

## Dean's Roundup (Friday, 27 February 2015)

**Roundup:** *Ceiling function*, the mathematical operation of rounding a number up to the next higher integer.

**Roundup:** a term in American English referring to the process of gathering animals into an area, known as a "Muster" in Australia.

**Rounding up:** when a helmsman cannot control a boat and it heads into the wind

**Roundup:** the plan for an invasion of northern France by Allied forces during World War II (Wikipedia)

**Dean's Roundup:** part blog, part bulletin; part honour roll, part curatorial [**cu**'**ra**-**to**'**ri**-**al** (ky<sup>oo</sup>r<sup>ee</sup>-t<sup>oh</sup>'<sup>ee</sup>-el, -t<sup>oh</sup>'-)]  
*n. nounised by the Dean from curator + editorial]*

Dear all,

The blog section of Dean's Roundup during 2014 was mainly used to circulate theoretical conjecture and encourage speculation with intellectual ideas about the built environment that cross disciplines. In 2015 I would like to pursue the same end but with reference to active research among HKUrbanLab colleagues. If you want to be featured, please send me a 400 word blog-style summary of your research project. This will be particularly good, I think, for floating ideas in preparation for GRF and other competitive research grant bids and for pitching, developing and testing the intellectual ideas behind design competition entries with a view to publishing them or developing further writing and research projects from them. If necessary, I'll add some editorial touches in discussion with you and add a short commentary that reflects on the strategic importance of the research and its connections with other agenda in HKUrbanLab and beyond.

Let me start with a fascinating project involving DLA, DUPAD and the Faculty of Science. It is one of a batch of scientific projects currently led from the Division of Landscape Architecture and aiming to help establish a stronger research base in that Division.

The project was originally the initiative of DLA's Seth Denizen, who has a bioscience background and became a collaboration with Gianni Panagiotou, Group leader of Systems Biology & Biotechnology, School of Biological Sciences. Here's a summary, drawing from Seth's interim version of the project proposal that secured a small joint seed-grant from Faculties of Science and Architecture.

### Mapping the microbiome of Hong Kong

Since the completion of the Human Genome Project in 2003 laboratory techniques for sequencing genetic material have become largely automated, drastically reducing financial and technical barriers to the technology. What took the Human Genome Project 8 years and 1 billion US dollars to do can now be done in a single day for less than 5,000 dollars. The result has been a rapid increase in the scale and ambition of research projects that use this technology. Of the many insights gained in just this short period since the completion of the Human Genome Project, one of the most surprising is that its project is unfinished. As it turns

out, the human body contains 10 times more microbial cells than human cells, there are 150 times more microbial genes in the human gut alone than are contained in the entire human genome, and the tasks these organisms perform is essential to all human life. The project to sequence this “second genome” is called “The Human Microbiome Project,” whose goal is to understand the diversity of microbial life living in the human body. The scope of this project has yet to be fully grasped however, as the true diversity of microbial life entangled with human culture and physiology clearly does not end at the boundary of the body. Seeking to address this, the geneticist Christopher Mason started a project in 2013 called PathoMap dedicated to mapping the microbiome of New York City. The results have been surprising. Sampling the city’s subway system, the group found bacteria used to remove arsenic from the environment in bioremediation projects, a germ typically found on the Indian subcontinent responsible for a diarrheal disease, a microbe used to fight insect-borne diseases like malaria and West Nile virus, a bacterium first found in 3 million year old Siberian permafrost, and on the stairwell of the Eighth Avenue L train: the bacillus responsible for synthetic penicillin. In the relatively few samples that have been taken, PathoMap has already uncovered a dizzying set of spatial and historical relationships that have important implications for how we imagine the **urban microbiome**.

The objective of this partnership project between HKU Faculties of Architecture and Science is to create a comparative dataset of the microbiomes of Hong Kong and New York City, through a cross disciplinary collaboration between architects and biologists. The study will be the first cross-city, cross-globe comparison of the microbial ecology of urban environments. As sites of comparison, Hong Kong and New York offer similar population sizes, are both well-connected port cities, and yet are far enough away from each other to potentially harbor significant differences in their microbial ecologies. While the sample size of this study will be too small to draw definitive conclusions about the nature of these differences, each organism we will find will have a unique phylogenetic history from which insights can be gained. In the above examples, organisms from New York City’s subway system confirmed material connections between disparate geographies such as India, Russia, and Uganda, as well as disparate environmental processes such as bioremediation and the rise of synthetic organisms in urban environments. By mapping these connections, it will be possible to produce an informative snapshot of the unknown membership of the urban microbiome and its global circulatory currents. Taken together, this dataset will have meaningful implications for public health, urban design, and the biology of “smart cities,” capable of monitoring their microbiome.

The methodology involves sampling microbiomes at different points on HK’s MTR and having them gene-sequenced. Sampling will be completed by April 2015; DNA isolation and sequencing by June; sequencing data analysis by October; microbiome map, results and story integration by November; and submission of a paper to Nature by December.

Among other research questions addressed, we aim to ask (a) what patterns of microbial ecology are found on surfaces in public spaces in HK’s MTR?; (b) How do they differ to New York’s?; (c) what specific microbes of interest are lurking in these public spaces and how far might they have travelled?; (d) does the microbial ecology differ according to the connectivity of the public spaces sampled – for example, are the ecologies in HK’s more connected spaces like Causeway Bay significantly more diverse, less diverse, more stable, less stable than those in public spaces at the end of the MTR line?; (e) what happens to the microbe populations on a surface in a public space when large numbers of people successively imprint their own microbial colonies, for example, by holding on to a hand rail in the MTR? Do you get a kind of microbial soup, inhabited by a stable mix of common dominant microbes? Is this soup distinct for different parts of Hong Kong?

This is very innovative research and shows what can happen when you get bright people talking together in Starbucks – its how universities should operate. It is rather more ‘blue-skies’ than most of the research we normally do in the Faculty but has implications for public health and fits nicely into our growing Healthy High Density City research agenda, as well as adding an extreme shift of spatial scale in the Faculty’s research portfolio. I would like to congratulate Seth for initiating this project and hope we can see many more cross-faculty novel ideas being cultivated in HKUrbanLab.

Thanks to all those mentioned below for your contributions and achievements.

Chris

## Architectural Conservation Programmes

### 1. Dr. Hoyin Lee

- Invited by the Dr. Sun Yat-sen Museum to give a public lecture, "Hong Kong's Early Colonial Urban Environment: The Architectural Heritage of Central and Western District," 7 February 2015. (Attended by about 60 people)

### 2. Miss Vicky Chen (ACP Research Assistant, an ACP graduate with a background in tourism studies)

- Accepted to the three-year, full-time PhD programme by the *School of Hotel & Tourism Management* at the Hong Kong Polytechnic University.

## Department of Architecture

### 1. Dr. Cole Roskam

- Published an article entitled 'Envisioning Reform: The International Hotel in Postrevolutionary China, 1974-1990' in *Grey Room 58* (Winter 2015): 84-111.

**Abstract:** *The international hotel remains an overlooked but critical site of inquiry in understanding the political economic dynamics of reform-era China. This article examines four major projects – the Jianguo Hotel in Beijing, completed by Clement Chen & Associates in 1982, I.M. Pei's Fragrant Hills Hotel, designed and built outside Beijing in 1982, the Great Wall Hotel, designed by Welton Becket International in Beijing and completed in 1984, as well as the Shanghai Centre, completed by John Portman & Associates in 1990. Each may be seen as a conduit designed to both facilitate and control the deluge of competing, occasionally contradictory political, economic, and cultural forces coursing through China over the course of the 1980s.*

### 2. Dr. Eunice Seng

- Presented a paper titled "Transnational Utopia" A Diaspora Manifesto," at the Singapore Dreaming Conference, organized by Asian Urban Lab in Singapore on 6-7 February 2015.
- Presented a paper titled "The People's Park Complex: the State, the Developer, the Architecture, and the Conditioned Public, c1967," and was Chair of the Session "Third Space and Architecture," at the inaugural Southeast Asia Architectural Research Collaborative (SEAARC), NUS, in Singapore on 8-10 January 2015.

**Abstract:** *This paper examines the embedded contradictions in the building of the People's Park Complex in Singapore and how it became the state's primer for urban renewal. The building of the People's Park Complex embodies the intersecting narratives that comprise descriptions of "Chinese" as defined by regional dialect groups and business associations, and the national designation of the term as an overarching, generalized racial definition. More significantly, it is instrumental in the formulation of a*

*Chinese middle-class whose collective identity was perpetually and publicly reinforced by its proponents: the state, the developer, the entrepreneur and the architect. To what extent did the People's Park Complex usher the self-conscious re-centering of the city's identity, as differentiated from the colonial imagination of the Chinese people and their place in the city? How was the paradox of a model for social integration within a development schema played out in the building? This paper addresses these questions by examining the events, objects and ideas to which each of these groups projected and lay claim to the success of the People's Park Complex as a viable commercial centre and urban public space. It attends to how the building was complicit in the national project of conditioning the people and producing public opinion. Designed for a projected middle-class Chinese public – then still an emergent urban politic of diaspora identities – the building inscribed Singapore as an exemplary modern city in Southeast Asia within the first decade of its completion. Methodologically, this paper turns to the newspaper, the government annual report and the building journal, through which the character of this public was described, circulated and codified.*

- Delivered a public lecture titled "Modern Dream Homes: Mid-Twentieth Century Houses in Hong Kong," at the themed panel session "Rationality and Technology" of the Docomomo Hong Kong Lecture Series at Hong Kong Heritage Discovery Centre, Hong Kong, on 20 December 2014.

**Abstract:** *This lecture presents a collection of houses built in mid-century Hong Kong (1940s-60s) that embodied notions of a colonial modernity and manifest the circulation of knowledge, synthesized especially in terms of technological rationality.*

- Presented a paper titled "Breaking News: Narratives of a Composite Building, or an Architecture of Impatience, 1964–2014," and was Chair of the Session "Contested Traditions," at the Biennial Conference of the International Association For The Study of Traditional Environments (IASTE) in Kuala Lumpur on 14-17 December 2014.

**Abstract:** *This paper is based on ongoing comparative research on the high-rise high-density composite building – a large private housing complex often the size of a city block – that emerged in Hong Kong and Singapore in the 1960s. The composite building is inextricably intertwined in the geopolitics of urban transformation and a vital component of a larger network of ideas and discourses. In mapping the impetus behind and agencies involved in the construction of the composite building, this paper contends that during the period of zoning and legal ambiguities, there exists maximum potential in the intermixing of multiple publics and entities, planned and unplanned. To what extent does it embody the paradox of a model for social integration within a development schema? An examination of the composite building in the two post-colonial cities reveals the contingent status of the occupants and of the citizenry at large, which comprised a predominantly Chinese diaspora.*

## Division of Landscape Architecture

### 1. Scott Jennings Melbourne and Ivan Valin

- Travelled to Yangon, Myanmar to meet with colleagues at Yangon Technological University and finalize preparations for the overseas study tour taking place during Reading Week as part of their current MLA studio



## Department of Real Estate and Construction

### 1. Dr Wilson Lu

- Was appointed to the Expert Review Panel (ERP) of Hong Kong R&D Centre for Logistics and Supply Chain Management (LSCM Centre). The ERP will (1) provide industry feedback and technological expertise to the Centre's R&D roadmap; (2) assess and endorse the scopes, implementation approaches of R&D projects proposal; and (3) provide comments & make recommendations to Technology Committee.
- Gave a one-hour talk "A tour of Hong Kong construction industry" to a group of MSc Students at the University of Reading, UK, via video-conferencing on 11<sup>th</sup> Feb 2015.
- Won a HKU Small Project Funding project by proposing developing "An intuitive Building Information Modeling (BIM) maturity model for Hong Kong" (HK\$54,600, 12 months).

## Department of Urban Planning and Design

### 1. Dr. Shenjing He

- Was listed by Elsevier on Feb 2, 2015 as one of the most cited researchers in mainland China (ranked No. 9 among social scientists). The data source Elsevier used was from Scopus which tracks publications in international journals and citations worldwide.

### 2. Professor Bo-sin Tang

- Published the following journal paper:

Tang, B.S. and Ho, W.K.O. (2014), "Cross-sectoral influence, planning policy and industrial property market in a high-density city: a Hong Kong study 1978-2012", *Environment and Planning A.*, 46 (12), pp. 2915-2931.

**Abstract:** *Why did Hong Kong property developers continue to produce a large amount of new industrial accommodation despite the city exhibiting a strong trend of deindustrialization since the late 1970s? This study addresses this question by examining a longitudinal cross-sectoral interaction between industrial and office property markets and its relationship with planning policy. It theorizes about the substitutability between industrial and office accommodation and hypothesizes that the use of new industrial premises by nonmanufacturing operators may be the answer. Using the methodology of Johansen cointegration and a vector error correction model, our estimations have found that industrial rent, price, and supply were influenced by both changing economic structure and office market parameters. Cross-sectoral influences between industrial and office property markets were confirmed.*

### 3. Professor Anthony Yeh

- Published the following journal paper:

Kevin H. C. Cheng, David R. Phillips, Oi-Ling Siu and A.G.O. Yeh (2014), "Patterns of Residential Adjustment for Older Person: Who will Recover and How Do They Recover? A Study in Different Residential Environments in Hong Kong", *Social Indicators Research*, 119 (1), pp. 295-319.

**Abstract:** *This study seeks to understand the residential adjustment process by examining patterns and rates of adjustment of older people. Research to date has reported that circumstantial and individual factors affect adjustment after residential relocation and various patterns of adjustment can occur. A representative sample of Hong Kong respondents aged 60 years or over was selected with the help of areal sampling and the use of a geographical information system analysis. The results showed that overall, many older persons experience a J-pattern (or linear pattern) of adjustment. Many who relocated to new towns were better adjusted from an early period. Conversely, those relocated to or within old urban areas adjusted at a slower rate and an ultimately lower level. The results provide grounds for optimism about older persons'*

*resilience with regard to relocation-related stress and some guidance for planners and policy makers.*

- Has been appointed by the Shanghai Municipal Government to be a member of the Shanghai 13th 5-Year Plan Expert Consultative Committee for the preparation of the 13th 5-Year Plan of Shanghai. He attended the inaugural meeting in Shanghai on 12 February 2014.