

## Dean's Roundup (Friday, 14 November, 2014)

**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>ə</sup>-tôr'<sup>ē</sup>-əl, -tôr'-)] n. nounised by the Dean from curator + editorial]

Dear all,

Earlier this week during a fire-drill in the Knowles Building, I sat on the steps outside with one of Joshua Bolchover's students talking about residual space. We were sitting in a residual space. It was the top of the steps leading down to Sun Yat Sen Plaza (SYSP) and a corner that is rarely used because of the interaction between its design (occupying the 90 degree concavity in an L-shape flower bed) and its land-use (planner-speak) or program (architect-speak) – circulation space. If Matthew Pryor had extended his remotely-sensed monitoring of pedestrian use of SYSP (recent project) to the top of the steps, the trace-lines drawn by the computer algorithm would have identified a non-used space.

Residual spaces are formed by the interaction of users with an environment. All designed spaces have margins where the fit starts to weaken. Some 'inactive' margins are designed. Buffers are meant to be just that. Other margins are not planned, but are incidental artifacts of shape.

Some residual spaces are not margins, at least not initially: they become marginal because of changes of demand for space over time, like the utopian green centre-piece spaces of Europe's post War social housing experiments.

I asked Joshua's student 'at what scale are you identifying residual spaces?' Her task was to identify them in her study area, map them and, I assume, analyse potential uses and design-interventions for securing those uses. Scale matters in the question of identifying residual spaces for the same reason as scale matters in answering the question how long is the coastline of Hong Kong. According to Wikipedia, the answer is 733 km. But according to which length of ruler? Taking a three-meter 'yardstick' around the coast, we would capture a certain amount of coastline detail and arrive at a certain total length. Take a 30cm ruler into the field and spend 5 years measuring and the coastline would probably measure 7000 km. As the length of the measuring device gets smaller (tends towards zero), so the total length of coastline gets longer (tends towards infinity).

The same is true of residual spaces. Extending the argument from 1D to 2D, as the scale of measurement gets more fine-grained, the number of residual spaces gets larger. That poses an intriguing practical and philosophical question: does the boundary-line of residual space tend to infinity as the ruler gets smaller? (Answers on a postcard please).

So maps of residual spaces can be distinguished by scale. They can also be distinguished by reason: why are they residual? Some residual spaces are residual for technological reasons, other for legal reasons. Some are too small to build on; others are legally too ambiguous to build on. Some represent gaps in the formal land cadaster; others are 'gaps' in usability (gaps in demand, if a configured space represents supply). Some are residual because of physical access constraints, some because of legal access constraints.

The map gets more complex and more interesting in a 3D city like HK. What is the smallest piece of 3D volumetric residual space that can be brought to life through creative design (physical and institutional) and what is the largest? And how can residual spaces at different scales be brought to life in a way that adds value to the whole, bearing in mind interactions between spaces within and between scales?

Perhaps that is the most succinct abstraction of the purpose of urban design. I look forward to working with colleagues from all departments and divisions in the coming months to developing a distinct and robust HKUrban Lab position on urban design, which is compelling and useful enough to spread far beyond the 733 km of these shores.

This week we have an amazing collection of achievements that should make us all very proud. (Next Dean's Roundup will be even more impressive – we have had a bumper crop of awards over the last few days, which I look forward to sharing). Thanks all, for your hard work.

Chris

## Architectural Conservation Programme

### 1. Dr. Hoyin Lee

- Invited to give a public lecture, entitled “Hong Kong Colonial Architecture, 1841-1997” by the Conservancy Association Centre for Heritage, held at the Hong Kong Polytechnic University, 1 November 2014. See: [http://cache.org.hk/blog/colonial\\_architecture\\_talk/](http://cache.org.hk/blog/colonial_architecture_talk/). (Attended by 80 people)



## Department of Architecture

### 1. Mr. K P Cheung

- On Tuesday, 4 November, presented the following 2 topics, A & B, to the professionals of Leigh & Orange Architects Ltd. [designed the HKU Main Building], upon their invitation:
  - A. <http://icee.hku.hk/chinachem01.pdf> Roof Greenhouse enriched with CO2 breathed out by humans
  - B. <http://icee.hku.hk/activities/KPC-5-2014.pdf> potential of underground development in HKSAR

The following web materials containing some of KP's publications mentioned in the presentation given to Leigh & Orange Architects:

- <http://icee.hku.hk/chinachem02.pdf> Greening the earth
- <http://icee.hku.hk/activities/HKU100exhibition/doc/20110316g-GR02/KPC.pdf> - underground + aboveground development integration
- <http://icee.hku.hk/activities/workshops/doc/20110108/KPC.pdf> –HKSAR long term development concepts
- a page of many web publications of Cheung  
<http://icee.hku.hk/activities/HKU100exhibition/doc/20110316g-1/KPC.pdf>

### 2. Ms. Juan Du

- Invited to contribute research and exhibition content in the 2014 Venice Architecture Biennale China Pavilion's Special Exhibition – Synergy and Symbiosis. In addition, invited to participate in the Discussion Symposium of the exhibition moderated by Ole Bouman; and co-hosted the opening ceremony with curator Jiang Jun. Opening and Symposium, September 20, 2014.
- Invited to participate in the ETH Future Cities Laboratory Exhibition and Symposium, a multi-day event in the main campus of ETH Zurich. Moderated and participated in the discussion panel – New Spaces of Economy, on September 25, 2014.
- Invited to give a talk at the [Ecole Nationale Supérieure d'Architecture Paris-Malaquais](#), entitled: "One Thousand Years of an Instant City", on October 14<sup>th</sup>, 2014.

### 3. Dr. BS Jia

- Jia, Beisi : "Master Class - Kinetic Potential: Architectural Education on Open Building (4)" (Chinese with English abstract) , Architectural Worlds (No 158), 2014:4 Vol. 29, Shenzhen, China. p. 28-33 (ISSN1000-8373)

### 4. Ms. Tris Kee

- has a single-authored paper, titled "Cultivating a Participatory Design Practice in Architecture – A Case Study of Hong Kong Housing Authority" has been accepted for The International Journal of Architectonic, Spatial, and Environmental Design.
- presented a paper at the EUROPEAN SYMPOSIUM ON RESEARCH IN ARCHITECTURE AND URBAN DESIGN November 12-14, 2014, Istanbul, Turkey

### 5. Mr. John Lin

- wrote a commentary on the umbrella revolution for Architecture Review



#### Umbrella urbanism: Hong Kong protests

28 October 2014 | By John Lin



Weeks of unrest by Hong Kong's democracy campaigners has met with intransigent opposition from the government, while producing new experiences of the city's spaces, writes John Lin

Just try and kick a ball around on one of Hong Kong's many green lawns and almost immediately a uniformed guard will appear to politely inform you that it's against park rules. That is if you are even allowed on the grass at all. This is certainly the case if you try to enjoy the beautifully maintained open space running directly underneath the new government headquarters building, connecting the new harbor edge with the old city edge. This well-designed and well-intentioned civic space, described on the official government website with

the self-stated theme 'Doors Always Open', would seem to be the perfect place to stage a protest. A photogenic backdrop framed directly underneath government offices, including the Chief Executive of Hong Kong. Even the architect Rocco Yin has discussed his intention to bring public use right to the heart of the government. But in over three weeks since the so called 'umbrella revolution' began in Hong Kong, the space has remained strangely silent. Instead thousands of protesters have preferred to occupy the highway infrastructure running beneath and along the back of the building, where civil servants typically enter for work. This choice of protest site, whether strategically placed to disrupt traffic or a strong desire to inhabit spaces against their design, has resulted in an impromptu and often exhilarating experiment in Hong Kong urbanism.

On 28 September, when students took to the streets in Hong Kong after the arrest of several of their leaders at the culmination of a week of class boycotts, initially the effort was simply a mass demonstration of dissatisfaction with new rules regulating the promise of universal suffrage in the upcoming 2017 elections for the Chief Executive of Hong Kong. These regulations handed down by Beijing allow for a small nominating committee of 1200 members (representing mostly business interests) to put forth candidates for election, effectively maintaining political control with Pro-Beijing loyalists. This proposal has been criticized as 'false' democracy. Police were immediately sent to quell the protest with pepper spray and tear gas. Students defending themselves with goggles, masks and umbrellas, were dubbed the 'umbrella revolution'. In the weeks of standstill following the initial violence, the students occupied the streets and highways, transforming them beyond recognition.



### 6. Dr. Cole Roskam

- was chosen as a Geddes Visiting Fellow by the University of Edinburgh's College of Art. Next semester, I will spend a week in Edinburgh, where I am expected to deliver a series of lectures and seminars based on my research.

## Department of Real Estate and Construction

### 1. Dr. Wilson Lu

- delivered a keynote speech "Construction Waste Management in Hong Kong: Facts, Figures, and Fantasies from Big Data" on the 19th International Symposium on the Advancement of Construction Management and Real Estate jointly organized by Chinese Research Institute of Construction Management (CRIOCM) and Chongqing University, from 7 to 9, Nov 2014, Chongqing, China.

### 2. Dr. Sean Peng

- presented a conference paper "**Peng, Y. Lu, W.S., and Chen, K.** (2014). Disparity of Willingness-to-pay and Ought-to-pay for Construction Waste in Hong Kong: A conceptual model. *Proceedings of the 19th International Symposium on the Advancement of Construction Management and Real Estate*, 07 – 09 Nov 2014, Chongqing, China".

### 3. Ms. Crystal, Xi Chen (Research Assistant) – Best paper award

- presented a conference paper "**Chen, X. Lu, W.S., Ye, M.** and Shen, L.Y. (2014). Construction waste generation rate (WGR) revisited: a big data approach. *Proceedings of the 19th International Symposium on the Advancement of Construction Management and Real Estate*, 07 – 09 Nov 2014, Chongqing, China." The paper was selected as an excellent paper and awarded the 2nd Prize by CRIOCM.

### 4. Mr. Leo Chen (a PhD student jointly supervised by Dr. Wilson Lu and Professor Steve Rowlinson)

- delivered a presentation "**Chen, K., Lu, W. S., and Peng, Y.** (2014). A preliminary study on the framework and technologies for bridging BIM and building. *Proceedings of the 19th International Symposium on the Advancement of Construction Management and Real Estate*, 07 – 09 Nov 2014, Chongqing, China".
- won a "Reaching Out Award" of HK\$ 10,000 granted by HKSAR Government Scholarship Fund.

5. Ms. Yuhan (Nina), Niu (a PhD student jointly supervised by Dr. W.S. Lu and Professor K.W. Chau)
- presented a conference paper "**Niu Y.H., Lu W.S. and Chau K.W. (2014). Measuring Competition Degree of Building Maintenance Market in Hong Kong: A Conceptual Model. Proceedings of the 19th International Symposium on the Advancement of Construction Management and Real Estate, 07 – 09 Nov 2014, Chongqing, China**".
  - has been awarded "College Medal 2014" by her previous College of Science & Engineering (CSE) at City University of Hong Kong. According to the award letter below, the College Medal is awarded annually to a final year undergraduate in recognition of his/her achievements of academic excellence and well-rounded personal qualities. Nina is given a total of HK\$30,000. She joined us from September 2014 as a PhD student after graduated from City University of Hong Kong.



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科學及工程學院  
College of Science & Engineering

7 October 2014

Miss NIU Yuhan  
535A, 5/F, Knowles Building  
The University of Hong Kong  
Pokfulam Road  
Hong Kong

Dear Miss NIU,

**College Medal 2014**

Thank you very much for attending our interview for the above-mentioned award. I have learnt that the Interview Panel has impressed with your outstanding academic achievements and interview performance. After considering the recommendation of the Panel, it is my pleasure to congratulate you as the winner of the College Medal 2014. The value of the award is a total of HK\$30,000. The Student Development Services (SDS) will contact you shortly for the arrangement of conferring on you the award.

The College Medal is awarded annually to a final year undergraduate in recognition of his/her achievements of academic excellence and well-rounded personal qualities. It is our pleasure to see students like you to become more professional throughout their studies at CityU. We hope your enthusiasm for academic excellence could inspire your fellow mates and contribute to our efforts in cultivating a conducive academic atmosphere for intellectual development.

On behalf of the College, I congratulate you again and wish you continued success in your academic and professional pursuits.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Hong Yan'.

Hong Yan  
Acting Dean  
College of Science and Engineering

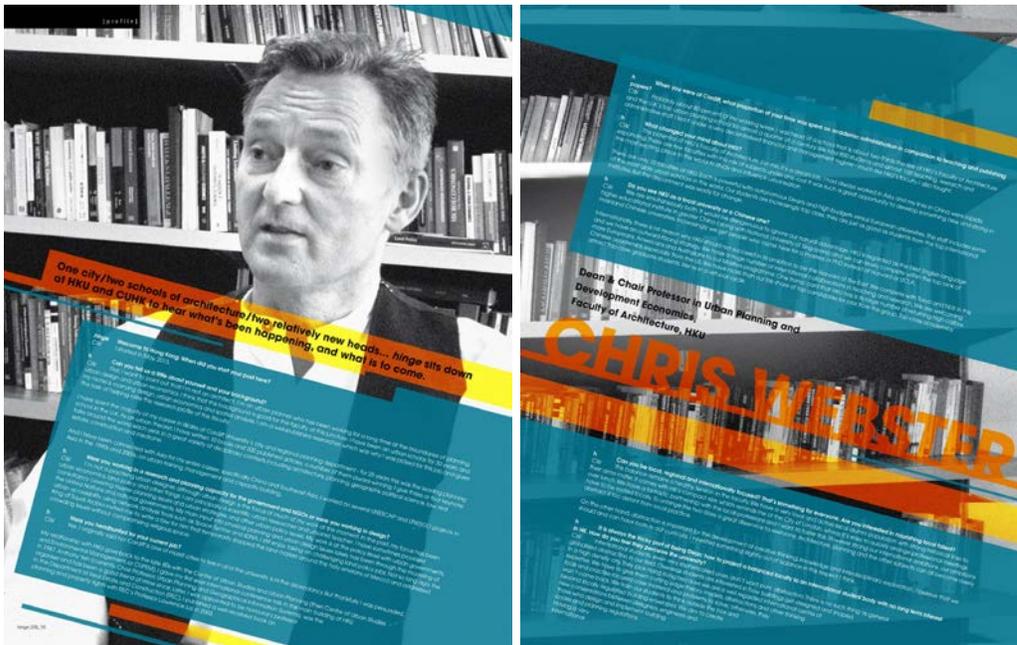
cc Head (ACE)  
Mrs Roslyn Li (Associate Director, SDS)

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## Department of Urban Planning and Design

### 1. Dean Webster

- Is invited to be featured speaker for the plenary session “Built and Natural Environmental Determinants of Health” of the 12<sup>th</sup> International Conference on Urban Health (ICUH) 2015 scheduled to take place on 9-12 March 2015 in Bangobandhu International Conference Centre, Dhaka, Bangladesh.
- Invited by the Department of Urban Planning and Design of the Xian Jiantong - Liverpool University in Suzhou to deliver a research seminar on “Measuring the individual health impacts of urban planning” for the faculty and the students on 6 November 2014.
- presented a keynote speech on “High Density Healthy Cities by Design: China’s chance to take a lead” at the International Conference on Health City organized by Singapore State City Planning (SCP) Consultants PTE LTD and Suzhou University on 7 November.
- Presented a similar talk at the Urban Panel Session of the Beijing Forum that addressed the topic “Toward a Harmonious Development and Mutual Prosperity in Metropolitan Areas”, 8 November 2014, Peking University.
- was interviewed by the hinge magazine on new directions of design education in Hong Kong. The interview is featured in the October issue (Vol. 228) of the magazine.



- had his views on democracy published in the current issue of Transparence (Vol. 27), available through ISSUU at [http://issuu.com/ascohaesio/docs/transparence\\_vol27](http://issuu.com/ascohaesio/docs/transparence_vol27)

Webster CJ, (2014) Democracy: hearts and minds, governance and cities. Transparence Vol. 27, October. pp28-32

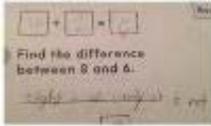
**Democracy: hearts and minds, governance and cities.**

I have been asked to express some of my personal thoughts about the stirring events of recent weeks. Rather than reiterating a stock political viewpoint, I prefer to do as my role as teacher bids to ask you to think about a familiar issue in a new way.

There are two ways of approaching the question of democracy in Hong Kong, China or in any country and both are necessary. One is an emotional response from the heart and the other an intellectual response from the head. Emotions make us human, especially when perturbed by intellect. Without an emotional response to injustice, fewer social wrongs would be righted. Emotion is an integral part of the processes of collective action, since arguments are best expressed with conviction. For those, particularly those born and brought up as children of Hong Kong, who tested the view expressed at the streets two weeks ago, your view of the complex issues underlying questions of governance will have changed. Subtly or dramatically. Emotions have the knack of shaping, challenging or even reversing even the most well founded logical argument or long-held prejudice because they can trigger a phase-change in perspective. Those Occupy Central movements will live with many for the rest of their lives.

My encouragement at this time would be to see the energy positively, to reflect intellectually on democracy. Read about the strengths and weaknesses of ancient Athenian direct democracy and modern equivalents in Switzerland, the tiny Faroe Islands and Brazilian favelas. Read the founding Enlightenment synopsi (Alexander Fraser Tytler, 1747-1814), as well as the protagonists (John Locke, 1632-1704 – "legitimate government rests upon the consent of the governed"). Read up on the four major (or factions found in modern democracy theory: protective (liberal), participatory (direct), pluralistic (power-political) and popular (developmental). Or the common approaches to organising democracy: direct, representative, parliamentary and presidential. Explore the many hybrids.

I recently came across the following, posted by one of my nephews' young children on her Facebook page. It is a reminder that we don't all see things through the same lens.



How do you govern when not everyone sees everything the same way? How do you remain a strong, stable and tolerant society? How do you make collective decisions about resources that are scarce and inevitably contested? These are the intellectual questions that thinkers like John Locke grappled with at a time when international trade had opened to spur the long-held monopolies of power held by the monarchic families governing the continent of Europe. (John Locke, by the way, was a friend and mentor to an ancestor of mine who fled to Holland to escape the displeasure of England's reigning monarch).

To help you develop your own ideas about these matters, consider the following thought experiment.

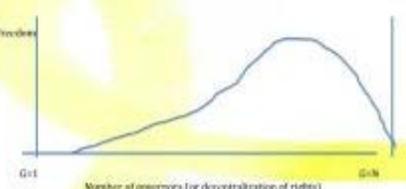
Consider a simple political economy model, immediately after the removal of the first half of the 20th century, it was common to polarize communism and fascism at either ends of a political continuum. A more meaningful spectrum

places total government control (N Korea) at one end and total individual control (Somalia ten years ago) at the other. You could think of it as

$$[G=1] \text{-----} [G=0]$$

G= number of governors, N = number of governed. At the left end, just 1 person governs N people. This is an extreme totalitarian state like medieval kingdoms. At the other end, N people govern N people. This is extreme anarchy in which every individual governs her or himself.

Now make this into a 2D graph (below), adding an axis that represents the welfare of the population of N people. Let's draw from Amartya Sen and define 'development as freedom' and put freedom on a vertical axis, where freedom comprises at least three parts (more if you want): political, economic, religious. Political freedom rises with more power to determine one's leaders; economic freedom rises with personal income and wealthy religious freedom.



risks with the separation of state and religion and with social and ideological tolerance of others (I add this because of what's happening in the Middle East at the moment).

As well as representing the number of people in government, the horizontal axis might also represent, more technically, the dispersion of rights in society (over person and property). At the extreme left of the graph, all rights over income, collective decision-making and religious thought and practice remain with a single person. At the extreme right (ideally), rights over these matters are completely distributed to N individuals, who have the right to choose what job they want and where to live; what religion to follow; and what view to hold about how to organize any collective action they might want to engage in (the model ignores the real constraints on people's ability to vote).

Both extremes of the model arguably yield poor results for society for many and varied reasons, some common to both ends of the spectrum, some specific to one or other. Because this is so, neither end is stable, and there will inevitably be a move towards a middle ground.

Pure anarchy cannot long survive. Populations quickly invent rules to make life livable. Occupy Central was very well organized. Nevertheless, new rules emerged as the number of protesters grew. Good rules, chosen by definition, reduce individual rights, but in the end, yield greater individual freedom. Like the child deciding to oblige by his parents' rules and finding that life works better with certain well-designed

constraints. So that in ideally anarchic society, the distribution of individual rights is likely to centralize somewhat, moving to the left.

Autocracy cannot survive long either, especially in modern times with good communications. It is too costly. Empires eventually implode from the edges as well as from the centre. Soviet communism crashed in 1989. Deng Xiaoping opened up the Chinese economy ten years earlier. The process of work in transitional economies that are moving away from central planning is not dissimilar to that operating in transitional economies moving away from anarchy. It involves decisions about more appropriate (more fair and more efficient) collectivization of rights. One state moves from the right, aggregating more and more individual rights. The other state moves from the left, disaggregating more and more rights.

On July 1st 2010, the PRC promulgated China's first modern law of Tort. This had the effect of decentralizing decisions about liability disputes to lawyers, moving away from central control over individual decisions by creating a framework of unambiguous rules. The same movement towards the right (ideally) and ideologically has happened in many spheres of mainland government affairs – land laws, compensation laws, labour laws and so on are decentralizing the power of government. It is a dynamic process and it takes time for a transitional state to move from one end of the model to a more workable and acceptable middle ground.

Sometimes, an expression of political voice (or political exit for a small country) takes a government made bigger steps than it otherwise might, or to make them more visible (note that post-Soviet reform in the smaller Baltic states was very quick and very thorough, partly, one presumes because of the ease with which footloose people, entrepreneurs and capital could relocate somewhere else nearby).

Back to the diagram. At the left extreme (which includes the fusion of ISI and similar), freedom suffers severely. I have drawn the graph to suggest that even a move from a single dictator to a small group of cadres, may not be sufficient to create true freedom for the people. I have drawn 'peak freedom' (the defined political model) nearer to the right and then the left and because experience seems to show that generally, following the ancient Hebrew Prophet, 'there is wisdom in many counsels' (or following John Locke, decisions are best steered by the people they affect – with adequate safeguards for the greater good, for dispersed demand, and for the poor, the sick and otherwise disadvantaged), but too great a decentralization of rights risks moving from democracy to anarchy. Some would say that India is too far to the right in this diagram.

If you want to break down the graph into two types of freedom and draw a separate line for economic freedom (indicated perhaps by GDP per capita) and political freedom (indicated by some index of democracy), then you would see that the two lines trade-off at some parts of the graph – as with the case of

India – and that 'peak economic freedom' lies to the left of 'peak political freedom', at least at some stages of economic development. This is Keynes's argument of course. Then if you see three in time, perhaps as a third dimension, you could conjecture on the likely trajectory of different states over time – towards convergence, or perhaps towards different models of capitalism. A detailed political-economic study of this might also be able to spot where political voice, such as Occupy Central, might be necessary to oil the wheels of institutional evolution. Political voice, such as Occupy Central, might be necessary to oil the wheels of institutional evolution.

The emotional impact of Occupy Central is a chance to re-calibrate your thoughts about government, not just in Hong Kong, but more generally. I remember Tiananmen Square in 1989 vividly. I was watching events, well-lit up with red emotions in London (my first visits to Mainland China were in 1983 and then 1987). Because of what was at stake and the loss of life, it impacted me much more than the London riot did much later in 2011, for example. I am not sure exactly how, but it influenced my view of political economy and the difficult choices that every country faces in attempting to make progress towards freedom, development and prosperity.

The same dynamics apply wherever scarce resources need to be allocated to competing users: they apply to the family, the workplace and student societies as much as they do to whole countries.

They apply in any design problem. Design is one method of allocating scarce resources, such as space in a house or infrastructure and land in a city. Judgements have to be made. It is rarely, if ever, possible to design a collective decision-making process (or to design a plan for a building, plot, neighbourhood or whole city) that performs well on all three dimensions of the so-called democratic trifecta (after James Finkle): participatory, deliberative, political equality. The skilled politician, like the skilled designer or skilled corporate or university manager or skilled parent, is one who makes truly trade-offs wisely. Whatever your engagement has been with Occupy Central, hopefully, the experience will invite deep reflections about the nature or organized humanity and help make you into someone who is known as a wise decision-maker.

**Professor Chris Webster**  
Dean  
18th October 2014

## 2. Professor Anthony Yeh

- was invited to give a presentation on "Urban Applications of Radar Remote Sensing" in the *Round Table Discussion on High Resolution Remote Sensing Techniques and Applications of the 7th China International Aviation and Aerospace Forum* organized by the Earth Observation System and Data Centre of the China National Space Administration and China Association of Remote Sensing Application on 10 November 2014 in Zuhai, China.
- has attended the 25th Annual Meeting of TWAS (The World Academy of Sciences for the Advancement of the Developing Countries) that was held in Muscat as one of its Fellows. In the General Meeting, his PHD graduate, Prof. Xia Li who is at present Chair Professor in Sun Yat-sen University, Guangzhou, China, received the prestigious TWAS Earth Science Prize 2013 which was only awarded to one person internationally per year.



## 3. Professor Bo-sin Tang

- was invited to give a presentation about "Leveraging Real Estate Values for Urban Development in Hong Kong" at the National Forum on *Maximizing the Value of Public Real Estate, Catalysing Urban Regeneration at Johannesburg* on 3 November 2014, organized by the National Treasury of South Africa in partnership with the World Bank.
- was invited to give a presentation entitled : "Developing future new towns : reflections on past lessons and international experiences" at the *First Annual Planning Department Forum* at the City Gallery on 11 November.