

Dean's Roundup: 6 May 2016

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**¹**ra-to'ri-al** (ky^{oo}r^{ee}-tô^r'ē-ə|, -tô^r'-)] n. nounised by the Dean from curator + editorial

Dear All,

I would like to alert colleagues to several exciting new initiatives under discussion in FoA/UrbanLab.

1. Zhu Tao is leading on collaborative discussions with a city of 1 million that forms part of Dongguan city in Guangdong. The government of the city has approached HKU to partner with it in developing urban innovations that help position the city as a prominent national innovator in industrial re-structuring, urban planning and design and social order. For example, it is seeking new ideas for linked institutional and physical design that provides sustainable work-living solutions to accommodate the 90% of the population who are non-local hukou holders (migrants from other towns and provinces). This is a real possibility because 60% of the city's land is owned not by private interests or by the state but by town and village collectives. This makes it possible to write-down the value of primary or secondary land sales and thereby design well-integrated spaces and uses in a way not possible when (even socially well-meaning) governments are trumped by high central land values. This project has huge possibilities for research and teaching across FoA and HKUrbanLab – in all of our professional and academic fields. Talk to Tao if this inspires you please.
2. Anderson Lee is leading on two developments. One is a collaboration with the local government of the area in Shanghai that houses our Shanghai Study Centre and focuses on residual urban spaces. At one extreme, the vision would be to make the district an iconic location nationally or even internationally for micro residual spaces re-captured by good architectural and urban design. The second is a proposal to work with local government, rural collective government and local developers in Anji County, Zhejiang. This is a region about 2-3 hours drive from Shanghai that will in the next 10 years or so come under intense pressure from tourism, second-homes, leisure and related uses. It is one of the most productive bamboo producing counties in all of China and the local government is interested in architectural, urban planning

and industrial and urban development interventions that secure a prosperous, green and sustainable future for the county. We are talking about making a long term commitment to studio teaching in the county, following our Project Myanmar experience over the past 3-4 years. Talk to Anderson if you are interested in either of these.

3. Rebecca Chiu is leading on a One Belt One Road (OBOR) initiative that she will present at a Faculty workshop soon. This has the potential to fly very high and we are talking to various potential funding bodies including HK CPU and the Asian Infrastructure Investment Bank. It would include comparative urban policy research, spatial economic modeling and regional-scale landscape ecology and cultural heritage mapping. The idea is to model the changes in development pressure created by OBOR infrastructure investments; ask how urban policy is placed in the various OBOR countries to capture and to enhance network effects of the infrastructure; and to map landscape and culturally sensitive regions and points that might be threatened by the rapidly changing Eurasian accessibility geography. Talk to Rebecca and watch out for her workshop announcement.
4. Ivan and Scott are drafting research plans to extend their student-based work in Yangon into a more fully founded urban ecological analysis of the city, building up GIS data layers to create fine-grained urban eco zonation and analysis that can help constrain Yangon's inevitable spatial explosion in the next few years. I am hoping we can collaborate with Tsinghua Landscape architects, who are well know for this scale of landscape research.

Congratulations to colleagues for the achievements listed in the remainder of this Roundup. Please take a moment to scan through the inspiring work of DLA's Ashley Kelly (some of it with Dorothy). This work does not fit well under any existing HKUrbanLab group. If DLA persists with it, as I hope it will, we may be talking about a new lab. On that note, I look forward to hearing how architectural history and theory colleagues want to organize their research within the UrbanLab.

Chris

FoA Departments and Divisions

Department of Real Estate and Construction (DREC)

1. Sr. Bay Wong

- was re-appointed by the Secretary for Development on 23 March 2016 as a member of the Advisory Committee on Water Supplies (ACWS) for the coming two year term from 1 April 2016 to 31 March 2018.

Department of Urban Planning and Design (DUPAD)

1. MSc Urban Planning Programme

- MSc Urban Planning Year 1 students presented their Regional and Territorial Planning Studio projects at the Public Seminar entitled: Planning Strategies for Developing Hong Kong as a "Smart City" at the City Gallery on 30 April (Saturday). Their presentations covered literature review of Smart City, review of Hong Kong's policies and initiatives, international experiences, and recommendations of visions and strategies for developing Hong Kong into a Smart City. Prof. Rebecca Chiu, Head of DUPAD and Mr. K.K. Ling, Director of the Planning Department, HKSAR Government were invited to give the opening addresses.



Division of Architectural Conservation Programmes (DACP)

The ACP Division was reported in the 27 April 2016 edition of *The Standard* for its contribution to Hong Kong's built-heritage conservation, specifically on three award-winning projects: (1) Former Legislative Council Building; (2) Former Central Government Offices; and (3) St. Andrew's Church. The first two projects involved a team comprising entirely of ACP alumni, while the last project involved ACP staff Dr. Ken Nicolson, who received the AIA award certificate together with Prof. Nelson Chen of CUHK. As quoted in the newspaper, "The University of Hong Kong's architecture faculty can be proud [of] its conservation programs have done so much good." See: <http://www.thestandard.com.hk/section-news.php?id=168734>

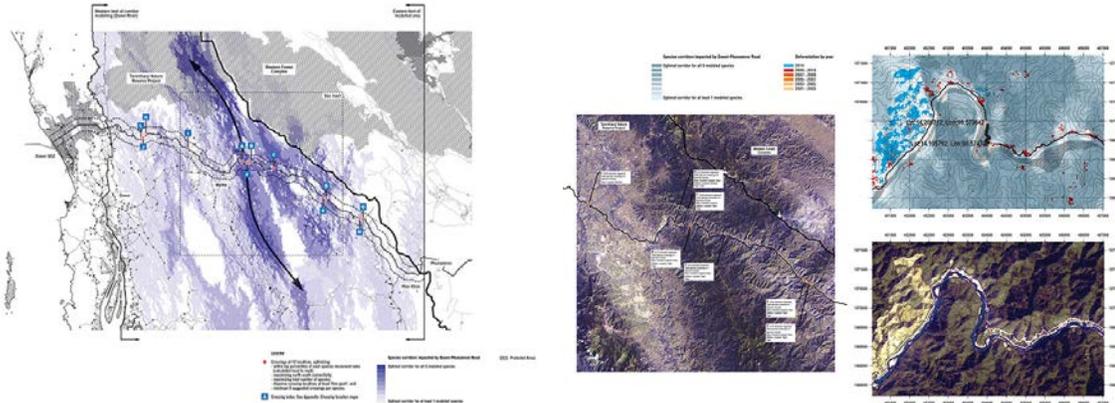
Division of Landscape Architecture (DLA)

1. Ashley Scott Kelly

- published the following wildlife crossing report at the Worldwide Fund for Nature (Myanmar) in April 2016:

Kelly, A.S., Connette, G., Helsingen, H., and Paing Soe. (2016). *Wildlife Crossing: Locating species' movement corridors in Tanintharyi*. Worldwide Fund for Nature (Myanmar). 49pp.

Abstract: *This report is a collaboration between landscape designers, policy strategists, and species biologists from HKU, Smithsonian, WWF, FFI, and WCS. The importance of the study is that it takes abstract regional models from conservation biology developed over the past decade and applies them to site-specific conditions for the design of wildlife crossings where data is extremely limited. A set of principles was developed to reduce the abstraction and potential error in regional models of animal movement rate (proxied by electric circuit theory) and is potentially a breakthrough in multi-species modeling using these techniques, still critiqued as impractical only a year ago. The entire process is automated and outputs an optimized set of potential wildlife crossings as segments, rather than points, to allow flexibility in decision-making during road design and alignment due to costing and local landscape conditions.*



- completed the 3D-printed models of landscape design scenarios for data-poor sites with Dorothy Tang in January 2016. The models were presented as posters at November's "Wired in the Wild" symposium in Washington DC

Kelly, A.S., and Tang, D.

A fully automated process takes low-resolution site data, plus assumptions about hydrology, rough land cover delineated from aerials (not multi-spectral), and designed road elements and wildlife mitigation measures, to fabricate much higher-resolution site models than available data permits. Because of the complexity of the surface produced, production is also automated to reduce printer material waste and account for necessary tolerances when working with plant-derived plastics. These are on display in WWF's Yangon office and have been used in stakeholder meetings, including with the Dawei SEZ and road link developer in Bangkok.

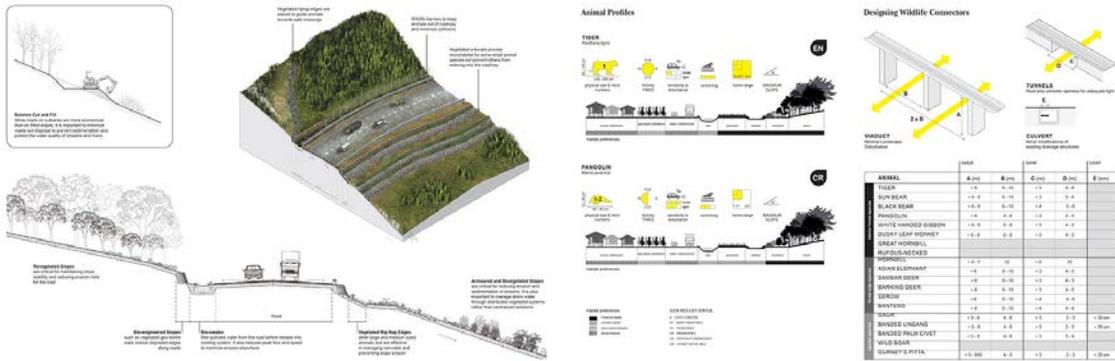


- published the following manual on Dawei road design with Dorothy Tang in January 2016:

Tang, D., and Kelly, A.S. (2016). *Design Manual: Building a Sustainable Road to Dawei*. Worldwide Fund for Nature (Myanmar). 76pp.

The manual combines species profiles and habitat characteristics with a catalog of sustainable road construction technologies and wildlife mitigation measures, and applies them to design scenarios at specific example sites along the Dawei

road. Together, this manual and the wildlife crossing report offer a set of critical tools and approaches to planning, design, and maintenance of the Dawei road and similar large-scale infrastructure corridors. Both works target wide audiences and are written and graphically narrated to inform road builders, policy makers, and communities alike of best practices, risks, and the critical value of well-planned sustainable transport infrastructure.



- Presented *Wildlife Crossing* reports and road *Design Manual* to the Dawei Development Company SEZ and the road link developer Ital-Thai Development (ITD) in Bangkok, April 2016
- organized and hosted "Land Development and Conservation in Hong Kong - Roundtable and Workshop" in February 2016, which brought together academics and NGOs to debate land supply over an interactive mapping platform that composites and visualizes key land data across scales. The event was co-organized by HKU, Liber Research Community, Designing Hong Kong, Professional Commons, Land Watch, World Wide Fund for Nature (WWF) Hong Kong, and Save Our Country Parks.



- Studio fieldwork in southern Tanintharyi, Myanmar, March 2016: HKU students traveled the Myeik-Maw Taung corridor in southern Tanintharyi Region to document conditions and propose landscape planning strategies for large-scale agroindustry, conservation, and associated development. Students presented and met with Fauna and Flora International (in Myeik and Yangon), Norwegian Refugee Council (Myeik), Dawei Development Association (CSO,

Dawei), Southern Youth (CSO, Myeik), and Worldwide Fund for Nature (Yangon). Supported by Gallant Ho Experiential Learning.

- Presented on panel "Modernizing Villages in Asia: Navigating between Urban and Rural" at the Association for Asian Studies (AAS) Annual Conference in Seattle.

Kelly, A.S. *Modernization via independence: Grassroots resistance to agroindustry and large-scale development in southeast Myanmar.*

Abstract: *Emerging from post-ceasefire Myanmar is a growing civil society (CSO) sector confronting new forms of environmental degradation from domestic and international development projects. For Myanmar's border zones, this CSO activity is built upon decades of an "activist diaspora" to Thailand that has recently traded protest movements for grassroots ecotourism, community forestry initiatives, and other green land-based strategies. In southern-most Tanintharyi Region, an advanced agroindustry sector, relative to other parts of Myanmar, and large-scale industrial projects are meeting CSO-organized village-level opposition. This paper contextualizes this resistance and its alternative forms of development arising since the infamous Yadana-Yetagun gas pipelines in the 1990s. Although presently unique, the village of Kalonehtar, sited within the planned inundation area of the Dawei Special Economic Zone's principal reservoir, has emerged a self-proclaimed model of resistance via self-sustainability. Its efforts include the region's first appropriation of International Rivers Day in 2014, CSO-organized visits by domestic groups from across Myanmar to Kalonehtar, and assertion of strength via automobiles, solar power, ecotourism and other symbols of wealth and modernization. Kalonehtar, like villages around Yadana in the 1990s, involves import of Thai activist strategies, including village conservation areas in immediate opposition to adjacent state-enforced afforestation programmes. This village land demarcation process is part of simultaneous CSO- and iNGO-led customary mapping initiatives, often overlapping large rubber and mining concessions. While positioned relative to surrounding developer-led community outreach programmes and sustainable development by international conservation NGOs and transnational corporations, this paper focuses on the processes of modernization aligned with grassroots resistance and the origins of those alternative models. Preference is given to explaining these processes through their spatial proximity and interaction in a compressed transnational space. Modernization here is at least partially a reactionary vision of strength via green technologies and geographic knowledge in a region scarred by decades of military-ethnic conflict, corruption, and oppressive "green" development projects.*

HKUrbanLab research groups

Sustainable Cities^{HD}

1. Professor Weijen, Yan Gao, Chad McKee and Qin Hao
 - The Organizing Committee of Solar Decathlon China selected their joint project as the finalist of Solar Decathlon China 2017. An initial funding of 1/4 to 1-2 million will be provided for the research and design within half to one year.

Centre of Urban Studies and Urban Planning

1. Dr. Darren Cheung and Prof. Tang Bo-sin (DUPAD)

- Published the following article:

Cheung, D. and Tang, B. (2016). "Recreation Space or Urban Land Reserve? Land-Use Zoning Patterns and the Transformation of Open Space in Hong Kong." *J. Urban Plann. Dev.*, 10.1061/(ASCE)UP.1943-5444.0000314, 04016004.

Abstract: Open space planning is a common issue in urban studies. Under development pressures and urbanization, open space is prone to manipulation and erosion by governments and developers to achieve material gains and parochial interests. This paper contributes to the ongoing discussions about open space development using Hong Kong as an empirical case. The vulnerability of open space and the flexible planning regulation in the use of open space land are highlighted through an examination of existing open space zoning patterns and the planning application data for land-use changes. It is argued that open space tends to act as public land reserves rather than serving the original planning intention of recreation under the current open space planning system. This empirical finding is useful for planners to reconsider the effectiveness of the open space planning system and open space protection.

2. Dr. Huang Jianxiang (DUPAD)

- published the following article

Huang, J., Zhou, C., Zhou, Y., Xu, L. and Jiang, Y. (2016). "Outdoor Thermal Environments and Activities in Open Space: An Experiment Study in Humid Subtropical Climates." *Building and Environment*, 103 pp. 238-249, DOI information: 10.1016/j.buildenv.2016.03.029

Abstract: *The outdoor thermal environment correlates with occupant behaviors in open spaces. The appropriate range of thermal environment that is conducive to outdoor activities, however, remains inadequately defined. Existing studies fail to characterize the behavioral responses to thermal environments in important dimensions including activity types, age or gender. We conducted field studies on six open spaces in Wuhan, China, a city with humid subtropical climate and ideal for this research. Data based on field observations, questionnaires, and measurement were collected under a variety of weather conditions over 4 years. We renovated a playground by adding shading shelters and vegetation cover to reduce summertime heat stress. On-site thermal environment were assessed using the Universal Thermal Climate Index (UTCI). Findings are as following: the outdoor thermal environment is a strong predictor of mean attendance over a period of time, but not spontaneous occupancy at a specific time or space; the Optimum Thermal Environment (OTE), defined as the range in which an open space is well-attended (attendance above 90% of peak value), is more consistent than the self-reported Thermal Acceptable Range (TAR) in this study. Behavioral responses to thermal environment differ by gender, age, and types of activities. The experiment confirmed the causality between outdoor thermal environment and activities: the renovated playground attracted 80% more occupants in summer; people stayed longer, reported less heat stress, and interacted with each other more often. Results remained significant after controlling for weather, air quality, daily and weekly routines. Findings had implications for the design of open spaces.*

iLab

1. Dr. Isabelle Chan

- was invited by the Hong Kong Institute of Engineers (HKIE) to deliver a speech entitled “Fostering Innovation in Construction: An Empirical Study of 5D BIM Education” at the BS One Day Seminar 2016 – ‘BIM and Sustainability Updates’ held on 15th April, 2016. The seminar was attended by more than 250 participants from both the public and private sectors.
- was invited by the Hong Kong Institute of Engineers (HKIE) to deliver a CPD seminar entitled “Construction innovation: A view from the lens of learning and culture” on 23rd March 2016.



- was invited by the Hong Kong Institute of Surveyors (HKIS) to deliver a CPD seminar entitled “Stress Management for Quantity Surveyors: Mindfulness-Based Stress Reduction” on 19th April, 2016.



2. Dr. Wilson Lu

- Published a paper “Xiong, B., Lu, W.S., Skitmore, M., Chau, K.W., and Ye, M. (2016). Virtuous nexus between corporate social performance and financial performance: A study of construction enterprises in China. *Journal of Cleaner Production*, Forthcoming”.

Abstract: *Although business and society are thought in a vicious relationship for diminishing trust among stakeholders, a few studies indicate the existence of a reciprocal nexus between corporate social performance and corporate financial performance, known as the “virtuous cycle”. Despite of some empirical studies in developed countries, little research has been conducted concerning the assumption in emerging markets, where large companies have more responsibilities to create positive and sustainable-shared values. This paper aims to explore the nexus of Chinese companies for their global influential social and environmental impacts together with increasing awareness of corporate social responsibility (CSR). A two-step longitudinal design, including cross-lagged correlation analyses and longitudinal path analyses, is applied to examine the overall and decomposed links between corporate social performance and financial performance. It is found the virtuous cycle does exist in the overall and in most decomposed links within the context of large construction companies in China. These findings are beneficial for interested policy-makers, corporate managers, and the public to create shared value on CSR and therefore contribute to CSR improvements. Analysis results indicate a one-year time lag to be appropriate for examining the lead-lag relationship between corporate social performance and financial performance. The research also inspires a potential generalisation of the CSP-CFP nexus by similarly examining it in other industries or other countries with diverse CSR contexts.*

- led a research group of REC’s PhD/MPhil students and a post-doctoral fellow, including Ms. Yuhan Niu, Mr. Diandian Liu, Mr Leo Chen, Dr Linzi Zheng, Ms. Xi Chen, and Ms. Meng Ye to join the academic exchange event “BIM and Big Data: Academic Exchange Tour” to Kunming, China, from 25 to 28, April 2016. The exchange event constituted of two major activities hosted by Faculty of Civil Engineering Mechanics, Kunming University of Science and Technology, including:
 - delivered an open speech about “BIM and Big Data” in the workshop with members of Yunnan BIM Union in Kunming University of Science and technology (attended by members from 5 universities and over 10 local/national corporations); and



- delivered a keynote speech "BIM and Big data: toward a smarter, safer and more efficient construction industry" to Faculty of Civil Engineering Mechanics, Kunming University of Science and technology (attended by about over 100 postgraduate students and 300 undergraduate students).



3. Professor Steve Rowlinson

- Attended the iTWO 5D BIM seminar at Guangzhou on 28 April 2016, with professionals from the real estate developers, architectural contractors, project directors and academics.
- Is invited to the next iTWO 5D BIM seminar which will be taken place at the Shanghai Study Centre in June 2016

<http://itwocb.com/index.php/itwo-summit-guangzhou-review/>



- Delivered a speaker talk on “Building Information Modeling, Integrated Project Development and construction projects: efficiency and effectiveness” in RIB iTWO on 24th March 2016 at 5DBIM lab, HKU Shanghai Study Centre.
- gave a speech at LHC safety award 2016, on 18th March 2016
- was invited to Gammon partnering session as a guest discussant and discussed about the challenges of construction industry on 4 March 2016
- was certified of his service and contribution to the Institution of Civil Engineers as a Chartered professional reviewer

Virtual Laboratory of Urban environments and Human Health

1. Dr. Bin Jaing

- Published the following article:

Bin Jiang, Dongying Li, Linda Larsen and William C. Sullivan. A Dose-Response Curve Describing the Relationship Between Urban Tree Cover Density and Self-Reported Stress Recovery *Environment and Behavior* May 2016 48: 607-629, first published on September 25, 2014 doi:10.1177/0013916514552321

Abstract: *Although it is well established that viewing nature can help individuals recover from a stressful experience, the dose-response curve describing the relationship between tree cover density and stress recovery is totally unclear. A total of 160 participants engaged in a standard Trier Social Stress Test to induce stress. Participants were then randomly assigned to watch 1 of 10 three-dimensional videos of street scenes that varied in the density of tree cover (from 2% to 62%). Participants completed a Visual Analog Scale questionnaire at three points in the experiment. Analysis revealed a positive, linear association between the density of urban street trees and self-reported stress recovery, adjusted $R^2 = .05$, $F(1, 149) = 8.53$, $p < .01$. This relationship holds after controlling for gender, age, and baseline stress levels. A content analysis of participants' written narratives revealed a similar but even stronger association. These findings suggest that viewing tree canopy in communities can significantly aid stress recovery and that every tree matters. (<http://eab.sagepub.com/content/48/4/607.abstract>)*

The above article was referred by PsyPost on 3 May at the following link: <http://www.psypost.org/2016/05/stress-reduction-improves-tree-coverage-density-rises-urban-settings-42567>