peter Cookson Smith
PhD DIpArch AADipPIg MRTRI MHKIP RPP,
MHKIUD Hon.AIA HK,Special Consultant

Designed Integration of Historic Places
Kowloon

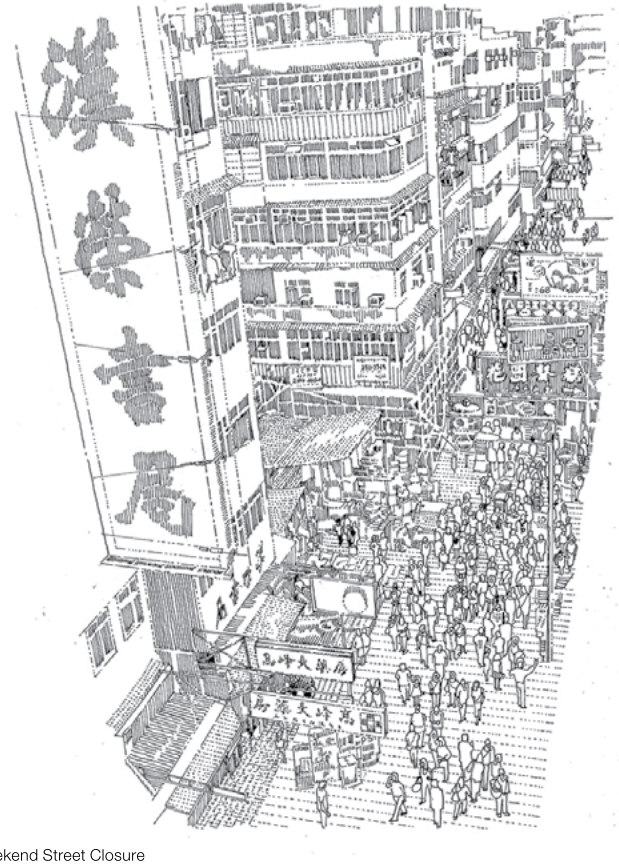


Functional Animation of Urban Edges
Sai Kung

In a broad sense ‘sustainability’ is about maintaining and enhancing the quality of life while respecting the carrying capacity of the biosphere, the supporting eco-system and resource base. At a more detailed and specific level, spatial planning and urban design need to be set within the urban and city planning context of natural resource conservation and the achievement of environmental quality. As part of this process urban design must be concerned with the careful stewardship of the resources of the built environment in the creation and maintenance of the public realm.

Efforts to improve the environmental performance of cities is possibly the most pressing issue to be addressed in the 21st century, and global initiatives reflecting sustainable concerns for the planet have, in recent years, helped to develop a clear ecological dimension for strategic and local planning.

Conservation of Street Fabric
Macau



Weekend Street Closure
Kowloon

IIn Asia this really comes down to what sort of cities we want and the priorities we set. The term ‘City’ is derived from the root word for civilisation, meaning ‘befitting a citizen’, and in general cities are the result of people’s persistent pursuit of a more liveable environment. Wherever they are, this is indispensable to the development of society. Edward Glaeser in ‘Triumph of the City’ stated that studying cities is so engrossing because it poses fascinating but often troubling questions, but he also raised the question ‘why do so many smart people enact so many foolish urban policies? So this subject is very pertinent. Any design model for a Liveable City must focus on the long-term well-being of its citizens, and policies must be well thought-out, they must be implementable, and must be acceptable to stakeholders.
This touches on many issues – identity and belonging, and the future of the city that is not just about redevelopment of inner districts but about the edges, the boundaries, the connections, the ecology and the urban design. And where the citizen is at its very centre.

What we must transcend in Asian cities, is the perennial laissez-faire linked system of speculative accumulation, narrow economic focus, the power of large development interests, and the concept of the city as simply a matrix of opportunity, because what this leads to in practice is increasing inequality and polarisation of society. We need to bring together policy-making areas that are directly related to regeneration of the city, and which are now often segregated into silos. This includes urban planning, urban renewal, infrastructure, highways, transport and the environment. And we might add another –new technologies to drive the creation of a new kind of city – liveable, connected, global and sustainable.

Incorporation of Distinctive Amenities
Bird Market, Mong Kok

As Jonathan Barnett, the American urban design commentator has observed, while the forms of most world cities might be unintentional, they are not accidental. They are the products of innumerable decisions made over varying periods of time, for single and separate purposes – but that the combined consequences of all these decisions are unpredictable. When you look at this, we are bound to agree that it could never have been intentional. Great urban design is unlikely to happen purely by chance, but an almost constant process of change is inherent in the way cities function – physically, socially and economically.

Our historically great cities come down to their endowment of physical capital, their hard infrastructure of buildings and spaces coupled with the more elusive qualities of place and history, which in many Asian cities is now strikingly absent. Healthy communities need healthy urban places. But the modern city must look to the future and add another dimension – that of responsiveness to the challenges of growing urbanisation, eco-awareness, urban efficiency, and resilience to climate change. In this sense, urban performance no longer depends purely on physical capital but on social and knowledge capital.

Incorporation of Pocket Parks
Tsuen Wan

For the most part the primate cities far exceed other national cities in terms of population, business investment and industrial production. Around 60 percent of national GDP in Asia is now produced within mega-urban regions that are tending to double their populations every 15 years. The metropolitan regions of Bangkok, Manila, Jakarta and Tokyo generate anything between 35 and 60 percent of their national GDP. On top of that, development corridors are expanding beyond metropolitan boundaries, emphasising the regional or mega-city dimensions of the urbanisation process whose parts are interdependent but still evolving, such as the Greater Bay Area in Southern China with a population of some 70 million in its integral cities. Asian countries contain 60 percent of the global population, and the Asian city has for some years been on the rise. The steady stream of influences on its cities is now being superseded by a surge of commonalities generated through the dominant forces of globalisation and competition for international investment.

The massive programme of urbanisation itself requires some understanding of historical, cultural and political dynamics that have created the physical conditions, the changing value systems and the contested identities of the modern Asian city, and that is contributing to a spatial, social and economic transformation which is giving rise to expanded urban footprints.

At the end of World War II, only 17 percent of Asian populations lived in cities. By 2020 this has grown to more than 50 percent, one of the main influences being the pre-eminence of primate cities which in certain situations have evolved into mega-urban regions as a result of concentrated economic development and investment. The latter situation includes densely-populated rural enclaves on the peri-urban fringe which have been drawn into the city ambit through industrialisation while also embracing lingering rural characteristics. This has created on one hand a requirement for mass housing at relatively high densities, at a time when civil society is asserting changing social and economic agendas.

In most Asian countries the state assumes a major role in transforming urban space and delineating its symbolic qualities. The expedient process of redevelopment over regeneration obliterates the technically inefficient or uneconomic at the expense of heritage or at best, juxtaposes it with the evident prerequisites of modern cities – the traffic artery and the superblock. In the process city-making and renewal, procedures have become more absolutist and expedient.

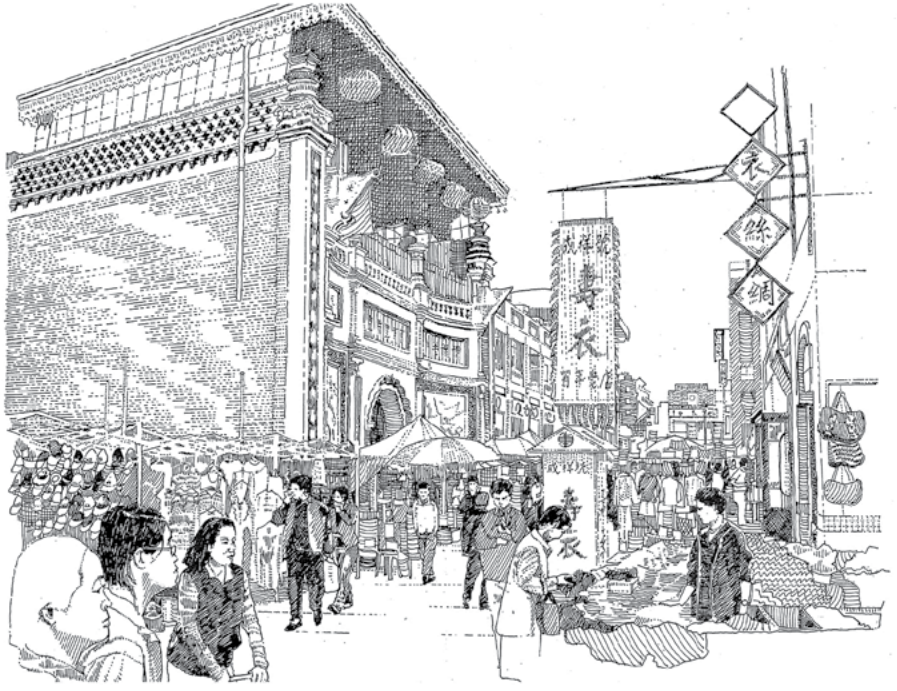
The goals behind the Sustainable City, the Liveable City, the Smart City and even the Resilient City are not mutually exclusive, but the future urban emphasis must be on quality, not merely quantity. This touches on many issues – identity and belonging, boundaries and connections, the ecology and urban design. We must however resolve the central issue of Contestation. This represents a realm of uncertainty brought about by conflicting priorities related to aspects such as conservation, maximisation of land value and heritage tourism, housing tenure and public engagement, and requires careful moderation as to the rate of economic change. Asian cities do not necessarily have the formalist configuration of spaces and the highly defined public realm bequeathed to Western cities.

Instead the Asian street, the progenitor of Asian city form, tends to reflect a heterogeneous assembly of types that display a range of complex interactions, including an emphasis on social rituals, ceremonial uses and market trading that relate more to patterns of activity than conceived physical form. These need to be acknowledged and retained within city regeneration exercises.

Nanjing Road Upgrading
Shanghai

The sense of dissonance common to the traditional city still remains – interaction and encounter, the complex and indeterminate, the bazaar economy that has traditionally evolved around market places and mobile vendors, specialised trades and products associated with active streets and indigenous cultural institutions. These create opportunities to retain ad-hoc aspects of place with distinctive forms of expression that relate to the underlying grain, and help to break down uniformity.

In areas that do not have to meet increasingly-high operational specifications, persistences carry through - the sacred places, gathering spaces, palace compounds, speciality markets and bazaars, together with indigenous mixed-use quarters – the 'locales of complexity' that characterise many older neighbourhoods. These remain according to their capacity to adjust to conditions within the new, contested urbanism, where different interest groups compete for priority and space, and where the 'high' and 'low order' components often experience a less-than-stable relationship, usually existing together in informal allegiances through layering and overlap.



Street Market as part of Neighbourhood Upgrading
Tianjin

CONTESTED FORMS OF URBAN EXPRESSION

UNESCO World Heritage extended conservation and preservation activities to Asia in the 1970s at almost the precise time that many cities were undergoing modernisation. Attempts to reconcile these different forces tend to differ considerably. On the one hand, cities need tangible and symbolic forms of expression related to identity, memory and continuity. On the other hand, there might be a tendency to obliterate traces of 'alien' colonial intervention? The fundamental issue is the cultural value and understanding put on places of historic character by local populations.
ICOMOS – the International

Council on Monuments and Sites, an advisory body to World Heritage, now accepts "intangible heritage" in Asia as having an equal and possibly even greater cultural relevance than physical traces in transmitting authentic urban value.

Effective Re-use of Heritage Structures
Singapore

CONTESTED FORMS OF TENURE

The concept of private property and urbanisation are inextricably linked. Access to urban land is through one of four means: through family relations; administrative means (public housing); the real estate market or illegal occupation. This implies that to regularise the situation, all land must be properly registered. In some situations, urban populations are made up of different ethnic or economic groups, with disparities in land tenure. Both occupation of public land and rental of lots on private land make tenants vulnerable in the face of urban redevelopment and urban expansion.

CONTESTED SPACE

Open space for the most part has traditionally functioned as layered networks of 'unofficial' economic transactions or exchange through mobile traders. This informal sector, and the varied entrepreneurial skills associated with it, form part of an informal labour market that is necessary for economic survival. As the Asian city undergoes both physical expansion and changes in economic direction, the informal sector is likely to grow in parallel. In some South Asian cities, the pasar malam forms a traditional means of equating temporary food stalls with local employment and social interaction. Street vendors occupy space at a specifically agreed time, while specially demarcated outdoor areas are set aside for vendors under hygienic conditions.

Upgrading of Characteristic Areas as Visitor Destinations
Singapore

URBAN REGENERATION

Urban regeneration must be a key focus for public policy geared towards city betterment. The key to its sustainability is the approach taken by an amalgam of participants: local authorities, developers, investors and other stakeholders in the community that should reflect the current tools and metrics used by public, private and NGO sectors. Wherever it occurs, this requires a comprehensive and integrated vision aimed at achieving lasting improvement to both the private and public realms, with an effective interface between them. It is best implemented through small one-off projects that are meaningful to the community and consolidate local identity. The complexity of Asian cities coupled with their increasing land values, indicate that improvements need to be carried out in an adaptive way to provide for continuity of urban character. Successful regeneration must therefore have a long-term strategic purpose, and should represent all stakeholders who have a legitimate interest in the city.

Successful examples have to a large extent centred around physical revitalisation, improvement, upgrading and 'walkability' initiatives, commensurate with new 'liveability' agendas. This has tended to produce an enhanced city image with direct, indirect and induced effects through increased cultural and symbolic values, and in the process has helped to promote inward investment. Such measures also tend to induce further environmental action including landscape improvement of the public realm, refurbishment of older buildings, walkability and environmental management. It might also include such aspects as revitalisation of historic centres. A transition towards urban regeneration needs to reflect a means to tackle problems associated with a long-term strategic purpose of urban betterment.

It must therefore be simultaneously aimed at physical fabric, social structures, the economic base and environmental conditions. This calls for integrated strategies that deal with the resolution of problems in a balanced and comprehensive manner, but at the same time ensure that programmes of implementation are developed which make a positive contribution to the city as a whole.

In terms of urban design and its relationship to planning and regeneration we can set out a number of aspects that are attuned to city betterment, ecological issues, social traditions and the resolution of economic polarisation.

Clearly, we cannot resolve these problems at the same time, but we need to recognise them and possibly prioritise them.

WE NEED TO:

-assimilate what is characteristically embodied in the local morphology – the essential values of the street, city block, sacred place and space configurations, and how these can be translated into typologies that satisfy changing community structures and ambitions, and that extend cultural definition to urban form. In the process this needs to establish or consolidate around a more cosmopolitan type of urban regime.

-use available planning mechanisms with vision and creativity, that can effectively regenerate the city through incrementalism and adjustment by opening up urban development and expansion possibilities while retaining cultural and intangible heritage. Without this, urban renewal processes are skewed towards perpetual redevelopment, resulting in massive displacement and undifferentiated urban quarters.

-ensure that land economics, ownership patterns, commercial and servicing requirements do not dictate a coarse-grained structure of new urban layouts across the city. We must protect and reinforce the older more fine-grained environments, in multi-ownership with their commensurate ability to informally adjust their ownership and use mix, and in the process produce an integrative urbanism.

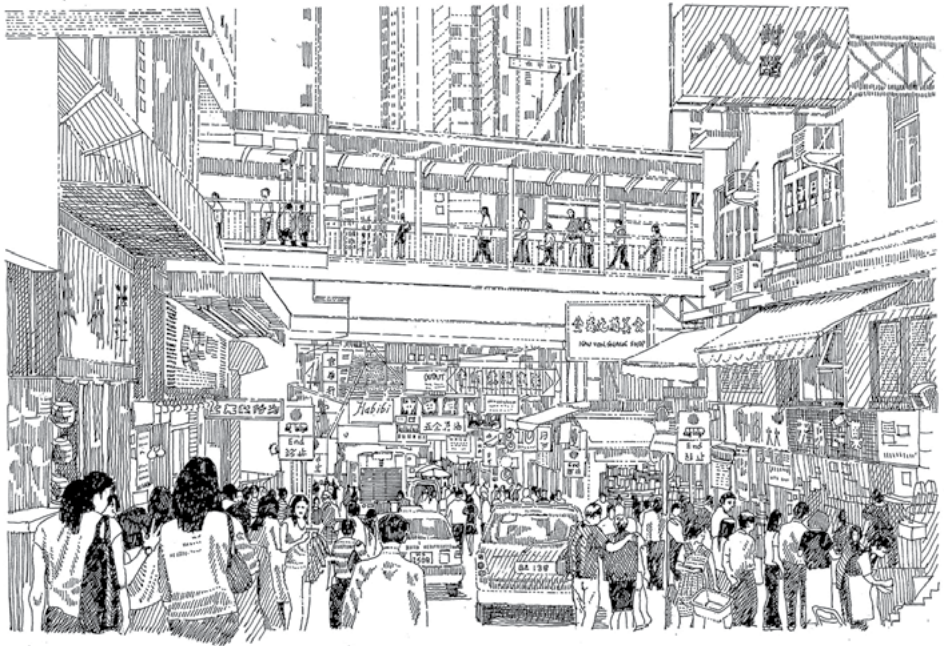
STRENGTHS WE CAN BUILD ON

COMPLEXITY AND CORRESPONDENCE

Despite economic imperatives that often drive planning programmes towards segregation and separateness, the Asian street and place functions in several dimensions (social rituals, ceremonial, informal and transactional) that intensify both levels of use and opportunities for economic exchange.

We need to encourage an urbanism of high adaptability embedded in the complex framework of everyday life, even if the price to pay is a disjointed image.

Street Closure
Nanjing

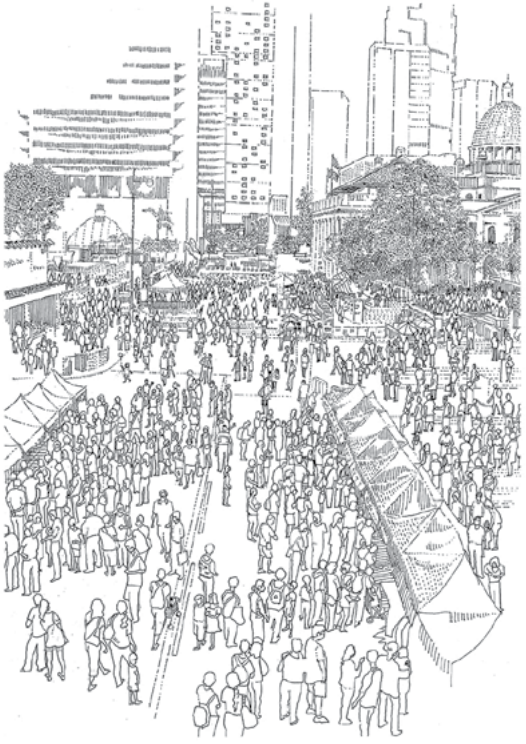


Insertion of Connective Pedestrian Structures
Hong Kong

INTANGIBLE ASSOCIATIONS

There is often an adverse relationship between the advent of city planning departments and the use of development control and management mechanisms which make cities increasingly efficient and functional but at the expense of liveability and communality. Memory of the city is embedded not merely in its solid fabric but in its responsiveness to change, and a co-existence of cultural types, imprints, overlays and interactions.

We need to respect the advantages of use mix rather than segregation of single use enclaves through rigid zoning.



Weekend Street Closure
Central, Hong Kong

ARTICULATED MARGINS

A central tenet of the Asian street is its versatility, combining the functions of meeting place and market place. The street margin tends to act as a transitional 'threshold' rather than a rigid demarcation, and invites a reciprocity between different interests and rituals. These engage users through overlays of use and display, that dissolve the boundaries between private and public space.

We need to encourage aspects of improvisation and adjustment that stem discernible and practical values.

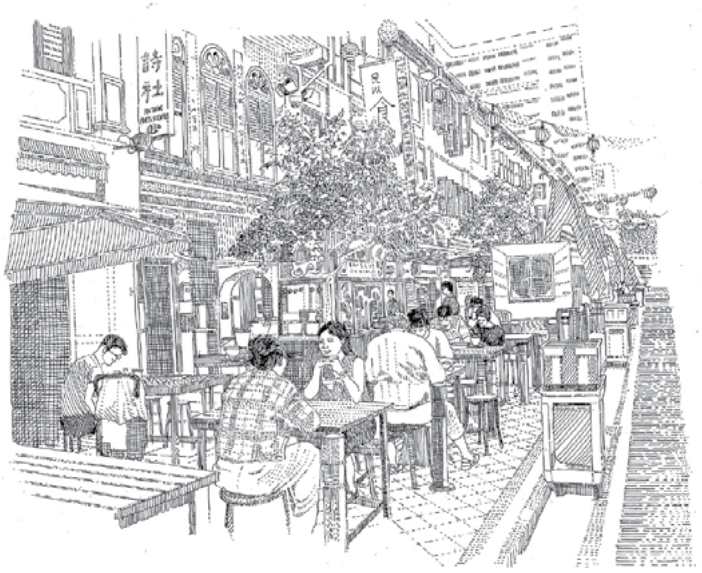
Regeneration of Older 'Clan' Neighbourhoods
Guangzhou

TEMPORAL TRANSITIONS

Temporal transitions reflect a relationship between the passage of time and the programmatic change of uses throughout the day and evening. This generally involves different sets of users who inhabit public space, often quite intensively at different times for different purposes, sometimes with a high degree of overlap. Locations are shared on a time basis rather than being used intensively but intermittently by one particular interest group. We need to respect the necessary qualities of change, mutation and invention as measures of use, variety and diversity.

URBAN MARKERS AND DELINEATIONS

A number of aspects contribute to identity and legibility in the Asian city that emphasise transition, convergence and foci rather than spatial demarcation in a compositional sense; for example, pailou and torri gateways that delineate approaches to sacred places and processional routes. We need to recognise the importance of incorporating traditional socio-cultural elements as reference points within the connective framework of the city.



Environmental Gain from Upgraded Threshold Space
Singapore

WORKABLE TYPOLOGIES

The relationship of traditional city-making elements such as adaptable Chinese t'ang lau and shophouse typologies, open to sub-division and constant re-fitting, has been fundamental to the long-standing absorption of high population densities and intensive patterns of economic activity in many cities. This acts as both a cultural and social model with an important street-making and economic dimension, representing dominant street typologies with a variety of interpretations in terms of form and style.

We need to preserve and conserve these elements as both historical markers and as city-making contributors to contemporary urbanism, in particular street formation.

Environmental Upgrading and Street Closure
Nanjing

ENVIRONMENTALLY SOUND TECHNOLOGIES

The condensed nature of city cores, together with increased levels of private vehicle use and road-based transport, has severely compromised the liveability of cities at a time when urban populations are increasing. The strides that are being made in electric vehicle technology and autonomous transport create the medium-term potential for urban energy efficiency and cleaner emissions, which have significant ramifications for urban planning. This in turn creates increased opportunities for restrictions on private car use and a more people-centred urban design. This can entail extended patterns of pedestrian movement and connectivity with integration of cycle-tracks and forms of people-movers appropriate to effective city planning. We need to increasingly match changes in transport and traffic technology, with improved pedestrian connectivity, comfort and access in our condensed and compact urban cores.

THE SACRED PLACE

Spiritual heritage necessitates a reciprocity between different interests and customs, and also between complementary forces which echo philosophical theories of social organisation and geomantic diagnosis.

The Asian sacred place and its urban ‘fit’ is the antithesis of the absolutist position. Instead of dominating the street, the temple normally establishes a low-key presence. Sacred places therefore become incorporated into city fabric as part of daily life and cultural ritual rather than merely acting as sites of veneration. We need to respect the relaxed co-existence between ceremonial space and social gathering space, and the spiritual quality this exerts on the public realm.

Comprehensive Regeneration and Upgrading
Xintiandi, Shanghai

DR. PETER COOKSON SMITH’S BIOGRAPHY

Dr Peter Cookson Smith is an architect, planner and urban designer. He has been resident in Hong Kong since 1977 when he founded URBIS Limited one of the first specialist, planning, urban design and landscape consultancies in South-east Asia. Over the past 43 years the company has carried out more than 3,000 projects in Hong Kong, Mainland China and throughout Asia, winning more than 250 local and international awards. He was among the first urban planners from the West to carry out studies for the PRC government in the early 1980s following the ‘Open Door Policy’. For several years he was Professor at the University of Hong Kong Faculty of Architecture, and is an Adjunct Professor at the Chinese University of Hong Kong. He has also been a Visiting Scholar at the HKU Centre for Asian Studies, and has sat on a number of government commissions on strategic development. He is a Past-President of both the Hong Kong Institute of Planners (2011-2013) and the Hong Kong Institute of Urban Design (2014-16), and is the author of six books on Urban Design.

Upgrading of Sacred Places as Distinctive Places of Visitation

Sustainable High Density Cities: Empowering Practitioners with Digital Technologies

By Dr. J. Huang[1], M. Guo[1], A. Zhang[1], T. Hao[1],Y. Sun[1], P. Jones[2]
1 Sustainable High Density Cities Lab, Faculty of Architecture, The University of Hong Kong
2 Welsh School of Architecture, Cardiff University

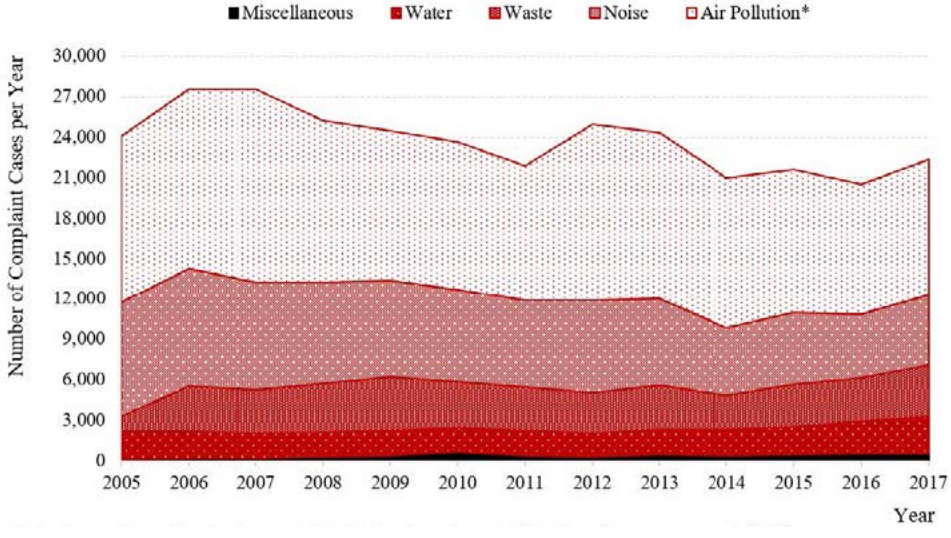
BACKGROUND

Over the course of history, the density of human settlements resembles a hockey stick graphic: A hunter-gatherer society rarely exceeded 1 person per 25 km2 due to limits in primary productivity and ecological resources, while farmlands average 100 times that [1], thanks to the increased, carrying-capacity of cultivated land. The industrial and information revolution made contemporary cities denser and larger, and have led to growth at an unprecedented speed: the top 101 mega cities are home to 11% of the world's population, and the percentage is expected to reach 23% by the end of this century [2]. Our civilization appears on track to turn Earth into an urban planet [3].

Hong Kong is an exemplar of high-density cities and a favoured case study. The city's 7 million+ people occupy a built-up area of 280 km2, with an average population density of 27,330 persons per km2 [4]. New York City can match that, if all its population is squeezed into Queens, one of its five boroughs. Close proximity of people fosters exchange of goods, services, information and ideas, making cities efficient, vibrant, innovative, rich, and healthy [5,6]. The claim is largely supported by statistics: Hong Kong ranks consistently high globally in indictors, ranging from economic competitiveness to life expectancy. The city operates a world-class public transit system, its public housing system accommodates nearly half of its population and receives wide citations [7,8], and so on.

Packing a large population into a small area can however bring unprecedented risks to human health and quality of life. Hong Kong and other dense cities have been combatting weather extremes, environmental pollutions, and outbreaks of infectious disease for decades. The concrete jungle of buildings can stagnate air movement and trap exhaust heat, air pollutants, and pathogens inside street canyons. The recordings for urban heat island effect (UHI) in Hong Kong reach 4-6 ºC above those of the surroundings [9], and excessive heat is linked to higher population mortalities and morbidities globally [10][11]. Hong Kong's on-street PM2.5 exceeds 40 μg/m3 [12], above the WHO threshold of 25 μg/m3, and the majority of air pollutants are contributed by local sources, i.e. motor vehicles, marine vessels and power plants [13]. Air pollution, environmental noise and waste have been among the top three sources of complaints received by Hong Kong's Environmental Protection Department in recent years*(Fig. 1)*. The frequent flow of people and materials, i.e. transit ridership, banknotes, makes a high-density city particularly vulnerable to infectious diseases: SARS, MERS, influenza, and the recent outbreak of the coronavirus.

Hong Kong resorts to a combination of regulations, incentive schemes and guidelines to protect wind, light, view, and other "public goods". Most are voluntary, non-binding instruments led by the public sector and intended to transform market behaviours. Examples include the Air Ventilation Assessment (AVA), a regulatory procedure for major development and redevelopment projects aimed at enhancing air ventilation [14], The Sustainable Building Design Guidelines (SBD) and Hong Kong BEAM Plus Assessment (BEAM Plus) [15] are non-statutory, incentive-based standards intended to transform design and development practices, and the HKGBC Guidebook on Urban Microclimate Study is a voluntary guideline that aims to empower professionals and to raise the awareness of the general public [16]. Pilot projects have been implemented by the public sector. Examples include the award-winning Upper Ngau Tau Kok Estate Phases 2 and 3, a purposefully-=designed housing estate to facilitate breeze, light, view, and comfort *(Fig. 2)*. The outcomes are improved thermal comfort and overall satisfaction in the neighbourhood [17]



Date Source: Hong Kong Environmintal Protection Department of the Hong Kong Government(EPD)
* The number of air Pollution complaints are collected from Hong Kong EPD. Noise complaints are collected from both Hong Kong EPD and Police

Despite forward-looking policy agendas and innovative projects spearheaded by the public sector, a large proportion of urban planning and design practices are not responding. Much of the policy initiatives are yet to trickle down to the private sector. Take AVA for instance, a total of 157 projects have been registered at the Hong Kong Planning Department's AVA database since the inaction of policy in 2005. 133 projects, or 84% of the total, were conducted by the government itself. The total number of AVA registered projects account for less than 1% of total floor area during the same period [18]. A mere 8% of Hong Kong's total energy inputs are from non-fossil fuel sources, largely nuclear power from mainland China. Locally-produced, non-nuclear renewable energy accounts for 0.5% of the total energy input *(Fig. 3).* Business as usual is no longer an option, but the industry needs new thinking and tools in order to drive bottom-up innovations.

The Sustainable High Density Cities Lab (SHDC) was established as a response to challenges that arise from the environmental risks of a high density city. As a multi-disciplinary research establishment within the HK Urban Lab in the Faculty of Architecture at the University of Hong Kong, SHDC is dedicated to research in multi-scale environmental modelling and built-environmental sciences that advance sustainable planning and design practices. Multi-scale means building interiors, single buildings, clusters of buildings, spaces between buildings, up to the entire city envelope, mega-city regions and systems of cities. The research offers new thinking and tools to the industry and practitioners in implementing a vision for a sustainable city. The work described in this article represents a new phase in managing urban environmental risks with precision: simulation-based tools for diagnosis and prognosis of environmental driving factors of urban form; linkages of driving factors to outcome measures such as energy, human health and wellbeing; optimisation of urban form, building massing and the design of open spaces to advance sustainability goals. The on-going work demonstrates the following pathways through which digital technologies can empower professionals and advance sustainable planning and design.

- ☐ Evaluate planning and design performance
- ☐ Measure environmental exposure and health
- ☐ Protect communities against climate change
- ☐ Optimise design schemes
- ☐ Web-based mapping of urban dynamics
- ☐ Envision low-carbon high-density future
- ☐ Reflect on classic theories

Fig. 2 (left) A bird's eye view of the Upper Ngau Tau Kok Estate redevelopment project. (right) physical model with the design concept of introducing wind while fencing out traffic noise. Source: Hong Kong Housing Authority [17]s

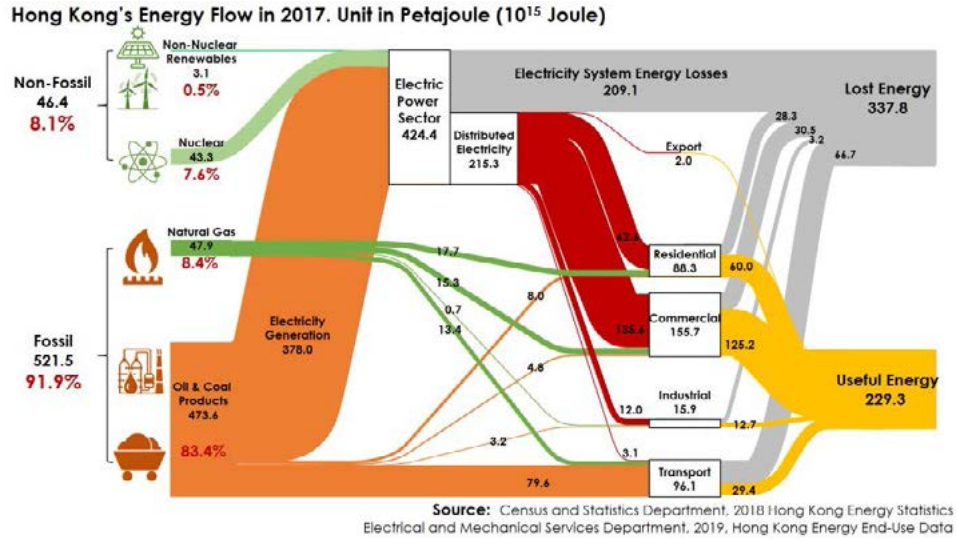


Fig. 3 Hong Kong's energy flow in 2017, by Jianxiang Huang, Chenxiao Li

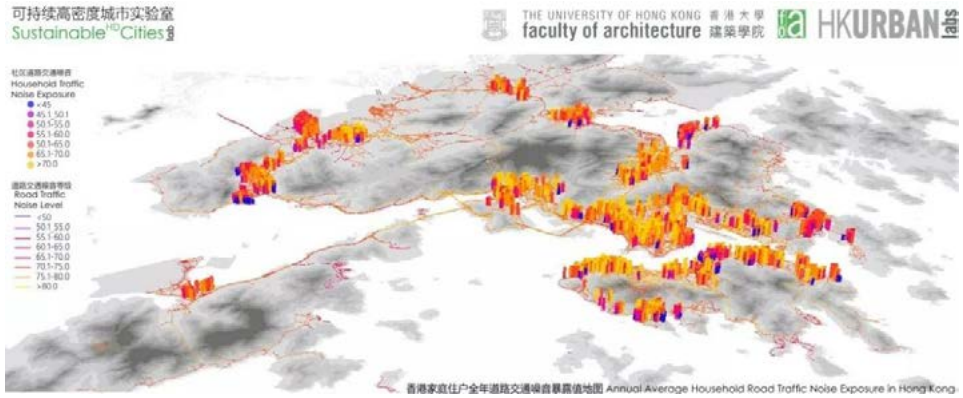


Fig. 5 Simulation of household road traffic noise exposure in Hong Kong, by Mengdi Guo, Jianxiang Huang, Michael Ni

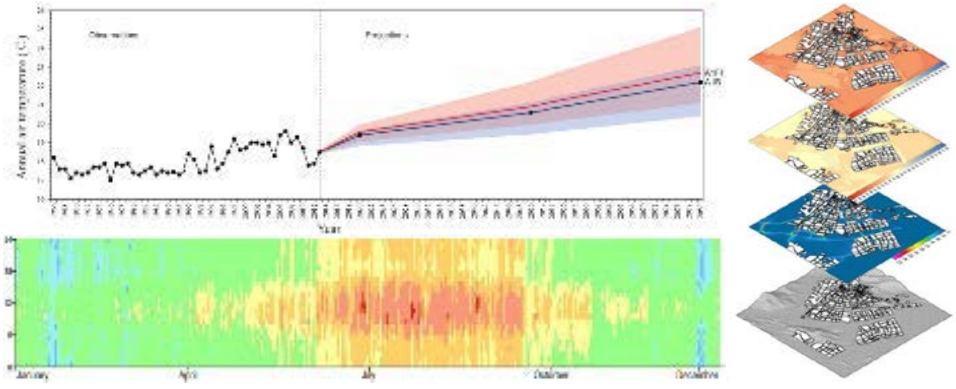


Fig. 6 Forecasting urban heat wave and air pollution for Yueqing, China, based on IPCC climate change scenarios.
Source: Jianxiang Huang, Yali Wang, Rong Peng, Yiyang Yang, John D. Spengler, Linda P. Tomasso

1. EVALUATE PLANNING AND DESIGN PERFORMANCE

In high density cities, large development projects modify environmental attributes in systematic ways, to an extent that exceeds the capacity of guesswork or personal experiences. Performance simulation software can be powerful tools for sustainable planning and design. They are especially suitable to answer the “what if” question, allowing decision-makers to assess environmental performances of proposed developments. Existing assessment software, however, is often computationally expensive and overly complicated for non-technical users. As a result, performance simulations have often been left to external consultants at the end stage, after most design decisions are made.

The SHDC researchers have developed a series of software tools in support of urban planning and design practices at early stages. These tools were based on self-developed numerical models published in peer-reviewed scientific journals, rigorous field evaluation studies, and equipped with Graphical User Interface as Plugins for popular design software such as Rhinoceros and SketchUp. Planners and designers can operate the software tools using early-stage inputs, i.e. building massing models and site information. These software tools are used by leading design practices in projects both locally and overseas and they were applied in the teaching of master-level curriculum at the University of Hong Kong. Examples include CityComfort+ [19], a ray-tracing model for urban microclimate and outdoor thermal comfort, the urban-scale building energy assessment tool Virvil [20], and the coupled simulation model for urban microclimate and building energy UrBEC [21].

2. MEASURE ENVIRONMENTAL EXPOSURE AND HEALTH

The built environment is considered the “first cause” for chronic disease. The rapid change of lifestyles and health-related behaviours such as walking or leisurely activities drastically alters patterns of health in contemporary cities. In the UK, ensuring of public health in industrialised cities was the primary driving force in the shaping of urban planning. The Public Health Act was enabled in1875, before the promulgation of the Housing and Town Planning Act of 1909, which marked the beginning of modern urban planning. The focus on healthy cities has returned to the frontier of planning research in recent decades. SHDC has contributed to this by conducting interdisciplinary research with collaborators from the Faculty of Medicine and Engineering to map environmental exposure of noise, heat, air pollution and linkages to health outcomes *(Fig. 5)*.

3. PROTECT COMMUNITIES AGAINST CLIMATE CHANGE

The overlap of the urban heat island effect and global climate change imposes new challenges on the urban environment, such as stagnant ventilation, lack of daylight, urban heat, air pollution and poor hygiene. Those challenges were driven by the modifying effects of dense cities, such as the “urban canyon effect” and numerous anthropogenic heat sources, i.e. traffic and building HVAC systems. Stagnant air raises the concentration of heat exhaust and air pollutants on streets, increasing risk of infectious diseases. Researchers from SHDC used new software tools to forecast the impact of future climate change on people and the urban environment as well as to evaluate the effectiveness of mitigation measures.

4.OPTIMIZE DESIGN SCHEMES

Advancement in digital technologies such as simulation and urban big data provides new opportunities for practitioners. The increasingly sophisticated tool begs the question of how can analysis lead to diagnosis and eventually drive design innovation. The SHDC team have experimented with a new design-simulation workflow, in which human designers are empowered by simulation results in a rapid feedback loop; performance evaluation results drive design revision, and the process repeats iteratively until it converges *(Fig.7)*.

5.WEB-BASED MAPPING OF URBAN DYNAMICS

Urban systems are among one of the most complex subjects in scientific research. Cities are under constant transformation and evolution, yet traditional urban research often relies on small, discrete, or static samples. Urban big data provides new means for measuring city dynamics. The SHDC team developed new digital tools for data-mining, topics modelling, and sentiment analysis; the new tools are used to monitor resident response to urban environmental pollution and to support urban environmental management.

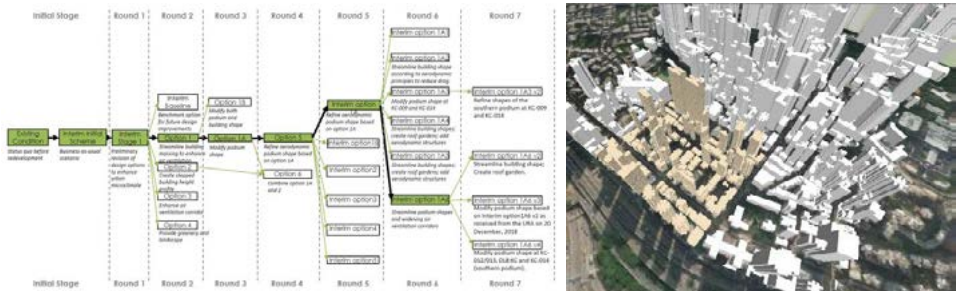


Fig. 7 A prognostic simulation-design workflow to optimize design options for Hong Kong Urban Renewal Authority.
Source: Jianxiang Huang, Tongping Hao, Shan Shan Hou, Phil Jones

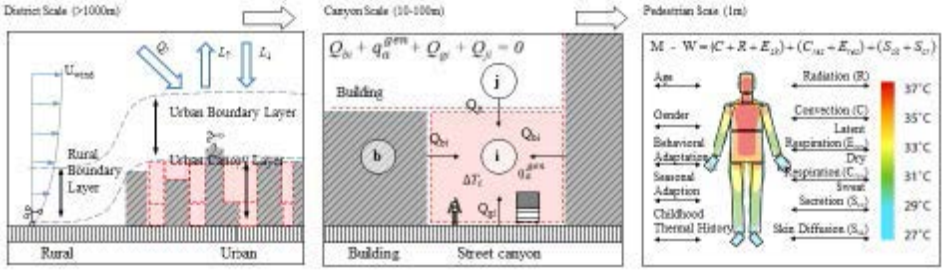


Fig. 4 SHDC develops multi-scale simulation software tools for sustainable planning and design practices, by Jianxiang Huang, Phil Jones, Yiming Sun.

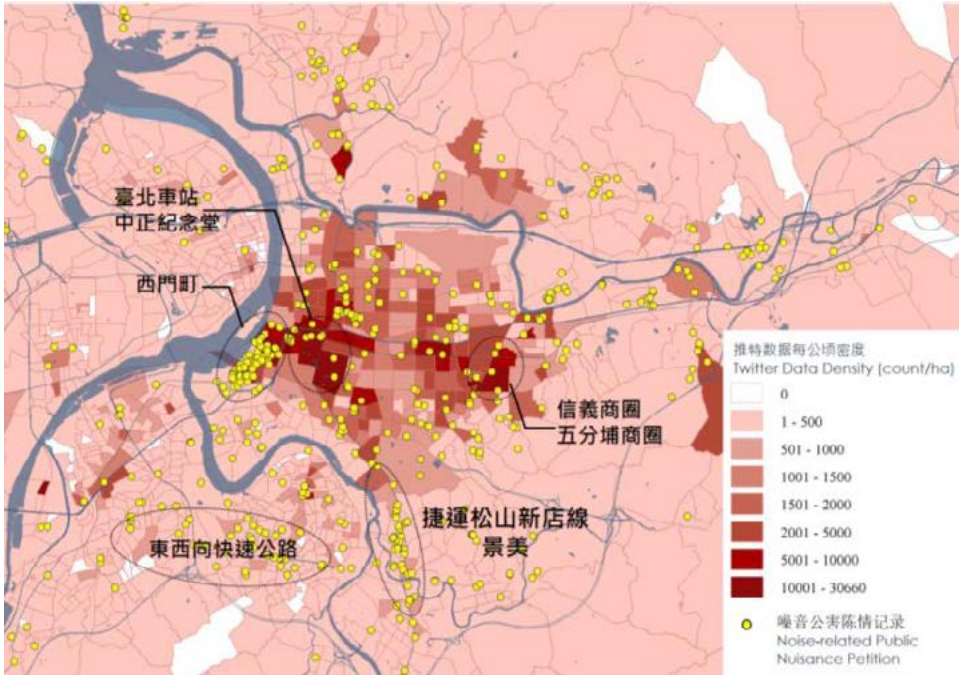


Fig. 8 Spatial Distribution of Twitter Data and Noise-Related Public Nuisance Petition in the Greater Taipei Area.
Source: Mengdi Guo, Jianxiang Huang, Yiming Sun, Lishuai Li, Rong Juin Shyu

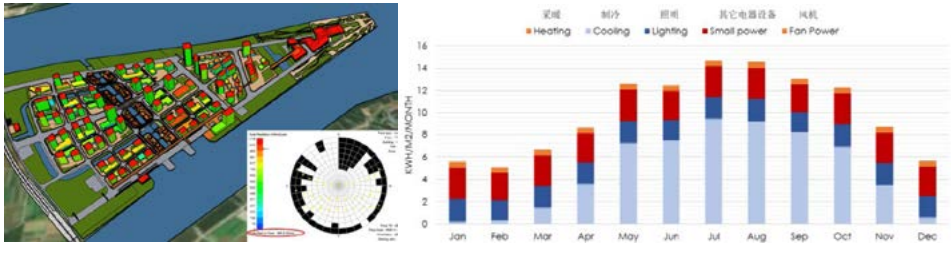


Fig. 9 Simulation of renewable energy potentials of Nansha Pearl Bay urban design project, by Xiaojun Li, Jianxiang Huang, Phil Jones

6.ENVISION LOW-CARBON HIGH-DENSITY FUTURE

Signatory states of the 2016 Paris Agreement accelerated the decoupling process from fossil fuels. To date, more than 70 cities worldwide have pledged to become “carbon neutral” by 2050. For instance, Copenhagen vows to reach the zero-carbon target by 2025 using green transport and on-site renewable energy. A high-density city, however, is disadvantaged in a number of ways: for example, it will generally not have sufficient roof surface to collect solar energy to meet its demand, due to mutual shading from high-rise buildings. The challenge remains: how can Asian cities embrace a low carbon, high density future? SHDC have been exploring pathways to achieve low-carbon, high density in Asian cities in three steps: 1) reduce the energy demand from buildings and transport systems; 2) increase supply of renewable energy on-site and at the urban peripheries, such as solar, wind, and waste-to-energy; 3) adopt a systems’ approach via integrated of design, building technologies, smart grid, energy storage, etc.

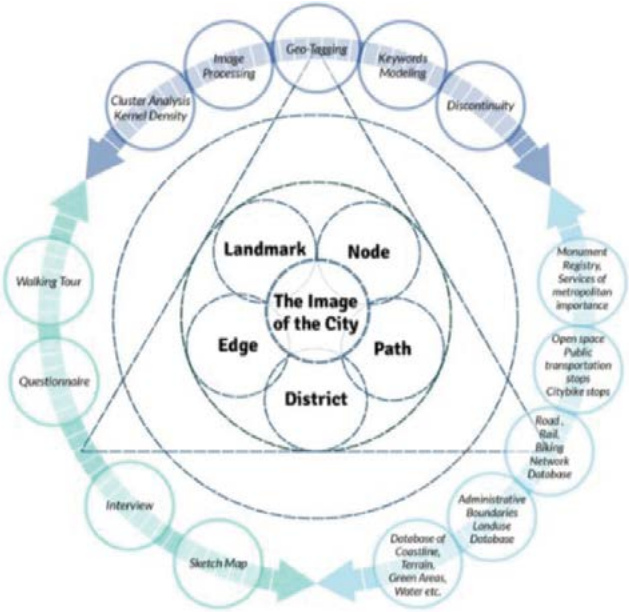


Fig. 10 Evaluation of Kevin Lynch’s city image theories using multiple evidence from “big data” and “small data”, by Jianxiang Huang, Hanna Prondzynaska, Dorota Kamrowska- Zaluska, Yiming Sun, Lishuai Li

7.REFLECT CLASSICAL THEORIES

Urban theories are the corner-stones of planning and design education. The majority of classic urban design theories taught globally in schools emerge in the Anglo-American context[22]. In the Greater Bay Area, the cultural, social and climate context differ significantly from those of the Anglo-American cities; advancement of technologies and lifestyle changes further add to the theoretical challenges. Testing the relevance and applicability of classic theories in the digital age remains a pressing issue for practitioners and educators. SHDC applies novel data to reflect, evaluate, and advance planning and design theories pertinent to relevant urban context. On-going research put the following theories to test: Jane Jacob’s “The Death and Life of Great American Cities”, Kevin Lynch’s “Image of the City”, and thermal comfort and adaptation theories in urban open spaces.

DISCUSSION

The SHDC approach constitutes one aspect of what “sustainable city” entails. Parallel insights can be argued from political, social, and economic perspectives. The SHDC believes that management of environmental risks is important to sustain a high-density city. As a living laboratory, Hong Kong’s lessons and experiences can contribute to the future of the urban planet, towards which humanity as a whole is heading. Aside from top-down policy agendas, the SHDC advocates that bottom-up innovations, industry buy-ins, and the trickling down to communities are equally important in order to deliver a lasting impact on society. The perceived gap between the top-down and bottom-up approaches presents major opportunities for industries and practitioners, for urban designers, planners, architects and developers alike to embrace new technologies. It is also an opportunity to reflect on the education of designers to which SHDC as an academic unit is dedicated to. Future practitioners need to be better bestowed with these new skills, tools and mind-sets.

REFLECTION

The Sustainable High Density Cities Lab (SHDC) is a response to challenges arising from the environmental risks of a high density city: pollution, heat, disease, etc. Such risks are expected to escalate when a global metropolis grows larger, denser, and, by necessity, taller. Our research offers new thinking and tools to the industry and practitioners in implementing the vision of a sustainable city. The work described in this article represents a new phase in managing urban environmental risks with precision: simulation-based tools for diagnosis and prognosis of existing and proposed development schemes; harnessing the power of new data sources to capture dynamics of cities; optimization of urban form, building massing and the design of open spaces to advance sustainability goals.

Despite forward-looking policy agendas and innovative projects spearheaded by the public sector, we believe bottom-up innovations, industry buy-ins, and the trickling down to communities are

equally important in order to deliver lasting society impact. The perceived gap between the top-down and bottom-up approaches presents major opportunities for industries and practitioners, for urban designers, planners, architects, developers alike to embrace new technologies. It is also an opportunity to reflect on the education of designers to which SHDC as an academic unit is dedicated.. We need to better bestow future practitioners with the right skills, tools, and mind-sets. The SHDC approach represents one aspect of what "sustainable city" entails. Parallel insights can be argued from political, social, and economic perspectives. We believe the environmental aspect is important to sustain a high-density city like Hong Kong, a living laboratory for other dense cities or dense- cities-to-be. Hong Kong's lessons and experiences will contribute to the future of the urban planet towards which the humanity is heading.

DR. JIANXIANG HUANG'S BIOGRAPHY

Jianxiang Huang is an assistant professor in the Department of Urban Planning and Design at the University of Hong Kong (HKU). He is interested in the shaping of the built environment to enhance human well-being and resource efficiency. At HKU, he leads research projects to assess the thermal, acoustic and building energy performances in high density cities. He is the author of CityComfort+, a computer simulation tool that is equipped to simulate pedestrian comfort in outdoor urban spaces. Huang holds a Doctor of Design from Harvard University, a Master in City Planning from MIT, a M.Arch and a B.Arch from Tsinghua University.

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HKIUD Council 2018-2020

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HKIUD AND CUHK & HKU MASTER OF URBAN DESIGN PROGRAMME:

University of Hong Kong (HKU)

Course Director: Alain Chiaradia, HKIUD Council Member, Programme Director Master of urban Design, Faculty of Architecture, DUPAD, HKU

The Master of Urban Design (MUD) Degree in the Department of Architecture was implemented in 1988 to consolidate the growing interest in urban design issues. This was a reflection of the raising profile of Hong Kong as a leading Asian city as well as a financial/economic center.

The Master of Urban Design Programme provides an education in the design of the built environment for an era of urban challenges in Asian cities with an emphasis on international perspectives, exploring topics such as high-density volumetric urban design, development, health and quality of life, green infrastructure, sustainable mobility, renewable energy, climate change and design thinking.

Chinese University of Hong Kong (CUHK)

Course Director and Founder: Hendrik Tieben, HKIUD Founding Member & Programme Director MSc in Urban Design, School of Architecture, CUHK

When in 2010, HKIUD officially was launched, the curriculum for the new Urban Design programme was submitted to the university, and in 2012, the first cohort of students was admitted. With a focus on Urban Design, the course aims to expand the scope of architecture by increasing the emphasis on community aspirations, heritage, public spaces, and placemaking; and complement the scope of planning by increasing the emphasis on spatial qualities, design thinking and tactical urban interventions. Since then, HKIUD and MSUD remained closely connected and co-organize lectures, symposia and conferences.

In 2018, both the HKU Master of Urban Design programme and the CUHK MSUD programme were officially accredited by HKIUD, and by the UK's Royal Town Planning Institute (RTPI) under its specialism scheme.

IN TIMES OF URBAN UPHEAVAL AND PANDEMIC IN THE URBAN AGE, BOTH UNIVERSITIES' URBAN DESIGN PROGRAMME ACCREDITATION CAN BE EXPECTED TO GEAR TOWARDS FINDING THE BEST TEACHING AND RESEARCH METHODS AND OUTPUT TO ADAPT TO THESE CHALLENGES.

HKIUD Council Members Served In Various Bodies

Mr. Joel Chan

2018 – 2020	President, Hong Kong Institute of Urban Design
2017 - 2020	Vice Chairman, Professional Green Building Council
2018 – 2021	Member, Land and Development Advisory Committee
2020 – 2022	Member, Transport Advisory Committee
2020 – 2022	Member, Trade Development Council Infrastructure Advisory Committee

Mr. Stephen Tang, BBS

2016 – 2018	President, Hong Kong Institute of Urban Design
2017 - Present	Chairman, Prince of Wales Hospital Capital Works Subcommittee, Hospital Authority
2018 - Present	Member, Urban Design Advisory Group, Planning Department
2019 - Present	Member, Advisory Committee, Jockey Club Design Institute for Social Innovation, PolyU
2019 - Present	Vice Chairman, CreateHK's CreatSmart Initiative Vetting Committee

Dr. Peter Cookson Smith

2014 – 2016	President, Hong Kong Institute of Urban Design
2010 - 2018	Member, Harbourfront Commission
2012 - 2017	Member, Strategic Development Commission
2008 - 2012	Member, Land and Development Advisory Committee
2008 - 2012	Member, Trade Development Council Infrastructure Advisory Committee

Mr. Bernard V. Lim, BBS, JP

2010 – 2014	Founding President, Hong Kong Institute of Urban Design
2019 – Present	Committee Executive Member, The Architectural Society of China Building Renovation and Urban Renewal, Professional Committee
2012 – Present	Member, Hong Kong Housing Society
2010 – 2018	Chairman, Building Committee and Member Hong Kong Housing Authority
2012 – 2018	Chairman, Advisory Board of Nan Lian Garden

Mr. Donald Choi

2018 – 2020	Vice President, Hong Kong Institute of Urban Design
2016 – Present	Global Trustee, Urban Land Institute
2018 - 2020	Board Director, Hong Kong Science and Technology Parks Corporation
2019 - Present	Trustee, Rhode Island School of Design
2020 - 2021	Board Director, Business Environment Council
2020 - 2021	Director, Hong Kong Green Building Council

Mr. Barry Wilson

2018 - 2020	Vice President, Hong Kong Institute of Urban Design
2014 - 2018	Chairman - British Chamber Commerce Guangdong Shenzhen
2013 - Present	Member - China International Urbanisation Development Strategy Research Committee

Mr. Ivan Ho

2014 – 2018	Vice President, Hong Kong Institute of Urban Design
2013 – 2021	Member, Harbourfront Commission
2015 – 2016	Chairman, Professional Green Building Council (PGBC)
2016 – 2020	Director, Hong Kong Green Building Council (HKGBC)
2017 – 2018	Vice President, The Hong Kong Institute of Architects (HKIA)

Dr. Sujata Govada

2010 – 2014	Vice President, Hong Kong Institute of Urban Design
2013 - 2015	Member, Harbourfront Commission

Mr. Vincent Ng, JP

2010 – 2014	Vice President, Hong Kong Institute of Urban Design
2014 – 2020	Member, Steering Committee on the Restored Landfill Revitalisation Funding Scheme
2015 - 2016	President, The Hong Kong Institute of Architects
2016 - Present	Board Member, Ocean Park Hong Kong
2017 - 2019	Member, Task Force on Land Supply
2018 - Present	Chairman, Harbourfront Commission

Mr. Benny Chan

2019 - 2020	Honorary Treasurer of Hong Kong Institute of Urban Design
2014 - 2018	Honorary Treasurer/ Council Member of Hong Kong Institute of Architects
2014 - 2020	Vice Chairman/ Member of Architects Registration Board
2014 - 2020	Steering Committee Chairman/ Symposium Committee Chairman of HKIA Cross-Strait Architectural Design Symposium and Award
2018 - 2021	Member of Rehabilitation Advisory Committee (RAC) Sub-committee on Access

Prof. John Ng

2010 – 2014	Honorary Secretary, Hong Kong Institute of Urban Design
2018 - Present	Member, Urban Design Advisory Group, Planning Department
2018 - Present	Member, Town Planning Board
2013 - 2018	Member, Advisory Council on the Environment
2011 - 2017	Director, Hong Kong Green Building Council, Chairman, BEAM Society Limited

Mr. PY Tam

2010 - 2020	Honorary Secretary / Council Member, Hong Kong Institute of Urban Design
2013 - 2016	Member, Advisory Committee on the Appearance of Bridges and Associated Structures
2013 - 2016	Member, Biodiversity Strategy and Action Plan Steering Committee
2015 - 2021	Member, Harbourfront Commission
2018 - 2021	Member, Planning Sub-Committee (PSC) of the Land and Development Advisory Committee
2018 - Present	Member, Urban Design Advisory Group, Planning Department

Mr. Alan Macdonald

2014 – 2016	Council Member, Hong Kong Institute of Urban Design
2018 – 2020	
2020 - 2021	Member, Joint Sub Committee on Streamlining Development Control – Land and Development Advisory Committee

Prof. Alain Chiaradia

2018 - 2020	Council Member, Hong Kong Institute of Urban Design
2014 - Present	Academician, Academy of Urbanism, UK
2015 - Present	International scientific Advisor, Efficacity, Paris, France,
1993 - Present	Founder & Trustee, Chora, Institute of Urbanism,

Mr. Franklin Yu

2016 - 2020	Council Member, Hong Kong Institute of Urban Design
2010 – 2016	Member, Harbourfront Commission
2016 – Present	Member, Town Planning Board
2018 – Present	Member, Land and Development Advisory Committee
2019 – Present	Member, CreateHK's CreatSmart Initiative Vetting Committee
2019 – Present	Vice President, Hong Kong Institute of Architects (HKIA)

Other Members Served in Various Bodies

Member, Antiquities Advisory Board

2013 - 2016	Prof. Rebecca Chiu, MH, JP, Prof. HO Puay-peng, JP
2017 - 2018	Prof. Rebecca Chiu, MH, JP, Mr. Christopher Law Kin-chung, JP
2019 - 2020	Prof. Chu Hoi-shan, Paul, Mr Tony Ip Chung-man, Mr Christopher Law Kin-chung, JP, Miss Theresa Yeung Wing-shan

Member, Town Planning Board

2012 - 2016	Prof. HO Puay-peng, JP
2012 - 2017	Mr. Patrick LAU Hing-tat, JP

Chairman, Country and Marine Parks Board

2019 – 2021	Prof. LING Kar-kan, S.B.S.

Member, Urban Design Advisory Group, Planning Department

2018 - Present	Mr. MK Leung

Member, Council for Sustainable Development

2017 - Present	Prof. Chu Hoi-shan, Paul

Part-time Member, Central Policy Unit

2012-2013	Prof. Chu Hoi-shan, Paul

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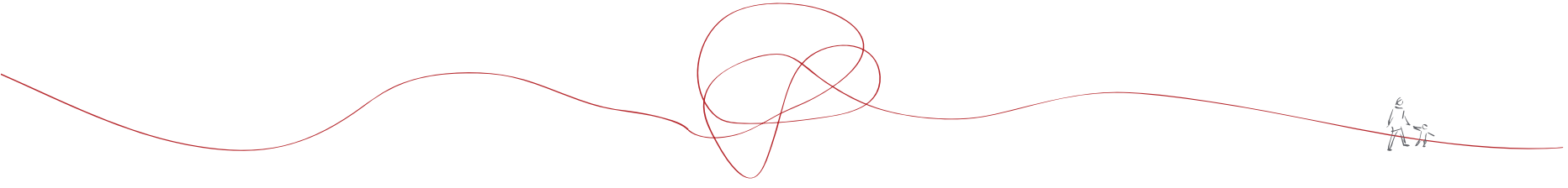

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