

Dean's Roundup

Friday, 13 December, 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 (ky^{oo}r^{ee}-tô^{er}'ē-əl, -tô^{er}'-)] n. nounised by the Dean from curator + editorial]

Dear all,

Yesterday at the Hong Kong – Shenzhen Biennale opening, Colin Fournier, Chief Curator, finished the afternoon with an open-air forum with participants sat on the Barcelona pavilion's photo-mounted cube seats. He asked delegates what makes an ideal city. The term is both a backwards look to historical urbanism (renaissance art and utopian social thinking) and a look forward to the environmental, economic and social contexts of contemporary city building. The responses were broadly statements of personal preferences and views about liveable cities: they should be full of surprises, the unexpected, vibrancy, variety; accommodating the needs and likes of multiple interests; 'grubby like HK, not pristine like SPR'; places of emancipation; open and fair places where people can live together in freedom and without coercion. The themes were remarkably consistent and beauty and aesthetics were hardly mentioned (no doubt being taken for granted).

My contribution was a formalized abstraction – colleagues know by now that I have a weakness for reductionism (I apologize if you don't get on easily with generalized social theory). But I happen to think that this is a powerful one so I'll share it here. It is consistent with all manner of ideas of the kind voiced by yesterday's discussants and binds them together with a simple model of individual behavior.

Simply: the ideal city is one that creates places and spaces within which people can naturally *cluster* together for multiple purposes at multiple scales.

Cities only exist because of the human need to cluster. They cluster to co-produce and co-consume. Without spatial proximity, the division of labour and capital and the specialization of knowledge would not be possible and we would all be living in caves and shacks, spread evenly across the habitable land. People need to co-locate for society to deepen economically and culturally. As knowledge specialization and labour division deepens, clusters emerge naturally at many scales.

Finance workers and firms tend to cluster in one or two large cities in a country (or region) because economies of scale in the finance industry only work when the majority of a country's (region's) finance head-quarters are co-located. Economies of scale in the publishing industry, by contrast, require only a few publishing firms to co-locate to achieve a competitive edge over publishers located alone somewhere else. So two spatial footprints (scalar performance profiles in the words of Tom Verebe's MPhil student Olgierd Nitka) for two industries. Each realm of human co-operation has its own set of clustering dynamics.

The physical manifestation of clustering as the fundamental dynamic of cities was all around us at yesterday's Biennale opening forum: in the distance, workers and residents clustered in TST and other locations in Kowloon; the sunbathers on the beach in the replaying film clip of the Barcelona pavilion were non-randomly located on the Mediterranean beach. The forum delegates were non-randomly clustered

around Colin Fournier. The sea birds gliding on the water nearby followed precise clustering rules (see below).

There is a universal law governing human clustering activity (and that of any living organism come to that): people (and other animals and plants) are drawn to something that attracts them but within spatial constraints. Using an analogy from physics, there are always centrifugal (fling) forces and centripetal (pull) forces. A drone-photo of people spontaneously distributing themselves on a beach will show a systematic, not random, pattern, as I have already said: people like to be near each other but not too near. They like to be near an ice-cream stall but not too near. Fuel stations like to be near (on) major roads but as far away from each other as possible (to avoid price competition because it is difficult to engage in non-price competition when selling fuel). That is, unless government imposes price control on fuel, in which case, you will find fuel stations clustering along roads just like shoe-shops on the high street (the case in Turkey and Cuba). Restaurants cluster, happily locating next to any other but their own kind: but will want to be within some minimum range of their competitors. Residents like to live close to similar people – to benefit from shared identity and from economies of scale in services and amenity consumption. But not too close. This is why I find the typical low-density suburb (western-city style or Asian *desakota* style) so fascinating: it is a settlement manifestation of some kind of optimal clustering behavior, with people balancing the advantages of co-location with the advantages of separation (mainly, more land – larger gardens).

Flocking birds and shoaling fish follow the same rules. Craig Reynold's famous 1987 boids algorithm (used as the basis for animating the fish in 'Finding Nemo' for those who had animation-watching kids at that point) modeled fish and bird behavior on the basis of three parameters: minimum distance (don't fly/swim too near to neighbours); maximum separation (don't stray too far from neighbours); and orientation (keep the same orientate within some bound of error). The familiar clusters of starlings, ducks and salmon seen in nature films are kept together by these simple three rules and the chaotic movements of the massive starling swirls, for example, are caused by haphazard discontinuities in the flocking behavior. Wind, for example, blows one bird beyond the maximum separation distance and a new lead is established on a new front of the cluster. The cluster divides, then reforms as individually each bird moves to re-establish maximum separation, minimum proximity and common orientation.

So, an ideal city as space that permits natural clusterings to come and go, to shape and re-shape, to evolve, split, merge, experiment? Herein lies a joint agenda for architectural design, landscape, urban planning, policy and property law: left to their own devices, humans will cluster in ways that are (a) detrimental to their own health and wellbeing and (b) detrimental to others. The overall value of the urban habitat to all clustering groups (producers, consumers and sub-sets thereof) can be maximized by coordination. My talk in the recent NUS-RCCPRR symposium addressed the question of why people will chose to live at sub-human densities in cages and bomb-bunkers in order to avail themselves of the benefits of co-locating in cities and what, if anything can or should be done to 'steer' such flocking behavior. At the Eric Lye forum I posed the analogy of the urban pirate ship: what rules maximize the value of the city to its inhabitants? What rules maximize the value of space to the clusters of co-operating individuals that create cities?

The Barcelona pavilion hosting yesterday's outdoor forum was brilliantly configured: seats were beautifully designed and constructed; just far enough apart for privacy but not too near so that we couldn't talk to each other; in a private corner of some nicely landscaped public space, next to the harbor etc. I predict that if it remains as a permanent installation it will accommodate many voluntary clusters of collaborating individuals. You never know, maybe the next big political movement in Asia may start there.

The designers responsible for the creation of Vienna's pre-war coffee shops and quarters could not have known that so many ground-breaking intellectual innovations would be fostered by the clusters of brilliant and creative minds that were attracted to their spaces.

Congratulations and thanks to those whose achievements are recorded below. For collective congratulations, I would like to draw colleagues' attention to the fact that the Faculty of Architecture had 2 of the top 10 most page-viewed press-releases on HKU web site (last year or last month – I'm not sure). 'WeOwnTheCity' came second (2,354 views) and 'TKT land Production' came sixth (1,210 views). Please

keep this kind of exposure up, it is very important for us and for the wider university and much appreciated by the VC.

Chris

Department of Architecture

1. Professor Lynne DiStefano, Dr. Lee Ho Yin and Ms. Katie Cummer

- Organized a field study with 19 postgraduate students to Yangon, Myanmar. Working in conjunction with Yangon Heritage Trust, ACP students carried out a streetscape study within Yangon's British colonial urban core, and made presentations to the Trust as part of the contributing effort for the development of conservation guidelines in Yangon.

2. Mr. Stephen Lau

- discussed with Mr. Jaya Skandamoorthy, Executive Director BRE, Watford UK, re: collaborations on Post Occupancy Study on the green performance of BRE flagship green demonstration projects under the Sino-UK joint declaration on greening the Chinese cities, during his visit to HKU on 7 December 2013.



- visited the digital fabrication facilities (at commissioning stage) at Tongji University, introduced by the Associate Dean in charge, Prof. Qian Feng, on the following items: 8-axis robot (KUKA), 6-axis CNC, (BACCI) and 3d printer: selected laser sintering (EOSINT), price tag: RMB 10M.



3. Mr. Anderson Lee

- was invited to deliver a keynote lecture entitled "Differentiate by Design" at the "Serviced Apartment Expansion Summit" held at Pudong, Shanghai on Nov 21-22, 2013. Over 100 industry leaders joined the summit which is held annually at different cities in the world.
- Under the supervision of Anderson Lee, Master of Architecture graduate, Mr. Tsui Chun Shing, Chris, received First Prize in the *Re-Thinking the Future's International Architecture Thesis Award 2013* (IATA) -- The international competition attracted over 500 entries worldwide and Chris received top prize in the mixed-used category for his thesis project "Urban Paradox- Architectural Iteration to Paranoiac Tensions."
<http://www.re-thinkingthefuture.com/international-architectural-thesis-award.html>

4. Mr. John Lin and Joshua

- Joshua Bolchover and John Lin with Rural Urban Framework have been selected as the winner of ICON awards 2013 in the category Emerging Architectural Practice. Nominations are made through an independent expert panel and then judged by an internationally renown jury.
- John Lin gave a Keynote Speech Dec 11, in the Green Design for the Future Forum at Tsinghua University, Beijing. The other keynotes included Shigeru Ban and John Hardy.

5. Mr. Tom Verebes

- published an article in *HKIA Journal*, December 2013 issue (Theme: *Drawing*), edited by Tris Kee, titled, "*The Legacy and Limitations of the Final Drawing*", featuring student work from Verebes' MArch Studio, *Groovy Tectonics* in spring 2013.
- published an introductory essay for an exhibition catalogue, titled "*Unbound Architectures*", and moderated a panel discussion at the Shenzhen Architecture & Urbanism Biennale, for an exhibition titled, "*XX Perceptions: Urban Borders*", featuring 20 Young Belgian architects.
- invited to join the Peer Review Committee for the *German-Israeli Foundation for Scientific Research and Development* (GIF), Berlin, Tel Aviv, to review applications for research grants in the area of Architecture and Building Performance.

Department of Urban Planning and Design

1. Professor Rebecca Chiu

- published an article with details as below:

Prof. Rebecca Chiu published an article jointly with Nicole Gurrán on “China plans for 36 million affordable homes – lessons for Australia” at *The Conversation*, 9 December 2013, accessible at <https://theconversation.com/china-plans-36-million-affordable-homes-lessons-for-australia-19710>.

2. Mr. Wang Jiejing, Jackie (a PhD student)

- published a paper with details as below:

Chen Y. and Wang J. (2014), “Recursive subdivision of urban space and Zipf’s law”, *Physica A: Statistical Mechanics and its Applications*, 395, pp. 392-404.

3. Dean Webster

- Woo Y and Webster C, 2013, Co-evolution of gated communities and local public goods, *Urban Studies* 50(17), just published online:

<http://usj.sagepub.com/cgi/content/abstract/0042098013510565v1>.