Dean's Roundup
Friday, September 13th, 2013

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** (ky͞or′ə-tôr′ē-əl, -tōr′-) n. nounised by the Dean from curator + editorial]*

Dear All,

How might we create less homogenous and less predictable architectural and urban environments? Du Juan and I were talking this week about Shenzhen's 'villages in the city' and she described her first experience of wandering into a Chenzhongcun: at last, an authentic part of a Chinese city. So one answer to the question: decentralise property rights and architectural and planning decisions to small territorial units. There is a flip side however: under-use of central land that could otherwise generate vastly more revenue, some of which, with smart institutional design, could be directed to the welfare of the displaced villagers and their rural migrant tenants. But measured on the dual dimensions of organic urban form and socio-economic vibrancy, the urban villages win hands down.

How else to achieve heterogeneity? The conversation with Christian Lange I mentioned in last week's Roundup suggests an alternative: experiment with parameterising formal design. Write an algorithm that throws up some new combination of elements in 3D. We could do the same in 2D for master plans. An algorithm that arranges 2D elements in a way that throws up surprises? Tom Verebes' work explores this direction.

There are two alternative methodological approaches to designing for surprise: uncertainty can be controlled or uncontrolled. A sculptor working with a block of alabaster from a new quarry might break her partially formed shape to discover something wonderful – a naturally formed contour, an unexpected repetition, or an unusual colour or texture transition. The equivalent in computational design is to work with complexity, where a small shift in a parameter leads to 'phase transition' – an, as yet, unknown and unpredictable development of a pattern.

The other alternative is to control uncertainty. In computational design and urban modelling we use so-called Monte-Carlo methods, which involve throwing a digital dice to add a degree of unpredictability into a simulation. If there are no truly complex interactions created by the design or simulation algorithm, then the generic form of the resulting pattern is likely to be predictable but with random influences that makes the specific manifestation unpredictable. This is more like a ceramics artist mixing two types of glaze with known results, such as cracking, but doing so in a controlled way to achieve a precise effect from a process that has a degree of intrinsic randomness.

So what about designing a building or a master planned housing estate with constrained uncertainty; constrained, for example to achieve fixed net and gross density and aggregate floor area ratio, maximum

parameterised accessibility and total rental yield, while preserving certain fixed environmental assets, ventilation and view corridors etc?

But this is only *design* we are talking about. At another point in my conversation with Du Juan, she talked about coming to the realisation that the designer's role is a limited (albeit important) one in shaping the city. Spreading the question then: how else might we achieve more heterogeneous buildings, streets, neighbourhoods and cities? Here are some suggestions:

1. Controlled de-regulation of planning and building regulations (applying elements of the Chinese urban village, Brazilian Favela and Medieval Europe approach to the modern city, with appropriate safeguards for emergency access, environmental health and so on)

2. Redesign regulations to legislate for variety (the current trend in European and some American city planning)

3. Incentivise homogeneity (or more generally, better design) by fiscal instruments (tax rebate, subsidy etc)

4. Direct government supply of better design, by employing public-interest design services (UK's CABE experiment, urban designers employed by local planning authorities)

In a talk I gave to the HKIUD the other week, I suggested the idea of considering good design as a scarce commodity. Let's assume that we need good design (at all scales) to create a more pleasingly heterogeneous city. How do we increase the supply of a scarce good (or service)? There are three basic answers: regulations, fiscal instruments, direct intervention. a) Regulative measures. The British planning system is the best evidence of this being a bad idea in my view. Sixty-five years of very tight architectural and urban design control by local government regulators and post-WW2 parts of British cities have the smallest and most badly designed houses anywhere in Europe. b) Fiscal measures. Subsidise design services? Tax-rebates for architectural services (hooray!). Minimum % design budgets in development projects? (the built environment industry spends a tiny proportion on design compared to the motor industry). c) Direct government provision. When achieved as part of a design regulation system as in the UK's experience cited, the result is counter-productive: stifling innovation and increasing rather than reducing homogeneity. Government funded urban and architectural design advisory services and competitions are a promising alternative.

So how may we achieve more visually interesting cities (huge question obviously for Mainland China)? We could rely on the ingenuity and artistry of architects and urban designers. But however good this is, the financial bottom line of projects and the strictures of building and planning codes severely limit the scope for all but the geniuses working on unusually favourable projects. This is akin to waiting for the sculptor to stumble across that magic piece of alabaster. We could stand back and allow cities to be shaped by market processes, noting that much of what we like in spontaneous urban spaces is not necessarily good architectural quality – the few remaining pre-1949 quarters of Chinese cities are highly visually appealing but comprised of very poor quality and insanitary buildings.

So liveable and sustainable heterogeneity has to be engineered? I have suggested some of the approaches above. A nice cross-cutting theme for the Faculty perhaps?

Congratulations to those mentioned below for their contributions to the Faculty's research, scholarship and public engagement profile.

Chris

Department of Architecture

1. Mr. Yan Gao

    -   delivered a peer reviewed paper, *Collaborative Mass Housing Design Practice with Smart Models*, to Digital for International Conference on Digital Architecture, DADA2013 Series of Event "Digital Infiltration" in Beijing, as a joint author.

2. Mr. Stephen Lau

    -   delivered a keynote speech at the 50th Anniversary event of the School of Architecture, Hassanuddin University, National University of Indonesia, Makassar, September 5th to 7th.

    -   presented two papers at the SB 2013 Singapore Conference on September 9th and 10th, with his PhD students Zhang zhidong, Xue fei and Liu yaijin. One of the papers entitled "what is green policy? An anatomy of Hong Kong and Singapore s green initiatives", prepared by Liu yaijin and Stephen, won the Best Paper amongst the 150 submissions.

3. Professor David Lung, Professor Weijen Wang, Dr. Hoyin Lee and Ms. Tris Kee

    -   assisted as project consultants for the adaptive reuse of an old police station in Tai O as a heritage hotel. This project has recently won the Award of Merit in the 2013 UNESCO Asia-Pacific Awards for Cultural Heritage Conservation.

    -   assisted the Hong Kong Heritage Conservation Foundation in the preparation and publication of its book on the Tai O Heritage Hotel project during the period from 2010-2012.

Division of Landscape Architecture

1. Ms. Vincci Mak

    -   received two grants from the Gallant Ho Experiential Learning Centre for the projects titled "Shaping the Landscape: Land Art Workshop & Exhibition" and "Pokfulam Village Urban Farm"

2. Ms. Melissa Cate Christ

    -   received a grant from the Gallant Ho Experiential Learning Centre for a project titled "Enhancing the Experiential Learning of Landscape Architecture Students through Community Engagement 2".

Department of Urban Planning and Design

1.   Dr. Roger Chan

    -   was appointed as a resident tutor of the group of visitors from Department of Geography, University of Bayreuth, Germany and gave a presentation on the urban development and dynamics in Hong Kong on September 10th. The group, headed by Prof Dr Doris Schmied, is on a study tour to Hong Kong and Guangzhou. They visited the Energizing Kowloon East Office and Hong Kong Island south, the Urban Renewal Authority and the City Gallery before departing for Guangzhou on Friday.

2.   Professor Rebecca Chiu

    -   is re-appointed by the HKSAR Government as a member of the Country and Marine Parks Board for a two-year period term from September 1st, 2013 to August 31st, 2015.

3.   Dr. Qi Zhixin (PhD graduate in 2012, supervised by Prof. Anthony Yeh)

    -   has just been awarded the prestigious HKU Li Ka Shing Prizes for 2011-12.

4.   Professor Anthony Yeh

    -   published a new paper with details as below:

        Xu, Z. and **Yeh, A. G. O.** (2013), "Origin Effects, Spatial Dynamics and Redistribution of FDI in Guangdong, China," *Tijdschrift voor Economische en Sociale Geografie (Journal of Economic and Social Geography)*, 104:4, pp. 439-455.