2018 Joint Asia-Pacific Network for Housing Research and Australasian Housing Researchers Conference

CONFERENCE PROGRAM

June 6-8 2018, Gold Coast, Queensland, Australia

School of Engineering and Built Environment
Griffith University, Gold Coast Campus
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GENERAL INFORMATION

Welcome Cocktail Reception

Wednesday 6 June 4:30 PM-6:00 PM G's Restaurant Griffith University Gold Coast campus, Griffith Health Centre building, G40, ground floor

Conference Session

Thursday 7 June 10:00 AM - Friday 8 June 4:20 PM Griffith University, Gold Coast campus, Business building, G42 Lecture theatre 2.17 G42-2.11 and G42-2.15

Conference Banquet

Thursday 7 June 6:30 PM for 7:00 PM Conference dinner at QT Hotel Surfers Paradise - buffet style dinner, dress - smart casual

QT Hotel Surfers Paradise: 7 Staghorn Ave, Gold Coast QLD 4217
Tel: 5584 1200

Correspondence

Conference Secretariat

School of Engineering and Built Environment Griffith University, Gold Coast Campus
Tel) 5552 28149
Email) wendy.smith@griffith.edu.au
Mobile) 040971150
# SESSION OUTLINES

## DAY 1, Thursday, 7 June 2018

<table>
<thead>
<tr>
<th>Time</th>
<th>Room G42-2.17</th>
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<tbody>
<tr>
<td>10:00 to 10:10</td>
<td>Conference Welcome to delegates and official opening</td>
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<tr>
<td>10:10 to 12:30</td>
<td><strong>Invited Paper</strong>&lt;br&gt;Prof. Peter Phibbs&lt;br&gt;Dr. Cameron Murray&lt;br&gt;Mr. Neville Hyman&lt;br&gt;(Chair: Prof. Sherif Mohamed)</td>
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<tr>
<td>12:30 to 13:30</td>
<td><strong>Lunch</strong></td>
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<tr>
<td>Parallel Sessions</td>
<td>Room G42-11</td>
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<tr>
<td>13:30 to 14:50</td>
<td><strong>Parallel Session 1-A</strong>&lt;br&gt;Housing and Urban Regeneration&lt;br&gt;(David Carmichael)</td>
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<tr>
<td>14:50 to 15:00</td>
<td><strong>Break</strong></td>
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<tr>
<td>15:00 to 16:20</td>
<td><strong>Parallel Session 1-C</strong>&lt;br&gt;Housing Market and Housing Finance&lt;br&gt;(Judy Kraatz)</td>
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<tr>
<td>10:00 to 12:30</td>
<td><strong>Invited Paper</strong>&lt;br&gt;Prof. Joerg Baumeister&lt;br&gt;A/Prof. Sacha Reid&lt;br&gt;Dr Hassan AlHazmi&lt;br&gt;(Chair: Prof. Paul Burton)</td>
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<tr>
<td>12:30 to 13:30</td>
<td><strong>Lunch</strong></td>
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<td>Parallel Sessions</td>
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<tr>
<td>13:30 to 14:50</td>
<td><strong>Parallel Session 2-A</strong>&lt;br&gt;Social Housing&lt;br&gt;(Rebecca Chiu)</td>
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<td>14:50 to 15:00</td>
<td><strong>Break</strong></td>
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<tr>
<td>15:00 to 16:20</td>
<td><strong>Parallel Session 2-C</strong>&lt;br&gt;Housing Design and Construction&lt;br&gt;(Sungkon Moon)</td>
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### DAY 1, Thursday, 7 June 2018

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<tr>
<td>10:00-10:10</td>
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| 10:10-12:30 | Why do intelligent people say such stupid things about housing when the word “planning” is mentioned? - presenter: Prof Peter Phibbs  
Synchronised global trends and risks in housing markets - presenter: Dr Cameron Murray  
Homelessness and Housing in Developing Countries: Eco Friendly Solutions - Presenter: Neville Hyman |
| 13:30-14:50 | **Parallel Session 1-A Housing and Urban Regeneration**  
How property boundaries impact urban consolidation in Brisbane - Rachel Gallagher  
Tiny houses: Planning for affordability and inclusion - Heather Shearer  
Most new housing is not high-end housing - Brendan Coates and Trent Wiltshire  
Flying under the radar: Exploring resistance and becoming minor in Australian tiny house trends - Vicki Weetman  
Perceptions of the Australian private rental sector: evidence from a new survey - Steven Rowley |
| 13:30-14:50 | **Parallel Session 1B-Housing Affordability**  
An affordability review for low-cost apartment rent - Farida Rachmawati, Connie Susilawati and Ashantha Goonetilleke  
Changing demographics and housing typologies: addressing social and affordable housing in Australia - Maria Elena Zingoni de Baro and Judy Kraatz  
Customer-oriented Approaches to Housing Affordability in Industrialised House Building - Alexandra McRobert  
The unexpected bonus of online focus groups: Connecting with hard-to-reach populations - Kelli Dendle, Desley Vine and Laurie Buys  
Planning reform and the supply of housing: comparative approaches and evidence of impacts - Catherine Gilbert and Nicole Gurran |
| 15:00-16:20 | **Parallel Session 1C-Housing Market and Finance**  
The impact of Airbnb on housing markets - Laura Hodgson  
The terrible twins: Possible reforms to address concerns with capital gains tax discount and negative gearing - Brett Freudenberg and John Minas |
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<td>10:00-12:30</td>
<td><strong>Smart or Humane Urbanisation? Linear versus Lateral Thinking</strong>&lt;br&gt;presenter: Prof. Joerg Baumeister</td>
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<td>Integrating liveability in high density housing design:&lt;br&gt;Considerations for policy and practice&lt;br&gt;presenter: A/Prof. Sacha Reid</td>
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<td>Housing in Developing Societies: The Case of Saudi Arabia&lt;br&gt;presenter: Dr. Hassan Alhazmi</td>
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<td>13:30-14:50</td>
<td><strong>Parallel Session 2A-Social Housing</strong></td>
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<td>“I won’t move to one bedroom dog box”: The challenges of downsizing for older social housing tenants in Australia-Ayodeji Adeniyi and Laurel Johnson</td>
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<td>Social housing in Myanmar: Issues and way forward -Su Su Nwal and Krieng Panuwatwanich</td>
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<td>Time</td>
<td>Parallel Session 2B - Housing Technology and Property Management</td>
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<td>13:30-14:50</td>
<td>“Every day I feel blessed” experiences of new homeowners exiting public housing into a Melbourne affordable housing project-Katrina Raynor and Melanie O’neil</td>
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<td>One country two housing systems: Comparing Hong Kong and Shenzhen – which is capitalistic and which is socialist? - Rebecca L.H. Chiu</td>
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<td>The rise of education-led gated communities in Chinese cities and their socioeconomic implications- Shenjing He</td>
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<td><strong>13:30-14:50</strong> Parallel Session 2B - Housing Technology and Property Management</td>
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<td>The case for building in adaptability in houses-David Carmichael</td>
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<td>Technical review of the current earthwork smart technologies in Australia-Shahad Hamzah, Sungkon Moon and Sungwoo Moon</td>
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<td>Developing a model for Melbourne property assessment-Manideep Bobbala, Young-Kil Hong and Sungkon Moon</td>
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<td>Study on quaternary of ‘Housing- Land - Fiscal - Finance’ policies for establishing the long-term real estate regulation mechanism-Jia Li</td>
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<td>A fundamental study on the housing risk of a life course- Yoshihiro Okamoto</td>
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<th>Time</th>
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<tr>
<td>15:00-16:20</td>
<td>On the use of Building Information Modelling for design integrated approach-Ruwan Fernando, Ebrahim Solgi, Zahra Hamedani, Karine Dupre, Henry Skates and Cecilia Bischeri</td>
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<td>BIM attributes for addressing the root causes of disputes in construction projects- Masood Sabet, Payam Zekavat and Sherif Mostafa</td>
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<td>Towards diverse housing with better liveability: Two postgraduate design studios in Melbourne-Hing-wah Chau</td>
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<td>Building’s Life Cycle Embodied Carbon Emissions Assessments-Tran Mai Kim Hoang Trinh and Jeung-Hwan Doh</td>
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<td>Sense of community, community attachment, Social capital and participation in urban Housing estates: cases of communal space Renewal in shanghai- Yueli Xu and Mandy Lau</td>
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<tr>
<th>Time</th>
<th>Parallel Session 2D - Urban Regeneration and Life Course</th>
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<td>15:00-16:20</td>
<td>Research on the governance modality of urban village in China based on integration of Inclusiveness and Urban Service Boundary-Xiaofeng Sun, Yuzhe Wu and Sheng Zheng</td>
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<td>Title</td>
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<td>IAD-based affordable housing policy under the new-type urbanization in China</td>
<td>Yuxuan Chen, Yuzhe Wu and Wei Wang</td>
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<td>The link between Urban Compaction and Housing Affordability in Indonesia: Where is the empirical evidence?</td>
<td>Yulia Dewita, Barbara T.H. Yen and Matthew Murke</td>
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<td>Design and application of comprehensive Housing Affordability Index - a case study of Shanghai</td>
<td>Yan Liu and Zhi Liu</td>
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<td>Improving public transport infrastructure in Auckland: Who will benefit?</td>
<td>Patricia Austin and Lucy Groenhart</td>
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ABSTRACT

Session 1A

HOW PROPERTY BOUNDARIES IMPACT URBAN CONSOLIDATION IN BRISBANE

Rachel Gallagher
University of Queensland, St Lucia, Australia

Abstract
All major Australian cities have statutory planning instruments aimed at ‘urban consolidation’, to constrict development to the existing urban footprint and prevent urban sprawl. However, most cities continue to spread through peripheral greenfield development. Through spatial analysis, this study examines the nature of property boundaries and their influence on current infill practices in existing urban areas. It determines where property boundary changes have occurred to facilitate redevelopment in Brisbane’s inner southern suburbs, which have recently been subject to significant and controversial projects. Redevelopment of existing urban areas faces considerable hurdles, with current approaches being inadequate in meeting long term urban consolidation targets, due to its low density and quality. As such, there are clearly barriers to densification, questioning the assumption that there is suitable land available. The findings show that amalgamation of lots, often required for higher density development, form just over half of the boundary changes in the study area. But the results also highlight some considerable constraints faced by decision-makers. As urban consolidation is a policy of all major Australian cities, this is a transferable study providing valuable information about where boundary changes occur, to guide future redevelopment and improve housing diversity and performance.

TINY HOUSES: PLANNING FOR AFFORDABILITY AND INCLUSION

Heather Shearer
Cities Research Institute, Griffith University, Queensland Australia

Abstract
The tiny house movement is increasingly topical, and tiny houses have been mooted as an innovative and sustainable way to improve urban housing affordability. But how valid is this claim? Few if any scholarly studies have investigated the tiny house phenomenon in any depth. This study used a combination of quantitative and qualitative methods to analyse the tiny house movement in Australia. An online survey was conducted in 2015 and again in 2017, as well as a series of semi-structured interviews with tiny house dwellers and tiny house builders. Finally, a case study of South East Queensland Australia investigated local government planning schemes and whether these permitted either temporary types of tiny houses (on trailers) or permanent tiny houses (as in granny flats). Interest in the tiny house movement had increased significantly from 2015, with more people living in tiny houses, and a number of builders now building tiny houses (mostly on wheels). Interestingly, there was high
interest in tiny houses by single women aged over 50; as well as younger couples in their 20s. Local governments varied widely in their attitudes to tiny houses, with only a few accepting or even recognising that tiny houses exist as a legitimate housing form. The research concluded that tiny houses are a sensitive and innovative way to increase urban density and improve affordability. To move forward however, it is essential that local and state governments modify their planning schemes and local laws, with appropriate conditions, to permit this type of housing in Australian cities.

MOST NEW HOUSING IS NOT HIGH-END HOUSING

Brendan Coates
Trent Wiltshire
Grattan Institute

Abstract
This paper analyses the spatial distribution of new housing supply in Australia. We find that most new houses have been built in areas with below-average prices, while most new apartments and townhouses have been built in Sydney and Melbourne, where median prices are higher. Our analysis extends recent Australian research by Ong et al (2017), who conclude that housing supply is concentrated in areas with relatively high prices. Their main finding fails to account for the different populations of local government areas in their approach, resulting in misleading conclusions. This paper updates this earlier research to account for the different sizes of LGAs.

FLYING UNDER THE RADAR: EXPLORING RESISTANCE AND BECOMING MINOR IN AUSTRALIAN TINY HOUSE TRENDS

Vicki Weetman
Griffith University

Abstract
Described in various ways as a return to simplicity and authenticity; an architectural and social response to the growing size, economic costs and environmental burden of the average American home, the ‘tiny house movement’ has emerged in the public consciousness only in recent years. Drawing on interviews, case studies and various social media this paper examines the tiny house movement in Australia and the ways in which it falls between the established boundaries of accepted housing forms and practice often characterised as the Great Australian Dream. Here, tiny houses and their occupants inhabit the interstitial spaces or grey areas within regulated spaces by ‘flying under the radar’ which I argue works as a spatializing or interstitial practice which illuminates borderlands and edge worlds. Following the work of Deleuze and Guattari on Kafka: A minor literature, I explore becoming minor, or conditions of minority and the ways a minor works to deterritorialize the major. I use these ideas to conceptualise tiny housing as an expression of difference affecting a productive engagement with the dominant or major housing practice rather than merely an oppositional component in the struggle between unequal things. Further, I propose
that as ‘a becoming minor’ tiny house trends work creatively and experimentally with the given set of social and material conditions and possibilities offered causing them to transform and mutate producing new sets of relations with unexpected possible potentials.

PERCEPTIONS OF THE AUSTRALIAN PRIVATE RENTAL SECTOR: EVIDENCE FROM A NEW SURVEY

Steven Rowley
Curtin University

Abstract
The private rental sector (PRS) in Australia is widely perceived as failing to deliver secure and affordable housing options. Evidence from recent survey data paints a bleak picture of the sector (Choice/Shelter 2017). This presentation presents the findings of a national survey funded by the Bankwest Curtin Economics Centre which gathered responses from 3,600 survey participants forming a representative sample of the PRS. While there is significant research which examines how the PRS fails to deliver security and affordability to lower income Australians, there is very little attention given to how well the sector delivers for those on moderate and higher incomes. While the survey confirms the findings of recent research on lower income Australians it paints a more favourable picture of the sector as a whole. Respondents were positive about the quality of the PRS stock and even their relationship with their landlord/property manager. Outside the lowest income groups, respondents were confident about their long term security and the extent of rent increases seem to be exaggerated in the media. While there was evidence of discrimination, a lack of understanding of tenants’ rights and an appetite for longer lease terms, the PRS is performing an important role within the housing market and meeting the short term needs of hundreds of thousands of households.

Session 1B

AN AFFORDABILITY REVIEW FOR LOW-COST APARTMENT RENT

Farida Rachmawati
Connie Susilawati
Ashantha Goonetilleke
Queensland University of Technology

Abstract
The low-cost apartment development program is one of the solutions to provide housing for low-income people. During 2010–2014, the Indonesian Ministry of Public Works and Public Housing developed 250 twin blocks of rental low-cost apartment (five-storeys) on the local government’s asset land for public and relocation
communities. The aim of this paper is to review the existing rent regulation and tenant’s affordability to pay rental fee. The evaluation is also included tenants’ willingness to pay and the implication on the low cost apartment management issues. This research based on the documents related to ministry and local government regulations concerning minimum wages and rent price adjustment. This study found that there is a gap between what the tenants’ ability and willingness to pay. The tenants only pay half of the price that they supposed to pay based on the existing regulation of rental price. As consequences, the rent income is very low and cannot cover the operation and maintenance cost of the building. Therefore, local government has to provide subsidy to top up the rent income and to cover the operation and maintenance costs. The study recommends the evaluation of local government regulation is necessary to reduce government subsidy and to retain more appropriate level of rent that still consider affordable for the tenants.

CHANGING DEMOGRAPHICS AND HOUSING TYPOLOGIES: ADDRESSING SOCIAL AND AFFORDABLE HOUSING IN AUSTRALIA

Maria Elena Zingoni de Baro,
Curtin University
Judy Kraatz
Griffith University

Abstract
This paper will report on current Sustainable Built Environment National Research Centre (SBEnrc) research which aims to identify the strengths and weaknesses of various social procurement approaches for social and affordable community and private rental housing in Australia. To achieve this, the research team is investigating the three inter-related areas of demographics and typologies; social procurement; and funding and financing models. This paper will primarily discuss findings of the first of these three areas.

An important question being asked is: has the time come to rethink the traditional distinctions between elements of the housing continuum in order for governments and not-for-profits to better engage with the market and institutional investors? In doing this, and to ensure access to safe and secure housing when needed, we need to: (i) address the types of housing being provided across the spectrum; (ii) better understand the changing nature, needs and demographics of each cohort; and (iii) diversify our housing responses, seeking innovative and perhaps informal approaches providing housing which respond to the various needs of different cohorts.

Early findings around the demographic and typological theme are showing an aging population with complex life course trajectories including the multiple presentations of family that exist in a modern society, and longer stay of young adults in the parental home. Key emerging trends identified include: a more holistic approach to achieve resilient and sustainable communities and environments; inner-city infill is a priority area in large cities, with higher densities in bigger cities accommodating a broad variety of dwelling types; community engagement and input is increasingly considered as a valuable resource; and more resource efficient housing developments are needed and are becoming mandatory.
CUSTOMER-ORIENTED APPROACHES TO HOUSING AFFORDABILITY IN INDUSTRIALISED HOUSE BUILDING

Alexandra McRobert
University of Sydney

Abstract
Prefabrication has long been considered as a means to lower the cost of house building globally, however the reality is often not as simple. Many factors affect its ability to achieve affordable housing solutions, such as uncertainty around what prefabrication actually is, what it should be, and the processes involved. Rather than a ‘product first’ solution, examining the process of industrialised house building (IHB) can offer a more integrated model.
This paper consists of a comparative case study analysis of two established IHB companies which utilise a customer oriented business model with the aim of increasing affordability in different contexts: Boklok in the multi-residential market in Sweden today; and Pettit and Sevitt in the single residential housing market in Australia 50 years ago. Despite their obvious differences in location, timeframe, social and cultural contexts, they are a useful (and novel) comparison as both originated from a customer, rather than product, driven model that addressed the prerequisites of specific users at a reduced housing cost to varying success.
This paper reflects on the barriers and best practices these companies encountered whilst aiming to achieve housing affordability whilst utilising IHB principles, and may provide a valuable source both internationally and in Australia.

THE UNEXPECTED BONUS OF ONLINE FOCUS GROUPS: CONNECTING WITH HARD-TO-REACH POPULATIONS

Kelli Dendle
Desley Vine
Laurie Buys
Queensland University of Technology

Abstract
A key feature of effective community-based research is to proactively engage and learn from the communities themselves. This means ensuring research captures the voice of the community including, and perhaps especially, those from hard-to-reach demographic groups. Due to their physical and geographical location and/or their social and economic situation the disenfranchised, isolated and vulnerable are often considered hard-to-reach. Our paper reports on the welcomed outcome from a group of online focus groups we conducted recently, that captured the voices of a wide variety of older people, including participants from hard-to-reach populations. Our approach was to involve and value the diversity of participants. The only requirement for participation in the focus groups was to be aged 50 or over. We found that the community-based focus of the research was directly relevant to their lives and stimulated lively and candid interaction. The study had very high response and...
retention rates despite communication being based on text posts rather than face to face or telephone conversation, which may be assumed to elicit more forthcoming disclosure than online interaction. The anonymity and time flexibility that online focus groups provide appear to encourage free and prolific interaction from participants, including those from hard-to-reach populations.

PLANNING REFORM AND THE SUPPLY OF HOUSING: COMPARATIVE APPROACHES AND EVIDENCE OF IMPACTS

Catherine Gilbert
Nichole Gurran
University of Sydney

Abstract
Reform to land use policy and development assessment processes has emerged as a strategy in many jurisdictions to address concerns about the supply and affordability of housing. Both in Australia and internationally, these reforms, which are characterised by common ideals and rhetoric, have generally been situated within broader processes of neoliberalisation. However, little research has examined how these processes have altered statutory planning, and the implications for the residential development that they seek to enable. This means that the extent to which reform ideals have translated into real regulatory changes in different jurisdictions, and the extent to which they have impacted rates and patterns of new housing development remains unclear. In this context, this paper draws together primary data from three streams of exploratory, mixed methods research to answer three questions: (1) In recent years what types of reforms have governments implemented to address perceived planning system barriers to new housing development, and in what contexts? (2) How have implemented reforms affected development rights, approval processes and rates and patterns of new housing development? (3) What are the implications for understanding relationships between urban regulation and housing to inform urban policy? The paper draws on primary research comparing planning reform strategies in three jurisdictions (NSW, England and Ontario), as well as in-depth analysis of how two key planning reforms, implemented in NSW, have played out in metropolitan Sydney. In conclusion, the paper reflects on the risks around different reform strategies and implications for urban policy.

Session 1C

THE IMPACT OF AIRBNB ON HOUSING MARKETS
Laura Hodgson
University of South Australia

Abstract
Airbnb has been made possible by advances in technology and instant and ubiquitous access to the internet through handheld devices. Its arrival in 2008 resulted in a rapidly
growing form of disruptive innovation within the traditional residential property and travel accommodation systems. Whether measured by Airbnb’s valuation of US$31 billion (Thomas 2017), or the number of worldwide listings advertised (four million over 191 countries (Airbnb 2017b, p.203)), it is clear Airbnb is a significant and growing phenomenon, with the potential to reshape cities around the globe, both socially, economically and especially with regards to housing markets. Airbnb is likely to have multiple, complex impacts that reflect how this new phenomenon interacts with established businesses, places, cultures, tourism industries, and how it alters the ways in which housing is used and viewed. Airbnb’s development is not limited to the confines of the share or collaborative economy. Rather, this research explores how Airbnb is a disruptive innovation that further commodifies housing and therefore, has the potential to disrupt not only accommodation services, but conventional notions of housing and home.

THE TERRIBLE TWINS: POSSIBLE REFORMS TO ADDRESS CONCERNS WITH CAPITAL GAINS TAX DISCOUNT AND NEGATIVE GEARING

Brett Freudenberg
John Minas
Griffith University

Abstract
Recently, concerns about Australia’s capital gains tax (CGT) discount and negative gearing have been raised by commentators from various sectors. One the one hand, there is a case for reform by way of an incremental approach, while others argue for the complete removal of Australia’s CGT discount and negative gearing and their replacement with new provisions. In this article, we argue that it may not be necessary to completely remove the CGT discount and negative gearing, and that reform can be achieved through alterations to the current provisions. One of the main arguments against complete removal and replacement is that incremental tax reform has historically been more politically viable. A concern with complete removal and replacement is that it could lead to increased complexity and compliance costs, particularly if a change in tax law is accompanied by grandfathering of the current provisions. Instead incremental and pointed reform is suggested as the most appropriate path forward.

AUSTRALIAN HOUSING MARKET AND THE INDONESIAN FOREIGN REAL ESTATE INVESTMENT

Peng Yew Wong
RMIT University
David M. Higgins
Birmingham City University
Carlson Soemarsono
PT. Sarana Metal Indah
Abstract
Offshore high net worth investors were active in the Australian property market after the Global Financial Crisis 2008. Indonesia is the direct neighbouring country to Australia and the bilateral investment between the two countries represents an important component of the Australia’s foreign relation. During the extensive media coverage on offshore investment in Australia housing market, both the number of wealthy Indonesians and their investments in the Australian housing market were allegedly on an increasing trend. This research intends to uncover the factors that influenced Indonesian investors’ decision on the Australian residential property market investment by employing a qualitative semi-structured interview with various senior property professionals and investors from both Australia and Indonesia. Uncertainty in the Indonesian regulatory framework was the major “push” factors that resulted in Indonesians’ investment into the Australian residential property market. The wealthy Indonesians overseas property ventures were further encouraged by the favourable Australian “pull” factors such as reputable living condition and stable macroeconomic environment. A better understanding on these drivers will assist the policy makers to better grasp the issue related to foreign real estate investment from Indonesia.

REVIEW OF DOMESTIC BUILDING CONTRACTS ACTS FOR CONSTRUCTION OF LOW-RISE RESIDENTIAL BUILDINGS

Vidal P. Paton-Cole
University of Melbourne
Argaw Tarekegn Gurmu
Deakin University

Abstract
Erstwhile studies related to defects associated with newly constructed low-rise domestic buildings in the state of Victoria, Australia indicates that defects per house in detached residential houses have increased. Over the last three decades, in an attempt to improve quality in residential houses built in Victoria, there has been significant legislative changes to the domestic building contracts; however, current guidelines fall short to achieve the desired qualitative outcome. The purpose of this research is to review and evaluate the Domestic Building Contracts Acts across states in Australia, where the highest volume of residential building construction is undertaken, and subsequently proffer recommendations which could assist to reduce defects in domestic buildings in Victoria. In this phase of the research, a systematic review of the literature has been conducted and the research gaps identified. Research articles which investigated defects in buildings were analysed with respect to the country of origin, authors and their affiliations. The Victorian Domestic Building Contracts Act 1995 and the New South Wales (NSW) Home Building Act 1989 which are the current acts in both states were reviewed. Findings from an extensive review indicate that some of the Sections incorporated in the NSW Home Act, that helps to reduce defects in low-rise residential buildings are not included in the Victorian Domestic Building Contracts Act. It is suggested that lessons can be learnt from NSW Home Building Act, and Sections which could assist to minimise defects in residential
buildings should be included in the revised version of Victorian Domestic Building Contracts Act.

SYSTEMS THINKING AND MODELLING IN INNOVATIVE HOUSING

Emiliya Suprun  
Rodney Anthony Stewart  
Oz Sahin  
Griffith University, Gold Coast, Australia  
Kiengsak Panuwatwanich  
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Abstract
It is generally accepted, that implementation of innovation in housing not only provides homeowners with more affordable homes, and enable developers to build more cost-effective houses; but also affects national economic growth, energy consumption, and a broad range of environmental issues to name a few. This study addresses the decision making process within the complex innovation process in the construction sector by employing a systems modelling process aiming to conceptualise and formulate a systems model. The model aims to adopt a multidimensional view on the links between various factors related to innovation diffusion within construction and housing development. The model structure highlights that developers, architects and end-users, along with decision makers need to acknowledge innovative solutions as a priority in order to achieve the benefits of high-level innovation performance. The results suggest that housing construction sector requires assistance and support from the government in order to accumulate innovation capabilities and endure existing impediments such as lack of financial incentives. Hence, it is important to manage the significant factors related to housing policy making and public policy interventions that affect success in construction innovation. These results can assist decision makers in implementing various innovation planning strategies for future construction and housing development.

Session 1D

THE PRICE ELASTICITIES OF NEW HOUSING SUPPLY IN AUSTRALIA
Daniel Melser  
Monash University  
Rachel Ong  
Curtin University  
Gavin Wood  
RMIT University

Abstract
Despite ongoing housing affordability concerns, there appears to be a dearth of empirical evidence on the responsiveness of housing supply to price changes in
Australia. This paper aims to build on and extend the small Australian literature by providing econometric estimates of housing supply responsiveness across all Australian local government areas. We estimate the price elasticity of housing supply across various dwelling types as well as subdivisions of cities. We also identify possible GFC related structural breaks that may have altered the supply side processes of Australian housing markets. We find that the supply of new houses and units are both relatively unresponsiveness to price changes, and price elasticities are generally lower in the case of houses than units. There are also some geographical variations; the price elasticities of both houses and units rise as we move away from the CBD, peaking in outer metropolitan rings before dropping in regional areas. Dwelling price responsiveness has also changed since the GFC. Overall, the findings indicate the effectiveness of policies aimed at increasing the new supply of dwellings will vary across dwelling type, location and housing market conditions.

AUSTRALIAN BANK MORTGAGE INTEREST RATE PASS-THROUGH: DOES INTERNATIONAL FUNDING COST MATTER?

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University of Finance-Marketing
Benjamin Liu
Eduardo Roca
Griffith University

Abstract
This study examines heterogeneous interest-rate pass-through for Australian banks, relating the cost-of-funds rates to owner-occupied housing rates on weekly bank-level data from January 1997 to December 2015. The cash rate and the bank bill swap rate act as the proxies for bank funding costs, domestically and internationally. The nonlinear autoregressive distributed lag approach (Shin, Yu, & Greenwood-Nimmo 2014) is employed to investigate heterogeneous asymmetry in the pass-through. The results highlight the substantial asymmetry in the transmission of both bank funding rates. In the long run, banks are more responsive to passing on increases in the funding costs into their mortgage rates than to passing on the cost cuts. We also find evidence of the short-term asymmetries for several banks. Our findings confirm that bank mortgage rate setting is significantly affected by international funding costs, apart from the cash rate. This study provides several important policy implications.

MAKING PRIVATE RENTING MORE AFFORDABLE? UNPACKING THE RENT REGULATION DEBATE IN HONG KONG

Mandy Lau
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Abstract
Difficulties in accessing owner-occupied housing in the post-Global Financial Crisis (GFC) era has been associated with growing demand for private renting across
different cities, as well as problems of rising rents. This has contributed to vigorous debates about whether or not and how the private rental sector ought to be regulated. Indeed, policy debates on rent regulation have existed for a long time. Yet, there is often a lack of conclusive evidence about the relationship between regulation and supply in the rental market, thus proposals for regulation often encounter substantial resistance. In Hong Kong, growing demand for private renting and rapidly rising rents has stimulated lobbying by low-income advocacy groups, who have called for re-introduction of rent control and security of tenure since around 2010. Nevertheless, lobbying strategies appear to have shifted in recent years, with greater focus on developing transitional housing solutions for tenants on the public housing waiting list, while the advocacy momentum for rent regulation has diminished. Through applying theories from the sociological framing literature, this paper interprets the shifting trajectories of the rent regulation debate in Hong Kong, and considers the policy implications for private tenants, especially those who cannot access public housing or homeownership.

PLAN MAKING IN DELIVERING HOUSING INTENSIFICATION: A CASE STUDY OF AUCKLAND, NEW ZEALAND

Wen Liu
Errol Haarhoff
Lee Beattie
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The University of Auckland

Abstract
Since the re-organisation of the Auckland’s local government structure in 2010 by amalgamating its previous seven territorial authorities and one regional council into a single Council (The Auckland Council) proving local government services to Auckland’s 1.5 million residents, its statutory land use planning system has been subject to extensive reforms. The outcome is the creation of a single statutory land use plan - the Auckland Unitary Plan (the AUP) in 2016. A key aim in this plan is the implementation of compact development model, by encouraging most of its future urban growth and development in and around, existing and proposed transit nodes and town centres, while also intending to achieve the ‘most liveable city’. This paper critically reviews and discusses the plan making and development of the AUP, with a focus on the process and means adopted, with particular attention to delivering residential intensification and higher density housing policy outcomes. It examines this through an analysis of the plan changes involved, and an evaluation of a residential development case study. We raise concerns about the policy approaches used and whether the plan content actually has the means to deliver on these policy goals, particularly under a market driven planning system.

FLUCTUATING REGIONAL HOUSE PRICE AFFORDABILITY AND THE IRRELEVANCE OF MORTGAGE RATES

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Massey University, New Zealand
Don J Webber  
University of the West of England, Bristol, UK

Abstract  
Although house prices and wages are both influenced by distinct factors that shape their own evolutions, they are also intrinsically connected through house price affordability. Standard theory suggests that macroeconomic policies centred around adjustments in the mortgage rate are of prime importance in ensuring that the housing market does not overheat. This study contributes to the understanding of the link between housing market affordability and mortgage rates by investigating this association across regions of New Zealand. We show that the global financial crises affected regional house price affordability asymmetrically. Application of trajectory regressions to quarterly data between 2000-2017 also reveals only a limited connection between house price affordability and mortgage rates.

Session 2A

"I WON'T MOVE TO A ONE BEDROOM DOG BOX": THE CHALLENGES OF DOWNSIZING FOR OLDER SOCIAL HOUSING TENANTS IN QUEENSLAND, AUSTRALIA

Ayodeji Adeniyi  
Laurel Johnson  
The University of Queensland

Abstract  
Older tenants living in detached dwellings occupy much of Australia’s social housing landscape. As these tenants age, many find themselves living alone in two, three or more-bedroom homes, which authorities perceive as under-occupied. In this research of over 150 older social housing tenants in Logan, Queensland, the surprising finding was that most of the older tenants interviewed wanted to stay in their homes, despite the number of bedrooms and the size of the yard. Each of the spare bedrooms had a purpose, and the sentimental attachment to the family home was strong. This represents a serious dilemma for social housing agencies who face pressure from long waiting lists and limited housing stock. The identification of a number of ‘potential movers’ among the sample group, assisted the researchers to investigate the key factors that would motivate this group of older social housing tenants to move to a smaller home. If these factors can be satisfied in new housing, then older social housing tenants may be prepared to move to smaller homes. Understanding and delivering the factors that motivate a move is important for both older social housing tenants and social housing providers.
SOCIAL HOUSING IN MYANMAR: ISSUES AND WAY FORWARD

Su Su Nwal
Kriengsak Panuwatwanich
Thammasat University

Abstract
Globally, both developed and developing countries are trying to be better in social housing provision. However, high poverty level and increased population are the major challenges for the government in developing countries. Myanmar is also facing the same problems; the government is in an emergency to provide the housing for citizens, especially in its most rapidly growing city of Yangon. The government has been planning to construct the “one million housing project” since 2011, which is expected to be accomplished by 2030. However, this target was not met for the first five-year fiscal plan. It is a question among the citizens whether the government will accomplish such a project in time. This paper was aimed to identify the current issues of social housing provision in Myanmar, and to identify some possible coping strategies. This was achieved through a systematic review of literature and a series of interviews with selected individuals who were involved in social housing in Myanmar. The findings highlighted some key issues in Myanmar social housing industry and its provision, and recommends possible approaches to rectify the problems.

“EVERY DAY I FEEL BLESSED”: EXPERIENCES OF NEW HOMEOWNERS EXITING PUBLIC HOUSING INTO AN AFFORDABLE HOUSING PROJECT IN MELBOURNE

Katrina Raynor
Melanie O’Neil
University of Melbourne

Abstract
The role of social housing in Australia is changing. From a focus on government-led provision of housing for working-class families in the years following World War II, social housing is increasingly considered a safety net or an interim option for only the most vulnerable households. Government policy and rhetoric now focuses on encouraging tenants to move out as soon as their financial situation allows it. However, many households that leave public housing experience substantially higher levels of housing stress due to a lack of alternative secure and affordable housing options in the private market. A 34-unit development undertaken by a private developer in Melbourne, Australia, presents a model to address this problem. The development, entitled the Melbourne Apartment Project (MAP), uses a developer-provided ‘advance’ to allow current social housing occupants to reduce their initial financial outlay. This paper provides insights from nine interviews undertaken with MAP purchasers who have moved out of public housing estates in inner-Melbourne. The research identifies experiences of home, the ‘push’ and ‘pull’ factors that influenced the decision to move out of public housing and the experiences of stress, pride, security and pragmatism as expressed by these households.
ONE COUNTRY TWO HOUSING SYSTEMS: COMPARING HONG KONG AND SHENZHEN– WHICH IS CAPITALISTIC AND WHICH IS SOCIALIST?
Rebecca L.H. Chiu
The University of Hong Kong

Abstract
In its early years, Shenzhen as a special economic zone drew on much of Hong Kong’s experience in developing the city. But over time it has formed its own trajectory to deal with urban issues emerged under its unique contexts. Today Shenzhen’s housing system bears a stronger market character than Hong Kong despite the reputation of the latter being the most liberal economy in the world. This paper compares the roles of the government and the market in the two housing systems and explains the divergence, arguing that Shenzhen’s rural housing market replaces Hong Kong Housing Authority as provider of affordable housing to the low income families. Thus, Shenzhen government’s housing subsidy policy could focus on semi-skilled and skilled laborers, who are needed to build Shenzhen into a high-tech city and a financial centre. Currently both governments have not considered adopting a conspicuous asset-based or welfare-based housing policy. The reasons will be explored in the paper.

THE RISE OF EDUCATION-LED GATED COMMUNITIES IN CHINESE CITIES AND THEIR SOCIOECONOMIC IMPLICATIONS
shenjing He
The University of Hong Kong

Abstract
The global spread of gated communities (GCs) has gained momentum in China, where it has become the most prevalent residential form. Residential sorting based on education choice has long been a classic topic in housing economics and the social sciences. An emerging form of GCs, termed education-led GCs (edu-led GCs) by the author, that turn education into a semi-club good packaged with other tailor-made residential services, is now attracting numerous middle-class homebuyers across China. Emerging as a hybrid form of lifestyle and prestige GCs, and encapsulating the important urban/social issues of unequal access to education, privatization of basic public goods, middle class social reproduction, social exclusion and residential segregation, edu-led GCs poses a series of unexplored questions for the literature on GCs. This research focuses on the case of Guangzhou, where the very first edu-led GC was developed in 1992, to provide answers to the following questions: 1) How are edu-led GCs being produced under the unique institutional and socioeconomic settings in China? 2) What are the internal and external impacts of edu-led GCs, in terms of the influences on community attachment internally and social exclusion externally? Empirical data will be drawn from a large-scale household survey conducted in 39 GCs in Guangzhou, of which 27 are edu-led GCs. Findings from this research are expected to enrich the theoretical and empirical explorations of GCs and contemporary Chinese urbanism.
THE CASE FOR BUILDING IN ADAPTABILITY IN HOUSES

David G. Carmichael
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Abstract
Housing space requirements for individuals and families change over time, as individuals age and families grow and decrease in size. It would thus seem appropriate that houses themselves should be built with adaptability features that facilitate this change in space requirements. The paper presents a built-in adaptability quantitative analysis, which incorporates the possibility that although adaptability exists it may not be called upon, depending on future circumstances. Two examples, extracted from Australian practice, are discussed: the first is the practice of extending a single-storey house to a second level in order to provide increased housing space perhaps for a growing family; the second is where a house too large for its occupants is divided into two smaller separable house spaces. The paper shows the range of circumstances over which building in adaptability is viable, that is the range over which it betters (financially, socially and environmentally) the form where no forethought to building in adaptability is given at the time of initial construction, but where subsequent adaptation still takes place, albeit with greater effort, cost and disbenefits. The paper will be of interest to those at the design stage of housing, both individuals and building companies.

TECHNICAL REVIEW OF THE CURRENT EARTHWORK SMART TECHNOLOGIES IN AUSTRALIA

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Swinburne University of Technology
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Pusan National University

Abstract
The construction industry has significant impact on the Australian economy. Digitizing the construction industry lead to produce a solid economic growth. Earthmoving tasks constitute large portion of the construction projects. Improving the performance and efficiency of the earthmoving operations has significant impact on increasing the productivity of the projects and delivers successful projects. Australia is one of the countries that are trying to follow the race toward automating the construction industry and earthmoving tasks. However, there is not sufficient quantitative research or studies showing the employment of these technologies in Australia. Knowing such information will provide database to evaluate the current and future performance of construction industry. This research investigates current situation of the earthmoving technologies in Australia, as well as the current dominant technologies for excavation construction sites. All these data are collected by performing field investigations in
current construction sites that perform earthwork operations. The result showed that the Australian earthmoving industry is lagging behind with 82% of the Australian construction industries do not use the advanced systems in their earthmoving operations, while 18% are utilising smart GPS technology and 6% are using integrated laser based and GPS technologies with their construction projects.

DEVELOPING A MODEL FOR MELBOURNE PROPERTY ASSESSMENT

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Swinburne University of Technology
Young-Kil Hong
Hallym Polytechnic University
Sungkon Moon
Swinburne University of Technology

Abstract
A proliferation of desktop valuation tools have emerged in recent years to provide property valuation for public in major cities across the world including Melbourne. However, there are variations in prices estimated or predicted by these online tools because of their difference in models and methods adapted to estimate makes them unreliable. These tools use automated valuation models (AVM’s) to determine the value for the property depending on the current market trends and fails to provide true value of the property. Considering that, this research endeavours to develop a new model for desktop valuation to estimate the true value of residential properties for Melbourne suburbs and also, to predict the property values for the same in any given year. Therefore, it is crucial to study how the existing models are developed to understand and analyse the framework and their work function. This study helps to conceptualise new method, aiming for the quality indexes to develop a model for evaluating true value of the properties. In this research the working of the proposed new model is shown and conclusions are drawn. In future, the applications of new model are analysed for further improvement and conclusions on the working efficiency of the model is drawn by estimating price for selected properties in different years across multiple suburbs of Melbourne.

STUDY ON QUATERNITY OF ‘HOUSING- LAND - FISCAL - FINANCE’ POLICIES FOR ESTABLISHING THE LONG-TERM REAL ESTATE REGULATION MECHANISM – BASED ON DSII FRAMEWORK AND ITS MODEL

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Abstract
The long-term mechanism of housing policies in China will be gradually established according to the documents from 19th National Congress of the Communist Party of China. In the long-term, China’s central government will significantly reduce the macro-control policy interventions. Instead, responsibility for housing market control is
delegated to the level of local government most consistent with the local housing market. During last two decades, China’s housing markets has been developing and experienced a continuously booming process under initiative institutional arrangements of properties. As a result, housing markets formed a ‘two-sides binding effects’ to China’s local economy working on both demand side and supply side. To control the rapid increases of housing prices and to solve the structural imbalance problems of the markets, China’s government processed and formed a series of housing policies during the period. This study reviews the process how the ‘Four-dimensional’ structure (Quaternity) of ‘Housing-Land-Fiscal-Finance’ policies in housing market formed. From perspectives of institutional changes theory, the policy bunches are categorized into two dimensions – Imposed Institutional Changes Forces and Induced Institutional Changes Forces. The two dimensions also infer to objective mechanism and dynamic mechanism of the policy system working on demand-side and supply-side of the markets. Based on this theoretical basis, our study constructs Demand-side- Supply-side– Imposed– Induced (DSII) analysis framework. Based on DSII framework, we use Interrupted Time Series (ITS) model to access the effectiveness of ‘Four Major Policies’ of China’s Four-dimensional’ structure of policies. The results are concluded that, a) the effects of ‘imposed’ regulative policies on the demand-side of housing markets are insignificant in short term but are insignificant in the long run. b) the system of ‘induced’ regulative policies, which is indirectly inducing the changes in housing markets, has been gradually formed. c) The effects of ‘induced policies’ on supply-side of market, such as land policies and fiscal policies, are very significant in the long run, but the effects of ‘induced policies’ on demand-side, such as financial policies are insignificant in the long run. Some policy suggestions are derived from these results for establishing the ‘Long-term Real Estate Regulation Mechanism’. For further development of such mechanism, some recommendations based on the conclusion are made as follows: a) the Chinese government should emphasize more on policies directly or indirectly working on supply side, other than demand side, of markets, such as land policies and fiscal policies. b) The effectiveness of ‘Induced Policies’ should be highly taken into consideration as the policy-making process should follow the basic rules of marketization process and the ways of ‘Imposed Policies’ restricting the market on demand side always does not work well. c) Governments should put more efforts on formulating a long-term steady expectation of the markets to the public, which resorts to a persistent implementation of Four-dimensional’ structure of policies.

A FUNDAMENTAL STUDY ON THE HOUSING RISK OF A LIFE COURSE

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Abstract
This study aims to identify causes of housing risk influenced by the social change after the bubble burst economy in Japan. Housing poverty is intensifying in the background of the change of population, economy and the policy in Japan. At first, the change of population structure means the decreasing of population and the reduction of household size such as living alone and aging of population. The second is the change of industrial structure, a business structure, and an employment form accompanying with the economic globalization. The third is the change of government policy which
becomes enablers from providers. The Japanese safety net for living has collapsed against the background of these factors. The government has been developing the provisions lead the independence by working so that livelihood protection recipients may be decreasing. However, people who are trapped in a vicious circle of poverty cannot recover from a crisis. This study involved interviews with organizations such as the support center for vulnerable people, NPOs for housing or for the homeless. And it also analyzes the data from the telephone consultation service. The survey of this study has been carried out since October 2017.

Session 2C

ON THE USE OF BUILDING INFORMATION MODELLING FOR DESIGN INTEGRATED APPROACH

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Ebrahim Solgi
Zahra Hamedani
Karine Dupre
Henry Skates
Cecilia Bischeri
Griffith University

Abstract
As the demands on the built environment grow, the coordination and planning of development need to increase in both its ability to deal with complexity and scalability. Building Information Modelling (in this context, we limit it to the Industry Foundation Standard- IFC) provides a set of protocols for information exchange and long-term data legibility. Among other things these protocols give a means for representing three-dimensional data, methods for separating out layers of a project and also for accounting timelines and project phasing. In this research, we highlight the importance of using building information modelling as a platform for data exchange between local council, developers and architects. The case of energy analysis in the thermal and visual environment is explored with regard to information transfer in the integrated design process. The feedback loops created by ubiquitous computing also provides an avenue for designing systems that optimize performance, minimize energy and make better use of resources.

BIM ATTRIBUTES FOR ADDRESSING THE CAUSES OF DISPUTES IN CONSTRUCTION PROJECTS

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Curtin University
Payam Zekavat
Western Sydney University
Sherif Mostafa
Griffith University
Abstract
Considerable concern has been expressed in recent years regarding the dramatic increase in conflicts and disputes in the construction industry in many countries including Australia. These conflicts and disputes resulted in a high cost to the industry both in terms of direct costs (lawyers, claims consultants, management time, delays to projects completions) and indirect costs (degeneration of working relationships, consequences of mistrust between participants and lack of teamwork). The nature of the construction disputes is complex, dynamic and multi-faceted. In addition, it is not only confined to disputes between the client and main contractor, but it occurs between the prime contractor, sub-contractors, consultants and designer. The alternative dispute resolution (ADR) is any procedure or combination of procedures, conducted in a controlled structured manner, which is entered into voluntarily by the parties to a dispute, as opposed to one using the other publicly in an open court. This research reviewed the literature to provide a comprehensive discussion and analysis on the root causes of disputes in the construction industry. The relationships between the parties involved in a construction project are also defined along with the potential of disputes in each relationship. Furthermore, the paper comprehensively explained how BIM could be used as an ADR in construction project phases including tender, engineering, procurement and construction.

TOWARDS DIVERSE HOUSING WITH BETTER LIVEABILITY: TWO POSTGRADUATE DESIGN STUDIOS IN MELBOURNE

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Abstract
From the 1960s to the early 1970s, a number of social housing projects were completed in Victoria with the erection of forty-five residential blocks having twelve storeys or above. This paper discusses the shortcomings of those social housing estates, including building typologies, ground floor spatial utilisation and building frontages for street vitality. To address the issues, two postgraduate architectural design studios titled: “Living Proof: Liveability Award for Social Prahran” and “Home @ Atherton Garden” were delivered in 2016 by using the social housing estates in Prahran and Fitzroy as case studies. The research themes of these studios included the design of hybrid-use precincts for enhanced liveability, well-connected walkable community for health and wellbeing of residents, as well as the integration of social housing into surrounding neighbourhoods to avoid social stigmatisation. Postgraduate design studios can be regarded as a creative laboratory for testing ideas through field observations, site analysis, engagement with different stakeholders and active collaboration among students. Ideas generated from design studios can facilitate the ongoing exploration for alternative approaches and future directions for modelling diverse housing with better liveability.
BUILDING’S LIFE CYCLE EMBODIED CARBON EMISSIONS ASSESSMENTS: A REVIEW

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Abstract
The building industry has long been criticised with significantly consuming natural resources and discharging high volumes of greenhouse gas emissions. It is therewith critical for the entire industry to work towards sustainable design and ‘green’ construction with which the environmental impacts could be greatly reduced. Overall, buildings’ life cycle emissions comprise of those at the construction stage (embodied carbon), and those at the operation stage. While a massive effort has been put into curbing operational emissions, embodied emissions occurring in the upstream processes are largely overlooked. Since recent studies have increasingly emphasised the importance of embodied carbon and presented many quantification analysis studies, the contemporary state of research is plagued by a wide variation of embodied carbon values. This therefore prompts to an overview of three common Life Cycle Assessment (LCA) approaches, which are process, input-output and hybrid analyses. Especially, several restrictions in applying LCA studies throughout the building’s life cycle are also discussed. Finally, the authors urge that it is vital to develop a robust inventory data and a comprehensive methodology to streamline the embodied emissions computation framework and recommend that future research should focus on holistic carbon assessment standard that could calibrate both embodied and operational carbon impacts.

SENSE OF COMMUNITY, COMMUNITY ATTACHMENT, SOCIAL CAPITAL AND PARTICIPATION IN URBAN HOUSING ESTATES: CASES OF COMMUNAL SPACE RENEWAL IN SHANGHAI

Yueli XU
Mandy LAU
University of Hong Kong

Abstract
There are many researches discussing different dimensions of community development in different context, involving residents’ participation and social capital, sense of community and neighborhood attachment, and changing meanings of community attachment in contemporary China’s context. However, empirical analysis to examine contemporary China’s community development in different housing estate types is understudied. It’s especially meaningful to compare both distressed and prosperous housing estates, and to compare community development performance in certain type of housing estate which with and without communal space renewal. If this linkage could be established, it could provide guidance in using communal space renewal planning to improve community development in different housing estate types.
This article aims to fill this gap by investigating the dynamics between sense of community, community attachment, social capital and participation through communal space improvement programs in three Shanghai urban housing estates types. Evidence presented in this paper, based on questionnaire with 720 residents in 12 housing estates and 36 interviews with relevant stakeholders. We found that communal space renewal and management could contribute to community development in its different aspects in different housing estate type context. Besides, this study still has implications for theoretical debates, community planning strategies and community development policy.

Session 2D

RESEARCH ON THE GOVERNANCE MODALITY OF URBAN VILLAGE IN CHINA BASED ON INTEGRATION OF INCLUSIVENESS AND URBAN SERVICE BOUNDARY

Xiaofeng Sun
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Sheng Zheng
Zhejiang University

Abstract
Due to rapid urbanization, urban village has gradually become a populated area dominated by a large number of floating populations in China. Similar to the slums, the problems of urban village, such as poverty, housing, infrastructure and social governance, need to be solved urgently, which is always a serious issue in urban governance. Therefore, based on the past experience from the international slums governance and typical case of urban village in Hangzhou, this paper builds the framework for urban village governance modality, which integrates inclusiveness with USB as the guiding principle, and aims at people-oriented service using housing and infrastructure as specific means. This paper proposes that inclusive city should consider different needs of people inside and outside the urban village and incorporate urban village into USB. On the basis of distinguishing different functional positioning of urban villages, urban villages should adopt differentiated housing and infrastructure construction in order to meet the needs of different groups in order to form the differentiated and systematic governance modality.

IAD-BASED AFFORDABLE HOUSING POLICY UNDER THE NEW-TYPE URBANIZATION IN CHINA

Yuxuan Chen
Yuzhe Wu
Wei Wang
Zhejiang University
Abstract
As the rapid urbanization and the deepening of housing system reform in China, the housing problems of increasing floating population in urban area come into hot spots. The core content of The National New-type Urbanization Planning (2014-2020) is to encourage eligible workers who were engaged in agricultural to gradually become urban dwellers. Housing affordability is the key to achieving the New-type Urbanization. This paper starts with a review of the changes in affordable housing policies in China. And then an analysis model of the affordable housing policy based on the IAD framework is introduced, to bring forward the guidance and rules of affordable housing policy. Moreover, the implementation effects of the policy rules have been elaborated, taking Hangzhou as a case. Finally, this paper provides several constructive guidance and rules in affordable housing policies aimed to enlarge its scope of coverage, in order to greatly enhance the housing affordability in China.

THE LINK BETWEEN COMPACT URBAN FORM AND HOUSING AFFORDABILITY IN INDONESIA: WHERE IS THE EMPIRICAL EVIDENCE?

Yulia Dewita
Barbara T.H. Yen
Matthew Burke
Griffith University

Abstract
Urban consolidation has become an urban planning and development paradox. One of its recurrent criticisms relates to housing affordability and the role of planning interventions such as compact city policies. Indonesia has adopted the compact city concept in recent years, but there is little knowledge of density’s effects. This paper examines whether housing and transport affordability is associated with urban compaction in three Indonesian metropolises. Twenty-two municipalities within Jakarta, Bandung, and the Medan metropolitan areas were studied. National socio-economic survey data were used to measure affordability, while census and statistical data are used to describe the current state of urban compactness in each municipality. Data envelopment analysis (DEA) methods were applied to provide an objective calculation and benchmarking process to evaluate and perform the inter-city comparison of the combined housing and transport affordability. To discover the relationship between affordability and urban compaction this study uses Tobit regression analysis. The results support the argument that urban compaction has a potential to improve housing affordability, particularly when transport and housing costs are combined. The research sheds new light on the link between compact urban form and housing affordability in the developing countries context.
DESIGN AND APPLICATION OF COMPREHENSIVE HOUSING AFFORDABILITY INDEX - A CASE STUDY OF SHANGHAI

Yan Liu, Zhi Liu
Peking University

Abstract
The main goal of housing policy is to make housing affordable. The fixed location of the housing determines its positional relationship with workplaces, schools, and other public service facilities in the city, and it also causes additional costs related to housing consumption, such as transportation costs, maintenance costs, commuting costs and so on, which constitute an important part of household living costs. The general measurement of housing affordability using price-income ratio index is unable to measure housing affordability accurately because it ignores the additional costs related to housing consumption. The financial impact of housing on households through mortgage or rental payments should also be considered. This paper reviews the traditional housing affordability measures, and designs a more comprehensive housing affordability index which takes spatial issues and household-specific characteristics into consideration. The paper also explores the differences of housing affordability among urban districts by using the survey data of Shanghai. The policy implications of this new index are also discussed.

IMPROVING PUBLIC TRANSPORT INFRASTRUCTURE IN AUCKLAND: WHO WILL BENEFIT?

Patricia Austin
Lucy Groenhart
University of Auckland

Abstract
Whilst investment in public transport infrastructure resulting in faster, more frequent and reliable public transport options to suburbs currently reliant on cars and buses is to be welcomed, the potential for property price increases, gentrification and / or displacement of residents and businesses in the areas surrounding the rail stations is of concern. Using a case study of Auckland’s City Rail Link (CRL), currently under construction, the research identifies ‘at risk’ suburbs along Auckland’s western and southern rail lines. The research hypothesises that the vulnerability to gentrification and / or displacement may be increased by significant residential up-zoning, across many of the areas adjacent to transport nodes, in the statutory Auckland Unitary Plan (2017). Considerations of policy interventions to mitigate potential social impacts of the City Rail Link are notably absent in the New Zealand policy arena in general, and in the Auckland Council’s CRL urban planning and transport documents in particular.
Appendix

Griffith University Gold Coast Campus map