

153 **URBAN  
DESIGN**

Winter 2020  
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**SOUTHEAST ASIA**



**URBAN  
DESIGN  
GROUP**



## NEWS FROM THE UDG CHAIR

Welcome to the Winter issue of the UDG Journal. The topic of this edition is South-east Asia, making for a warm winter break for readers in the northern hemisphere. At the time of writing the UK general election is looming and the political agenda has moved on to much-needed debate about housebuilding, affordable housing and climate change. Any election campaign leads to promises of multi-billion pound investment programmes. It is the *grand projets* that tend to get the headlines. What gets lost are the little projects: the local park or playground, the street outside one's front door; in short, urban design. And yet it is these local measures that could transform people's lives.

We reckon that the cost of creating low traffic pedestrian-friendly neighbourhoods across Great Britain, along the lines of those pioneered in the London Borough of Walthamstow, would be around £4 billion for a basic specification, and around £18 billion for a specification that would include planting and quality materials. This is the sort of urban design that would transform neighbourhoods and the health, well-being and quality of life of tens of millions of people. It compares with around £30 billion for the national roads programme, £20 billion for Crossrail 1, £40 billion for Crossrail 2 and £57-100 billion for HS2. Strategic

infrastructure is immensely important, but so too is local infrastructure.

2019 has been the year when public concern over climate change widened and intensified, along with the will to do something about it. But it is not just what we think or say that matters, it is what we do. Many new developments remain in locations dependent on private car use. We need to think long and hard about this and our own responsibilities as urban designers.

On the upside, in Manchester, one of the cities which led the Industrial Revolution, there is talk of the city leading a new revolution, giving clean air back to its people. Similar debates on air quality, carbon-free developments and climate change are happening across the globe and the UDG will be running a campaign on sustainable urban design during 2020.

### A UDG SNAPSHOT OF THE LAST THREE MONTHS

Throughout 2019 our underpinning theme has been Making People-Friendly Places, to celebrate Francis Tibbalds' book *Making People-Friendly Towns*, whose ideas are as relevant today as they were when the book was first published in 1992: putting people back into the heart of planning, design and engineering.

In September, we had our annual conference, which was our biggest yet with over 200 people. I won't steal the thunder of the report later in the journal, only to say we had a wonderful time in Birmingham, taking in High Speed 2, the canal network and *Peaky Blinders*.

In October, we held a joint event with Perkins + Will on City Resilience, where we heard about the new *British Standard BS 67000:2019*. We learnt about how urban design and engineering are evolving to meet new challenges, and how it is critical for both to weave considerations of climate, social and economic resilience into built environment projects.

In November the Annual UDG Kevin Lynch Lecture by Professor Kate Jeffery was hosted by University College London. Professor Jeffery explained how mammals make their own mental maps and showed how our human brains enable our sense of direction, and the sorts of environments that get us confused or lost. This welcome and very relevant lecture linked back to Kevin Lynch's principles, which have stood the test of time over the last 60 years.

### THE UDG IN 2020

Over the coming year, we will be focusing on a number of topics which will include: climate change, zero-carbon and urban design, strategic urban design, urban design skills, and towns and cities fit for children. We are currently reviewing the projects for our special one-off format of the National Urban Design Awards event in the spring, where we will investigate lessons learned from the 80 winners and finalists of the previous ten years. We plan to mine the wealth of experience of our past shortlists and find out what these projects can teach us about how to deliver best practice urban design. Further UDG events for 2020 already confirmed include our annual January Film Night, a half-day conference on Urban Climates and a half-day conference on Children and Urban Design.

### GET INVOLVED

I would like to remind members of our three objectives: to be relevant, to be cutting edge and to be fun. As ever, if you have an idea for an urban design event, or would like to get more involved, please do get in contact with us at [administration@udg.co.uk](mailto:administration@udg.co.uk)

Leo Hammond, Chair of the Urban Design Group and Associate Director at Lambert Smith Hampton

1 The newly pedestrianised Francis Road, London Borough of Waltham Forest

## DIARY OF EVENTS

### THURSDAY 9 JANUARY 2020

#### Urban Climates

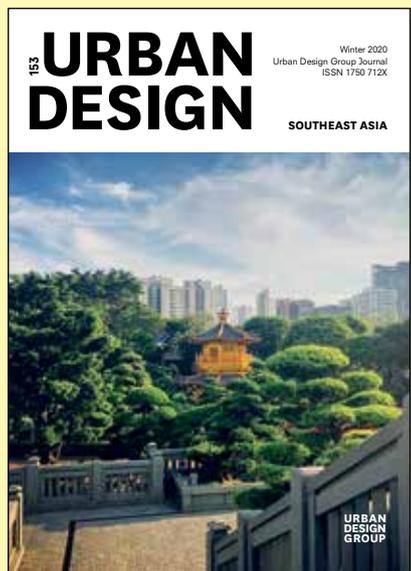
The Gallery, 70 Cowcross Street, London EC1M 6EJ 1:00pm - 5:00pm

### THURSDAY 9 JANUARY 2020

#### UDG Annual Film Night proudly presents... 'City Dreamers'

The Gallery, 70 Cowcross Street, London EC1M 6EJ 6:15pm - 8:15pm

Please check the UDG website [www.udg.org.uk](http://www.udg.org.uk) for the latest events and details of venues.



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Nan Lian Garden, Kowloon, Hong Kong.  
Photograph by David Wallace Mathewson

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# Vote for Urban Design

In a timely fashion, two issues ago we dedicated our topic to politicians and urban design, and observed that the former did not put the latter high on their agendas. To confirm our doubts, as I write we are in the middle of a general election campaign and politicians of all hues are promising to spend money on all sorts of priorities in order to make us healthier, happier, richer, better housed, more equal, more connected, etc. But has anyone heard a reference to urban design?

Of course climate change is mentioned by every candidate, there are many references to a greener environment, trees will be planted by all parties, and the intentions to build more housing are welcome. But once again no-one seems to be making the connections between properly-designed towns, attractive pedestrian areas, available public transport, sound mixed neighbourhoods in the right locations, and these general campaign promises. The impact of good planning and urban design on health, well-being and economic prosperity is now well proven, but it doesn't seem to reach the brains of manifesto writers. As large parts of England are being flooded (again), some commentators have mentioned the need to build in the right places and to reduce the concreting over of land, but their warnings will likely be forgotten as the waters recede and the election is over. Brexit will probably dominate all other matters.

Meanwhile on the other side of the world, in Southeast Asia, some of the same problems are being faced but at a much larger scale. The challenges caused by fast population growth and climate change are of a different magnitude,

but as the articles gathered by David Wallace Mathewson show, those countries are facing them head on, accepting that they have no choice. It is often thought that far away countries are learning from us. Yet some of the problems that they are facing result from having adopted Western models of urbanisation, poorly adapted to their climate, culture and environment. They are now correcting past mistakes and small countries like the UK can learn from them.

As announced in UD152, we are starting our new regular section in this issue dedicated to climate change (see p4). Jane Manning and her expert colleagues summarise current research and reports dealing with climate change and how they impact on urban design. We hope that you find this relevant as well as challenging. Please give us your feedback and feel free as usual to contribute to this or other features in the journal.

We wish you all a very happy New Year! ●

Sebastian Loew, architect and planner, writer, consultant and joint editor

## HOW TO JOIN

To join the Urban Design Group, visit [www.udg.org.uk](http://www.udg.org.uk) and see the benefits of taking out an annual membership.

- Individual (UK and international)** £55
- UK student / concession** £35
- Recognised Practitioner in Urban Design** £85
- Small practice** (<5 professional staff) £275
- Large practice** (>5 professional staff) £495
- Education** £275
- Local Authority** £100
- UK Library** £90
- International Library** £120

## Parking in Towns and Cities

17 September 2019, The Gallery, Cowcross Street, London

Esther Kurland of Urban Design London (UDL) opened this parking extravaganza or half-day seminar jointly hosted by UDL and the UDG. Jane Roberts of Living Streets introduced the eleven speakers participating in the event to a capacity audience at the Gallery.

In the first half David Harrison (London Living Streets) told the history of the highway, from medieval footpaths to the Locomotive Acts and the growth of the car-based lobby. Martin Wedderburn (Transport Planning Society) and Silviya Barrett (Centre for London) debated the economics of pricing parking, including an exploration of the myth of free parking, and the opportunity for technology to redirect drivers and set prices. David Birkbeck followed with an exploration of a buried Kent County Council survey on housing, which exposed serious dissatisfaction with current residential layouts. Jenny Raggett (Transport for New Homes) deplored

the way that the planning system resulted in housing being located in places where cars were essential, cyclists had to cope with unlit lanes, and buses failed to negotiate parked cars. The first half ended with Amanda Reynolds (AR Urbanism, shown here) describing how opportunities for rationalising parking provision in small market towns were thwarted by a lack of cash and political will, and lamenting the predominance of male, pale and grey councillors.

The discussion raised questions on the need to change public attitudes, the problem of two-worker households, and the need for car owners to bear the full costs of parking provision.

In the second half, Adam Harrison (Camden Council Cabinet member) presented the Council's evolving workplace levy scheme. Julian O'Kelly (British Parking Association) offered a vision of a digitally-informed parking system with information as key, and parking wardens as a community service provision. Jeremy Leach revealed the emerging kerbside strategy for Southwark and Brenda Puech (Streets for People) demonstrated how the removal of parked cars can provide space for 'parklets', giving room for cycles, sustainable drainage and wider footpaths. Finally Emma Griffin presented a vision of car-free living in Vauban, Freiburg,



where in spite of direct train and tram connections, 30 per cent of householders still owned cars.

The key points drawn from this part of the seminar were that a workspace levy could result in lower car usage, parklets could be introduced by a range of means including direct action, and that there was a clear inequity between car users and others. It was clear however that in the hierarchy of home owners' concerns, a new car close to home was a high priority. Until that changed, parking problems would remain. ●

Richard Cole, architect and planner

## City Resilience

16 October 2019, Perkins + Will offices, London

The time to declare an emergency is before a disaster happens, not afterwards when the damage has been done. Yet this is not the way we do things. Humans have a track record of solving problems, rather than anticipating and avoiding them. In many ways, this is what resilience is all about: being aware, far-sighted, creative, intelligent, and thinking on a systems basis. And this is the essence of *BS 67000 City Resilience* to help towns and cities anticipate and respond to change and disruption, with the objective of ensuring our quality of life, community well-being, sustainability, financial stability and future proofing.

While resilience may seem like a management jargon term, urban designers will recognise the problems that have developed over the years in the way that we design and manage the built environment. Silos exist so professionals are prepared to offer opinions but not take responsibility. There is a disjointed approach to project management often with little continuity as a scheme moves from vision into planning, design, construction and maintenance, with different consultants and contractors being involved at each stage, and no one available to act in

the overall long-term interest of the scheme or of society.

Delegates at this event received a set of presentations from Robert Hall (Resilience First), Richard Look (Thornton Tomasetti) and Peter Baird and Asif Din (Perkins + Will). We were given the ISO definition of Resilience: 'the ability to absorb and adapt in a changing environment', and shown examples of the lack of it, such as the 2004 Indian Ocean earthquake and tsunami which claimed the lives of over 200,000 people; lives that could have been saved had a tsunami warning system been in place, but at the time it had been deemed too expensive.

We were introduced to the Five Fundamentals for Resilience:

- **Inclusive:** community cohesion and quality of life for all
- **Durable:** prepared and robust against identified shocks and stresses
- **Reflective:** learning, getting evidence and continuous improvement
- **Adaptive:** agile and flexible to change integrated: working together, solving multiple problems
- **Integrated:** working together, solving multiple problems.

The importance of measuring resilience was highlighted, both as a scheme develops to check that its objectives are being achieved, and at different scales, from local through to national. A city can create nested resilience strategies taking an overall vision, and then



considering potential environmental, technological or economic shocks, and how these might affect its fortune.

Few people can have failed to see the news about coastal erosion and flooding, flooding from main rivers, devastating fires in California and Australia, and increasingly frequent heat waves exacerbated by the urban heat island climate effect. *BS 67000 City Resilience* offers a tool to mitigate these impacts; but the worry is that politicians, planning authorities and clients will continue to be focused on the short term, and bring upon society the consequences of problems that could have been avoided, had there been the wit and wisdom to see what lies ahead and act in advance.

The UDG is grateful to Perkins + Will for organising and hosting this event. ●

Robert Huxford, UDG Director

## Global Climate Change Digest

Our panel of climate experts share the latest key reports and research, highlighting what they mean for urban designers.

### PLANNING IN A CLIMATE EMERGENCY

The commitments that local authorities have signed up to in declaring climate emergencies are about to be tested. Client Earth has written to 100 planning authorities that are about to start a full local plan review. Planners will now be under considerable pressure to demonstrate action whilst also hitting housing and development targets. <https://www.clientearth.org/press/lawyers-put-local-authorities-on-notice-over-climate-inaction/>. This will be a challenging test for authorities and will be a difficult tight-rope to walk.

Staying true to the declaration made by councils will bite at many levels in the plan-making process. For urban designers interacting with the production of new local plans, the following are some examples of the challenges that will be faced:

● **Establishing the headline objectives and vision for the plan:** balancing economic growth, housing provision and ecological objectives in the overarching strategy will be tricky. As an emergency has been declared, there will be increased weight given to carbon reduction in the planning balance. Local plans will have to set out a convincing new style of vision that will allow them to keep to the housing and job targets attributed to them by national government, whilst

simultaneously putting the environment at the heart of any definition of growth.

● **Preparing a spatial strategy for the plan:** the decisions on where growth is steered towards and how it is supported will probably necessitate a new level of scrutiny and a sustainability assessment at a strategic level. The approach to infrastructure, in particular transport infrastructure, will be key. A significant shift in emphasis away from car travel to walking, cycling and public transport will be needed. In many cases it will be difficult for local planning authorities to go far enough without county, regional or national support to underpin this shift.

● **Identifying sites:** the site allocation process will need to be underpinned by a spatial strategy which finds the best use for sites informed by a carbon assessment. Allocating more space for nature conservation, flood management and biodiversity projects will no doubt compete with the need for the plan to show a deliverable stream of sites to meet housing targets.

● **Undertaking capacity studies:** the assumptions which have traditionally been used for capacity assessments will probably need to change. Density assumptions will need to balance a wide set of potentially conflicting factors, with high densities supporting an efficient use of land, but lower overall site densities being required to properly accommodate nature and the green infrastructure to underpin a new level of sustainable masterplanning.

● **Setting design standards:** establishing a new quality threshold for design will be essential for the local planning systems to deliver on declaration commitments. This will be particularly challenging for the first 100 councils given the need to be in conformity with national planning policy and the recent government consultation on *Part L Building Regulations*, which could set the bar too low.



Photo source: Knepp Castle Estate

For information on the councils that have declared an emergency and the commitments and targets signed up to, please visit: <https://www.climateemergency.uk/blog/list-of-councils/>

### NATURAL CLIMATE SOLUTIONS AND REWILDING BRITAIN

Over the last two years, the role of natural habitats in mitigating climate change has been increasingly acknowledged and is gaining real traction in the mainstream media. A few key reports have been instrumental in this.

In 2017 a group of international climate experts and conservationists published an article on Natural Climate Solutions: <https://www.pnas.org/content/114/44/11645>

Their comprehensive analysis of natural climate solutions shows that they can 'provide over one-third of the cost-effective climate mitigation needed between now and 2030 to stabilize warming to below 2°C'. They propose a set of 20 actions that would 'increase carbon storage and/or avoid greenhouse gas emissions across global forests, wetlands, grasslands, and agricultural lands'. By far the most beneficial actions concern forests, and the reforestation of land in particular.

Related to this conclusion, several organisations across the world have been



Client Earth letters



Climate Emergency declaration



Knepp Estate case study



Natural Capital



Natural Climate Solutions paper



Rewilding Britain report



Rewilding projects

We are providing Quick Response (QR) codes which give instant access to key sources of information and further reading. Simply hold your smartphone over the QR code whilst in camera mode and you will be taken to the relevant web page.

focusing on the role of forests and trees in climate mitigation with a view to persuading governments to radically change their approaches to natural asset management. In the UK the Rewilding Britain group published a report in May 2019 calling for much greater recognition of natural climate solutions: <https://www.rewildingbritain.org.uk/blog/new-report-how-restoring-nature-can-help-decarbonise-the-uk>

The approach would require the rewilding of significant areas of land across the country, supported by a new set of financial incentives. The report argues that ‘this can be achieved without the loss of high quality, productive farmland or a net reduction in agricultural output’. Indeed it is ‘the least productive marginal lands, where the opportunity cost for food production is comparatively small, that provide the best options for carbon sequestration, rewilding and other ecosystem services’.

These reports may take a little time to influence national policy but many on the ground have grasped the potential of natural climate solutions already. The Knepp Estate

is an increasingly well-known example of rewilding in the UK: <https://www.rewildingbritain.org.uk/rewilding/rewilding-projects/knepp-estate>. The 1,400ha estate, south of Horsham in West Sussex, has let nature take over the management of land and, from this, radically changed and diversified the business model for the estate. Wild-range organic meat, camping and safaris are now the focus for income. Whilst the Knepp Estate is a rare example at the moment, the approach is replicable across the less productive marginal agricultural land in the UK.

Beyond agricultural land, the Rewilding Britain report significantly ups the ante for the protection and extension of existing natural habitats in the UK. It also suggests a wide-ranging emphasis on the creation of new habitats. For urban designers, this could mean thinking very differently about approaches at the urban edge and beyond:

- Conversion of marginal farmland to natural habitats
- Reconsideration of Green Belt land and its future role
- Re-emphasis on habitat creation and

natural management in coastal and flood-plain environments.

The strategic approach advocated for rewilding also begs questions for how we plan, design and regenerate urban areas. Urban designers will increasingly need to draw on climate experts and ecologists to inform designs. Masterplans will need to consider how wildlife can be more significantly drawn into areas in meaningful and productive ways. The design of green infrastructure networks across masterplans will need to give greater space and emphasis to both climate mitigation and adaptation. This will be an important theme for designers over the coming years and collaboration across disciplines will be key to delivering on it.

For further reading on this theme, please look at <https://www.rewildingbritain.org.uk/rewilding/rewilding-projects/> <https://naturalcapitalcoalition.org/natural-capital-2/> ●

Jane Manning supported by climate experts Joanna Wright, Julie Fitcher and Mitch Cooke

## Olympic Park: Workable Exemplars In East London

A BOB-MK / UDG Visit  
15 October 2019

The BOB-MK design network runs visits for local authority officers to projects around the South East. Last year, officers visited Cambridge and High Wycombe to look at housing exemplars. This part of the South East is under enormous pressure to provide housing, and whilst the number of dwellings built has been high, the location and quality of much of the development has been poor. As this has been a continual issue, this year’s trip to the area around the Olympic Park in East London proved to be very popular.

Meeting on the 19th floor of Workable, a new workspace development adjacent to Stratford’s Westfield, some 40 people, seduced by the amazing views, listened in rapt attention to two fascinating presentations. Based on his 15 years working in the area, Paul Reynolds of Urben, who helped to organise the day, outlined the history of the area. He was joined by Neil Mattinson of LDA, who were responsible for the outstanding Olympic Park and the new legacy Queen Elizabeth Park. Together they explained the process of change, technical, landscape and urban design plans for the area. They then led the group onto the site to talk about continuing development, local neighbourhoods and housing in particular.

A new cultural quarter for London is

emerging from the industrial bedrock that had existed on today’s building site. Sadlers Wells, a UCL open campus, the Victoria & Albert Museum, and other cultural and educational anchors will sit adjacent to West Ham’s Stadium and Zaha Hadid’s pool. It was refreshing to see a pragmatic approach to detail and behaviour. Gone are the railings that confound us all in parks and play areas; instead there is an acknowledgement that people are responsible and ownership of the park by the surrounding neighbourhoods is increasingly apparent.

Paul then took us through Fish Island, to the new Peabody estate in Hackney, currently a somewhat bleak environment that is already appearing in BBC TV thrillers. Some very clever designs for mixed use and housing, much of it over six stories high, enthused everyone with their urban form and attention to detail and character, although many thought that such high density might not be appropriate in the rural areas with which they were dealing.

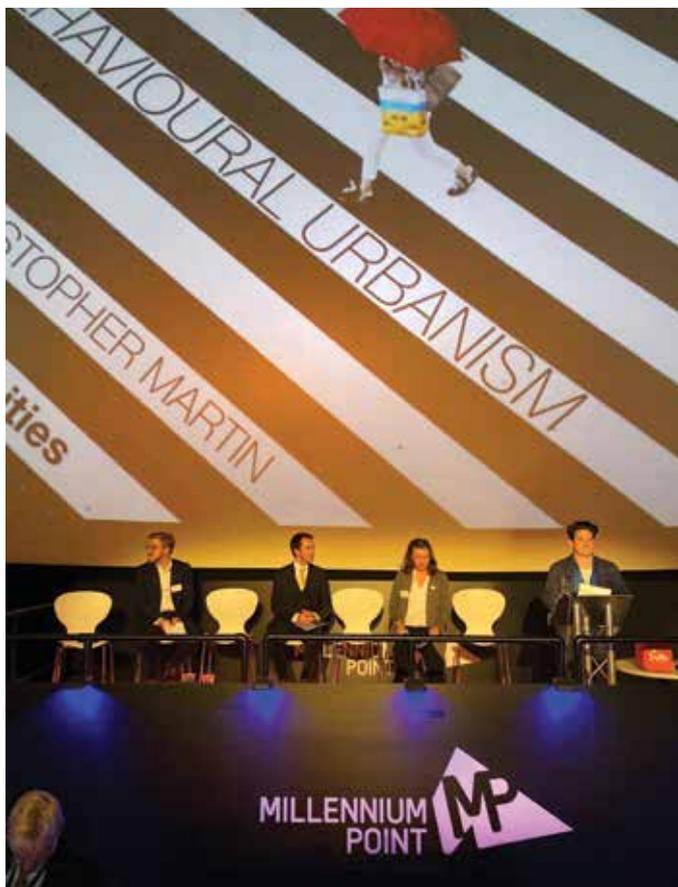
Many remnants of old industries in Hackney Wick have been taken over by purveyors of the hipster economy, who in turn are now being ousted by developers, changing the character of the area from small art studio and industrial space to more lucrative housing development. Some survive or are reborn. A visit to the Gantry in Here East recalled small cottage industries of the past. Indeed for those who remember the famous SITE design of stacked bungalows to illustrate the inconsistency of the suburban idyll, this redevelopment of the Olympic Media Centre made perfect sense.

The tour of Chobham Manor, an indication of how good volume house-builders can



be at developing a high quality, high density, mixed housing and commercial neighbourhood, was the climax of the visit. The process – masterplan, codes, design team, procurement, review and other carrots and sticks to ensure an appropriate response to the character of the area – resulted in some excellent housing within understandable neighbourhoods. Innovative ideas on ‘generational housing’, maisonette design, and flex-in regulations made this an exemplar that delegates from BOB-MK could take home with them. A major lesson learned was that with the right process, proper place-making can happen. It doesn’t need to be little detached houses with garages. ●

Jon Rowland, Chair BOB-MK



1 Chris Martin addressing the conference during the afternoon session

## National Urban Design Conference 2019: Making People-Friendly Places

26–28 September 2019, Birmingham

A variety of pre-conference events were offered on Thursday at the offices of Birmingham architects Glenn Howells, beginning with a Design Quality Summit. Glenn and City Council design leader Simon Delahanty Forrest shared their knowledge and love of the city and announced the launch of Design Midlands, a design review service. Andy von Bradsky (MCHLG) referred to the new *National Design Guide* and future street guidance. Valentina Giordano (Place Alliance) presented the *Ladder of Place Quality* which contains a highly practical tool to raise design standards. Copies of the booklet rapidly disappeared.

Louise Wyman, Design Lead for the West Midlands Combined Authority, highlighted how entrepreneurs were moving to Birmingham. She mentioned a Design Charter and other initiatives to attract investment, including the expansion of the metro in preparation of the 2022 Commonwealth Games. Laura Alvarez not only highlighted a range of effective design guidance produced by Nottingham City Council, but also the strength of the city's design culture and consistent leadership on design. Housebuilders Barratt

and Redrow presented their own in-house design guidance which they have adopted to raise the quality of schemes.

A series of rapid-fire presentations competing for a UDG award included ideas for cycling boulevards; connected solar PV canopies for all-weather cycling; restoring lost ways in Newcastle; 'locavorism' (eating locally) as a response to the climate emergency; upgrading the design of nighttime lighting; and a Super Sausage cluster hypothesis of urban development patterns. The judges awarded a year's free membership of the UDG to Liz Reynolds for her people-friendly places beneath your feet – Underground Urbanism.

### MAIN CONFERENCE DAY

The conference's main events took place in the impressive Millennium Point and was well attended. The day was divided into five themes under the umbrella of the conference title: Making People-Friendly Places. Leo Hammond, UDG's chairman, welcomed delegates reminding them that much needs to be done to achieve the theme's goals and that the UDG wanted to be relevant, cutting-edge and fun.

**Making People Friendly Towns and Cities** was the first theme of the day. Howard Gray (GreenBlue Urban) opened by arguing for more tree-planting as a way to improve the quality of cities and lamented that that trees weren't seen as an asset. Neil McInroy (Centre for Local Economic Strategies) showed the benefits of the Preston experience in capturing and retaining much of the local economic value through public

and cooperative bodies' ownership. Wendy Maden (Bath and North Somerset Council) explained the local actions taken to revitalise town centres through street initiatives, pop-up shops and workshops, much of it with external funding. Damon Smith (Homes England) showcased their town centre work for Northstowe, Cambridgeshire, where they focused on SMEs, local food and village facilities and included workspaces, residential and other commercial uses. The town has had good public transport from the start and the spatial strategy improved accordingly.

Ben van Bruggen, streamed live from New Zealand, presented the *Access for Everyone* project in Auckland. In 2005 the city had the highest number of cars per person in the country and the city centre had been depopulated. Now public transport is being prioritised and streets are being reclaimed with direct interventions, including quick and easily reversible changes to the streets, to test possibilities. As a result the city centre population has grown from 2,000 to 25,000.

Katja Stille (Tibbalds Planning and Urban Design) introduced the second theme, **Frameworks and Strategies**, referring to Francis Tibbalds' ten principles and the RIBA's ten characteristics of places where people want to live. She pointed out that positive elements such as drainage or waste management can sometimes undermine friendly places, and emphasised the importance of collaboration between disciplines. We should design for play and children: streets for seven-year olds, neighbourhoods for nine-year olds and towns for twelve-year olds.

Paul Reynolds (Urban) and architect Jas Bhalla followed by showing how dysfunctional the current system of planning for new homes is: landowners and developers put forward sites with no reference to availability or affordability and no interface with infrastructure, leading to car-dependent housing. They argued for national priorities of where to build, sub-regional policies agreed by local authorities, a call and search for appropriate sites by local authorities, and the separation of development management from plan-making. Stephen Bate (Derby City Council) followed by wondering who is to blame for the numerous poor schemes that can be seen up and down the country. He criticised 'the system' which includes legislation, guidance and policies and offers too much information but not enough clarity; stakeholders with different agendas; the inconsistencies of the process and the lack of collaboration; and, the lack of resources, particularly in terms of staff. As remedies he suggested better leadership and the establishment of an urban design culture in local authorities.

Mike Fox (Nash Partnership) and Linda Morgan (Southmead Development Trust) presented their work for Southmead, a very deprived area of Bristol, for which a plan was developed with the community and under

its leadership. Achieving this was not simple as they had to find funding, manage local politics and a multiplicity of stakeholders, get information, and establish new ways of decision-making. But they have an ambitious plan based on social value and not profit, achieved greater consensus, and built capacity in the community. The last speakers Lora Brill (JLL) and Neil Murphy (TOWN) were responsible for the award-winning Marmalade co-housing scheme. They listed eight factors that were important for the success of such a scheme: smart policies and procurement; a committed membership involved throughout; street-based urbanism; a public realm free of cars; common space (shared garden); a communal house; customisable dwellings; and, a modern method of construction. Overall they thought it was important 'to follow your passion, have a sense of trust, work together and don't forget to have fun!'

One of the reasons for the success of this conference was the generous time given to questions and answers, which covered the danger of gentrification, the impact of consultation on designs, how to improve site allocations, the longevity (or lack of it) of plans, and how to manage different interests.

Meanwhile, Hannah Smart and Sarah Murray (Edge Urban Design) hosted an alternative drawing workshop that began with quick mental maps of Birmingham. An iterative process of repeated sketching took place as people learned the essentials of visual communication. Teams were then asked to draw alternative scenarios for the adjacent HS2 site which led to key elements and sketchy masterplans. 'Big ideas' were communicated by 'fat pens', a good reminder of how to get ideas across in a visual way, ensuring that our message is clear and concise.

Chris Martin (Urban Movement) opened the first session of the afternoon on the theme of **Human Need and Behaviour**, suggesting that although urban places are good for people, cities built in the mid-20<sup>th</sup> century often gave greater priority to transport efficiency than to people. As a result people are dying because of inactivity, there is a climate emergency and inequality is growing. Better designed places can change behaviour and Chris advocated 'hedonistic sustainability' that is fun, easy and convenient. Emma Spierin (Conroy Crowe Kelly Architects & Urban Designers) referred to the United Nations approved Sustainable Development Goals (SDGs) to limit global warming, suggesting that most of them are relevant to the work of urban designers and that they need to be viewed holistically. She gave the counter-example of an excellent transport plan for Dublin that resulted in hundreds of trees being felled, as factors were being considered in isolation. As governments have signed up to the SDG agenda, we need to put pressure on them to implement it.

**Towards Urban Environments that Work** was the next theme, introduced by

2 UDG members admiring the view from the terrace of the new Library of Birmingham  
3 Delegates networking during one of the conference's breaks at the Millennium Point



2



3

Katie Christou (David Lock Associates) who dealt with design for health, which she equated to good planning. She referred to recent reports produced by the NHS and Sport England, emphasising the need for places to encourage activity, and suggested that compact neighbourhoods with amenities within 10 minutes pleasant walking, encouraged activity and led to good health. Architect Mark Andrew Kelly emphasised the advantages of cycling and cited examples of cities that encourage it. He suggested that rewards for cycling (such as vouchers) were more successful than penalties. Ending this theme, Lukas Schaefer (Buro Happold) argued for better ways to deal with waste and for designs with waste prevention in mind: encouraging sharing, raising awareness, and thinking about consumption.

The final theme of the day was **Paying for and Profiting from People-Friendly Places**. Andrew Raven (Savills) presented research on the financial added value of creating sustainable communities. Having looked at two contrasting schemes, Fairford Leys on the edge of Aylesbury and Poundbury, the research undertaken by Savills with the Prince's Foundation, concluded that residential development values and the retention of value over time were higher, and their resilience to market cycles was stronger in schemes based on sustainable urbanism than in those that were not. Paul Quinn (Clarion Housing Group) followed presenting the Merton Regeneration Project which covers three housing estates Eastfields, Ravensbury and High Path, in one business plan. Two of the estates will be totally

demolished and the third partially, and yet the existing community will be kept in situ. There will be a total of 2,800 new dwellings, of which 740 will be socially rented, plus commercial and community space. Quinn acknowledged that Clarion can borrow money on the market because of its size, but one of their main commitments is to social justice.

Martin Ellerby (Placefirst) also deals with regeneration but their housing is for rent which means that they invest for the long-term hoping to attract a stable clientele. He showed examples of transforming challenging neighbourhoods in Accrington, Liverpool and Morecambe where they retained and converted most of the existing fabric and improved the public realm. The last speaker, Kevin Parker (Redrow Homes) spoke about their commitment to design 'A Better Way to Live', by listening to customers; their priorities include proximity to green spaces, access to amenities and things to do, and being part of a community.

After a further Q&A session, Leo Hammond thanked the contributors, sponsors, staff and attendants before closing the conference. This was followed by a walking tour led by Joe Holyoak which ended in Digbeth where the conference dinner took place. Kevin Murray, in his after-dinner speech, paid tribute to Francis Tibbalds, a big presence, a big laugh and the pioneer of people-friendly places. ●

Sebastian Loew and Tim Hagyard, formerly local government planner and urban designer. Currently working with CPRE Hertfordshire

## Urban Design Group's Annual General Meeting

The following is a summary of the Trustees' Report presented to the AGM in Birmingham on 27 September 2019

### MEMBERSHIP

The total number of UDG members across the various categories shows a small decline from 1,179 the previous year to 1,140; an increase in Recognised Practitioners, Practices and Local Authorities members was balanced by a decrease in individual members, libraries and universities. Although the numbers are small, the trend is downwards. On the other hand, the take-up of the free *Urban Update* email newsletter continues to grow (1,380 compared to 1,131 the previous year).

### URBAN DESIGN JOURNAL

As in previous years, a number of high quality contributions were received on a variety of subjects, occasionally fairly controversial. The main topics were Streetscape, The Value of Design Review, Urban Design and Climate Change and North Western Europe. Members are always encouraged to contact the editors to offer contributions or suggest subjects that they would like to see covered in future issues.

### NATIONAL URBAN DESIGN AWARDS

Led by Nidhi Bhargava, Sebastian Loew and the UDG Awards Group, this year's National Urban Design Awards event took place at the Tab Centre in Shoreditch, and was very successful. The Francis Tibbalds Trust continued its generous support through the provision of financial prizes in the Practice and Student Award categories. The 2019 winners were:

- Practice Award: Studio Partington for the Andover Estate, Islington
- Public Sector Award: South Cambridgeshire District Council for Marmalade Lane Co-housing
- Student Award: Owen Reading of Oxford Brookes University for *Using urban change to create an inclusive area in intensifying Brisbane*
- Book Award: *Beyond Mobility, Planning Cities for people and places*, Robert Cervero, Eric Guerra, Stefan Al
- Lifetime Achievement Award: John Thompson.

### NATIONAL CONFERENCE ON URBAN DESIGN 2018

The 2018 Conference was held at Winchester's City Hall under the theme of Expanding Towns and Smaller Cities. The conference was generously sponsored by GreenBlue Urban, Boyer, Boyle and Summers, JTP, Savills, SLR and Tibbalds.

FINANCIAL REVIEW 2018 – 19	2019 Totals £	2018 Totals £
<b>INCOMING RESOURCES</b>		
Subscriptions	108,816	96,075
Publications and Awards	46,755	8,842
Conference Fees and Sponsorship	21,026	18,975
London Events	3,010	2,456
Study Tours & Job Ads	46,758	41,170
Donation from Urban Design Services Ltd	0	0
<b>Activities to Generate Funds</b>		
Interest Received	85	32
Inland Revenue: Gift Aid	0	0
Miscellaneous Income	5,638	703
<b>Total Incoming Resources</b>	<b>232,088</b>	<b>168,253</b>
<b>RESOURCES EXPENDED</b>		
<b>Charitable Expenditure</b>		
Publications & Awards	63,953	36,584
Conference Expenditure	9,836	12,774
General	104,980	90,280
Study Tours Expenditure	15,300	22,284
Governance Costs (Accountancy)	1,680	2,753
<b>Total Resources Expended</b>	<b>195,749</b>	<b>164,675</b>
<b>Net Income/(Expenditure) For The Year</b>	<b>36,339</b>	<b>3,578</b>
<b>Fund Balances Brought Forward</b>	<b>205,998</b>	<b>202,420</b>
<b>Fund Balances Carried Forward</b>	<b>242,337</b>	<b>205,998</b>
<b>Current Assets</b>	<b>257,188</b>	<b>218,879</b>
<b>Current Liabilities</b>	<b>14,852</b>	<b>12,881</b>
<b>TOTAL NET ASSETS</b>	<b>242,337</b>	<b>205,998</b>

### EVENTS – LONDON

The UDG has continued to develop and expand its programme of events at Cowcross Street. Led by Paul Reynolds, the 2018-2019 programme included presentations, a film night, and walks.

### URBANOUS-VIDEO ON DEMAND

Thanks are due to Fergus Carnegie who continues his largely voluntary work to record the UDG's monthly events at Cowcross Street, making them available to a global audience through the Urbannous website. This is a great resource and a tremendously valuable archive of the presentations given at the UDG over recent years.

### UDG REGIONS

Colin Munsie, in his role as UDG Vice-Chair for the regions, has continued working to strengthen the Group's links throughout the UK and beyond. The following are leading activities in their areas:  
Solent: Peter Frankum  
East Midlands: Laura Alvarez  
North East: Georgia Giannopoulou  
North West: Mark Foster and Rebecca Newiss  
Scotland: Francis Newton and Jo White  
Yorkshire: Rob Thompson  
Wales: Noel Isherwood

### URBAN DESIGN STUDY TOURS

In April 2018, Sebastian Loew took a group to Stockholm and Alan Stones led another group to the Abruzzi towns in Italy. This was the last tour to be organised by Alan Stones.

### RESEARCH PROJECT – STREET DESIGN IN THE UK

A survey of Recognised Practitioners' views was undertaken to assess street design practice in local authorities. The survey

demonstrated a systemic failure by local authorities to reflect *Manual for Streets* or equivalent best practice in their own street design guidance and standards.

### URBAN UPDATE

The UDG's email newsletter *Urban Update* continues to be a valuable resource for urban designers. It is received by over 2,000 individuals and provides a concise monitoring service of the government websites in England, Northern Ireland, Scotland, Wales and the Republic of Ireland, as well as news of research in a wide range of areas.

### EXECUTIVE COMMITTEE MEMBERS

The operation of the Urban Design Group is the responsibility of the Executive Committee appointed by election at the AGM. Its members for the year 2018-19 were: Leo Hammond (Chair), Paul Reynolds (Hon Secretary), Katja Stille (Treasurer), Colin Pullan (Past Chair), Daniela Lucchese\*, Katy Neaves\*, Laura Alvarez\*, Philip Cave, Michael Cowdy\*, Andrew Dakin\* (corresponding), Stefan Kruczkowski\* (corresponding), Colin Munsie, Mat Procter\*, Monica Qing\*, Brian Quinn\*, Amanda Reynolds, Raj Rooprai\*, Barry Sellers, Graham Smith\*, Alan Stones, Mattias Wunderlich\*.

\* Denotes that this member was co-opted to the Executive Committee for 2018-19

For the year 2019-20 the following were elected or co-opted:

Paul Reynolds	Barry Sellers
Katja Stille	Hannah Smart
Colin Pullan	Alan Stones
Philip Cave	*Graham Smith
Chris Martin	Andrew Dakin
Colin Munsie	(corresponding)
Amanda Reynolds	
Raj Rooprai	

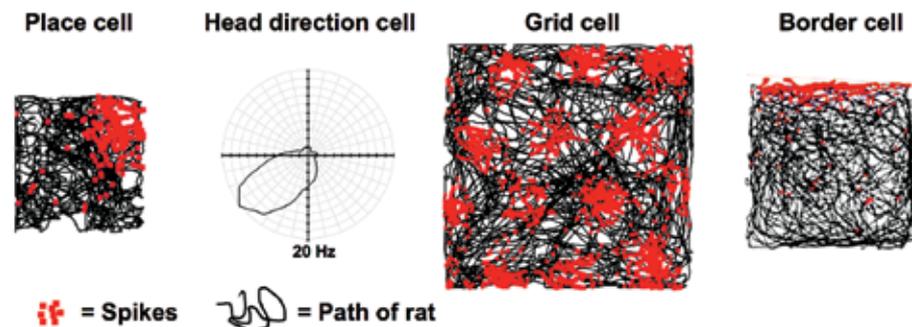
## Urban Design Group Kevin Lynch Lecture – Neuroscience and Urban Design: Professor Kate Jeffery

14 November 2019, University  
College London

Leo Hammond, chair of the Urban Design Group, reminded the audience that after more than half a century, Kevin Lynch's work remains a reference for urban designers and is taught widely on urban design courses. Inviting Kate Jeffery to talk about 'Neuroscience and what it can tell us about our sense of place and sense of direction' was an inspired choice and it attracted a full house. As a new view across the silos, evoked by Matthew Carmona in his introduction, the neuroscientist is interested in Lynch's work on perceiving and representing the city. Although Lynch's city image and its five elements – paths, edges, districts, nodes and landmarks – have its critics, the simple clarity of his geometries continues to have its followers. On the other hand Richard Sennett, in his recent book *Building and Dwelling*, proposes five different open urban forms from his social-philosophical standpoint – synchronic, punctuated, porous, incomplete, multiple – to capture the interaction between what he defines as *vill* and *cit *. He sees the conviction that places should have a clear visual identity, as postulated by Lynch, as a barrier to flexibility seeking complexifying and seed-planning, or to Venturi's difficulties, ambiguities and complexities of cities.

In a language easy to understand for urban designers, Kate Jeffery explained the various parts and functions of the human brain and the simpler one of rats, and how they are engaged in spatial behaviour. Her research focused on four elements of a spatial map: place cells, head direction cells, grid cells and border cells. Identifying the four types of cells was the outcome of experiments which observed the spatial behaviour of rats. She took the elements in turn and showed their influence on the rats' paths in controlled situations, and made several deductions of relevance to general behaviour in space and orientation.

She gave examples of confusing buildings where people had difficulties orientating themselves and needed signage, and she asked how the brain was conceptualising space. Different parts of the major cortical brain system exercise different functions, which is also the case for major subcortical brain systems. These different parts do not operate in isolation: spatial orientation, direction and behaviour generally result



from a combination of these functions. This was identified by studying how parietal lobe damage was causing perceptual problems. She also found that habit-based behaviour was controlled by the structure of the environment while long-range navigation was based on an internal map of the brain.

Through neuroimaging and listening to the language of neurons, she was able to gain insights into human brain activity. When studying the map in the brain, researchers resorted to working with rats which have smaller and simpler brains. O'Keefe's experiments, with what he called place cells and head direction cells, studied orientation and found that there was consistency, although the brain's compass was not tied to magnetic north. Place cells were also found in human brains. From their studies of the 'sense of direction' in the brain, researchers were able to impute how people perceived space and found that some way of linking information was required for the head direction system to function. Kate Jeffery illustrated this with the example of Piccadilly Circus in London where the underground spaces are distinct from the spaces at street level and people experience disorientation between them. Studying the forms of spaces in greater detail and their influence on the sense of direction, she found that rotational symmetry was disorienting while irregular and even symmetrical spaces were easier to navigate. Equally, distant landmarks giving a bigger picture with more coherence were assisting the head direction system more than closer or superimposed landmarks.

Kate Jeffery stated that representation has some kind of isomorphism with the thing it is representing, thus a map is isomorphic in the spatial domain. Studies with taxi drivers who had passed 'the Knowledge' showed that the hippocampus was involved in creating mental maps which assist in navigation, while a damaged hippocampus led to rats getting lost. The hippocampus was also needed for imagination beyond memorising space and learning to navigate through existing space. Other neuroscientists discovered that the brain uses a grid reference and explored whether it was hexagonal or orthogonal. Experiments showed that grid cells in the brain integrate distance and direction, but found that boundaries are also very important. Relevant to urban designers

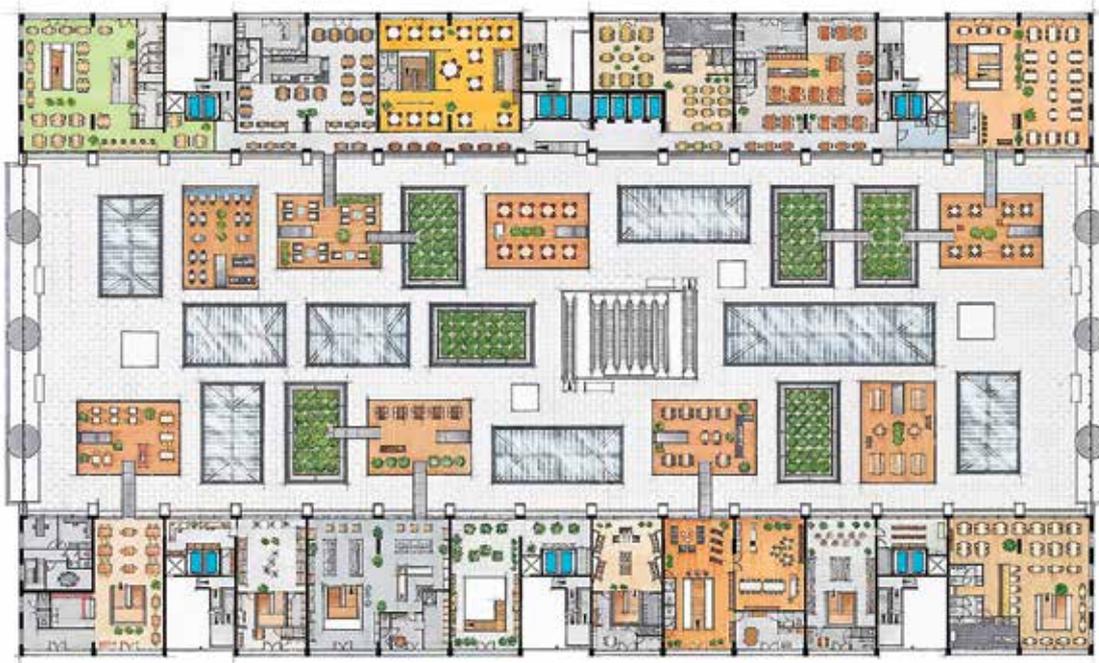


is that Kate Jeffery saw a correspondence between the neurological cell typology and Lynch's spatial elements of the city.

Looking ahead, Kate Jeffery aims to explore whether neural representation of space was only surface referenced or volumetric. Other open questions were how orientation and direction maps are constructed in multidimensional spaces including time, how different spaces relate to each other, and whether the brain holds a master map. The work of Rene Thom on mathematical models of morphogenesis may provide some inspiration for these questions.

From the ensuing discussion it appeared that a universal explanatory model of spatial behaviour was improbable as individual variations of mental maps were unlikely to fit into a single meta-map. Transposed to urban design it may mean that the pursuit of a single integrated mapping device of orientation and direction in urban space may be unrealistic, and no universal design of urban space would be able to accommodate all spatial behaviours. ●

Judith Ryser, researcher, journalist, writer and urban affairs consultant to Fundacion Metropoli, Madrid



1 The Markthal first floor plan in Rotterdam, MVRDV Architects

## My Favourite Plan: Ben Flippance

First floor plan, Markthal in Rotterdam, by MVRDV

### WHY I LIKE IT...

This plan is a representation of a system of spaces that form a leisure and retail environment conceived as a public square within a building. However, this is more than a building and a space; it is a careful interplay where the lines that divide building from space are not drawn in the usual way, and this plan is a condensed representation of this characteristic of the project.

The building includes apartments on the upper levels and mixed uses on lower levels. These are depicted in the plan by the cellular units along the top and bottom of the plan. These units define the central public space, which is enclosed by glass screens at either end, allowing visual connections to the outside.

The plan provides a useful reminder of how we consider public and private space, and how we can consider architecture and landscape as a single interconnected system. The compartmentalised nature of design disciplines and their orthodox outputs (drawings, models etc.) can create missed opportunities for intelligent and creative ways to view public and private space, and how they can interplay. This plan cleverly communicates the public and private interior spaces together. I consider it an evolution of the principles of the Nolli Plan of Rome, in which the interiors of public buildings such as churches are illustrated as public space amongst the otherwise closed figure-ground forms of the private buildings.

This plan also uses playful illustration to

indicate the life of the spaces. The interior spaces of the shops, restaurants and bars are illustrated similarly to those of the public square. This approach demonstrates a specific intent to communicate the building as an inviting and open plan that seeks to bring together the various uses and elements of the project as a single experience. The plan is also very detailed, with individual plants and furniture layouts giving a clear intent for the role of the spaces, and engendering them with a more intimate character.

The plan also animates and hints at the role that this first-floor level plays as part of a wider system of vertically layered spaces. The roof spaces over the ground level stalls are illustrated as gardens and zones connected by bridges and stairways.

### WHAT TO LEARN FROM IT...

Clearly the building and space represented satisfy a very particular set of urban conditions. However, it serves as a useful reminder for practitioners to think carefully about how their drawings can be composed to communicate different messages. By drawing the interior plans in partnership with the public spaces as a single system, the experience for users becomes more real in the plan. This needs not be forced though. We cannot pretend that the vaults of a bank can be illustrated as part of the same experience as the public square outside. However, we can carefully consider the community centre and village green as a single system for community activity, part of which happens to be a building, part of which happens to be a landscape.

There are so many ways in which a plan can tell a story; we need to carefully consider which story we want to tell. I think the plan of Markthal is an intriguing window into a project which looks at space, building and plan programme in a manner that we are not used to seeing. ●



**Current Position**  
Design Director, IDP

### Experience

At IDP over the past 20 years, affordable housing and student accommodation architecture projects, and visions and the delivery of large scale masterplans and urban regeneration projects, combining urban design, architecture and landscape design.

### Education

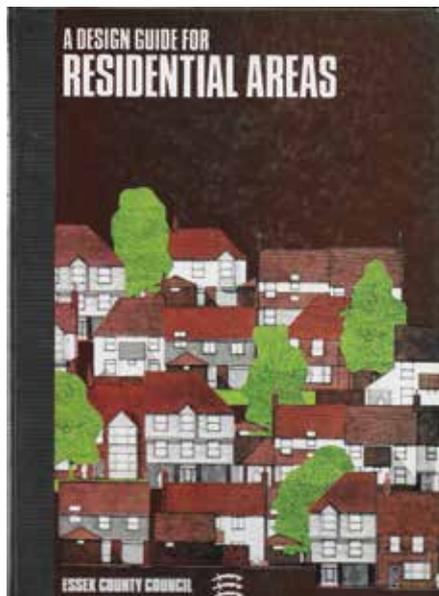
BSc Hons Construction Management, Coventry  
RIBA Parts 1 & 2, Oxford Brookes  
PG Dip Urban Design, Birmingham City University

### Specialisms

Integrated design of urban plans, detailed architecture and landscape, thinking across each discipline, design without silos. Public sector land competitions and major urban mixed use/ residential buildings.

### Ambition

To see the housebuilding sector build great places and communities... unflinching, every time.



## Urban Design Library #32

The Essex Design Guide, Essex Planning Officers Association, Essex County Council

The *Essex Design Guide* represents a significant achievement in planning practice for four main reasons. The first is its early start in 1973. The second is its remarkable longevity. It has been substantially revised and updated on three separate occasions and reinforced by several reprints and the issue of special supplements. Each version was implemented by a different generation. It is still being applied and may still be so after 50 years. The third reason is that it has not just been about Essex but has offered a coherent design philosophy which learned from, and converged with, other progressive trends. Finally, it has been put into effect in a large number of schemes throughout Essex.

### THE 1973 GUIDE

The first version of the Essex guide arose from a convergence of two forces at the end of the 1960s. The County Planning department had started to put together a design team to take advantage of the powers granted by the 1968 *Civic Amenities Act*. County councillors had also become concerned about the potential loss of character in traditional Essex villages through unsympathetic development. The design team was asked to address this and it became clear to them that not only was a substantial document required but that it would need to change the County's highways standards, which were inimical to traditional urban form. Achieving this was one of the guide's key achievements.

The document laid down systematic physical and visual design principles and criteria. It argued that open space, fresh air and sunlight should be achieved through

design rather than fixed standards. It proposed that for all residential development in the lower density 'rural situation', space should be enclosed by trees. In the higher density 'urban situation', space should be enclosed by buildings brought closer to the road, with significant back gardens, normally 100m<sup>2</sup> in size. Building forms and materials should reflect, but not mimic, local traditions.

The real innovation was the design of narrower, low-speed access roads. The mews court, serving a maximum of 25 dwellings, was Britain's first true shared surface. Unfortunately, access roads were to be connected together in cul-de-sac dominated layouts as this was seen as almost the only way of eliminating through traffic and ensuring low speeds.

The immediate challenge was the 1974 reorganisation of local government when implementation became the responsibility of the new district councils. Rather than formal adoption by each district, individual planning officers took up and promoted the guide, and implementation was not necessarily uniform. Unusually, on their own initiative a small number of housebuilders adopted the guide. A significant number of schemes were built that could be seen as true exemplars of the guide.

Another challenge came from substantial groups within housebuilding firms and the architectural profession, who feared a loss of freedom of action and the promotion of traditional, if not pastiche, styles. It did not succeed, principally because the alternative was not architectural creativity but the standard volume housebuilders' products and engineers' roads.

### THE 1997 GUIDE

By the early 1990s, the need for a revision of the old guide was becoming clear. Urban design thinking had made substantial advances. Traffic calming was now established practice. The first full revision of the *Essex Design Guide* was published in 1997. It had the same message and philosophy as the original but there was one major change: cul-de-sac based layouts were now seen as definitely undesirable. This was argued from principles of permeability and legibility. Vehicle speed was to be controlled not just through narrow carriageway widths and curvature, but the whole appearance of the road from its 3D design, illustrated by perspective drawings that emphasised the enclosure of space by buildings and planting for each road type.

Other changes in content might best be described as a tightening up of the original policy. The use of site appraisals and appropriately skilled architects was stressed and a more explicit explanation of the character of Essex provided. The one key requirement that would change things decisively on the ground was to make continuous frontage compulsory over 20 dwellings per hectare (dph): terraced houses should be the norm.

Another principle involved back gardens and car parking. Although layouts might be tightly urban, it meant that land use overall was predominantly green and this green space was both private and useful. If the house types were shallow in plan, this not only provided natural light and ventilation for the building but made the garden a square shape. It could then accommodate a garage accessed from the front through an archway, avoiding rear lanes and parking courts.

The fairly narrow local roads recommended by the guide did not allow for much visitor parking. The proposed solution was parking squares designed as attractively paved urban spaces that would look good without cars in them.

Implementation of the 1997 guide depended on the commitment of planning officers. There were a number of small but significant examples in Brentwood, Tending and Uttlesford but the big picture was in Chelmsford, Colchester and Braintree. Here, the new guide received strong political and officer support, and was adopted as supplementary planning guidance and later absorbed into these councils' own planning documents. From 2000 onwards most new residential development in these districts conformed to the guide's requirements.

### THE ESSEX DESIGN GUIDE IN THE NEW MILLENNIUM

In 2005, the 1997 guide was reprinted in a squarer, thicker format. There were some minor changes to accord with the evolution of government policy but it was essentially the same guide. In 2007, an *Urban Place Supplement* was published. It dealt with developments in excess of 50 dph. It continued the design aims of the main guide, while taking account of the latest policy concerns, notably sustainability. In 2018 the guide was again revised and placed online, incorporating elements of the *Urban Place Supplement* and *Manual for Streets*.

The importance of the guide has always lain in its emphasis on principles and criteria, amounting almost to a toolkit for designing both buildings and spaces. Although it has proved particularly successful at delivering traditional form at densities of 25-35 dph, it also works beyond these. Many see its particular achievement as meeting the ongoing challenge of road and parking requirements, and for this reason alone it can be read with advantage both within and outside Essex. ●

Tony Hall, Emeritus Professor of Town Planning at Anglia Ruskin University, currently writing a history of the *Essex Design Guide*

### READ ON

DETR and CABE, 2000, *By Design*  
Urban Design London, 2017, *The Design Companion for Planning and Placemaking*, RIBA publishing

# Exhibition Road, London

## A decade on

Ten years after it began, how is this most famous and controversial shared space standing the test of time?

In each issue of Behind the Image, one of our contributors visits a contemporary public space from around the world. The photography tries to reveal an alternative perspective on a familiar precedent, famous space or place. These images illustrate how the public space works in practice: exploring its features (designed and unintended), and the way it relates to the surrounding context. ●

Lionel Eid, George Garofalakis, Rosie Garvey and Alice Raggett



A vast public space: Exhibition Road feels like a vast and truly public space. This is partly due to its generous width from building line to building line (30m on average), and the sense of continuity between the various cultural institutions situated along its length (approximately 720m). The road is well used as a pedestrian promenade and cycle route while passing vehicles have to negotiate a more complicated street environment.



Edges: The public realm scheme at Exhibition Road has been integrated with other schemes, usually seamlessly, but at times more abruptly. The visual continuity of the diagonal paving pattern is inconsistent with adjacent sites but this is partly because this design is newer than much of its surroundings. Large portions of the road are framed by buildings with blank façades which at times have a negative impact on the vibrancy of the street.



Security retrofit: Granite bollards have appeared in key locations, such as the intersection with Cromwell Gardens to provide a physical barrier, protecting crowded pedestrian areas around the museums from the threat of terrorism.



Clutter free: The stealthy re-colonisation of Exhibition Road by street furniture has generally been avoided. There are very few examples where elements such as bins interfere with the flow of movement and, interestingly, private electric bicycle parking has intuitively followed the arrangement set out by fixed cycle docking stations.



Ownership of spaces: Many cafés lay out tables and chairs along the southern end of Exhibition Road. Cumulatively, these provide a street environment with a much more continental feel, particularly in fair weather.



Level and material changes: The cracking or dislodging of street paving has generally occurred where there are level changes or the surface transitions from one material to another. By contrast, the central section of the road has proved to be resilient with far less wear and tear.



Maintenance: The repair of surface materials has not always been to the standard of the original palette, as asphalt replaces street paving in some locations. Several instances of dislodged vertical bollards suggest that drivers do not have a clear sense of the delineation of parking spaces.



Reflection: Exhibition Road continues to be an innovative and successful public space that relies on the considerate interaction between its various users. The absence of signal-controlled crossings presents risks to partially sighted or blind individuals. Nevertheless, tangible efforts have been made to mitigate these risks through the provision of braille signage and maps.

# Seven Points for Delivering Successful Community Retail

Sebastien Miller looks at the new rules for designers



1

The take-up of retail space is one of the key barometers of development schemes, high streets and town centres. Where retail space is commercially successful, it is often because it has been designed or has evolved to support both social and leisure activities, providing a high degree of functionality, identity, and desirability within the wider community. Conversely, poorly performing retail space can drag the character of an area down and plays a role in reducing investment potential.

It is clear that mature markets like those in the UK and the United Arab Emirates (UAE) have reached the point of being oversupplied with retail space, relative to consumer numbers, disposable incomes and changing consumer patterns. The ‘build it and they will come’ attitude that designers, architects and developers previously held does not guarantee retail success.

Do we give enough consideration to the subtle aspects of place-making that create destinations and experiences which in turn encourage successful retail areas? I believe that our industry often falls for easy assumptions, without a rigorous critique of what supports mixed use centres. The following seven points can be seen consistently across most successful retail schemes and different disciplines.

## 1. MARKET STUDY: UNDERSTAND SUPPLY AND DEMAND

Supply and demand are the key inputs into any market assessment and will dictate business successes or failures. At the earliest stages of a project, regardless of its size, the principal designers should engage in a market study. This process will evaluate likely demand, identify competition, leasing risks and achievable rents. This gives designers and developers a balance between their overall aspirations (often overestimated) and financial realities. It provides a warning bell for overly optimistic thinking, and directs schemes towards more functional and resilient solutions that are better able to weather the shock of economic downturns. A market study is the difference between investing and gambling in any development scheme.

## 2. POSITIONING

Big box retail and high streets are facing an existential crisis and, in some communities, this reflects negatively on the surrounding developments in both identity and land value. Retailing and services have

to compete not only with each other, but also with the convenience and market pull of an ever-growing on-line shopping environment. The one advantage that physical retailing can offer is an experience, through participation or connection, and this is something that brands and developers are beginning to explore. As part of what has been dubbed the ‘experience economy’, retail developments are now being planned around a clear food-beverage-leisure-tourism-and-community positioning strategy.

However it is not just about finding the right niche experience to support retail and commercial activities. The identity, price point and positioning of retail schemes still needs to consider market gaps, development surroundings, residential and income mix, as well as people’s daily needs.

## 3. BALANCED PROVISION

Developers and designers too often overlook the benefits that small-scale, everyday services bring, and instead place too much focus on high-end brands as the primary attractions within a scheme. Projects need to balance the demand and provision of high-end versus middle-market occupiers and even non-commercial or community uses such as libraries and clinics. In terms of attracting footfall and maximising a project’s commercial potential, it is often the boring, everyday services that will draw people in regularly, more so than a one-off visit to prime restaurants and exclusive boutiques.

Retail demand is often misjudged from a consumer and operator point of view, through the over or under supply of unit provision, as well as gross floor area requirements. Successful retail space balances operators’ preferred unit sizes and needs, with its income-generating potential. Retailing and services that have lower rental values should be modest in scale and location. Schemes should offer a mix of retail sizes for different uses and operators, with consideration given to frontage ratios and public activation, back-of-house access and operations. High quality schemes are often evident by the seamless way that facilities have been designed, allowing for flexibility without intruding upon the consumer’s experience.

## 4. ENHANCE OR CREATE VALUE

Designers need to ask themselves whether a site’s attributes have been maximised to their full potential. Retail architecture provides an opportunity to align the shopping environment with park or waterfront views, encourage natural light, create sheltered plazas, or provide connections to public transit. Yet so many schemes fail to maximise or even consider these assets, with units parcelled densely together along a busy street or within a standard shopping mall typology. Where site value is limited, savvy designers understand that a unit’s value can be enhanced by positioning meaningful ‘revenue generators’ and attractions in less advantageous locations. Destinations can be created through supermarkets, gyms, dining areas or well-maintained gathering spaces, which result in a better overall commercial outcome than excessive and monotonous low-rent retail floor space.

## 5. EXPERIENCE: JOURNEY + DESTINATION

Successful retail destinations satisfy both the convenience of daily needs, as well as giving an experience that can be shared and retold online. They offer a balance of intensities, uses and attractions. By co-locating retail with other activities, such as community facilities, offices, education, or leisure attractions, this creates a critical mass

1 Yas Mall, Abu Dhabi: co-locates retail, food & beverage, and leisure uses along with sheltered gathering areas, away from the harsh climate  
 2 Retail units can be co-located with open spaces as a complementary use  
 3 Al Bandar, Abu Dhabi: Flexible promenade

spaces for shaded outdoor dining and gathering. Monthly evening markets and events support local retail operators  
 4 Vancouver, Canada: The public realm with active street fronts provides character and social focus

that attracts different user groups at different times. Stand-alone retail areas will have significant quiet periods that can reduce operator profits, failing to maximise commercial potential, and are more susceptible to longer voids between tenancies.

The most successful retail schemes are the ones that go beyond their immediate boundaries, with well-defined and connected routes linked to surrounding streets, open spaces, and most importantly, other developments. In such cases, retail sites position themselves both as part of a journey through the urban fabric as well as a destination within it. This is achieved through clearly defined circulation routes, entrances, attractions and activities. Healthy retail schemes are self-evident, with a critical mass of floorspace, brands and footfall. Just as people attract other people to a site, the presence of higher quality brands is often self-reinforcing within any development.

## 6. FLEXIBILITY

As market conditions become more volatile and uncertain from a business or long-term economic perspective, designers and operators are beginning to respond to retail spaces that are more flexible from the outset. The need to cater for shorter leases or higher unit turnover can provide retail areas with a more dynamic offering that steps away from the repetitive multi-national brands and experiences. For schemes that address these trends, it can offer an alternative or more resilient model in terms of leasing risk that reduces the burden of developer incentives and rent reductions often needed to attract long-term tenants.

We can see this with food vans and pop-up kiosks, but this is just the beginning, particularly with small-scale entrepreneurship, the gig economy and millennials who not only provide new services through start-ups, but are beginning to demand it as consumers themselves. Such flexibility allows for an authenticity in terms of retail localism, nurturing a smaller, mixed economy of bespoke brands and services, unique to their location or city.

## 7. FUTURE PROOFING

The world continues to change faster than ever and designers need to consider the implications of new technologies and behaviour patterns. Retail areas should be positioning themselves in relation to the changing patterns of both consumer and transport behaviour over the coming years. While many retail developers have already begun to install a small number of charging stations, few schemes consider how the user patterns of tomorrow will affect their circulation and arrival areas.

Dedicated drop-off and pick up zones will become essential to a scheme's success, and even more so as we move to using autonomous vehicles (AV). Retail projects that do not allow for high-volume, fluid vehicle movements are signing their own end-of-life-cycle. While AVs are still 10-15 years away for most drivers, these facilities could be designed now as taxi bays. Architects should start to give thought to how large and underused parking bays will be treated in a society with reduced car ownership in the future. Parking lots typically have a prime frontage to streets and these spaces have the potential to be redesigned as complementary commercial or community facilities. From the outset of any proposal, designers should offer a plan for phased future adaptation, ensuring that the retail schemes of today have the ability to adapt to meet the needs of the future.



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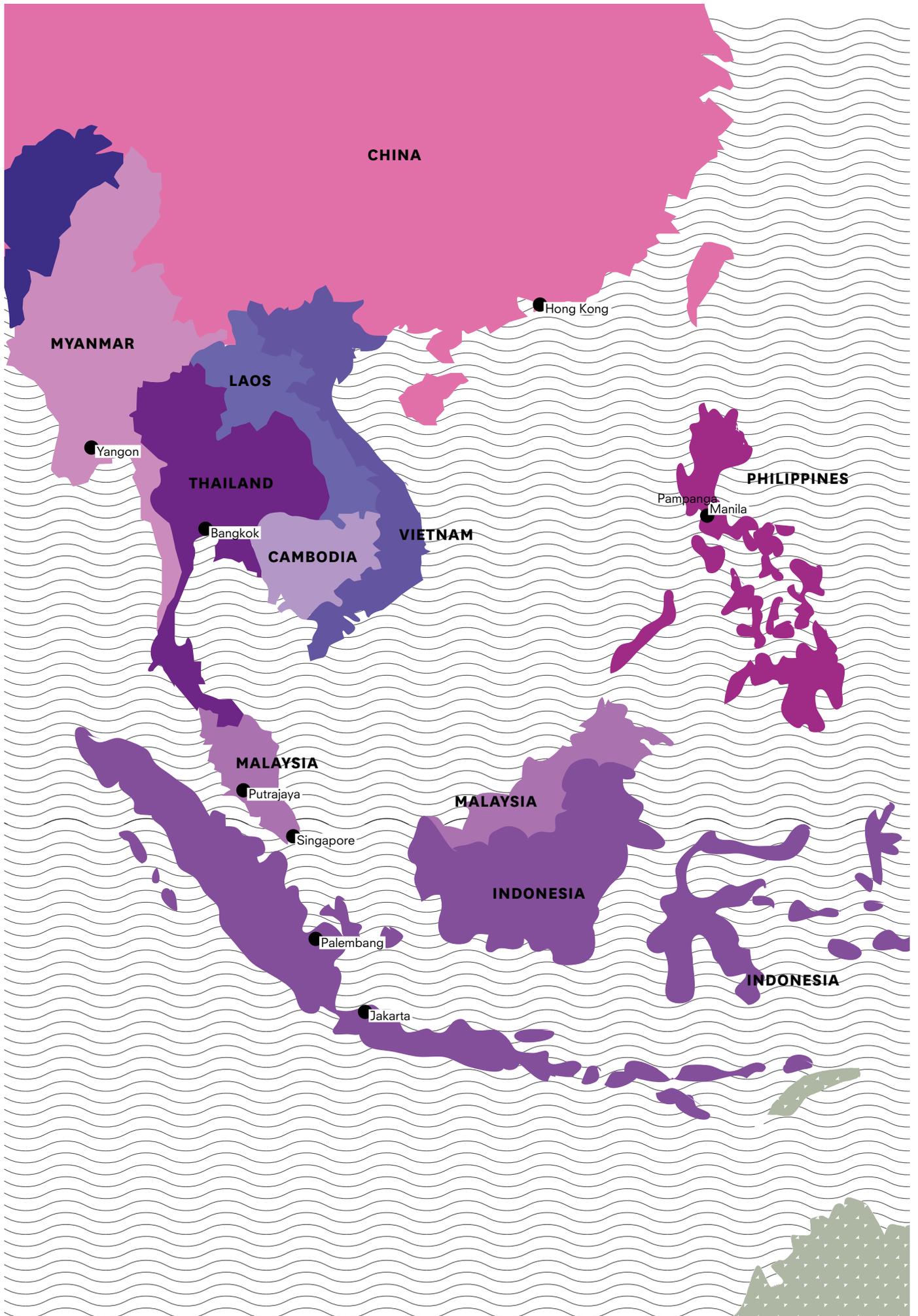


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## CONCLUSION

Retail areas should be the vibrant centre and identity of any mixed use or residential masterplan. Despite challenging economic times for retailers and development schemes, designers should be attuned to changing market trends, rising consumer expectations, as well as basic operator requirements. In terms of placemaking, which lies at the heart of any good design, physical retail has the opportunity to provide a series of authentic and memorable experiences, something that internet-based retailing cannot offer on its own. Designers need to think more in terms of hospitality and experience, with a focus on the co-location of non-commercial, transport and social uses. Get that mix right, and you begin to develop a platform for a community-focused retail offering. ●

Sebastien Miller, urban designer, landscape architect and town planner, working at GHD studio, Abu Dhabi on master planning and public realm design projects



# Southeast Asia

Southeast Asia is undergoing rapid transformation as a result of unprecedented rates of urbanisation, population flows and climate change. The third most populated region on the planet, it is home to more than 640 million people across 11 countries and five megacities. Both Jakarta and Manila have populations of between 20-30 million people, while Bangkok, Hanoi and Ho Chi Minh City hover at around 15 million. Tiny, but highly dense cities like Singapore and Hong Kong are inhabited by five and seven million people respectively. It is a region of distinct and ancient cultures, well-developed urban centres and vast informality: over 60 per cent of Jakarta's built urban fabric is made up of some form of informal development, while Singapore, Kuala Lumpur and Hong Kong boast some of the most advanced urban infrastructure systems in the world. These cities are at once modern and historic, with gilded *stupas* appearing adjacent to modern office blocks or decaying European-style buildings, and the most technologically advanced and sustainable green architecture in some, while others highlight the disparity between the rich and poor with huge informal settlements in view of luxury high-rise towers and exclusive gated communities.

Historically, the region experienced wave after wave of cultural and religious cross-fertilisation as Indian and Arabic merchants sought routes to China's fabled port cities. This ushered in Hinduism and Buddhism as the state religions of a number of regional powers, including the Khmer and Srivijayan empires, resulting in an era of powerful, competing and centralised kingdoms in southeastern Asia, the forerunners of Myanmar and Thailand. On the islands situated along major trade routes, a series of empires, kingdoms and later Islamic sultanates arose.

By the 19th century, these states or their successors, no longer waging war with each other, were fighting for autonomy against colonial powers. The Dutch had captured parts of Sumatra, Sulawesi, Java and the Spice Islands from the 17th century, while the British controlled parts of Borneo, the Malaysian Peninsula, the Island of Singapore, Burma, Papua New Guinea and Hong Kong from the 18th century. The French occupied Indochina (today Cambodia, Laos and Vietnam) in the 19th century, the Portuguese ruled Timor and Macau, and the Spanish the Philippines from the 16th century. By the 1880s Siam (now Thailand) was the only independent country remaining in the region. Independence came between the late 1940s and the 1960s, at the same time that movements for new urban development emerged in Africa and Latin America, to

refocus city imagery away from centuries of colonial rule to international modernism. Grand urban projects were implemented in imitation of planned cities like Brasilia and Canberra, while infrastructure and strategic planning were neglected. Informal settlements which had always existed, now expanded rapidly as newly deregulated economies boomed and authoritarian regimes relaxed control over urban areas. This rapid urban growth and massive waves of rural to urban migration led to vast urban *kampungs*, land subsidence resulting from huge amounts of water being pumped out of the ground, chronic traffic jams due to under investment in transport infrastructure, and severe flooding in cities like Jakarta, Bangkok, Ho Chi Minh City, Hanoi and Surabaya.

Therefore flooding and the associated challenges linked to rapid urbanisation feature in a number of articles in this issue, such as my own on urban development in response to the problems of flooding in Jakarta, or Jennifer Chua's article on alternative locations for strategic urban development on the island of Luzon in the Philippines. Gregory Galligan and Patri Vienravi scrutinise Bangkok's role as one of the Rockefeller Foundation's 100 Resilient Cities in terms of its flood resilience planning. Daniel Ong and Priscilla Epifania look at different challenges considering recent large-scale urban development in Singapore and Jakarta, while Fanan Ujoh reviews the case for planned capital cities in his article on Malaysia's Putrajaya. Urban heritage is considered in Yangon, while Dawn Hayunga Shapiro looks at how historic buildings have been utilised for urban regeneration in Hong Kong.

Whether facing flooding, at-risk urban heritage, large-scale urban developments or strategic metropolitan planning, Southeast Asia continues to develop at a rapid pace. Although the region's challenges will not be easily solved, national and city governments are finally responding to long-term structural issues that have long plagued urban areas. Some cities like Singapore and Putrajaya have successfully achieved a high level of development while others, such as Jakarta, Bangkok, Manila and Yangon continue to face significant challenges. ●

David Wallace Mathewson, guest topic editor, Urban Design Course Leader and Lecturer in International Planning at the University of Westminster

# Riding the Sands of Time: Urban Malleability and the Legacy of Marina Bay

Daniel Ong discusses the development and extension of Singapore's central area



## ORIGINS OF THE CITY

Barely half the size of Greater London, the island city-state of Singapore has grown from its infancy into one of today's significant global economies. The settlement was founded in 1819 and declared a colony by the British Empire after trade and diplomatic agreements were established with local indigenous rulers of the adjacent Malay Peninsula. Nestled within the lucrative maritime commercial route between Europe and the Far East, much of Singapore's prosperity was credited to its strategic location along major trade routes and by having a natural deep harbour in the south of the island where the free port was later established. It is this area surrounding the mouth of the Singapore River that has evolved into what is presently the central business district (CBD).

The initial years of Singapore's development were not without hardship. Its role as a trading outpost was fraught with many challenges. The administration of the colony was ill-equipped to deal with the large volume of trade entering the port. With insufficient funds at hand, compromises had to be made to the original instructions in the settlement charter. Several developments were erected in various styles contrary to the town's existing context, while merchants had begun to build warehouses along the Singapore River which intruded on the original land plots assigned for government buildings, and created a strange juxtaposition of uses and haphazard urban character.

In response to this lack of order, the *Plan of the Town of Singapore* was proposed in 1822 by British planners and surveyors Lieutenant Philip Jackson and Captain James Franklin. Commonly known as the Jackson Plan, the visionary layout for the southern tip of Singapore revealed the hallmarks of early 19th century British town planning. With grand public squares and thoughtful road alignments, the plan was designed to create a modern, rationally ordered settlement.

The town expanded gradually in the next few years and the presiding planning committee was able to ensure that most of the Jackson Plan was executed properly.

It is often the commercial and financial centres of cities that contain revelations of their historical founding and the circumstances governing their urban evolution. Of the many definitions that describe what downtown cores are or what city centres and central business districts encompass, these central core areas provide insights into their urban origin. Some cities are founded next to lakes or the rivers that run through them, while others are landlocked and have sprouted from inland migration or environmental necessity.

Singapore is no different to other coastal cities having had its fair share of progressive development from a village by the sea to a sprawling global city. Yet its uniqueness is derived primarily from an impetus to drive dynamic urban visions with great speed and certainty, coupled with the ability to realise grand plans from economic reforms to social engineering and rapid industrialisation, to aggressive urban interventions. All of these are reflections of the undaunted political will of a tiny city state seeking to make a success of its strategic tropical location on a small island of just over 719 km<sup>2</sup>.

Singapore city centre is the source of its urban history. Once low-rise in scale, the Old City is now characterized by a cluster of commercial towers. Nonetheless it is this new city that is looking to take on the mantle of its predecessor. Marina Bay is the fresh face of downtown Singapore designed to rejuvenate and complement the historical core, whilst proclaiming an economic prowess by capitalising on the future with signature iconic developments, aiming to stimulate the restlessness that comes when economies falter or skylines become out-of-date.

1 An ode to monumentality and internationalism – Marina Bay Sands. Source: Daniel Ong

Apart from the introduction of zoning to accommodate civic and mercantile uses, the plan also contained ethnically-partitioned dwelling enclaves to the northeast and southwest of the Singapore River, so as to manage the existing residents as well as the burgeoning arrival of diverse peoples from various parts of Asia. Although fragments of the original grid layout were not entirely fulfilled, the old buildings, street patterns, and parcellation of neighbourhoods are still visible today.

When Singapore was recovering from the effects of the Second World War and the colonial rule of the British Empire in the mid-20th century, the island was thrust into the international limelight. It declared its independence, first from Britain in 1963 and subsequently from the Federation of Malaysia in 1965. These milestone events marked the beginning of Singapore's journey as a state in the making, signalling the rise of a modern and 'almost instant' city.

Singapore was apparently fertile ground ready to deploy new and experimental ideas for city planning and nation-building. Its 581km<sup>2</sup> represented an urban laboratory where contemporary town planning theories could be tested and implemented. In 1967, the United Nations (UN) was called in to assist with Singapore's urban renewal programme known as the *State and City Planning Project*. The UN planners identified the inadequacies of the previous 1958 plan which underestimated automobile use, depended on low-density housing, and displayed a certain Eurocentric tendency for the preservation of heritage buildings.

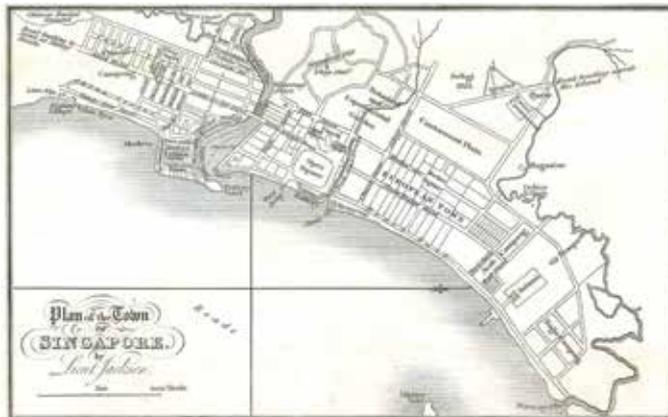
A new concept plan was devised with a pragmatic and economically-driven approach which asserted an island-wide (re) development programme to be conducted at an unprecedented scale. This brought forth strategies for spatial planning and the distribution of land use through infrastructure building, satellite town development and the building of industrial districts, high-rise social housing, transport interchanges, land reclamation, and the expansion of the city centre. With the support of the UN Development Programme (UNDP), the notion of creating a 'cookie-cutter' city on a clean slate in the shortest time possible was an indispensable catalyst in fuelling the country's insatiable appetite for modernisation.

**CLAIMING THE UNCLAIMED**

Land reclamation is synonymous with Singapore's urban development history. Since the founding of the colony, the act of altering its coastline and topography has become something very close to an obsession and certainly a regular occurrence. The Jackson Plan set a precedent when it included instructions to infill portions of swampland along the south bank of the Singapore River making up Commercial Square, which is currently Raffles Place. Although segments of the seashore had increased fractionally in the first 150 years of Singapore's history, it was very clear that the limited size of the island and its lack of natural resources were limitations to its purported post-independence advancement.

The practice of reserving land for future growth started in the late 1960s and was aimed at providing the city-state with a degree of flexibility in managing its investments by periodically releasing parcels of real estate for development. This landward-bound ambition was dependent on international markets making it susceptible to global recessions. Since that time almost 25 per cent of Singapore's total land area has been made up of reclaimed land and most of these land holdings have been used for the construction of major infrastructure projects such as airports, harbours, parks and the extension of the CBD.

The expansion of the city-centre was proposed officially in the Concept Plan of 1971. A massive reclamation exercise began from the eastern end of the island towards the southern coast of the greater downtown area. The process was carried out in consecutive phases to accommodate the time needed for the settlement and consolidation of soil. By 1985, the result of securing 360 hectares of man-made land at Marina Bay was completed. Today the new downtown is occupied by many distinct buildings



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that are owned by local and foreign developers or state investment corporations. The steady takeover of these once vacant plots of land, such as the commercial towers of One Raffles Quay or the mixed use development of Asia Square, is the physical manifestation of speculative prime property yielding to an urban form where context is overruled by economics.

**EXTENDING THE PLAN AND CREATING CONTEXT**

The densification of the Old City of Singapore has witnessed the construction of numerous high-rise buildings, many of which are now towering at heights of more than 150 metres. With at least three of Singapore's tallest buildings rising from this dense urban grain, some of the original built fabric still exists along the narrow streets and irregular sites. This gradual alteration of urban morphology has driven the physical conditions of the Old City beyond its past confines.

In 1983 the Urban Redevelopment Authority proposed an urban design plan for the new city centre. Coupled with forward-looking state-wide planning strategies, the urbanism of the city's extension was meant to deliver a thematically optimistic impression of 21st century Singapore. In what seemed like a choking, tightly-packed mélange of skyscrapers built along the Singapore River, Marina Bay was a breakaway from the stranglehold of the original downtown area. The new district was envisioned as a cluster of towers of steel and glass, purposefully built and handsomely articulated on a grid plan, where buildings would encircle

2 The 1828 Jackson Plan – National Archives Of Singapore  
3 Satellite image of Marina Bay and the greater downtown area – Planet.




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**The insatiable thirst for variety and the imbalance of architectural plurality may have culminated in a possible dilution of the local downtown vernacular, if such existed in the first place**

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Kenzo Tange, and of course the modern and postmodern classics of Paul Rudolph, Philip Johnson, John Portman, and IM Pei, to name a few. Oddly enough, importing international expertise demonstrates the dual needs of having to provide for the greater good in planning and urban design, as well as the branding of downtown Singapore. However, the insatiable thirst for variety and the imbalance of architectural plurality may have culminated in a possible dilution of the local downtown vernacular, if such existed in the first place.

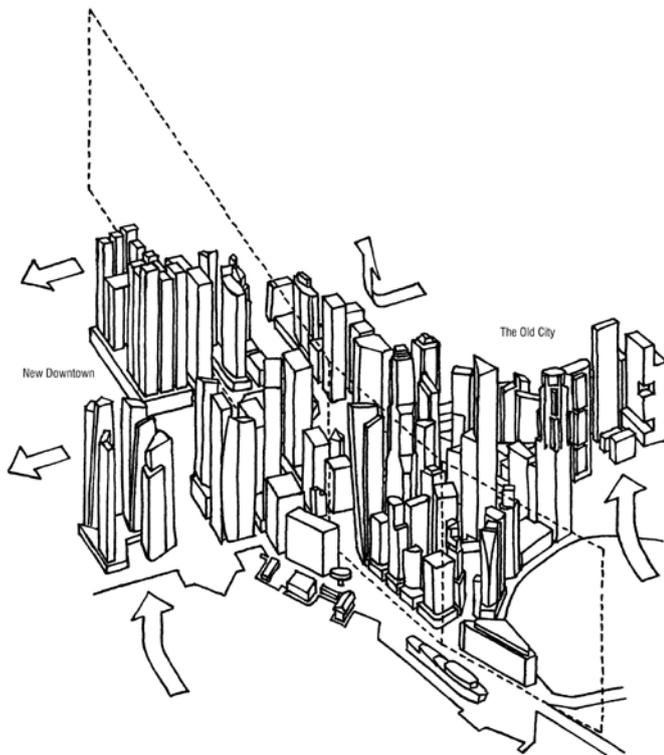
These architectural additions certainly enrich the dialogue between the on-going and ever-changing canvas of the new downtown area and the existing fabric of the Old City; and it is this pursuit of newness and the setting of gargantuan urban gestures and edifices that is now the characteristic of Marina Bay. Time will tell whether the next icon will contribute to or undermine the visitor's experience entirely; a reminder of the repetitive, relentless, and often tiresome cycle to achieve novelty.

## CONCLUSIONS

While Singapore has plans to reclaim more land in the coming few decades, Marina Bay will undoubtedly continue to evolve as an extension and expansion of the city centre. The planning authority has already encouraged more mixed use developments to be built in this area, to generate vibrant and diverse residential, retail, and commercial spaces. In essence Marina Bay is never really complete, and with hectares of unbuilt reclaimed land still on hold, it is the waiting game that sustains this urban district as Singapore's perennially new downtown. ●

Daniel Ong, architect and urban designer, living and practising in Singapore

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a large body of water reflecting these marvels.

The expansive patch of land was designed to appear as continuous as possible, making only a few references to the fringes of the Old City. The existing primary arterial roads were lengthened southwards into avenues and boulevards thereby creating regular parcels of land which were then sub-divided into smaller lots. These streets extended seamlessly over the reclaimed terrain as if to prevent any disjointed context in the urban fabric of the city when viewed from above, though where the new city started and the old ended was not clear.

Over the years, the accumulated skyline of Marina Bay and the greater downtown area has grown into what is now a collective display of architectural trophies; meticulously assembled in this gathering space some of the world's most prolific design practices have contributed buildings, from the works of American architects SOM, KPF, HOK, Murphy-Jahn, the UK's Foster & Partners and Wilkinson Eyre, to Germany's Ingenhoven and Australia's Denton Corker Marshall and Philip Cox, not to mention the Japanese contributions of Toyo Ito, Kisho Kurokawa, and

4 City model – Urban Redevelopment Authority  
5 Expanding the context between the urban form of the Old City and the new downtown. Source: Daniel Ong

# Conserving Yangon's Colonial Heritage

David Wallace Mathewson shows the importance of conservation policies to this Myanmar city's image



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Yangon was founded during the early 11th century CE in the period when the Mon ruled what is now Southern Myanmar. The earliest settlements developed around the Shwedagon Pagoda, the city's most famous monument built by the Mon kings between the 6th and 10th centuries. As it developed, the city was part of successive kingdoms until 1755 when it was conquered by King Alaungpaya of the Konbaung Dynasty, the last royal house to rule Burma prior to the British capture of Upper Burma (the Kingdom of Burma) during the Third Anglo-Burmese War of 1885.

British colonial control was initially formalised during the Second Anglo-Burmese War in 1852, when Rangoon became the capital of the newly established British Burma (Lower Burma). The city was transformed into the colony's political, economic and financial hub. It was laid out in a grid pattern on what had been marshland in the Yangon River Delta between the Yangon River to the west and south, and Pazundaung Creek to the east. This area remains the heart of the city today.

By the 1890s the British had conquered the remainder of Burma when they took control of Mandalay, capital of the Konbaung Dynasty. Upper and Lower Burma were reunified and annexed to the British Indian Empire to the west. The resulting increase in trade and commerce gave rise to wealthy suburban districts north of the city centre around the Royal Lake (Kandawgyi) and Inya Lake. Large institutions were built during this time including the Rangoon General Hospital and Rangoon College (today the University of Yangon). The city became known as the Garden City of the East due to its spacious layout, extensive parks and lakes. By the early 20th century, the city had infrastructure development on par with European capitals such as Paris and London.

1 Yangon/Rangoon and Environs 1911 map, Flickr Creative Commons 2019

During the Second World War the city was occupied by the Japanese and was heavily damaged. In 1945, after it was retaken by the Allies, Yangon became the focus of pro-Independence movements. This culminated in the independence of the Union of Burma in 1948 with Yangon as its capital. It remained the capital until Naypyidaw, 320km to the north, was established in 2005, but it remains the economic and commercial hub of the country, as well as its largest metropolitan region with over 7 million inhabitants.

Due to its colonial history and location as a major hub of the British Empire in Asia, the city developed into one of the most spectacular and varied cityscapes, with impressive Buddhist temples like the Shwedagon and Sule Pagodas, Anglican and Catholic cathedrals, Protestant churches, an Armenian church, numerous mosques, Hindu, Zoroastrian and Sikh temples, even a Jewish synagogue. Yangon retains one of the largest and best preserved colonial architectural ensembles anywhere in the world, although it is in a precarious state, with many buildings in an advanced state of decay, others dilapidated, abandoned or ready to collapse. This risk from years of neglect places many buildings in danger due to the intense pressure from new development taking place all over the city. The rate at which many historic buildings are being demolished amidst the rise of new developments is alarming.

Within this context, the Yangon Heritage Trust (YHT) was founded in 2012 by Dr Thant Myint-U from a group of like-minded architects, historians, planners, business people and other concerned members of the community wishing to preserve the unique architectural legacy of the city. The notion of a heritage organisation was initially developed through dialogue between Dr Thant Myint-U, the Chief Minister of the Yangon Region and the then Minister of Industry, where the YHT outlined the urgency of the situation. A conference in 2012 entitled *Towards a Conservation Strategy for Yangon in the 21st Century* brought together local, national and international experts, NGOs, community leaders, and government officials, marking the beginning of the trust's activities. Since that time the YHT has



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broadened its activities to liaise with the local planning process and further ensure the protection of architectural heritage in Yangon.

### URBAN HERITAGE PLANNING

Currently there are no formal comprehensive legal frameworks, processes or guidelines for the management of Yangon's heritage affected by new development. However the YHT recognises the unique opportunity to draft the first planning controls and incorporate best practices from cities with similar heritage assets. The organisation works closely with the city's development authority, the Yangon City Development Committee, the Department of Human Settlements and Housing Development, national and regional ministries, and the Association of Myanmar Architects (AMA) to undertake its work. The *Protection and Preservation of Cultural Heritage Regions Law* of 1998 provides the primary existing statutory cultural heritage protection, together with the *Antiquities Act* of 1957. Both were designed for ancient monuments, ruins and archaeological sites such as those of Pagan (Bagan). The 1998 law does not include the breadth or flexibility required to ensure the proper conservation of the city's diverse and evolving urban architectural heritage, and only applies to structures more than 100 years old, meaning that much of Yangon's interwar heritage does not fall under the provisions of the legislation and remains unprotected.

### THE YANGON URBAN HERITAGE CONSERVATION LAW

However in 2013 the YHT was tasked with assisting in the drafting of the country's first urban heritage and conservation law,

which was submitted to the regional government later that year. It allows for the urban heritage structures and buildings, parks, streetscapes, conservation areas, moveable objects and archaeological sites to be comprehensively designated as protected components with no limitations of age, acknowledging the city's urban heritage as continually developing and of diverse importance.

### THE YANGON CITY DEVELOPMENT COMMITTEE

The economy of the country greatly improved after years of decline with the implementation of economic reforms instituted by the Tatmadaw (Burmese Military), following the 1988 uprising. This resulted in a surge of new development in Yangon's historic centre, with a number of significant heritage properties demolished. In 1996 an official list of 189 heritage buildings was drafted by the Yangon City Development Committee (YCDC) in response to these losses. This list continues to provide the only statutory protection for heritage buildings in the city today and the YHT sees it as an important basis for future heritage conservation planning. It is hoped that the list will be incorporated into the *Yangon Urban Heritage Conservation Law* and be expanded to include conservation areas, streetscapes, neighbourhoods and districts that have collective heritage value. YHT's work illustrates the value of thousands of heritage structures in the city, while demonstrating that an area-based approach to protecting districts and neighbourhoods, as well as individual buildings, is needed to properly manage Yangon's heritage.

### THE YANGON ZONING PLAN

A zoning committee was established in 2013 by the YCDC to consider comprehensive height limits and a zoning plan for the wider city. YHT was included in the committee along with the Department of Human Settlements and Housing Development, the Ministry of Science and Technology, the AMA and the Japan International Cooperation Agency (JICA). Implementing a height strategy to maintain the low-rise character of the historic city centre is seen by the YHT as central to discouraging high-rise development in the small scale, densely developed downtown neighbourhoods. A number of business figures and government officials also support the YHT's Paris Model, where Yangon's central core is preserved with high-rise development pushed to surrounding districts.

### NATIONAL BUILDING CODES

A joint initiative between UN-HABITAT, the Myanmar Engineering Society and the Ministry of Construction resulted in the establishment of a national building

2 Yangon Railway station

3 View over the historic centre looking south towards Yangon River and Sule Pagoda.

code led by architects, engineers, government and professional associations. The development of these long-needed regulations incorporates YHT advice, which is a key stakeholder in the process still in its early stages. The YHT has been tasked by the Myanmar Investment Commission (MIC) to draft a series of principles for investment and development in areas with significant heritage throughout the country. These standards will form part of the formal planning approvals process whenever new development is considered by the MIC. This initiative has been designed to guarantee that the unique urban heritage of the city is given due consideration and preserved for future generations.

**CONSERVATION PROJECTS**

A number of pilot projects overseen by the YHT are currently under way in Yangon, to demonstrate best practice for the adaptive re-use and renovation of historic buildings. They include:

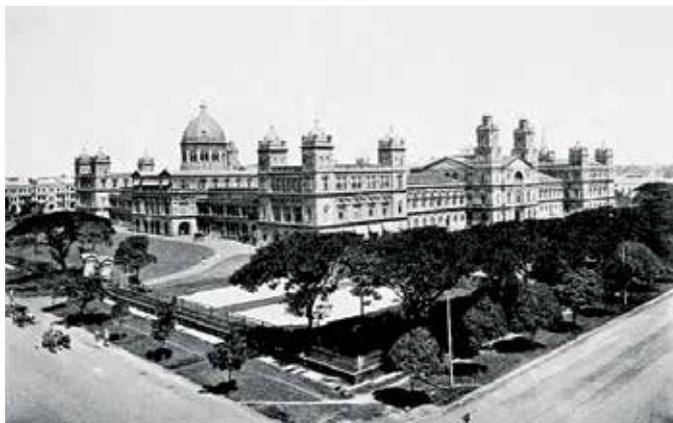
- the restoration of an historic building at 491-501 Merchant Road, with a mix of commercial and residential uses, undertaken by the YHT in partnership with the Prince’s Foundation for the Built Environment and funded by the Canadian Department of Foreign Affairs, Trade and Development, as well as the Alphawood Foundation
- Yangon General Hospital, sensitively renovated and restored
- the conversion of the historic courts building (the New Law Courts) into a new hotel designed by Purcell to sympathetically conserve the important historic elements of the building
- the adaptation of the Former Reserve Bank of India into the country’s first stock exchange
- the State Fine Arts School (formerly the Chin Song Palace), one of Yangon’s most ornate and impressive heritage building
- the renovation of U Thant House, the former residence of the UN Secretary General
- the restoration and conversion of Waziya Cinema, the oldest film theatre in the city into a modern theatre.

Formerly the Ministers’ Building and Myanmar’s parliament, the Secretariat Building is currently undergoing a sensitive historic conservation and restoration programme. Funded by the Conservation Management Plan (CMP), the iconic building, one of the largest and most visible in the city, is being overseen by the Secretariat Conservation Trust (SCT) and undertaken by Edinburgh-based conservation consultancy Simpson & Brown for the Anwar Group, leaseholder of the site. The client has worked closely with the heritage consultants and the YHT to ensure a high standard of work, given that the building is one of the most historically significant in the city. Initially built by the British in the late 1800s and enlarged in 1905, it was the seat of government until the legislature moved to Naypyidaw in 2011. It suffered serious damage in the 1930s when the central dome and 10 of 18 towers collapsed, and was in 1947, the site of the assassination of General Bogyoke Aung San, the father of Modern Myanmar (and of current State Councillor Aung San Suu Kyi).

**CONCLUSION**

The restoration and renovation of the historic Secretariat Building represents an important moment in the history of Myanmar. The former parliament and colonial legislature building stood at the centre of Burmese politics for nearly 130 years and witnessed a number of dramatic episodes in the political life of the colony and later Union of Burma. The building’s conversion into a national museum will ensure that the building is preserved for future generations while safeguarding the building’s place at the heart of national life. This project is also emblematic of the wider conservation efforts of a number of stakeholders in Yangon, including the YHT, to preserve the city’s remarkable historic architecture and urban heritage and to return the city to its rightful place as one of the great cities of Southeast Asia. ●

David Wallace Mathewson



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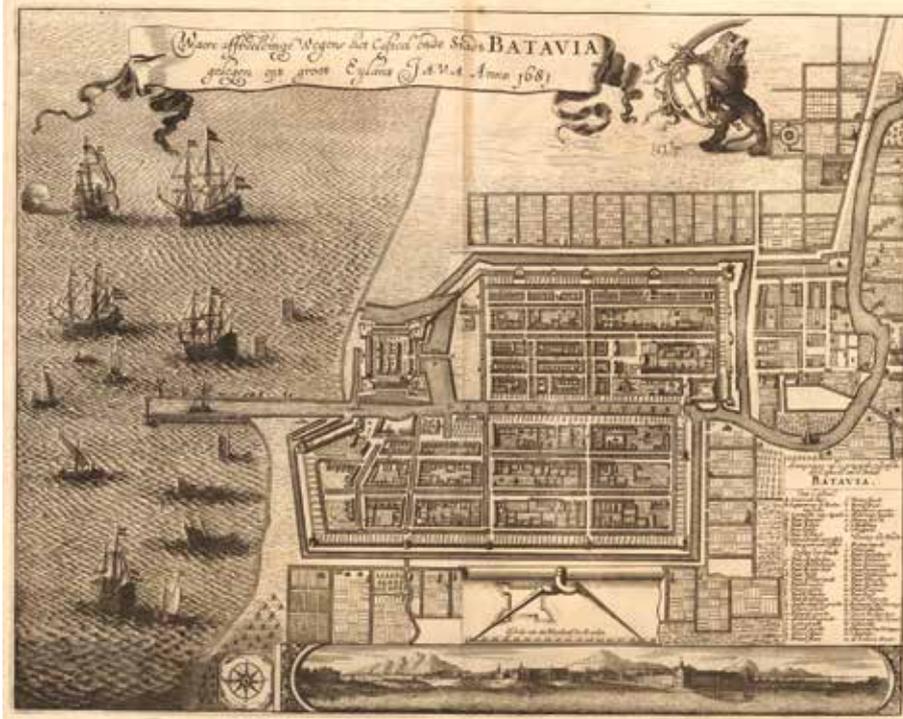
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**An area-based approach to protecting districts and neighbourhoods, as well as individual buildings, is needed to properly manage Yangon’s heritage**

4 Historic view of the Secretariat Building  
 5 The Secretariat today, undergoing restoration  
 6 The High Court building on Pansondan Street. All photos DW Mathewson

# Jakarta: A Case Study for Flood Challenges

David Wallace Mathewson discusses how this Indonesian city responds to climate change



## ENVIRONMENTAL CHALLENGES

The city lacks effective flood control, partly due to upstream deforestation, resulting in flash floods downstream in the city. Jakarta's numerous waterways flow northwards into the Java Sea and have historically been losing their capacity to carry flood waters as a result of long-term informal development along riverbanks and canals which has caused them to narrow, the dumping of refuse into the water causing a further reduction in capacity, and the uncontrolled growth of water hyacinth, which slows water flows and allows silt to gather. If these problems were not enough, the ability for the ground in Jakarta to absorb water has also been reduced due to widespread urbanisation and deforestation, made worse by a lack of green space in the city and uncontrolled development on the urban periphery. There has also been a failure by the city administration to invest in infrastructure over several decades, illustrating the fact that problems of flooding have been plaguing the city for centuries.

## HISTORIC DEVELOPMENT

Although Jakarta's urban history dates back to the 5th century, the Dutch were responsible for the layout of the surviving historic centre. This area, called Kota Tua (literally Old City), Batavia under the Dutch, was capital of the Dutch East Indies from 1619 until 1949. It was laid out in 1617 using the *Waterstad* typology of regularised urban blocks and canal systems loosely based on the port cities of the Netherlands.

Jakarta has been described as the prototype Indonesian city that would define the character of cities in Indonesia and be emulated elsewhere. By the 1700s, large cities across the archipelago, including Jakarta, developed central areas modelled on idealised Dutch ports with canals, churches, row houses and city walls. However this European model was alien to the Javanese landscape. The canals that were intended to draw water away from the city and into the sea, quickly became slow-moving, stagnant and malaria-infested, with tall, narrow houses ill-suited for the tropical climate. Despite the city's nicknames as the Jewel of Asia, Pearl of the

**J**akarta is an emerging global city, one of the world's largest urban agglomerations, with a metropolitan population of approximately 30 million people. The largest urban region in Indonesia and Southeast Asia, it is the capital, business and economic centre of the world's fourth most populous nation, set within an archipelago of 17,000 islands. The city is located on the north coast of Java, an island inhabited by over 141 million people, 57 per cent of the country's 270 million inhabitants. It continues to develop rapidly while facing significant challenges to sustainable development.

Jakarta's accelerated urbanisation and growth have resulted in large-scale infrastructure problems, which while acknowledged and analysed by the government, are experienced regularly and most directly by the public. These challenges include urban sprawl, traffic congestion, the proliferation of informal settlements, extensive flooding, a lack of potable water and solid waste management systems, as well as some of the most rapid land subsidence in the world.

Jakarta presents an informative case for how the city's planned flood and water infrastructure interventions respond to some of these key challenges. Successive governments in the city have been grappling with these problems, although little progress has been made until relatively recently, when they began dredging canals and rivers, embarking on the Jakarta Coastal Defence Strategy (JCDS) and the subsequent National Capital Integrated Coastal Development Master Plan (NCICD), which will be crucial over the next decades. However according to recent studies, if Jakarta does not address the development problems and disaster risks it faces, significant portions of the city will end up permanently under water in the near future.

1 Map of Batavia (today's Jakarta) in 1681. Source: British Museum

Orient or Queen of the East, its beauty had disappeared by the time the Dutch colonial government decided in the early 19th century to relocate the administrative centre to a new garden district called Weltevreden, 4km to the south.

Old Batavia became neglected as Europeans sought the greener open spaces of Weltevreden, away from the compact and poorly drained old Dutch centre. The new district was situated at some distance from Batavia because swampy ground around the old city and a dense network of indigenous villages surrounding it made the development of suburbs impractical. Weltevreden was developed far enough from the old city that the smells of the canals were undetectable. In addition, drinking water was more easily sourced as wells did not suffer from salt water intrusion. This area emulated the then current trends in Europe, with the building of low, horizontal, neoclassical buildings and later Javanese-Dutch hybrid bungalows, that took account of the local tropical climate. The old city to the north was gradually abandoned as Dutch-style port cities fell out of fashion.

This led to the development of what initially was a linear city where urban development flanked the main north-south trunk road connecting Batavia to Weltevreden. This strip had by the mid 19th century developed into a dumbbell shape with the old and new centres at either end. Later in the 19th century the areas of development flanking the trunk road gradually filled with *kampungs* or *desas* (villages) in a new dumbbell-infill pattern which came to dominate the morphology of Indonesian cities that remains typical today.

This model of development and the resulting disconnection from the historic port have presented a challenge for planners, officials and investors seeking change, as the city lacks a definable character, image, and spatial or visual relationship to the sea. What followed was a Post-War era of isolationism, virtually devoid of waterfront development, apart from the 1960s Ancol leisure centre, until the 1980s when the first new residential developments were built at Muara Baru and Pluit. These luxurious, gated waterfront communities were segregated from the existing fishing communities and surrounding *kampungs*.

Since the mid 1990s, there has been a renewed interest among citizens groups and municipal conservationists to return to the northern coast, where Jakarta began. A series of sporadic efforts by NGOs and the municipal authorities have renovated historic buildings from the Dutch colonial era and regenerated historic neighbourhoods for tourism, with limited success.

**HISTORIC RESPONSES TO FLOODING**

A European urban model was imposed on an alien landscape where the Dutch controlled coastal cities (e.g. Batavia, Surabaya) inhabited by Europeans and Chinese immigrants; the latter dominated the commercial activities, and the former the administration and military. Until the 19th century, the Javanese were considered hostile and too dangerous and unskilled to be allowed to inhabit the European enclaves, remaining in their traditional cities elsewhere, or *kampungs* and *desas* around Batavia. Thus under colonial rule, segregation was a spatial tool utilised by the authorities. Those on the lowest economic or social rung of the ladder were left with the worst problems, while the rich and well-off moved away from areas of flooding. This pattern is apparent today with large areas of *kampungs* clustered around waterways and flood-prone land.

Jakarta is a magnet for rural migrants seeking jobs and better opportunities, who flock to *kampungs* susceptible to flooding. The worst hit areas in recent major floods were the districts along the riverbanks and canals, areas with higher concentrations of poverty. Over the past 20 years, the city has flooded approximately once every five years. During these flood events, around a third of the city's land area is inundated, with large-scale displacement and even fatalities. Following the 2007 floods, evidence revealed by Indonesian and Dutch scientists suggested that the primary causes for inundation was rapid



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land subsidence along the city's northern coastline, with areas further south sinking less rapidly.

**CURRENT RESPONSES TO FLOODING**

The government of Indonesia and Jakarta in partnership with the Netherlands and several Dutch engineering consultancies is currently embarking on a bold response to chronic problems of flooding and land subsidence. The JCDS of 2011 and the subsequent NCICD set along the entirety of Jakarta's northern coast aim to transform a large portion of the city into an international waterfront destination similar to those in New York, Singapore and Hong Kong. Since Jakarta spatially turns its back to the sea, this project aims to change that relationship by creating a new coastal frontage, not unlike the spatial achievements of Barcelona in the late 1980s or Lisbon since the 1990s. This ambitious strategy seeks to provide comprehensive flood and sea defences along the city's entire coastline, while implementing new development in the form of land reclamation. This will effectively create a new face for Jakarta, re-imagining it as a waterfront city and delivering sustainable drainage systems and other climate change mitigation measures. The new island developments will protect Jakarta from flooding and deliver housing to meet demand and future growth (Jakarta's metropolitan population is projected to reach 70 million by 2050). The government hopes this project will

2 Kota Tua, former Stadhuis City Hall  
3 Kota Tua, Museum of Fine Arts & Ceramics, Formerly the Court of Justice Building completed 1870. All photos DW Mathewson



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offer a new image and character for the city, encouraging visitors and international investment, potentially forming a model of development for cities facing similar challenges.

The NCICD calls for blocking off the Bay of Jakarta from the sea, by constructing a 25km long seawall, behind which the bay will be converted into a sealed reservoir regulated to remain below sea level, allowing for controlled drainage of the city. For this to be possible, the world's largest pumping station is planned to draw water out of the reservoir and into the sea. A series of associated improvements to the existing flood infrastructure and drainage system, including the restoration of polders, dredging of drainage canals, and flood protection walls, are included.

Within the sealed reservoir, vast land reclamation projects will provide a new central business district (CBD), residential areas, a new harbour and airport, accommodating an additional 650,000 inhabitants and 350,000 new jobs, estimated to cost

4 Kota Tua link to Weltvreden. Image based on Google Earth with addition by DW Mathewson

US\$40 billion. Implementation will be undertaken in three phases with completion of the sea dike set for 2022. The city government argues that the high cost will be offset by increased land values and associated economic benefits. Despite this, civil society groups and residents affected by these plans have raised strong objections, specifically to the lack of public consultation and opportunities for citizen involvement in the planning process.

However, the type of developments envisaged do not appear to address the needs of the majority of the city's residents. Much of the imagery of the proposed island developments appears geared towards international investors or middle to upper class Indonesians, with a character more akin to the developed rather than the developing world. While some efforts seem to have been made to incorporate indigenous building designs for targeted coastal communities, most of the island masterplans are characterised by international-style high-rise developments, low-rise detached villas or shop houses. No efforts seem to have been made to respond to the city's other pressing issues beyond flooding and land subsidence, namely a lack of available land tenure and crucially, affordable housing. ●

David Wallace Mathewson

## Recent Urban Development in Jakarta and Palembang

Priscilla Epifania Ariaji relates the effects on the two cities of hosting the 2018 Asian Games

**D**espite the obvious urban challenges of flooding, heavy traffic and rapid urbanisation in the Indonesian capital of Jakarta over several decades, major public investment is taking place in transport infrastructure, public realm improvements and large-scale urban developments around the revitalisation of sport venues. The goal is not only to provide the country with sporting venues capable of hosting international events, but more importantly, to generate revenue for the Jakarta government while providing much-needed sport and leisure spaces for inhabitants of the city seeking to pursue an active and healthy lifestyle.

Indonesia was chosen in April 2014 by the Asian Olympic Board as the host nation for the 2018 Asian Games, with Jakarta and Palembang in Sumatra as

1 Jakarta's Main Stadium, Gelora GBK interior. Source: gbk.id



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YEAR 1962

YEAR 2017

ASIAN GAMES 2018 PLAN



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joint host cities, as both locations already have extensive sports facilities built for similar events – the Jakabaring Sport Complex in Palembang hosted the 2011 Southeast Asian Games. In anticipation of budget constraints, the Indonesian government chose to optimise resources in each city by renovating as many existing facilities as possible, in line with current requirements and standards.

The 18th Asian Games were held from 18 August to 2 September 2018 and included 28 Olympic and 6 non-Olympic sports. Forty-five countries, 15,000 athletes and more than 30,000 officials participated in the events, competing in 462 games with more than two million viewers and 7,000 local and international members of the media in attendance. The Asian Paralympic Games followed the main events and took place at the same venues in both cities.

**PREPARING THE MAIN STAGE IN THE CAPITAL**

In early 2016, President Joko Widodo (Jokowi) of Indonesia gave the mandate to the Ministry of Public Works and Housing (PUPR) to carry out the renovation of relevant sporting venues in the Gelora Bung Karno (GBK) Sport Complex, in Senayan, Jakarta, and the construction of the Athletes' Village in Kemayoran, Jakarta and Jakabaring, Palembang.

In order to carry out the President's decree, the ministry established the special taskforce of AG XVIII-2018 Infrastructure to supervise the work. Working closely with the taskforce were the Directorate General of Human Settlements and the Directorate General of Housing Provision as the executing government agencies.

Jakarta's main sporting venue was the Gelora Bung Karno (GBK) Sport Complex. Other venues built beyond that were the Velodrome, Equestrian Ground and International Athletes' Village. Temporary venues were built in Ancol, North Jakarta, to host water sports, and additional smaller existing venues in the city were also used.

The Games were a pretext for the government to develop new infrastructure and public facilities, implement urban regeneration and enhance the built environment in many neighbourhoods, especially around the GBK complex. Apart from renovating it, new public transportation infrastructure was built and existing access to it improved. A new high-speed airport Skytrain was built to deliver passengers from Soekarno-Hatta International Airport to BNI-Dukuh Atas station in the heart of the city. This station was integrated with the existing bus system to ensure wider access. To support the Asian Games, the main bus stops along the Sudirman-Thamrin main thoroughfare through the city's central business district, were renovated, while the public realm surrounding the GBK complex was upgraded, and

pavements along Sudirman-Thamrin and in the old colonial city centre in Kota Tua and Menteng to the north were widened. Pedestrians and cyclists' experiences were vastly improved with new landscaping and paving, providing access for the disabled, as well as the addition of street furniture and signage to improve the appearance of public spaces, and enhance the experience for tourists arriving for the Games.

**RENOVATION OF THE GBK SPORT COMPLEX**

GBK is the national sport complex named for Soekarno, Indonesia's first President, and it was built between 1959 and 1962 to host the 1962 Asian Games. During the Cold War era, its construction and development was supported by a soft loan and with engineers from the Soviet Union. Meanwhile, the United States also provided support for the construction of nearby motorways.

Soekarno chose the site to link strategically with the central city's expansion southwards and the first satellite city in nearby Kebayoran. The buildings in the GBK complex were designed by Russian architects and engineers, with the main stadium ring roof being the first avant-garde structure in the country. The development of GBK was a major milestone for such a young country in terms of hosting a major international event, new architectural icons and new urban planning in greater Jakarta.

Originally, the site of the GBK covered 279ha, although this was reduced to 137ha as land was sold off for commercial development. Currently the GBK consists of 13 sport venues and other supporting facilities, and is significant as the primary venue where opening and closing ceremonies, as well as prestigious matches, are held.

In order to update the GBK complex, the PUPR took steps to appoint the most

2 The GBK Sport Complex, Jakarta Masterplan, Source: Dirjen Cipta Karya



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qualified Indonesian professionals to produce high quality work. The renovation of the GBK also involved cooperation with the Indonesian Institute of Architects (IAI). A team of architects utilised a design and build system as a new approach to all of GBK's rehabilitation and development.

Eight principal architects were chosen by the IAI to work on the renovation and rehabilitation of the main buildings in the GBK complex. Six of the buildings were registered as heritage buildings, and therefore the work required the careful treatment of the buildings' fabric and sensitive design considerations. A key challenge for the architects was finding a balance between enhancing original features while providing a contemporary aesthetic. The renovation of these buildings also had to comply with international sporting events standards, providing disabled and VIP access, as well as incorporating current safety standards.

#### PREPARING PALEMBANG 2018

Although Palembang had previously hosted an international sporting event, the city did not have a public transportation system sufficient to meet the needs of such an event. Only when it was chosen as a host city for the Asian Games was the city government finally spurred on to build a public transportation system. So a Light Rapid Transit (LRT) system, the first in Indonesia, was established within a short time, covering 24.5km and serving 13 stations. The South Sumatra or Palembang LRT was opened by President Jokowi in mid-2018, about a month before the games began. This LRT links Sultan Mahmud Badaruddin II Airport in the west of the city to the Jakabaring Sport Complex in the east. Athletes and delegations, as well as spectators, could reach the main venue directly from the airport.

The Jakabaring Sport City (JSC) is a 325ha sporting complex located in Seberang Ulu, 5km from the city centre. It was built originally for the 2011 Southeast Asian Games and in order to host the 18th Asian Games, some renovation and new development was required. The main stadium in the complex, Gelora Sriwijaya also known as Jakabaring Stadium, was renovated with façades inspired by local Palembang woven cloth patterns. Other sports facilities were also refurbished. A new venue was built to host jet skiing and other water sports, plus an athletes' village.

#### CONCLUSION

The total cost for the construction of facilities and infrastructure was more than US\$ 2.4 billion and the operational cost is around US\$ 509 million, according to Bappenas (the Ministry of National Development Planning). They were seen to be a worthwhile investment by the government, given the benefits to the wider city regions in terms of new infrastructure and increased economic output: the Ministry of Tourism reported an increase of 12.3 per cent in foreign visitors over the previous year, and hotel occupancy rates also increased. Palembang in particular became a new tourism destination in Indonesia, with more

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**The Games were a pretext for the government to develop new infrastructure and public facilities, implement urban regeneration and enhance the built environment in many neighbourhoods**

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visitors than ever before. In total, around 154,000 foreign tourists were recorded, not including 16,000 athletes and associated officials.

The 18th Asian Games were successful in promoting Indonesia as a destination for international games and providing new or improved local infrastructure. However the tangible benefit for residents and workers in both Palembang and Jakarta is new access to international standard sports venues, an improved public realm and open spaces, public transport and other facilities that they can use on a regular basis. Because of its strategic location and flexible capacity, the GBK complex has been highly successful in hosting festivals, concerts, religious events and political rallies. In addition, the City Forest inside the GBK complex was recently developed to function as a public open space, through a joint collaboration with a private hospitality company who will manage and develop around 3.2ha of the 4.5ha available. It is hoped that this kind of large-scale urban development will be replicated elsewhere in Indonesia in spite of the vast array of urban challenges in Jakarta, Palembang and other Indonesian large cities. These efforts contribute in a small way to the improvement of urban conditions across the archipelago. ●

Priscilla Epifania Ariaji, architect, committee member of IAI, lecturer and researcher at Tarumanagara University, Jakarta and programme director at Jajak, Indonesia

3 Gelora Sriwijaya Stadium, Jakabaring Sport Complex in Palembang. Source: Priscilla Epifania Ariaji



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# Urban Conservation in Hong Kong

Dawn Hayunga Shapiro argues for the reconciliation of heritage preservation and new development

**T**he people of the Hong Kong Special Administrative Region have recently begun what looks to be a protracted fight for their civil rights, putting the political future of the autonomous, self-governing territory on the south coast of China into question. As an expat living in Hong Kong, I have observed firsthand the extremes that define this vibrant city where many people live in ‘coffin apartments’ or ‘cage flats’ and in conditions of acute poverty, often in close proximity to buildings which house millionaires. On many Saturdays and Sundays, I have seen the few parks and public spaces of the city fill up with Philippino and Indonesian domestic staff on their only days off, congregating in the few spaces available to them in this most dense of cities.

To understand Hong Kong, and the importance of open spaces to the character and sense of place of local communities, one must understand the premium placed on such spaces in a city with some of the highest real estate values in the world. Hong Kong has developed over recent decades into one of the most expensive places to live on earth, like Paris and Singapore, according to the Economist Intelligence Unit’s *2019 Worldwide Cost of Living Survey*. Hong Kong struggles, as most large cities do, with buildings falling into decay and newer buildings popping up everywhere, whilst historic preservation is overlooked in favour of market returns. Despite this, the importance of historic conservation is beginning to be recognised by a few government departments, looking at preserving the heritage of the city and at the same time embracing the contemporary city and planning for its future.

In May 2018, the long-anticipated opening of the converted former Central Police Station (CPS) finally took place. It was renamed Tai Kwun Centre for Heritage and Arts, *tai kwun* meaning big station in Chinese. For the past 11 years, after being

awarded the project by the government’s Advisory Committee on Historic Buildings, the Hong Kong Jockey Club worked tirelessly to bring it to fruition. The Heritage Office governs this committee. The project was initiated with Heritage Impact Assessments undertaken in 2007, whereby government-owned historic buildings could be adaptively reused by non profit organisations (NPOs). Their goals were to preserve historic buildings while utilising them for publicly accessible functions. Getting the public involved ensured a significantly greater degree of interest in the project and value to the local community.

The CPS compound which covers 27,870m<sup>2</sup> of land, was constructed in several phases between 1864 and 1925. Conservation architects Purcell, executive architect Rocco Design Architects Ltd. and architects and masterplanners Herzog & de Meuron were brought together to unite the 16 restored buildings and the two newly built facilities into one cohesive development. While essentially a historic conservation project, not all buildings were retained and some that were not considered of heritage value, were not restored. The overall design aim was to return the compound to something approximating the appearance and character of the original design.

## TOURING THE CPS COMPOUND

Entering the compound through the pedestrian walkway brings you into the Parade Ground. This grand space is now used for art installations and traditional Chinese cultural celebrations, depending on the time of year. During the day, it is a well-traversed space by both locals and expats on their way to work, and

1 Tai Kwun: former Central Police Station’s Parade Ground



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numerous tourists lining up to engage in the history of Hong Kong. The Parade Ground houses a number of restaurants and shops catering to visitors. A unique element retained is a historic mango tree, located near the Armoury in a central location which provides a focal point for local community memory. All the vegetation and plants inside the development are labelled for visitors' information. Just off the Parade Ground are the Married Inspectors quarters that give a sense of how the workers employed on the site lived when it was in operation.

QR codes are posted throughout the historic compound to provide information for people on self-guided tours. Further inside the compound, in the Prison Yard area, visitors can access former prison cells and communal halls for eating and other functions, where the day-to-day lives of prisoners and related histories are exhibited. As the visitor continues towards the Prison Yard, the new Jockey Club buildings come into full view. Inside this is a gallery space and an open air presentation area where free films are screened on Sundays and which can be rented out for private events. The Prison Yard is also open and has a space for gatherings.

The Tai Kwun Centre has a programme to educate and promote the value of historical preservation within a modern city. One of the organisation's key aims has been to show, through the revitalisation of the historic prison, how heritage and contemporary uses work well together while providing a much-needed public space for the inhabitants of Hong Kong.

Tai Kwun allows visitors to roam freely throughout the day and night, and locals are as prevalent as tourists, a sign that the old prison remains an important place for local people. A variety of seating ensures that adults, families and single people are accommodated all in one place, among the historic buildings and contemporary spaces of the development. The architects and planners, along with the developer, the Hong Kong Jockey Club, have set the bar high for future public space projects. The use of high-quality materials, sensitive historic conservation and the integration of contemporary architecture has ensured the scheme's success, which is apparent in the large numbers of visitors present on most days of the week.

#### HERITAGE VS. NEW DEVELOPMENT

Although the Heritage Office has a number of buildings listed for inclusion in similar high-profile projects, it remains an alarming fact that many historic buildings are privately owned and poorly conserved. Due to lax planning controls, even if a building is considered of historic value, a private owner can decide to demolish it and build a luxury tower. The value of land in Hong Kong is so high that financial returns matter more than historic value. Unless a structure is declared a monument, it is not safe from demolition.

2 Barrack Block and  
Armoury  
3 Former Central  
Magistracy, part of the  
Tai Kwun complex



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Many organisations promote the heritage and restoration of historic buildings in Hong Kong: for example, one of the government's legislative acts in May 2001, was to establish the Urban Renewal Authority (URA) with the objective of implementing the Urban Renewal Strategy adopted by the territorial government. The authority works toward a 'people first, district-based, public participatory' process of urban renewal, and has a broad scope of responsibility. It not only works on new development projects that incorporate sustainable buildings with intelligent technologies, but liaises with property owners to improve existing buildings and try to prevent building decay. The authority is under a great deal of pressure to start doing more, so it has reached out to educate developers and building owners on how to make existing buildings more efficient and remove apartments that have been subdivided into cubicle flats or cage apartments.

In 2009, the URA also opened the Urban Renewal Discovery Centre (URDC), where the community can learn what the URDC has discovered and what it is doing to make the city a better place to live. It has created full-sized replicas of cubicle flats, cage apartments, capsule flats, coffin apartments and cocklofts, for people to better understand the affordability challenges in Hong Kong's real estate market. The organisation also reclaims unused or abandoned apartments and buildings for redevelopment into new living accommodation.

Other high profile urban development projects by the URA include Mallory Street/Burrows Street, a project housed in a renovated historic structure and designed as a platform for exchange and interaction by the comics industry, which was completed in 2013; Pak Tsz Land Project, a park and stop on the Dr Sun Yat-sen, a location for revolutionary gatherings in 1911 which figures prominently in the history of China's first republican

revolution, and was completed in 2012; and the Central Market Project to be completed by 2022, a renewed historic market building in Central Hong Kong, which preserves the historic building, includes opening up some of its walls to increase accessibility and permeability, and will host cultural and retail facilities.

The Pak Tsz Land Project represents an important asset for my own local neighbourhood: a hidden gem within the Mid-Levels. Locals describe it as a secret garden because it is one of the few open spaces and offers a retreat from the ever-present construction and bustle of central Hong Kong. The park includes pavilions, seating, planting and shade from large trees, as well as a children's playground and is a vast improvement on the site's former industrial uses.

On the other hand, a number of large-scale urban development projects have fallen short of what they promised the public for their neighbourhoods, for example new facilities, quality public open spaces or leisure destinations; many are given over instead to expensive restaurants, hotels or upscale shopping, out of reach of many locals.

### THE FUTURE

As the Tai Kwun Centre enters its second year of operation and with its level of public exposure, Hong Kong needs to reach out

and better integrate its urban history with its plans for the future development of the city. There is hope that the government will better ensure that its heritage is preserved amidst ongoing urban development, but more projects like Tai Kwun will be needed. The people of Hong Kong are looking to the government to enable changes to the planning system to preserve historic heritage while ensuring high quality developments deliver real benefits for local communities and deal with the lack of affordable housing. Amid these everyday problems, the world is waiting to see what will happen in Hong Kong as the months go on and there is no sign that the protests will cease. ●

Dawn Hayunga Shapiro, architect and urbanist based in Hong Kong

# The Next Big Metropolis in the Philippines

Jennifer Chua describes the development of a counter-magnet to Manila



**M**etropolitan Manila in the Philippines, one of the most crowded city regions in the world, has a population density of over 20,000 inhabitants per km<sup>2</sup> and a population of nearly 23 million people. As population growth continues to intensify, sustainable development will depend increasingly on the ability of cities to manage urban growth, particularly in places where most of the rapid urbanisation is expected to take place.

1 An artist's vision of New Clark City. Image courtesy of BCDA

Rapid urbanisation combined with a lack of formal planning has led to stresses on key infrastructure and public services, as well as environmental, health and social challenges. Due to its geographical location within the Pacific typhoon belt and the volcanic Ring of Fire, the archipelago is highly susceptible to geophysical



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and hydro-meteorological threats. These natural hazards of seismic activity and extreme weather events add to the vulnerabilities and challenges facing Manila.

The urban landscape of Manila is characterised by formality and informality: scattered, disconnected and unplanned developments, set amidst the formalised planning of international style luxury developments and middle-class housing estates, some of which are exclusive gated enclaves. This built environment is set within the context of severe annual flood challenges, increasing climate change risks, an ever-growing urban population and chronic under-investment in road infrastructure and public transport systems, which are needed to combat some of the world's worst traffic congestion. Much more investment in infrastructure and public services is needed to improve the quality of life of city residents and workers.

The Philippines, through public-private partnerships, is developing its next big metropolis in response to the challenges facing Manila as well as to more equitably distribute economic benefits across Luzon, the country's most populous island inhabited by over 53 million people. The Central and Northern Luzon region presents an opportunity to design a new urban growth centre to optimise the potential of nearby provinces and address the major challenges of metropolitan Manila. By undertaking this long-term strategic development, it can also enable older cities to embark on their own urban renewal and redevelopment proposals, and empower them to develop into more liveable and competitive centres.

### A CLUSTERED APPROACH

The Pampanga Megalopolis masterplan development, designed by Palafox Associates for the Provincial Government of Pampanga, is expected to function as a counter-magnet to metropolitan Manila. With 218,100ha of land and comprising 23 cities and municipalities, the rising Pampanga megalopolis will be three times the size of Singapore and twice that of Hong Kong.

Composed of various metropolitan areas, Pampanga has adopted a clustered approach rather than focusing on any single city in order to better distribute the benefits of development while allowing for a less dense urban region where extensive green open spaces will highlight the island's natural environment and stunning topography.

One of Pampanga's growth strategies is improving connectivity through existing infrastructure such as Clark International Airport, North Luzon Expressway (NLEX), and Subic-Clark-Tarlac Expressway (SCTEX), including the proposed growth corridors that will link various business opportunities and develop a more cohesive transport and logistics network.

Other connectivity measures include a bus rapid transit (BRT) system that will connect Clark Airport to other stations.

The BRT will reduce the number of vehicles, thereby reducing traffic congestion in the area. The stations will make use of sustainable architectural design reflecting inclusive accessibility, with greater passenger convenience and comfort. Elevated pedestrian walkways, sidewalks, cycle lanes with ample street lighting and landscaping have also been proposed to improve pedestrian access.

In a province with severe flooding, measures have been identified to enhance mitigation and disaster prevention by protecting key industries and communities. The masterplan takes advantage of growth corridors, districts and nodes to ensure an orderly development while accommodating future growth to revitalise urban centres, and create buffer zones for hazard-prone areas. Solid waste management programmes have been recommended to ensure key public service resilience to disruption caused by natural disasters. Integrated water resources and supply planning, including water retention ponds, reservoirs and water treatment plants have also been included to ensure a ready supply of clean and potable water for domestic and industrial use, and accommodate increased demand.

Four metropolitan clusters have been identified, each focusing on specific sectors such as transport and road infrastructure, tourism, integrated water resource management and supply planning, disaster resilience and flood protection, and agro-industrial development zones:

- Aerotropolis (airport-driven cluster) to serve as the centre for business, logistics, technology, innovation and education
- Agropolis (agriculture-driven cluster) to serve as the centre of food production, agri-industrial businesses and research
- Aquapolis (water-driven cluster) to serve as the centre for waterfront development and marine food production
- Ecopolis (ecology-driven cluster) to serve as the centre for environmental tourism, education, and natural heritage.

Some of the proposed initiatives include tropics-inspired tourism education centres for tourism awareness, and riverfront development to highlight the different bodies of water in the province that could add value to real estate developments. There are also proposed agri-industrial estates and farm-to-market post-harvest facilities to boost the agri-industrial sector.

### A REFUGE FROM CLIMATE RISK

New Clark City (NCC) is one of the largest projects under the Philippine government's Build, Build, Build Program spearheaded by the Bases Conversion and Development Authority (BCDA), which is tasked with converting former military bases into centres for economic growth.

2 Pampanga  
Megalopolis:  
Sustainable Mass  
Transport System.  
Image courtesy of  
Palafox Associates

Located in Capas, Tarlac, the new site was chosen because much of the required infrastructure was already in place: an international airport, a seaport and a network of motorways. It also offers a strategic location only 80km north of Manila and access to tourist areas. Covering 9,500ha, this new smart city development will be divided into five districts: government, business, education, agriculture, and recreation, with an expected population of more than 1.2 million people.

BCDA in partnership with the Japan Overseas Infrastructure and Investment Corporation for Transport and Urban Development (JOIN), AECOM, Nippon Koei, and Surbana Jurong have developed a masterplan focusing on five pillars of growth: transport-oriented development, branding and placemaking, mixed use development, pedestrian mobility and neighbourhood planning to foster a community. The first phase includes construction of the National Government Administrative Center (NGAC) and sports facilities aimed at hosting the 30th Southeast Asian Games in November and December 2019.

NCC will be a hub of agri-industrial activities, new technology and logistics companies, well-equipped government facilities and international standard sports venues. It also aims to allocate more than 60 per cent of the land for green spaces.

NCC will focus on connectivity to ease urban congestion and promote regional integration with metropolitan Manila. Clark International Airport will act as the gateway to the country and the region. High-speed train connections between Manila and Clark, and regional railway connections between the Subic Seaport and Clark Airport, will facilitate access to infrastructure, data and resources.

The masterplan integrates international best practice urban design standards and guidelines, as well as ecosystem-based solutions that will reduce vulnerability and build resilience to climate-related shocks.

The location of this new metropolis was chosen for its natural resilience, its elevation, topography and distance from fault lines. The mountain ranges (Sierra Madre and Zambales) surrounding New Clark City act as natural barriers enabling natural resistance to heavy flooding. It is also 20km away from the nearest fault line to the northwest. However, the site is not earthquake-proof: buildings have been designed to withstand a minimum magnitude-8 earthquake (Philippine building codes require a minimum of 7). Builders will utilise concrete mixed with a local organic building material called lahar (a type of mud made of volcanic material, slurry, and rocky debris) which can withstand tremors. Another component is the development of satellite offices of different government agencies, to ensure continuity of operations and services in case of disasters or natural calamities.

NCC will include an Innovation Corridor (an R&D driven industrial park) close to Clark Freeport Zone and Clark International Airport, which will create 600,000 jobs. The innovation-centric metropolis will offer a mix of educational institutions and commercial development alongside parks and other open spaces, a sports institute, mixed used and industrial developments, a food processing terminal and market, mixed tenure housing and an agro-industrial park, which will be accessible to Manila via SCTEX and an integrated transport system. A pedestrianised public realm and a high-quality open space network include a natural river walkway around the city, with sustainable buildings to reduce water and energy usage, and improve water storage and drainage.

**CONCLUSIONS**

The Philippine government’s new strategic development initiatives will go some distance to alleviate a number of structural urban challenges while providing the tools to cope with and adapt to the future impacts of climate-related risks. If followed through, these new urban regions will have the potential to better distribute economic development, access to capital and job creation across Luzon, and will also go some way to alleviating



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the immense pressures on the capital itself. Hopefully these proposals will result in a tangible increase in people’s quality of life in the region.

Pursuing these directives through sustainable urban development is key to maximizing the benefits of development whilst minimising environmental impacts, and addressing the needs of city dwellers (including the urban poor and other vulnerable groups), including equitable access to public services and infrastructure. Designing people-centric development will help cities to improve and grow sustainably. If the government can successfully create and design a new counter-magnet for Manila, it can facilitate other cities to replicate these new socio-ecological urban design approaches and create smart, climate-resilient and cost-effective urban developments for the future. ●

Jennifer Joy Chua Gadher, advisor on urban resilience, The Resurgence Urban Resilience Trust & Max Lock Centre, London

3 New Clark City: East Gate government centre: building a climate resilient city. Image courtesy of BCDA

4 New Clark City: Riverfront Development along the Pampanga River. Image courtesy of Palafox Associates



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# Putrajaya: A New Green Intelligent City

Fanan Ujoh describes this Malaysian city as a model for the Global South

**L**ocated in the west-central Peninsular Malaysia, about 25km south of Kuala Lumpur, Putrajaya was declared the 3rd Federal Territory of Malaysia in 2001, following the relocation of the Prime Minister's office earlier in 1999. The city's new status was a response to the congestion of Kuala Lumpur, and an emblem of a new capital city that symbolised the state's national ideology and aspirations, and replaced the colonial seat of government. Historically, the planning of new administrative cities is not new for example cities like Ottawa (1880), Canberra (1913), Chandigarh (1952) or Brasilia (1960). Perhaps the significance of Putrajaya is therefore the conceptualisation of its design as a green intelligent city with a current population of 91,900 and a planned population of 350,000 residents.

The physical layout of the city is broadly divided into two: the core area of 2,524ha comprising the government precinct, mixed development and commercial areas and a civic and cultural centre; and the periphery covering 2,925ha, comprising residential areas, parks and public facilities; the two are separated by the man-made Putrajaya Lake and adorned by the 100m wide, 4.2km long Putrajaya Boulevard.

The city was designed and developed to cater for and provide a sense of community for its dwellers. All facilities are accessible to disabled people. Pedestrians have standard

footpaths and cyclists a cycle network and parking racks throughout the city, giving a sense of convenience to all. In addition, the road hierarchy discourages through traffic and improves access further. Most important in reducing traffic congestion is the introduction of a park and ride system. The objective is to reduce traffic congestion in the city centre, one of the reasons for Putrajaya being named as the new Federal Territory of Malaysia.

Parks have been divided hierarchically i.e. metropolitan, urban, city and pocket parks to serve residential neighbourhoods, commercial or tourist locations, and administrative centres. To complement these parks is an equestrian facility for international level competitions, which includes a water polo area, an Olympic-sized swimming pool and other facilities. The Alamanda Shopping Mall offers retail and leisure facilities and an appealing water outlook.

1 View from Putrajaya International Conference Centre overlooking the 4.2 km long Putrajaya Boulevard. Photo: Sarah Moser

An underground utilities tunnel houses electric, multi-media, fibre-optic and telecommunications cables, plus water, gas and irrigation pipes. As a result, the city’s utilities work while remaining invisible and removed from the city’s landscape, and routine maintenance can be conducted without obstructing traffic flows in the city.

**PLANNING CONSIDERATIONS**

The most prominent aspects of the city’s master plan are the man-made Putrajaya Lake and the main axis, which starts at the International Convention Centre, connecting most major government buildings along the Putrajaya Boulevard to the Prime Minister’s Office. Putrajaya’s masterplan incorporates the formal geometry of many planned capitals including formal axes and radial roads, reminiscent of Paris, New Delhi and Washington. The difference in Putrajaya however is that its secondary road layout is significantly influenced by topography.

The city’s green agenda is anchored on the three pillars of low-carbon emission, reduced paved surfaces to limit the urban heat island effect, and the strategic adoption of the ‘3R’ principles (reduce, reuse and recycle) in its solid waste management regime. The layout of the city allocates 38 per cent of the total land use to parks, lakes and wetlands, and the lake serves as a climate moderator. Due to relatively high day-time temperatures, a lighting masterplan for streets and significant buildings encourages leisure activities at night time. Essentially, the city’s masterplan adopts a garden city concept where sustainable development is at the core of design and implementation; neighbourhoods are surrounded by green belts, and contain proportionate areas of physical development. By 2011, Putrajaya had 25ha of public space per 1,000 residents, compared to the 2ha recommended by the National Urbanisation Policy Target of Malaysia. The Integrated Transport Network (especially the inter-city and intra-city rail and bus systems) for the city and the park and ride concept are targeted at reducing the carbon footprint of the city.

However, one weakness of the masterplan is the lack of consideration for the unique and mixed geological and geomorphological features. The high terrain within the city, such as at the Prime Minister’s Office, should have been preserved during the planning process. Surface features such as rock faces, which result from geological and geomorphological process, were not incorporated into the planned development to give it a sense of place. Also, the future environmental impact of the man-made lake may have been downplayed or possibly ignored in the pursuit of aesthetics.

**ENVIRONMENTAL CONSIDERATIONS**

Putrajaya has the largest man-made fresh water wetlands in the tropics, with a total number of 24 cells which serve as filters leading into the artificial lake that functions as a cost-effective flood mitigation tool for the Sungai Chuau valley. In addition, it contributes to regional and international wetlands research, and supports diversity and the conservation of habitats. The recreational beauty and aesthetics of the Putrajaya wetlands function as a tourism destination and help to regulate the city’s temperature.

Putrajaya’s waterfront city concept allows for green corridors, parks and wildlife on city dwellers’ doorsteps. It provides development opportunities in prime waterfront locations, offering a rich development mix and a range of water recreation and sports activities.

There is a deliberate and planned shift from fossil fuel sources to renewables such as solar photovoltaic panels, as is the case with the 5MW solar farm in Precinct 11. At bus stops, only LED lights are used, while interior building design codes are constantly being revised to save energy.

The solid waste management regime is built on an incentivised platform known as the BBC (buy back centre) located in Precinct 9. Other components include mobile recycling centres,



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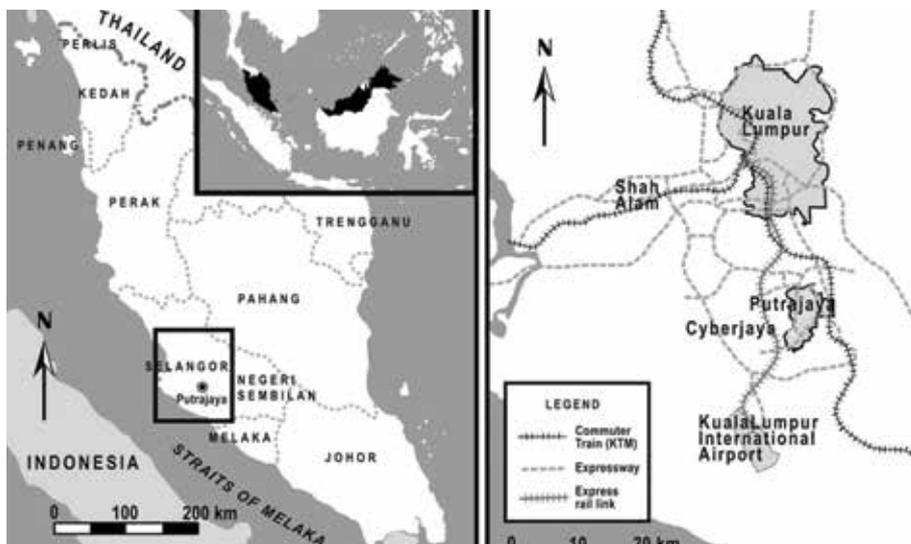
2-4 Numerous green spaces adorn Putrajaya’s cityscape and perform recreational and ecological functions. Photo: Sarah Moser

house-to-house collection, special facilities for apartment blocks, recycling facilities at office complexes, and waste composting programmes. Collectively, these efforts continue to lower per capita waste generation thereby lowering green house gas emissions.

A major environmental weakness will arise in the future if tourism and city expansion are not controlled and regulated, in terms of mitigating the significant and residual impacts listed in the risk assessment studies and the subject of environmental commitments prior to the development of the city.

**LANDSCAPE CONSIDERATIONS**

Landscape played an important role in the planning of Putrajaya as evidenced by the fact that 38 per cent of the land is retained as green areas which serve as carbon sink and temperature regulator. The city’s landscape is consistent with a sustainable planning concept where aesthetics and eco-support services are integrated to create a culturally sensitive outdoor theme. This is exemplified in the



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use of *tempayans* along the Putrajaya Boulevard, large ceramic water pots that have an elegant narrow base and a flaring full form that tapers to a narrow opening at the top.

While the city's landscape has only minimal disadvantages, it is important to note that if not properly maintained, it could serve as a convenient habitat for dangerous reptiles and pose a major risk to the public. There is also an obvious need for tree planting to provide shade along pedestrian and cycle routes around the city.

#### SOCIAL NETWORKS AND SOCIAL INTEGRATION

Putrajaya has played a significant role in the interaction of people from different parts of the world. This can be seen in areas like Perdana Putra buildings, Alamanda Shopping Mall, the lake and other areas around the mosque, all the main centres of attraction in the city. The interaction between local and international visitors has allowed for the exchange of cultures and values. This is not only in the area of tourism but through the various functions that the city has been hosting, and the universities and colleges in and around Putrajaya. In the future when all foreign missions have moved to the city from Kuala Lumpur, it is expected that social networks will blossom. Furthermore in order to encourage interaction in residential neighbourhoods, the design guidelines discourage fencing and encourage hedges, shrubs and trees. However, this has affected some people's way of life by limiting privacy in their homes.

5 Location of Putrajaya.  
Source: Sarah Moser  
6 Community education about waste sorting, reduction, reuse and recycling

#### TOURIST DESTINATION

As a tourist city, the buildings incorporate elements of French architecture, Roman architecture and Islamic concepts without neglecting indigenous technology. The mosque serves as a landmark of Putrajaya, Malay and Islamic architecture, and dominates the Seri Perdana housing complex; some of the buildings in the city are influenced by Western and contemporary elements to reflect a universal outlook. The Millennium Monument, another visitor attraction, serves as the country's archive for future generations, by documenting historic and economic achievements. The city boasts eight unique and distinctive bridges, designed to be eye-catching. These bridges reflect local culture, Islamic architecture and western design concepts.

Tourists can take advantage of leisure cruises on the lake to see the city's many stunning landmarks, or enjoy the view and attractions from the nature interpretation centre, a 80m high lookout tower, offering a bird's eye view of Putrajaya. The major impediment to expanding tourism in the city lies in restrictions on visiting some places by tourists, such as dress codes or the exclusion of non-Muslims.

#### CONCLUSION

In recent years, global concerns have focused more intensely on developments that are based on sustainability as enshrined in many international protocols such as the United Nations' Sustainable Development Goals. It is evident that avoiding the retinue of problems associated with unplanned cities particularly in the global south would require lessons to be adopted from contemporary successful cities.

Although there is room for improvement, Putrajaya is a model constructed with detailed planning, innovative urban design and significant concern for the environment. Its beautifully landscaped roads and parks, modern buildings, as well as green theme and responsive governance, reflect a well-planned city for today and for the future. As nations within the Global South grappling with urbanisation challenges continue to seek workable solutions, Putrajaya may present a number of useful lessons to be learned. ●

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# Bangkok: The Cost of Resilience

Patri Vienravi and Gregory Galligan consider the barriers to make the Thai metropolis resilient, adaptive and proactive

**W**hen the floodwaters of October 2011 finally reached metropolitan Bangkok, they proved devastating. Water from overflowing dams and monsoon rains had been threatening to lay siege to Thailand's capital since mid-summer. Yet even in September, city officials were giving sanguine forecasts, many predicting efficient water runoff and only minor incidents of flooding. This remained the case even as the Chao Phraya River, which runs through the capital's ancient heritage district passing within metres of royal compounds, historical sites and revered Buddhist temples, seemed destined to overrun its embankments.

When the floodwaters arrived that October, riverside shanties, tourist hostels and temple grounds were swiftly inundated. Entire streets looked fit only for rowing boats. Even the most fastidiously laid break-walls seemed hopeless against the deluge. Natural geography saved virtually nobody. Only the most elevated streets in the royal district of Rattanakosin escaped the scourge of over-bloated sewers and canals. A palpable collective anxiety arose among a nervous citizenry, many of whom knew that a good proportion of the unstable estuary lands already lay precipitously below sea level.

## THE 100 RESILIENT CITIES INITIATIVE

Halfway across the world in New York City, where the troubling phenomenon of annually rising waters presents a unique set of problems in tandem with a huge climate crisis, policy and grant

specialists at the Rockefeller Foundation suggested that any modern city in such circumstances had to respond promptly as an extraordinarily resilient organism. This is hardly a unique insight: few people would take issue with the notion that cities ill-equipped to shoulder long-term or sudden stresses, whether occasioned by nature or problematic human activity, are asking for trouble. Five years ago the United Nations convened a historic summit in order to hammer out a *Sustainable Development Agenda* (2015), whose principles should be globally achievable within a decade (2030), all participating countries pledging to promptly 'mobilize efforts to end all poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind'. Nearly 200 countries, including Thailand, are official signatories to the original agreement.

At roughly the same time, the Rockefeller Foundation decided to take a stab at a critically important sub-category of the sustainability discourse. Acknowledging how one of the most important issues is the global trend toward concentrated population growth and attendant infrastructure development in dense metropolitan centres, in 2014 the Rockefeller Foundation launched the six-year initiative 100 Resilient Cities (100RC). The project officially ended recently and is currently in its after-phase of evaluation and impact analysis; 100 metropolitan centres around the world would each receive U\$1 million grants (along with a host of supportive, consulting, and

1 Bangkok: boat taxi worker on the Chao Phraya River. Photo: Udom Surangsophon, 2018, all rights reserved



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networking services) to develop and pursue resilient strategies targeting some of the major developmental, environmental and humanitarian crises that they may be facing.

#### NEW CAPITALS

Among five Southeast Asian cities selected to participate in the 100RC initiative (Bangkok, Da Nang, Jakarta, Mandalay and Singapore), Bangkok presents an interesting case study, which sheds light on both the successes and challenges of instituting such an ambitious, parachute-style undertaking. In neighbouring Jakarta, which has been sinking annually into the sea by several centimetres, President Joko Widodo has recently decided to move the capital elsewhere, requiring that a good proportion of the current population will migrate to higher ground in the equatorial archipelago. While Jakarta will hardly grind to a halt in this scenario, the relocation of the capital to manage the looming, myriad troubles of an ageing metropolis, is hardly a practical or attractive option for most people.

Thailand's current Prime Minister Prayut Chan-o-cha has recently floated a capital relocation concept similar to that by President Widodo; for years, there have been rumours about moving the Thai capital to the northern, more bucolic province of Chiang Mai. It remains equally doubtful, however, that millions of Thai citizens will find their city much improved by the removal of the seat of government to a distant mountain city.

#### RESILIENCE STRATEGIES

How the Rockefeller Foundation might catalyse the 100 selected cities to rethink and ideally comprehensively retool their resilience strategies would ultimately come to depend upon the municipal expertise (and charisma) of a regionally appointed chief resilience officer (CRO). This role would act as an effective liaison between the Foundation, its programmatic agenda, and the operative mechanisms of a city's municipal bureaucracy. What saved such a scheme from degenerating into a mere matrix for the one-way delivery of a centralised, Manhattan-based agenda to distant geopolitical contexts was the Foundation's generous provision of a complementary body of support services and the seeding of lively cross-networking among all participants. Resilience officers were compelled to exchange stories and learn from each other's experiences in fully-funded participatory Urban Resilience summits held in New York and

Rotterdam in 2017 and 2019.

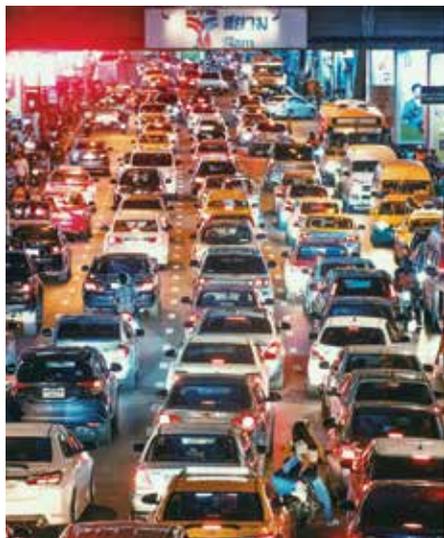
Bangkok's appointed 100RC CRO, Supachai Tantikom, has served as a senior-level consultant and advisor to the Bangkok Metropolitan Administration (BMA) for well over a decade. He was responsible for producing (with Rockefeller Foundation-supplied advisors) the ambitious project brief *Resilient Bangkok* (2017), in which the city outlined the primary projects deserving urgent attention. 'In developing the resilience strategy,' Tantikom stated, 'we had to go through all the pre-existing city programs; if a program fell within the resilient framework, it would be included in the strategy'. Thus some projects constituted existing initiatives addressing how Bangkok might achieve a 'desirable future' (*Bangkok Vision 2032*, a collaboration between the city and Bangkok's Chulalongkorn University); other initiatives were newly conceived to complement the 100RC's mission.

Since then Tantikom's mandate has been to coordinate around 20 public works initiatives dispersed among three strategic areas: improving the quality of life of city inhabitants; reducing the risk of and enhancing the adaptation to environmental disasters (such as floods and earthquakes); and, driving a strong and competitive economy. In sum, under Bangkok's resilience strategy, roughly 60 projects falling under these thematic umbrellas were to be carried out between 2013 and 2021, extending well beyond the official end date of the 100RC initiative. Projects could last days, months or years depending upon their scope or difficulty of execution, from a two-week Search and Rescue seminar for staff of the municipal fire department, to the engineering of a major flood tunnel linking several city districts' drainage systems with the Chao Phraya River.

#### LESSONS LEARNED

Five years on, after Bangkok submitted its final progress report to 100RC executive monitors, what insights can be gained about the operative principles and actual accomplishments of such a global charitable pursuit of urban resilience? The official announcement of the initiative by 100RC President Michael Berkowitz is conveyed in guarded optimism. As the Rockefeller Foundation pulls away from its CROs, how many of them will survive and achieve a continuous role in the orbit of the municipal bureaucracies currently hosting them? Claiming to have 'laid the groundwork for a global movement to take hold', Berkowitz knows that there is a real problem with seeding continuity over the years to come: 'Institutionalization is key to the longevity of the urban resilience movement; only when these principles are embedded into the bylaws and budgets of cities can we consider

2 Bangkok: King Bhumibhol (Rama IX) mega bridges at the Chao Phraya River, Bangkok.  
Photo: Nattawat Tangthanakitroj



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resilience to be a mainstream concept. That CROs have secured city funding and budgets is a good sign, but we need the principles of resilience to permeate all aspects of the way cities are governed and run.

**ENSURING CONTINUITY**

In recognition of the potential difficulties that cities might encounter after the abrupt closure of the 100RC initiative, the Rockefeller Foundation recently announced that it was committing up to US\$8 million to a winding-down period, during which cities in need of further assistance will receive funding for the continued support of their CROs as fully independent actors, especially where municipal governments fail to institute a permanent seat for them within the official city administration. Tantikom will benefit from such a stipend for the gradual phase-out of the Rockefeller platform, a situation he welcomes as the most practical one for a city that has long suffered from frequent changes of government and the resulting collapse of ambitious urban initiatives. ‘The success or failure of the program depends on the political will of the leader’, Tantikom notes astutely, and further elaborates that the goal of permanently integrating the CRO into city government is hardly practical due to the myriad difficulties in setting up such a position legally and politically for perpetuity.

If the challenge of achieving continuity may be key to measuring the ultimate success of the entire 100RC undertaking, Bangkok emerges as a cautionary bellwether. Tantikom points out that he is hardly a lone practitioner upon the project’s gradual downscaling. He confidently suggests that the establishment of an on-going resilience steering committee by the city and the tenacious support of the current governor bodes well for seeing the principles of resilience instilled in second-tier career administrators (below the level of term-limited, politically appointed officers). As Tantikom comments, ‘We think the best [practice] is to instil resilience thinking into... BMA middle management staff’. To this end, Tantikom will direct any further funding from the 100RC initiative toward ‘resilience training’ for municipal career administrators, hoping that they represent the most effective means of ‘incorporating resilience thinking into formal city processes’.

**CONCLUSION**

Having been beset with political and social turmoil since the early 2000s, and having recently experienced its 12th military coup since achieving democracy in 1932, Thailand is in a precarious position to institute anything that might survive frequent changes of government and the careerist ambition of its bureaucracy. Bangkok is increasingly at odds with its provinces, positioning itself as the seat of a dubiously entrenched plutocracy (Thai society is ranked as the most inequitable in

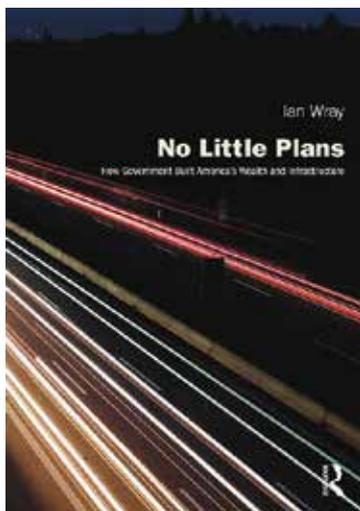
the world today). Notwithstanding the urgent problems brought on by urban density, it is natural to question whether the concept of resilience will receive the best reception where an extreme concentration of wealth suggests that the city is already in the best position to address these issues efficiently. And how does resilience play out in a context not only of extreme wealth concentration, but also in one hosting a profoundly entrenched culture of corruption? Tantikom noted even more practical challenges to resilience, such as when the central government must also be on board with the programme, especially when addressing natural calamities such as major flooding incidents requires the expert collaboration of a wide range of regional and national authorities. Given these and other cautionary perspectives provided by the ambitious 100RC initiative in Bangkok, the challenge implied in realising a truly genuine or durable form of urban resilience remains at once fascinating and formidable. ●

Patri Vienravi, R.A., LEED AP, and Dr Gregory Galligan, director, Thai Art Archives, Bangkok

3 Typical Bangkok city centre traffic congestion  
 4 Bangkok city centre traffic beneath the BTS – the elevated train system  
 5 A Bangkokian waiting for commuter train to the outlying provinces  
 All photos: Nattawat Tangthanakitroj  
 6 Rockefeller Resilient Cities Officer Supachai Tantikom at the New York 100 Resilient Cities Summit, July 2017. Photo: Supachai Tantikom



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## No Little Plans, How Government built America's Wealth and Infrastructure

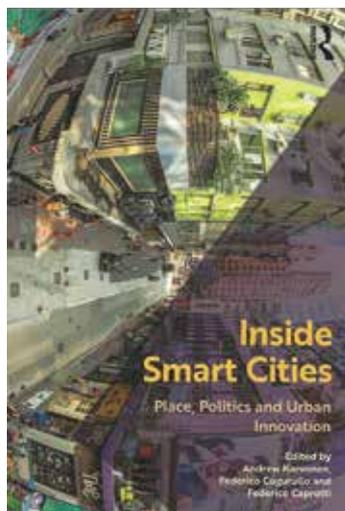
Ian Wray, 2019, Taylor and Francis, £34.99, ISBN 978-1138594104

This review of American technological and physical achievements shows how planning has been critical to their success. Eight examples as different as building the transcontinental railways, the National Parks or the digital revolution had little to do with individual enterprise, and depended on government-backed projects and programmes. Determined individuals, such as Robert Moses, may have transformed New York, but it was public power that built America and created great private fortunes.

Sometimes leadership came from US Presidents, such as Eisenhower who used his war-time reputation to secure backing for a transcontinental road system, or Teddy Roosevelt who founded the National Park system. At other times groups of businessmen siphoned off public funds to contractors they owned, such as Leland Stanford, who built the Southern Pacific Transportation Company, and later endowed Stanford University.

The turning point came in the 1960s when losses in the Vietnam War led to disillusionment with government. Excessive faith in free markets rather than in planning and public procurement, and spatial segregation left cities with holes where their centres once were. The internet, an offspring of the Defence Advanced Research Projects Agency, stimulated another industrial revolution, with winners concentrated on America's West Coast.

Like his earlier publication *Great British Plans*, Wray's book is constructed around well documented and illustrated case studies, with plenty of new insights. References are made to theories of leadership and governance, but those who expect a book on urban and regional planning will be disappointed. Nevertheless, the stories are so



dramatic and the results so tangible that they provide an excellent primer for how cities change direction through technological revolutions, and the role that government needs to play.

Wray points out that 'Planning built American wealth before World War Two, but really came into its own during and after the War, the great impetus supplied by wartime production of material,... Government plans did not damage American wealth. They created it and sometimes in the most profound way. That is not to say that entrepreneurs and individuals have not contributed. They have.'

A Green New Deal could still get our economies going in the right direction. A new lifestyle is evolving, including reduced pollution, better health, a preference for purchased experiences over purchased products, and the sharing of services. The kind of mission-oriented projects that put a man on the moon could enable cities to be transformed. ●

Dr Nicholas Falk, director, The URBED Trust

## Inside Smart Cities, Place, Politics and Urban Innovation

Andrew Karvonen, Federico Cugurullo & Federico Caprotti (ed.), 2019, Routledge £34.99, ISBN 978-0815348689

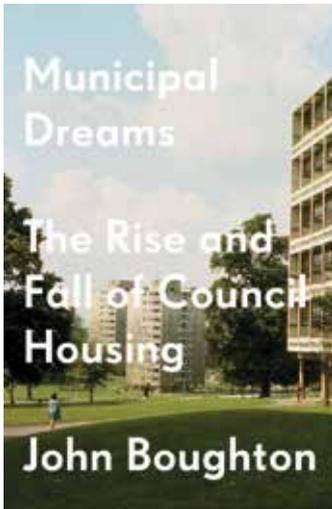
This collection of 18 case studies dealing with 27 smart cities is a welcome surprise. The editors view smart innovation as recursive: smartness changes cities and cities change smartness through iterative processes. Instead of a universal definition of 'smart', they recognise the importance of specific contexts. They challenge the notion of Information and Communication Technology (ICT) providing universal, rational and a-political solutions to contemporary urban problems, but agree that it can contribute to

resource efficiency, surveillance and security, citizenship and participation, evidence-based policy making, behavioural change and social cohesion.

Chapters are grouped into four themes: processes of grounding and contextualising; integrating and aligning; contradicting and challenging; experiencing and encountering with smart as unifying characteristic. The studies make the case for functional objectives of technological innovation, but their socio-cultural claims are less convincing. Some argue that urban change has always taken place under a combination of pressures, including technological innovation, and the preservation of ruling powers and entrepreneurial opportunities to make money. Although noted, the socially divisive nature of ICT provision does not come under much critique.

Starting with practice, smart approaches have been applied to less mainstream concerns: the safety of women in Seoul, innovating for an ageing society in Japan, relationship between smart urbanism and greening in Manchester and Bristol. The changing nature of smartness in urban transformation has been explored for other places in different contexts. The changing relationship between smart ICT-based urbanism and people-centred urban development is addressed in Barcelona. Perhaps the most provocative chapter on failing public participation was 'Acknowledging the idiot in the smart city, experimentation and citizenship in the making of a low carbon district in Santiago de Chile'.

Two chapters address more theoretical aspects. An anthropological analysis argues that the relationship between collaboration and subsidiarity amongst members of the smart city consortium in Munich constitutes 'smart equivocation'. 'Smart innovations at the margins' are observed in other places with enormous inequalities and growing spatial fragmentation. Access to mobile phones as tools for cyborg activism dominates 'digital urbanity on the move' and places space at the intersection of policy-driven urban techno-visions and bottom up solutions. The book claims to be the first comprehensive



reflection on how smart city initiatives are realised in different locales and aims to explore what contribution smartness could make to a more socially equitable, environmentally friendly and economically robust urban future. ●

Judith Ryser

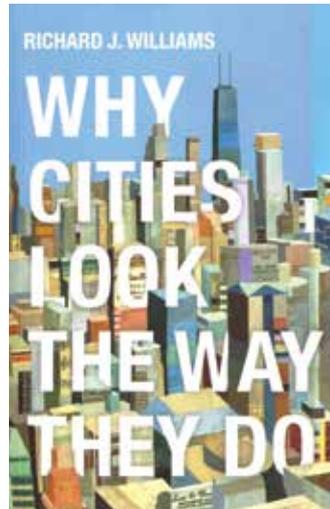
## Municipal Dreams, The Rise and Fall of Council Housing

John Boughton, 2018, Verso Books, £9.99, ISBN 978-1784787394

The award of the Stirling Prize for the first time to a council housing estate, Goldsmith Street in Norwich, has been cheered as a vote for excellent-but-ordinary everyday architecture and a welcome reaction against awards to expensive or funny-shaped office buildings in London. I learned from John Boughton's book that the decision has background. Norwich in the 1950s had the highest proportion of people living in council housing in the country. In the 1960s and 1970s David Percival led a remarkably expert and committed City Architect's Department, with at its peak over a dozen architects. They built innovative and varied high-quality housing.

This book is a history of council housing from the 1900 London County Council's Boundary Estate to the present day. It covers the design issues of housing types, densities, plan layout, construction technologies, etc., but the main thread is the changing political and social attitude to municipal housing. The structure is chronological, moving from interwar Housing for Heroes to Aneurin Bevan's 1949 Housing Act, 1960s industrialised high-rise, the Thatcher government's ending of council housebuilding, revisionist government programmes of Estate Action, New Deal for Communities, City Challenge and Housing Market Renewal Initiative, through to today's limited mixed market approaches.

A continuing theme is the question of for whom council housing is built. Boughton



emphasises that the early housing was not intended for the very poor, but for the relatively well-off 'respectable' working class. The very poor were expected to occupy the privately-rented housing vacated by their betters, in a sort of trickle-down process. In 1949, Bevan promoted council housing that served a cross-section of the community, believing the segregation of different income groups to be 'a wholly evil thing'. Thatcherite policy reversed this, considering council housing to be a social service and implicitly, housing of last resort. I learned that there is a word for this attitude: 'residualisation'. The Thatcherite Right to Buy programme, instead of achieving Bevan's aim of social integration, contributed to social polarisation, as well as reducing the stock of good council houses.

Boughton is a strong defender of the principle of municipal housing, and even while documenting the dismal record of the last few decades, remains positive about his subject. He is scathing about the demonising of council estates and their tenants. I particularly liked his assessment of the *Utopia on Trial* author Alice Coleman's analysis as 'worthless – both methodologically flawed and ideologically driven'. ●

Joe Holyoak, architect and urban designer

## Why Cities Look the Way they do

Richard J Williams, 2019, Polity Press, £15.99, ISBN 978-0745691817

'Cities rarely have designers as such, however much we might want that to be the case'. So Richard J Williams sets out his intention at the start of this short and enjoyable book. He argues that cities are the outcome of processes that are generally unconscious but have physical and visual manifestations, and although design(ers) may respond to, or seek to ameliorate these processes, they largely cannot control them (although Williams acknowledges that this only truly applies in

cities of the global economy). Designers may find this statement disheartening, but probably not surprising.

To explain his thesis Williams selects six topics and explores processes related to them: the circulation of money; political power; sexual desire; work; war and control; and the industrialisation of culture. He investigates the physical expression of these processes in cities, resulting in a 'landscape made by power in its image', by exploring a wide-ranging set of examples from around the globe, from individual buildings and spaces, through to city districts. Many of the examples are unsurprising: the chapter on power refers to Washington's National Mall, Beijing's Tiananmen Square, and Farrell's MI6 HQ in London. I enjoyed seeing them through the eyes of someone trained in art history rather than design. These are juxtaposed with other less familiar examples, such as Amsterdam's Broedplaatsen in the Work chapter, and the cruising grounds of the Hudson River piers in 1970s New York in the Sex chapter. Williams' exploration of the six topics is insightful but for a book about looking, more images and colour rather than black and white photographs would have been helpful.

In his introduction and conclusion Williams makes reference to the St Matthew's area of Leicester, drawing on his personal experience of the city. He posits that it is remarkable because of its lack of spectacle, and that it has a sense of place lacking in the central city: 'a mixture of grit and neon that flouts conventional good taste' provides a visual richness and authenticity lacking in many global cities. It is a place formed by accretion rather than purposefully by design. Williams ends by stating that medium-sized cities like Leicester are the future of urbanisation, not the megacities of the global economy. It would have been interesting if he had explored this conclusion further, perhaps considering how his six chosen topics relate to somewhere such as Leicester, as a contrast to the global city examples. Perhaps something for a future book. ●

Richard Crappsley, urban designer, Steer

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# Education Index

Universities with courses in Urban Design are welcome to join the Urban Design Group and be listed in this index. The Journal has a circulation of circa 2000 to individuals, practices, the bookshops of the AA, RIBA and Building Centre in London, and UK & international libraries. See [www.udg.org.uk/join](http://www.udg.org.uk/join)

## CARDIFF UNIVERSITY School of Geography and Planning and Welsh School of Architecture, Glamorgan Building, King Edward VII Avenue

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C Aseem Inam  
E [inamat@Cardiff.ac.uk](mailto:inamat@Cardiff.ac.uk)  
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T 0131 651 5786  
C Dr Ola Uduku  
E [o.uduku@ed.ac.uk](mailto:o.uduku@ed.ac.uk)  
W [www.ed.ac.uk/studying/postgraduate/degrees](http://www.ed.ac.uk/studying/postgraduate/degrees)

Jointly run with Heriot Watt University, this M.Sc in Urban Strategies and Design focuses on urban design practice and theory from a cultural, and socio-economic, case-study perspective. Engaging students in 'live' urban projects, as part of the programme's 'action research' pedagogy, it also offers research expertise in African and Latin American urban design and planning processes.

## LONDON SOUTH BANK UNIVERSITY Faculty of Law and Social Science 103 Borough Road, London SE1 0AA T 0207 815 5877 C Manuela Madeddu E [madeddum@lsbu.ac.uk](mailto:madeddum@lsbu.ac.uk) W [www.lsbu.ac.uk/courses/course-finder/urban-design-planning-ma](http://www.lsbu.ac.uk/courses/course-finder/urban-design-planning-ma)

The MA Urban Design and Planning (FT or PT) provides an inter-disciplinary approach to urban design and equips students with a comprehensive understanding of urban design, planning and development issues. Through working at different scales of the city and engaging with theoretical debates, students will learn to think about the characteristics of good places and will be equipped to make a critical contribution to shaping those places in the decades ahead. The programme is fully accredited by the RTPI and includes a field trip to a European country.

## NEWCASTLE UNIVERSITY School of Architecture, Planning and Landscape, Claremont Tower University of Newcastle, Newcastle upon Tyne NE1 7RU

T 0191 222 6006  
C Georgia Giannopoulou  
E [georgia.giannopoulou@ncl.ac.uk](mailto:georgia.giannopoulou@ncl.ac.uk)  
W [www.ncl.ac.uk/apl/study/postgraduate/taught/urban-design/index.htm](http://www.ncl.ac.uk/apl/study/postgraduate/taught/urban-design/index.htm)

The MA in Urban Design brings together cross-disciplinary expertise striking a balance between methods and approaches in environmental design and the social sciences in the creation of the built environment. To view the course blog: [www.nclurban-design.org](http://www.nclurban-design.org)

## OXFORD BROOKES UNIVERSITY Faculty of Technology, Design and Environment, Headington, Oxford OX3 0BP

T 01865 483 438  
C Georgia Butina-Watson  
E [gbutina@brookes.ac.uk](mailto:gbutina@brookes.ac.uk)  
W [www.brookes.ac.uk](http://www.brookes.ac.uk)  
Diploma in Urban Design, six months full time or 18 months part time. MA one year full-time or two years part-time.

## UNIVERSITY COLLEGE LONDON Development Planning Unit 34 Tavistock Square London WC1H 9EZ

T 020 7679 1111  
C Camillo Boano and Catalina Ortiz  
E [c.boano@ucl.ac.uk](mailto:c.boano@ucl.ac.uk)  
[catalina.ortiz@ucl.ac.uk](mailto:catalina.ortiz@ucl.ac.uk)  
W <https://www.ucl.ac.uk/bartlett/development/programmes/postgraduate/msc-building-urban-design-development>

The DPU programme has a unique focus on Urban Design as a transdisciplinary and critical practice. Students are encouraged to rethink the role of urban design through processes of collective and radical endeavours to design and build resilient strategic responses to conflicting urban agendas, emphasising outcomes of environmental and social-spatial justice.

## UNIVERSITY COLLEGE LONDON Bartlett School of Planning 22 Gordon Street, London WC1H 0QB T 020 7679 4797 C Filipa Wunderlich E [f.wunderlich@ucl.ac.uk](mailto:f.wunderlich@ucl.ac.uk) W [www.bartlett.ucl.ac.uk/planning/programmes](http://www.bartlett.ucl.ac.uk/planning/programmes)

The MSc/Dipl Urban Design & City Planning has a unique focus on the interface between urban design & city planning. Students learn to think in critical, creative and analytical ways across the different scales of the city – from strategic to local – and across urban design, planning, real estate and sustainability.

## UNIVERSITY COLLEGE LONDON Bartlett School of Planning 14 Upper Woburn Place London WC1H 0NN

T 020 7679 4797  
C Matthew Carmona  
E [m.carmona@ucl.ac.uk](mailto:m.carmona@ucl.ac.uk)  
W [www.bartlett.ucl.ac.uk/planning/programmes/postgraduate/mresinter-disciplinary-urban-design](http://www.bartlett.ucl.ac.uk/planning/programmes/postgraduate/mresinter-disciplinary-urban-design)

The MRes Inter-disciplinary Urban Design cuts across urban design programmes at The Bartlett, allowing students to construct their study in a flexible manner and explore urban design as a critical arena for advanced research and practice. The course operates as a stand-alone high level masters or as preparation for a PhD.

## UNIVERSITY OF DUNDEE Town and Regional Planning Tower Building, Perth Road Dundee DD1 4HN

T 01382 385246 / 01382 385048  
C Dr Mohammad Radfar / Dr Deepak Gopinath  
E [m.radfar@dundee.ac.uk](mailto:m.radfar@dundee.ac.uk)  
[D.Gopinath@dundee.ac.uk](mailto:D.Gopinath@dundee.ac.uk)  
W [www.dundee.ac.uk/postgraduate/courses/advanced\\_sustainable\\_urban\\_design\\_msc.htm](http://www.dundee.ac.uk/postgraduate/courses/advanced_sustainable_urban_design_msc.htm)

The MSc Advanced Sustainable Urban Design (RTPI accredited) is a unique multidisciplinary practice-led programme set in an international context (EU study visit) and engaging with such themes as landscape urbanism, placemaking across cultures and sustainability evaluation as integrated knowledge spheres in the creation of sustainable places.

## UNIVERSITY OF HUDDERSFIELD School of Architecture and 3D Design Queen Street Studios Huddersfield HD1 3DH

T 01484 472208  
C Dr Ioanni Delsante  
E [i.delsante@hud.ac.uk](mailto:i.delsante@hud.ac.uk)  
W [www.hud.ac.uk/courses/full-time/postgraduate/urban-design-ma/MA;PgDip;PgCert](http://www.hud.ac.uk/courses/full-time/postgraduate/urban-design-ma/MA;PgDip;PgCert) in Urban Design (Full Time or Part Time).

The MA in Urban Design aims to provide students with the essential knowledge and skills required to effectively intervene in the urban design process; develop academic research skills, including critical problem-solving and reflective practice; facilitate design responses to the range of cultural, political, socio-economic, historical, environmental and spatial factors. It also aims to promote responsibility within urban design to consider the wider impact of urban development and regeneration.

## UNIVERSITY OF MANCHESTER School of Environment, Education and Development Humanities Bridgeford Street, Oxford Road, Manchester M13 9PL T 0161 275 2815 C Dr. Philip Black E [Philip.black@manchester.ac.uk](mailto:Philip.black@manchester.ac.uk) W [www.seed.manchester.ac.uk/study/taught-masters/courses/list/urban-design-and-international-planning-msc/](http://www.seed.manchester.ac.uk/study/taught-masters/courses/list/urban-design-and-international-planning-msc/)

MSc Urban Design and International Planning (F/T or P/T)  
The fully accredited RTPI MSc Urban Design and International Planning explores the relationship between urban design and planning by focusing on internationally significant issues. With a strong project-based applied approach students are equipped with the core knowledge and technical competencies to design across various scales in the city.

## UNIVERSITY OF NOTTINGHAM Department of Architecture and Built Environment, University Park Nottingham NG7 2RD

T 0115 9513110  
C Dr Amy Tang  
E [yue.tang@nottingham.ac.uk](mailto:yue.tang@nottingham.ac.uk)  
W [www.nottingham.ac.uk/pgstudy/courses/architecture-and-built-environment/sustainable-urban-design-march.aspx](http://www.nottingham.ac.uk/pgstudy/courses/architecture-and-built-environment/sustainable-urban-design-march.aspx)

Master of Architecture (MArch) in Sustainable Urban Design is a research and project-based programme which aims to assist the enhancement of the quality of our cities by bringing innovative design with research in sustainability.

## UNIVERSITY OF SHEFFIELD School of Architecture, The Arts Tower, Western Bank, Sheffield S10 2TN

T 0114 222 0341  
C Beatrice De Carli  
E [b.a.decarli@sheffield.ac.uk](mailto:b.a.decarli@sheffield.ac.uk)  
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## UNIVERSITY OF STRATHCLYDE Department of Architecture Urban Design Studies Unit Level 3, James Weir Building 75 Montrose Street, Glasgow G1 1XJ

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## Le tour s'approche de la tour

The organisers of the Tour de France chose to delay the start of this year's final stage into Paris, to ensure that the race ended shortly before sunset. So an always dramatic, climactic event was made even more theatrical. As the *peloton* tore nine times up and down the *pavé* of the Avenue des Champs-Élysées, the setting sun poured through the Arc de Triomphe and down the avenue, and the monument became a dark silhouette against a blaze the colour of the winner's *maillot jaune*.

The final stage is largely ceremonial, the winner having been decided on the previous day. The first part of this stage is a slow procession, as the riders move from the countryside towards the city. It is a short stage, so this countryside is hardly *la France profonde*, but nonetheless the transition from pastoral to metropolitan is striking and very symbolic. The helicopter camera sees the Eiffel Tower on the horizon before the riders do, but when it becomes visible from road level, the roads become Parisian streets enclosed by urban buildings, and the riders cross the Seine, knowing that 21 days of pain and suffering will shortly be over. Their destination is within sight; the capital receives them.

The world's greatest sporting event is also an enormous piece of street theatre. As it passes through countless villages, towns and cities on its circuit of the country, an estimated 12 million people line the route, enjoying the spectacle for free. Each village high street, as well as the Champs-Élysées and the Rue de Rivoli, is public space temporarily repurposed for the competitive display of native heroes, Pinot, Bardet and Alaphilippe versus the rest. The street becomes a stadium. The Tour is not unique in this respect – every local *kermesse* in a small Flemish town is similar – but it is on the biggest scale.

Architecture forms part of the physical setting for the contest. French TV assiduously picks out and identifies every parish church and chateau that the race passes, and provides a potted history of each one for the TV commentators to knowledgeably pass on. The formal and monumental urban design of Paris is annually celebrated and memorialised, as the *peloton* passes the Panthéon, the Louvre (this year actually riding through the courtyard and around the Pyramide), and repeatedly, the Luxor Obelisk and the Arc de Triomphe. The exception this year was the Cathédrale de Notre-Dame. Although the race passed close to the burnt cathedral, French TV chose to exclude any view of it. Perhaps this was from a sense of propriety on a great national day, just as the cameras do not dwell too much



on a rider sprawled on the tarmac, in agony from a broken collar-bone.

The street theatre of the final stage has its own protocol, unwritten but unfailingly observed. The wearers of the four leaders' jerseys (yellow, green, white, polka-dot) start at the front, and no-one overtakes them until they choose to give way. The winning team rides in a line abreast, and sitting upright drinking champagne. Friendly conversations take place between riders of competing teams, only on this stage. A celebrated rider appearing in his last Tour takes a solo turn at the front. Eventually entering the first circuit of the Champs-Élysées, the winning team takes the applause, riding at the front of the *peloton*. Only then does the race for the line really begin. Observing all this is a matter of honour; the spectators expect it and appreciate it.

The geography of urban streets, with bumpy *pavé*, steep climbs and descents, and sharply-angled corners, as well as that of country roads and Alpine mountains, makes this theatrical spectacle possible. It

is not what urban streets were designed for. But the same immediacy, the same close juxtaposition of public space and private space that make for people-friendly towns, also enable this great public event. Add to this a national sense of the importance of French culture and history, of being in fact a top nation, and you have a unique sporting demonstration of physical and social geography. What a pity that the French have not managed to win the race since 1985! ●

Joe Holyoak, architect and urban designer

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