



Architecture and Resilience on the Human Scale

Cross-Disciplinary Conference
Sheffield
10-12 September 2015

Twitter | @SSoA_news

#SSoAResilience

Email | resilience_ssoa@sheffield.ac.uk

Website | www.sheffield.ac.uk/architecture/latest/events/resilienceconference



The
University
Of
Sheffield.

SSoA

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WELCOME

Why Architecture and Resilience on the Human Scale Conference?

Irena Bauman

Professor at SSoA and Director of Bauman Lyons Architects

At SSoA we consider Resilience to be one of the defining issue of this century. There are changes already in motion such as climate warming and other conditions arising from chronic urban stresses such as high unemployment, extreme wealth discrepancies, violence and water shortages that are increasingly difficult to mitigate against. These are happening with such acceleration that many societies are caught out with insufficient time and other resources to adapt in a seamless and timely manner. Our society is already experiencing repeated shocks which require personal and collective resilience to withstand them. Resilience is therefore required to create that buffer zone of space and time within which we can adapt our behaviour to mitigate against further acceleration of these conditions and to adapt and transform into a low carbon, and socially more just way of life.

Architects have a major contribution to make to building of local resilience as we have the capacity to analyse and innovate and architecture itself is, by nature, is locally rooted - it does not move. Also architecture forms the physical infrastructure of neighbourhoods - these neighbourhoods are the smallest unit of resilience, and the urban cells from which resilience of the entire urban organism is build.

Whilst our professional establishment is still largely preoccupied with its own self importance and with protection of its own rather tiny kingdom, many architects are opting to operate beyond professional silos increasingly driven by concerns for social justice

and the desire to design solutions to the environmental crisis.

Architects and architectural academics, are now working collaboratively, researching and innovating across disciplines as varied as materials science, building physics, construction methods, social and economic regeneration, new forms of governance, co-production methods and service design, and we are developing solutions for mitigation and for adaptation that contribute to growing resilience and to positive transformations.

We have staged an international conference to scope the many ways that architectural academics and practicing architects are engaging with issues of resilience, to collate the emerging knowledge to set it in a theoretical context. Also, this conference celebrates this body of work and the contribution it is making towards transformational society.

If we are to continue to grow such contributions, academics, educators, architectural researchers and practitioners will have to continue to break with all types of silo thinking and instead, embrace systems thinking and take onboard the learning conditions recently described by the anthropologist Henrietta Moore: ***"the future learning will not be about the transferability of whole models with known outcomes, but rather about incomplete learning, experimentation and collaboration."***

SCIENTIFIC AND ORGANISING COMMITTEES

Organising Committee

Irena Bauman
Beatrice De Carli
Jian Kang
Sara J Lancashire
Ranald Lawrence

Doina M Petrescu
Flora Samuel
Fionn Stevenson
Kim Trogal
Renata Tysczuk

Scientific Committee | Local Resilience and Science Strand

Dr Marty Anderies

Arizona State University

Dr Sarah Burch

University of Waterloo, Canada

Ian Cooper

Eclipse Research Consultants, Cambridge

Professor Michael Davies

UCL, London.

Professor Michael Eden

Chalmers University of Technology, Gothenburg

Professor Niklaus Kohler

Karlsruhe Institute of Technology

Professor Martin Mayfield

University of Sheffield

Professor Steven Moore

University of Texas at Austin

Professor Edward Ng

Chinese University of Hong Kong

Professor Sue Roaf

Herriott-Watt University

Scientific Committee | Local Resilience, Pedagogy and Practice

Dr Camillo Boano

Development Planning Unit, UCL

Dr Esther Charlesworth

RMIT University, Melbourne

Dr Jennifer Gabrys

Goldsmiths, London.

Elke Krasny

Senior Lecturer, Academy of Fine Arts Vienna

Professor Ruth Morrow

Queens University Belfast

Damon Rich

Harvard Graduate School of Design

Anna Rubbo, Senior Scholar

The Earth Institute at Columbia University

Dr Meike Schalk

Assistant Professor, KTH University, Stockholm

Sumita Sinha

Architect

Professor Jeremy Till

Dean Central St Martins, University of the Arts
London

Scientific Committee | Local Resilience and Society Strand

Dr. Isabelle Anguelovski

Ecological Economics and Integrated
Assessment, ICTA, Universitat Autònoma de
Barcelona

Dr Paul Chatterton

Reader in Cities and Social Change, School of
Geography, University of Leeds

Reinhard Martinson

Former CEO of Metropolitan Region Hannover
and Head of Planning

Professor Jenny Pickerill

Professor of Environmental Geography,
University of Sheffield

Dr Asa Swartling

Stockholm Environment Institute

Elanor Warwick

Head of Strategic Research, Affinity Sutton,
Kings College London

Professor Rafael Wittek

Professor of Theoretical Sociology at the
University of Groningen, Netherlands

PROGRAMME AT A GLANCE

Thursday | 10 September 2015

11.30	The Workstation	Registration
12.45	Cinema 3	WELCOME Fionn Stevenson
12.50	Cinema 3	ARCHITECTURE, RESILIENCE AND THE HUMAN SCALE Irena Bauman
13.00	Cinema 3	DIALOGUES Sue Roaf and Sally Weintrobe
		Building Local Resilience: Bricks and Feelings Chaired by Fionn Stevenson
14.15	The Showroom	Parallel Sessions
		<div><div><div>Showroom 5a</div><div>Chair: Irena Bauman</div><div>STRAND 1. Strategies for Community Resilience</div><div>Making Communities Disaster Resilient with High-Performance Building Technologies</div><div>Intensification as a strategy for resilient rural regeneration</div><div>Study on the sustainable reconstruction after earthquake</div></div><div><div>Cinema 3</div><div>Chair: Cristina Cerulli</div><div>STRAND 2. Co-Housing</div><div>Building eco-homes for all: Inclusivity, justice and affordability</div><div>Co-housing developments for resilience in housing: knowledge transfer to increase the number of co-housing developments</div><div>Resilience: co-fighting the crisis</div></div><div><div>Showroom 5b</div><div>Chair: Ranauld Lawrence</div><div>STRAND 3. Theories for Resilience</div><div>Site-Specific Greenhouse Superstructures: Social (Hyperobjective) Pedestals</div><div>The magical encounter between resiliency and emancipation? A whatever architecture.</div><div>Climate change and waterscapes of value: cocreating resilience in urban landscapes through diversity</div></div></div>
15.15	The Workstation	Break
15.30	The Showroom	Parallel Sessions
		<div><div><div>Showroom 5a</div><div>Chair: Sue Roaf</div><div>STRAND 1. Strategies for Mitigation</div><div>The PassivHaus Standard: minimising overheating risk in a changing climate</div><div>The Tectonic Intelligence of Architectural Solutions</div><div>Prêt-à-Loger: Zero-Energy Home with Maximum Living Quality Increase</div></div><div><div>Cinema 3</div><div>Chair: Kim Trogal</div><div>STRAND 2. Collective Agency1</div><div>Interdependence and Sustainable Collective Action. The Case of Four Collective Housing Communities in Mexico City</div><div>Waste Disposal Practices in Neighbourhoods facing Recurring Crises</div><div>Risk and Resistance: globalization, shifting boundaries of governability and the production of new spaces of conflict and self-government</div><div>The Case for a Collaborative Energy Sharing Network for Small Scale Community Microgrids</div></div><div><div>Showroom 5b</div><div>Chair: Doina Petrescu</div><div>STRAND 3. Pedagogy</div><div>Transition Skills; investigating and enabling local resilience in the North of The Netherlands</div><div>Learning Comprehensive Building Design through a Resilience Framework</div><div>University-Based Rural Sustainable Development Assistance Strategies</div><div>Architecture of Multiple Authorship: Beyond the Academic Year</div></div></div>
17.15	Cinema 3	VIDEO LECTURE Katherine Gibson
		Cultivating Ethical Ecological-Economic Sensibilities: Strengthening Resilience In Monsoon Asia
18.00	Exchange Place Studios	Talks and drinks at Castlegate
		Co-Producing the City: LiveWorks Carolyn Butterworth and Rachael Dodd
19.30		Close

PROGRAMME AT A GLANCE

Friday | 11 September 2015

08.30	The Workstation	Registration			
09.00	Cinema 3	WELCOME Doina Petrescu, Head of Research at SSoA			
09.05	Cinema 3	DIALOGUES Jörg Stollmann and Daniel D'Oca			
		Resilience within the legacy of the modern city Chaired by Doina Petrescu			
10.30	The Showroom	Parallel Sessions			
		Showroom 5a Chair: Jian Kang STRAND 1. Modeling for Resilience Analysis and Prediction of the building energy consumption under climate change for Xian, China The Gap between Plan and Practice: Actual Energy Performance of the Zero-Energy Refurbishment of a Terraced House Environmental Simulation for Designing with Climate Change: Framework, Experiment and Reflection	Cinema 3 Chair: Sally Weintrobe STRAND 2. Community Resilience, Planning and Place Interethnic and resilient cities: urban planning in Italy Developing community resilience through active landscape engagement. The Social Value of Place: An Appraisal Method for Sustainable Neighbourhood What does community resilience look like in practice? How institutions see the role of communities in responding to heatwaves in the UK.	Showroom 5b Chair: Florian Kossak STRAND 3. Co-Production 2 Participatory Mapping in the Co-Design of the Future North Future Works: stories of energy, industry and resilience Collective Documentation of Extreme Urban Transformations: Evidence of Urban Resilience During the War in Sarajevo (1992–1996) Creating a Template for Change: A century of mapping under used spaces in Dublin.	
11.45	The Workstation	Break			
12.00	The Showroom	Parallel Sessions			
		Showroom 5a Chair: Irena Bauman STRAND 1. Urban Resilience Urbanism, Rivers and Resilience Correlating Urban Microclimate Modelling with Energy Use Data Analysis to Inform Site-Specific Climate Change Adaptation Design The Social and Spatial Transformative Impact of an Urban Cable-Car: The Case of Medellin	Cinema 3 Chair: Tatjana Schneider STRAND 2. Collective Agency 2 Collective actions for local resilience: Learning from grassroots strategies in São Paulo Montagna Viva, The Living Mountain: Conversing with an experiment in making (the local) in common. Resilient Subjects: On Feminist Practices	Showroom 5b Chair: Doina Petrescu STRAND 3. Co-Production 2 Your home, My home: lessons in participatory designing with older people Social architectures of community resilience: sharing and ageing in 'iconic' intentional communities Provocateurs or Consultants? The role of Sheffield School of Architecture in the co-production of Castlegate	
13.00	The Workstation	Lunch			

PROGRAMME AT A GLANCE

Friday continued | 11 September 2015

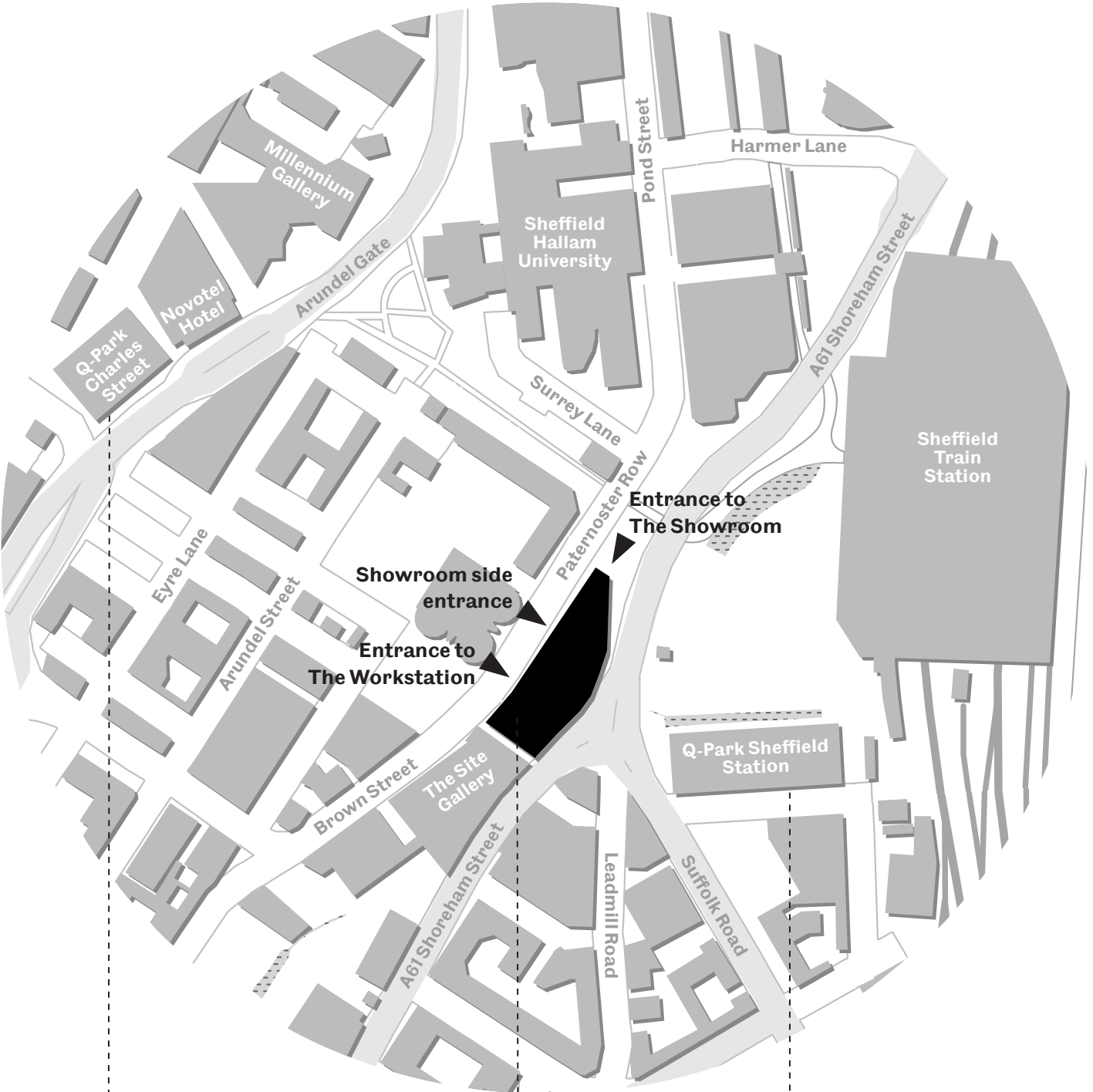
13.45	Showroom 5 and Workstation Conference Rooms 1 & 2	CONFERENCE SPECIAL Disruptive Workshops		
		1. Preparing the Arctic to the Unknown. Taneha Kuzniecowa Bacchini, Claudiu Forgac, Arjan Van Timmeren, Richard Ashley.		
		2. Chef-field co-cooking. Remodelling a co-housing development. Zsófia Glatz and Bence Komlósi.		
		3. Constructed Scarcity: Exploring resilience through a diagrammatic and multi-scalar analysis of the built environment produced under conditions of scarcity. Dr. Isis Nunez Ferrera.		
		4. Resilience by Design: Inhabiting fragile territories. Sarah Ernst.		
		5. Disrupting the incumbent city of the future. Briony Turner.		
		6. Activating neighbourhoods on the front line of physical upheaval and gentrification		
15.00	The Workstation	Break		
15.15	The Showroom	Parallel Sessions		
		Showroom 5a Chair: Sue Roaf	Cinema 3 Chair: Sarah Wigglesworth	Showroom 5b Chair: Peter Blundell Jones
		STRAND 1. Low Carbon Living in Cities	STRAND 2. Resilience, Vulnerability and Climate Change 01	STRAND 3. Strategies for Mitigation
		Post-Occupancy Evaluation of Apartments: The Use of Technology and Digital Interfaces to Amplify its Efficiency	Tackling Climate Change: Comparing Studio Approaches in Sheffield and Cape Town	Urban History & Cultural Resilience in Dubai's Emerging Architectural Model
		Technical and social redundancy for Low Carbon Living	Learning from New Orleans. The construction of resilient strategies for urban ecosystems	Looking into the Changing Rural Vernacular Dwellings with a Sustainable View: A Case Study on Bingzhongluo Township in Southwest China
		Climate resilience in new-build social housing: challenges, opportunities and unintended consequences	Assessing the adaptation capacity of riparian vernacular houses in the face of climate change: Can local wisdom be used to improve flood resilience in Ayutthaya	Vernacular form of the Boka Kotorska: Memory, Tradition and Inherent Resilient Thinking
16.15	Little Kelham	Break and move to Little Kelham		
16.45	Little Kelham	Summer School Presentation		
17.45	Little Kelham	TALKS Chris Thompson and Karen Stafeckis of CITU		
		How to be a Resilient Pioneer		
18.15	Little Kelham	DIALOGUES AT CANDLELIGHT Adriana Allen and Andrew Simms		
		Building Local Resilience: Can it be planned for? Chaired by Beatrice De Carli		
19.30	Little Kelham	Drinks and few words from Matthew Bigland, director of The Milestone		
20.00	Little Kelham	Conference Dinner		
23.00		Close		

PROGRAMME AT A GLANCE

Saturday | 12 September 2015

08.30	The Workstation	Coffee and registration
09.00	The Showroom	Parallel Sessions
		Showroom 5a Chair: Aidan Hoggard
		Cinema 3 Chair: Sally Weintrobe
		Architecture Practice Research: Designing for Resilience
		STRAND 2. Co-producing Urban Resilience
		St Rita: A Climate Change Adaptation New-Build House
		Co-producing Urban Resilience
		The UK's First Amphibious House
		Holzmarkt Village – Participatory Neighbourhood Development in Berlin
		Management Before Fabric - Social barriers to adapting existing buildings for greater resilience to climate change.
		Suffocating Cities: Obstacles to urban self-organisation
		Living Architecture: Demonstrating resilience to climate change and resource depletion
		Rebuilding over time: The Christchurch Convention Centre and The Commons
10.15	The Workstation	Break
10.30	Cinema 3	CITY DEBATE From Home to City: Scales of Resilience
		Debate with Cristina Cerulli (UK), Tina Saaby (DK) and Kristien Ring (DE) Chaired by Vanessa Toulmin Respondent Irena Bauman
12.00	The Workstation	Drinks and book launch of 'Imagine Castlegate'
		Presented by Carolyn Butterworth, LiveWorks, SSoA
13.00	The Workstation	Close

VENUE INFORMATION



● Q-PARK
CHARLES ST
72 Charles Street
Sheffield
S12NB

● THE SHOWROOM
AND WORKSTATION
15 Paternoster Row
Sheffield
S12BX

● Q-PARK SHEFFIELD
STATION
Turner Street
Sheffield
S12BP

Getting to the Showroom and Workstation

PUBLIC TRANSPORT | Showroom Workstation is 5 minutes walk from the train station and 10 minutes walk from the main bus interchange.

CYCLING | There are bicycle racks directly outside the Showroom and Workstation entrances on Paternoster Row.

DRIVING | Showroom and Workstation is close to the M1 Parkway and Sheffield city-centre. There is limited on-street parking on Paternoster Row and Shoreham Street and several car parks in the vicinity. Delegates can receive a **50% discount for Q Park, Charles Street**. Collect your exit voucher from the box office in the Showroom or the Workstation reception.

SHEFFIELD CITY TAXIS | +44 (0) 114 239 3939

Access and facilities

All public areas of the Showroom Cinema and Workstation are fully accessible to people using wheelchairs and our staff are trained to provide customer assistance.

There are several disabled car parking bays available on Paternoster Row between the cinema and Workstation. A sloped ramp leads to the main cinema entrance providing access to box office, café bar and cinemas on the upper level. Lift access is provided to cinemas 3 and 4 on the lower level.

Accessible toilet facilities are available on the lower level and within the Café/bar.

The Workstation entrance is situated at street level with step-free access. Disabled facilities in The Workstation include lift access to all floors, wheelchair accessible doorways throughout the building and accessible toilets on levels 2, 3 and 4.

Baby-changing facilities are available in the main building ground floor accessible toilet.

We provide an infrared hearing loop facility in the cinema for customers with a hearing impairment. In-ear headsets and necklace amplification devices are available from the Box Office on request.

Wifi access for Showroom and Workstation

Free guest wifi is available in the Showroom and Workstation. Just register your email when prompted for access.

This is a grayscale map of a city grid, likely representing a portion of Manhattan. The map shows a dense network of streets and building footprints. Several specific areas are highlighted in black or dark gray: a small rectangular area in the upper left; a larger, irregularly shaped area in the center-right; a large, solid black rectangular area in the lower right; and a complex, winding path or boundary on the far right side. Dashed lines cross the map diagonally from the top-left to the bottom-right. The overall style is minimalist and schematic.

GETTING YOUR BEARINGS



THE ARTS TOWER | Sheffield School of Architecture
Western Bank
Sheffield
S10 2TN



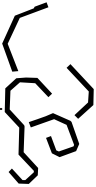
LITTLE KELHAM | Friday night conference dinner venue
Green Lane
Sheffield
South Yorkshire
S3 8SE



EXCHANGE PLACE STUDIOS | Thursday evening at Castlegate
Exchange Street
Sheffield
S2 5TR



LEOPOLD HOTEL | Accommodation
2 Leopold Street
Leopold Square
Sheffield
S1 2GZ



PARK HILL | Point of interest
South street



SHEFFIELD BUS STATION | Transport links



SHEFFIELD TRAIN STATION | Transport links



THE SHOWROOM AND WORKSTATION | Conference venue
15 Paternoster Row
Sheffield
S1 2BX

KEYNOTE SPEAKERS



Professor Sue Roaf

**School of the Built Environment
Heriott Watt University, Edinburgh**

Sue Roaf is Professor at Heriot Watt University and committed to environmental design and responsibility. She is expert in the emerging fields of Low Carbon Building design and the adaptation of buildings and cities for climate change and fuel poverty. Her research investigates whole system design approaches, and examines the ways in which we might incorporate issues of: passive building performance; efficient technology; building integrated renewable energy generators as well as human behaviour, to create low energy and low carbon buildings. She is an award winning designer, teacher and author and is Co-Chair of TIA, the international Teachers in Architecture organisation and Co-Chair of the Westminster Carbon Counting Group. Sue is a qualified architect and is well known as a designer for her Oxford EcoHouse. She has sat on a wide range of committees related to planning, urban design, architecture and local government. In particular, she was an Oxford City Councillor from 2001 to 2008 where she chaired the Environment Scrutiny Committee. She has done extensive consultancy work in the field of Low Carbon Buildings across educational, domestic and health buildings working with UN Habitat; UNEP; CRESA, New Zealand; The Carbon Trust; The Green Consultancy; The Scottish Government; Historic Scotland and other organisations.



Sally Weintrobe

**Psychoanalyst
Fellow British Psychoanalytical Society**

Sally Weintrobe, who practices as a psychoanalyst, has written and talked extensively on how to understand what underlies our widespread disavowal of climate change. Her current writing is on the culture of uncaring that drives the disavowal, a culture she argues is at war with our bedrock capacity to care for the environment and for each other. Formerly Chair of the Scientific Programme at the Institute of Psychoanalysis, she edited and contributed to (2012) *Engaging with Climate Change: Psychoanalytic and Interdisciplinary Perspectives*, short listed in 2014 for the international Gradiva Prize for contributions to psychoanalysis. She is consulted by different groups (such as government policy makers, artists, academics, architects, NGOs, psychologists and psychotherapists) in the UK and internationally on understanding and communicating about climate change.



Professor Katherine Gibson

Professorial Research Fellow

Institute for Culture and Society at the University of Western Sydney

Katherine Gibson is an economic geographer with an international reputation for innovative research on economic transformation and over 30 years' experience of working with communities to build resilient economies. As J.K. Gibson-Graham, the collective authorial presence she shares with the late Julie Graham (Professor of Geography, University of Massachusetts Amherst). Her books include *The End of Capitalism (As We Knew It): A Feminist Critique of Political Economy* (Blackwell 1996) and *A Postcapitalist Politics* (University of Minnesota Press, 2006). Her most recent books are *Take Back the Economy: An Ethical Guide for Transforming Our Communities*, co-authored with Jenny Cameron and Stephen Healy (University of Minnesota Press, 2013), *Making Other Worlds Possible: Performing Diverse Economies*, co-edited with Gerda Roelvink and Kevin St Martin (University of Minnesota Press, 2015) and *Manifesto For Living in the Anthropocene*, co-edited with Deborah Bird Rose and Ruth Fincher (Punctum Press, 2015).



Professor Jörg Stollmann

**Chair for Urban Design and Urbanisation
TU Berlin**

Jörg Stollmann lives and works in Zurich and Berlin. He is co-founder of urbaninform.net with Rainer Hehl and Professor at the Chair for Urban Design and Urbanization at the Technische Universität Berlin. His work focuses on cooperative design strategies as well as socially and environmentally sustainable urban development. Among his research projects in the field of education and urban development are the Akademie einer neuen Gropiusstadt and Soko Klima – Stadt gestalten mit Plan. From 2002 to 2008, he was principal of INSTANT Architects with Dirk Hebel. He taught at the ETH Zurich in the MAS Landscape Architecture and directed the MAS Urban Design. Jörg Stollmann graduated from the Berlin University of the Arts and Princeton University. He received awards and fellowships of DAAD, Graham Foundation, German Academy Rome, Red Dot Award, and the Van Alen Institute in New York.

KEYNOTE SPEAKERS



Daniel d'Oca

**Design Critic in Urban Planning and Design
Harvard University Graduate School of Design**

Daniel D'Oca is an urban planner and designer. He is Principal and co-founder of the New York City-based architecture, planning, and research firm Interboro Partners, and Design Critic in Urban Planning and Design at the Harvard University Graduate School of Design. At Harvard, Daniel has taught interdisciplinary studios about segregation, the ageing of the population, the effects of climate change, and other contemporary problems faced by the built environment in the United States. With Interboro, Daniel has won many awards for Interboro's innovative projects, including the MoMA PS1 Young Architects Program, the Architectural League's Emerging Voices and Young Architects Awards, and the New Practices Award from the AIA New York Chapter. Most recently, Interboro was one of ten firms selected by the US department of Housing and Urban Development to work on its pioneering "Rebuild by Design" initiative. Interboro's book *The Arsenal of Exclusion & Inclusion* is an encyclopedia about accessibility and the built environment that will be published by Actar in 2015.



Professor Adriana Allen

**Professor of Development Planning and Urban Sustainability
The Bartlett Development Planning Unit, UCL**

Adriana Allen is Professor of Development Planning and Urban Sustainability at The Bartlett Development Planning Unit, UCL, where she leads the DPU Research Cluster on Environmental Justice, Urbanisation and Resilience (EJUR). Originally trained as an architect and urban planner in Argentina, she specialised over the years in the fields of urban environmental planning and political ecology. She has almost 30 years international experience in research and consultancy undertakings in over 19 countries in Asia, Africa, and Latin America. Both as an academic and practitioner, her work focuses on the interface between development and environmental concerns in the urban Global South, and more specifically on establishing transformative links between spatial planning, environmental justice and sustainability in highly unequal urban contexts.



Andrew Simms

Andrew Simms is the author of several books, including his latest *Cancel the Apocalypse: the New Path to Prosperity*, and also *Ecological Debt*, *The New Economics* and the bestselling *Tescopoly*. He is co-founder of the recently created New Weather Institute, the UK's first think tank cooperative, is on the board of the Transition Town Network, a Fellow of nef (the new economics foundation) and was nef's policy director for over a decade, founding its work on climate change, energy and interdependence. He trained at the London School of Economics and was described by New Scientist magazine as, 'a master at joined-up progressive thinking,' and advises on economic development alternatives for the campaign group Global Witness. The Independent newspaper listed him as one of the UK's top 100 environmentalists and London's Evening Standard included him in their Power 1000 as one of the capital's most influential people. Andrew is a long-standing campaigner who coined the term 'Clone Towns' in nef's work on local economic regeneration, instigated nef's 'Great Transition' project, co-authored the ground-breaking *Green New Deal*, and was one of the original organisers of the Jubilee 2000 campaign to cancel poor country debt. He also co-founded the climate campaign onehundredmonths.org and devised the concept of 'ecological debt' (or 'overshoot') day to illustrate the degree to which we consume resources and produce waste beyond the biosphere's ability to regenerate and absorb. After witnessing at first hand over two decades of failed international efforts to solve critical problems ranging from extreme poverty to climate change, he is now obsessed with demonstrating the potential for rapid transition to a more convivial economy before this one destroys itself... Andrew tweets from @andrewsimms_uk

KEYNOTE SPEAKERS



Dr Cristina Cerulli

Lecturer at Sheffield School of Architecture and director at Studio Polpo

My approach to research is intrinsically collaborative, trans-disciplinary and co-operative. As a result my research focuses on several strands evolved through collaborations with colleagues across disciplines from several universities and with communities and groups within and around my projects.

A major area of interest that underpins all my work is Critical Management and Social Innovation as a model for diversifying practice; From setting up the Social Enterprise Research Exchange (SERX) within the University of Sheffield (now evolved into the Social Innovation Programme in USE (University of Sheffield Enterprise), to setting up my own architectural practice as a social enterprise (Studio Polpo), to pushing the social enterprise agenda within MArch management teaching.

A further strand of my research focuses on Emergent systems and Complexity in relation to society and design. The EPSRC funded Emerging Sustainability project, in particular, looks at sustainability as an emergent property of complex systems in the context of self-organised community initiatives and processes.

Another strand of research, stemming from my doctoral thesis, focuses on epistemological aspects of design processes and practices. I am interested, in particular, in knowledge creation and sharing, learning and innovation within design organizations and construction projects.

I am also interested in community led housing development models and shared models of living and 'alternative' and creative forms of management and procurement.



Kristien Ring

Curator, Editor and Architectural Critic Founder of AA Projects Berlin

Kristien Ring is architect, curator, author and editor. Her studio, AA PROJECTS active architecture, is engaged in the production of interdisciplinary projects on future oriented themes in the realm of architecture and urban planning, currently commissioned by i.a. the German Federal Foundation for Baukultur, The DAM, AIA Center NYC and ReSITE. Kristien Ring is the author and editor of the publication *SELF-MADE CITY. Berlin, Self-initiated Urban Living and Architectural Interventions*, 2013 and *URBAN LIVING, Strategies for the future*, 2014, JovisVerlag. Currently Visiting Professor at the University of Sheffield and Assistant Professor at the TU-Braunschweig for Architectural Design. Kristien Ring was the founding Director of the DAZ German Center for Architecture in Berlin (2004-2011), the co-founder of the gallery Suitcase Architecture (2001-2005) in Berlin and continues to curate exhibitions on current architectural topics. A registered architect in Germany since 1998, Kristien comes from Pittsburgh, Pennsylvania and has been living in Berlin since 1991.

Kristien's recent project 'Self-Made City' explores the self-determined design of spaces and buildings for living and working in Berlin. These include over 120 projects ranging in type, from builder collectives or co-housing, co-op's, co-working spaces, or other project forms, all of which have produced an architectural diversity and quality in Berlin over the last fifteen years that is exemplary. Kristien is committed to raising architectural discourse and creating better public awareness for architecture.

www.aa-projects.eu

KEYNOTE SPEAKERS



Tina Saaby

Chief City Architect, The City of Copenhagen

Tina Saaby has been the Chief City Architect of Copenhagen since September 2010. She inspires, facilitates, advises, and coaches the politicians and City Administration. Her responsibility is to help define architectural guidelines and visions in developing the city based in the The City of Copenhagen's Architectural Policy.

Tina Saaby graduated from The Royal Danish Academy of Fine Arts, Schools of Architecture in 1997. She has many years of experience as an architect, partly as partner of the architectural firm Witraz Architects in Copenhagen and was the former Vice President of the Danish Architects' Association.

Tina Saaby is Visiting Professor at Sheffield University and external examiner at The University of Roskilde, The University of Copenhagen and The Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation. Furthermore Tina is the Chairman of the Advisory board at The Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation.

ABSTRACTS | STRAND 1

LOCAL RESILIENCE, SCIENCE AND TECHNOLOGY

KEYNOTE DIALOGUES

BUILDING LOCAL RESILIENCE: BRICKS AND FEELINGS

CHAIRER BY FIONN STEVENSON

SUE ROAF

SALLY WEINTROBE

LOCAL RESILIENCE, SCIENCE AND TECHNOLOGY

KEYNOTE ABSTRACTS

Sue Roaf

School of the Built Environment
Heriott Watt University, Edinburgh

BUILDING RESILIENCE IN THE BUILT ENVIRONMENT

An understanding and appreciation of why resilience is important, what it means at the building and settlement level and how its tenets can be used in design and refurbishment is vital in a rapidly changing world. A range of risks and opportunities for buildings and their occupants will be outlined, referring to the Built Environment Adaptation Indicators being developed for, and with, the Scottish Government. The underlying premise developed here is that if you can't measure it, you can't manage it, is vital as we, as a society try and build social, economic and environmental resilience in a rapidly changing, and increasingly non-linear world. The core of the paper deals with the need to intelligently anticipate what the future holds in order to 'Bounce Forwards', rather than to bounce back to failed models. This talk will promote the idea that at the core of successful solutions to future building archetypes must be the striving for affordable, low impact and universally accessible comfortable places. It outlines the gradual decline of the climatically designed building, the rise of central heating and air-conditioned solutions, the deterioration of the performance of buildings themselves as climate ameliorators and the role of standards and regulations in that decline. It then briefly touches on recent attempts to reverse this decline with ideas of energy efficiency, as exemplified by the Passive House movement in the 1990s, Sustainability in the Active House model of the 2000s and the need to upgrade those models to create truly resilient homes. The resilient home, called the Ecohouse model, promotes buildings that are run for as much of the year as possible on free natural energy from local eco-systems, generate their own heat and power and provide safe havens even in the most extreme weather for their occupants regardless of income.

LOCAL RESILIENCE, SCIENCE AND TECHNOLOGY KEYNOTE ABSTRACTS

Sally Weintrobe

Psychoanalyst

Fellow British Psychoanalytical Society

KEEPING IMAGINATION ALIVE AND THRIVING IN THE CULTURE OF UNCARE

We all rely on imagination when undertaking new projects, architects particularly so with their potential to imagine perhaps being their most essential creative asset. Sally Weintrobe argues that the present culture of uncare is damaging to the caring creative imagination and because of this it is vital to understand more about this culture, its aims and its effects. Resilience is being able to withstand the pressure of the culture of uncare to unduly influence how we think and feel; also to understand how and why we collude with a culture that currently promotes such extensive disavowal of climate change. She explores the psychology of imagination, disavowal, and the culture of uncare; also what is needed for 'the new imagination' that can envision a sustainable world.

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Oluwateniola Ladipo and Georg Reichard, Ph.D.

Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA

MAKING COMMUNITIES DISASTER RESILIENT WITH HIGH-PERFORMANCE BUILDING TECHNOLOGIES

Climate change is exacerbating natural disasters, and extreme weather events increase with intensity and frequency. This requires a more in-depth evaluation of regional climates and locations, where natural hazards, vulnerabilities, and potential impacts will vary. At the community level, private residences are crucial shelter systems to protect against disasters, and are a central component in the greater effort of creating comprehensive disaster resilient built environments. In light of recent disasters such as Superstorm Sandy, there is an increased awareness that residential buildings and communities need to become more resilient for the changing climates they are located in, or will face devastating consequences. There is a great potential for specific high-performance building technologies to play a vital role in achieving disaster resilience on a local scale. The application of these technologies can not only provide immediate protection and reduced risk for buildings and its occupants, but can additionally alleviate disaster recovery stressors to critical infrastructure and livelihoods by absorbing, adapting, and rapidly recovering from extreme weather events, all while simultaneously promoting sustainable building development. However, few have evaluated the link between residential high-performance building technologies and natural disaster resilience in regard to identifying and prioritizing viable technologies to assist decision-makers with effective implementation. This paper presents the research objective and methodology to create a process of effectively prioritizing residential building technologies that encompass both high performance and resilience qualities that can be implemented for a variety of contexts at an individual, or combined community level. Interdisciplinary variables critical to prioritizing natural disaster risks must be identified and evaluated. Additionally, attributes for resilience and high-performance have to be defined and quantified for judicious selection of high-performance resilient building technologies that can provide solutions for the identified risks. Decision-makers can utilize the completed process to evaluate building natural disaster risk

Tiziano Cattaneo, Giorgio Davide Manzoni and Emanuele Giorgi

INTENSIFICATION AS A STRATEGY FOR RESILIENT RURAL REGENERATION

In the time of global recession words like “reorganize” and “minimize” are now keywords for urban human landscape design. In Europe and in the world the main debate deals with: regeneration, consumption, reconversion, aggregation, accessibility, sustainable growth and restoration. In a question: How can we build resilience? Not only for single buildings and objects but also for entire territory-systems such as for example the rural areas.

The crisis in rural areas is essentially a planetary problem: depopulation and ageing of the population, abandonment and decay of small town centres, difficulty in keeping existing businesses, exhaustive agricultural practices to the detriment of biodiversity, pollution, a lack of infrastructures and services for tourism, as well as a shortage of job opportunities for the population, etc.

The research addresses the specific cultural and productive features in the European areas in which this phenomenon it is processed and has reached significant levels of deprived neighbourhoods. Thanks to the analyses of a huge collection of projects and data, the authors have been able to define the core of the research framework, which is called Rural Architectural Intensification, setting out four broad categories of intervention for the rural landscape. RAI Strategies represent a metric for projects evaluation, a set of indicators to measure sustainable intensification to create rural resilience.



Xinan Chi, Edward Ng, Kehan Li & Li Wan

School of Architecture, The Chinese University of Hong Kong

STUDY ON THE SUSTAINABLE RECONSTRUCTION AFTER EARTHQUAKE: A CASE STUDY OF THE LUDIAN RECONSTRUCTION PROJECT

Ludian County (Yunnan province, China) suffered a shallow earthquake with a moment magnitude of 6.1 on 3 August 2014. The earthquake killed at least 617 people and injured at least 2400 others. Over 12,000 houses collapsed and 30,000 were damaged. The villagers were worried about their traditional rammed-earth buildings, 90% of which were destroyed during this earthquake. Given the increase in reconstruction needs and the poor traffic conditions that had resulted after the earthquake, the price of building materials rapidly increased and exceeded the acceptable budget limit for most local villagers. For them, brick-concrete structures are earthquake-resistant. Thus, the villagers wanted to build brick-concrete structures instead of traditional rammed-earth buildings during the reconstruction period. However, transporting large amounts of disused earth is difficult.

Taking the situation in Ludian as an example, our research team decided to use the “local technology, local materials, and local labor (3L)” strategies to participate in the reconstruction project. The traditional rammed-earth technology was improved by using the “high science and low technology” theory, which mainly focuses on the seismic capacity, thermal comfort, and cost of construction. We supported a family to build a rammed-earth building according to the “3L” strategy. This demonstration project fully respected the traditional cultures and the autonomy of villagers and also made rational use of local materials and local technology to rebuild the rural communities. The concept of “collaborative construction” not only provided an opportunity for the local labor force to learn new skills but also reduced the economic pressure on house construction. The demonstration project considered the reduction of environmental and ecological damage in the entire process. It will also provide a reference for the local government to make rules for the reconstruction project.



Vogiatzi, E., Pelsmakers, S., Altamirano H.

The Bartlett, UCL Faculty of the Built Environment, Institute for Environmental Design & Engineering

THE PASSIVHAUS STANDARD: MINIMISING OVERHEATING RISK IN A CHANGING CLIMATE

Building operational energy is responsible for approximately 40% of UK's CO₂ emissions (GOV.UK, 2014) with almost 25% in housing alone, mostly for space heating. This significantly contributes to climate change, which is now considered unavoidable (IPCC, 2013) and could affect occupants' thermal comfort and health (Public Health England, 2013). Given that our buildings are built for 50-100 year lifespans (de Wilde et al, 2008), measures to adapt our buildings to a changing climate need to be undertaken alongside climate change mitigation strategies.

This paper investigates the risk of overheating and the remedial measures required for future UK climate scenarios if the PassivHaus standard is applied.

A case-study dwelling was modeled and its performance assessed under present and future climate scenarios in London: 2050s and 2080s for a Medium and High emissions scenario. Findings indicated that while space-heating demand would be reduced by 45% by the 2080s, the case-study dwelling is likely to need some form of cooling from the 2050s onwards, unless passive adaptation measures are put in place. The most effective adaptation measure was found to be a combination of reduction on the glazing's g-value, summer night-time natural ventilation and solar shading.

The performance of the Building Regulations (2013) notional specification highlights that while it is predicted to lead to marginally lower overheating frequencies than the PassivHaus dwelling, its space heating demand will be up to five times higher in the 2080s. Hence measures for reducing space heating demand alongside measures to reduce future overheating are both necessary and need to be balanced. Findings indicated that the PassivHaus case-study performed well in a future changing climate if this goes hand in hand with overheating mitigation measures, taking into account user behaviour and occupancy patterns, applied now and in the future.

Wilfredo Méndez-Vázquez

School of Architecture, Pontifical Catholic University of Puerto Rico

THE TECTONIC INTELLIGENCE OF ARCHITECTURAL SOLUTIONS

Aiming to provide novel forms of resilient architectural solutions, the emergent building's typology undertakes the features of property-changing materials, structures with instinctive behavior and ecological optimization. Thus, architectural research has leaned toward scientific and technological breakthroughs, addressing concepts of self-generating morphologies, adaptive, responsive, and intelligent behavior. Raising environmental awareness and the increasing frequency of natural hazards striking in densely populated zones stand behind these emergent solutions. At Biotectonica Research and Design Studio of the School of Architecture of the Pontifical Catholic University of Puerto Rico, we have fabricated a weather-sensible facade prototype for Puerto Rico's climate, where rain fall is very common and extreme weather events such as hurricanes are frequent. Inspired by the multi-material complexity of nature, the design takes advantage of property-changing metals and woods that combine in order to react to variations in temperature and relative humidity, thereby, adapting in real-time to the changes of the tropical weather. Responsive facades are not the only technologies framing the future resilient tectonics. Intelligent architectures will be also embedded to the very concept of the structural layout. Inspired by the morphology-changing features driven by the instinctive behavior of vertebrate animals, we designed a novel solution to the earthquake's hazard in the Caribbean. Building's skeletons with pre-designed movements were proposed based on the way that vertebrate animals instinctively reacts under external inputs to maintain balance. These structures can trigger certain fixed action patterns under definite motion stimuli in order to improve the architectural resilience. A built environment with instincts will be the next frontier of truly resilient architecture. This science of cognitive tectonics takes advantage of emergent technologies to foster optimum ways of resilience inspired by the living beings.

ABSTRACTS

Andy van den Dobbelsteen, Tim Jonathan, Josien Kruizinga

Delft University of Technology, Faculty of Architecture & the Built Environment

PRÊT-À-LOGER: ZERO-ENERGY HOME WITH MAXIMUM LIVING QUALITY INCREASE

At the Solar Decathlon Europe 2014 (SDE2014) competition (Versailles, France), the team from the Delft University of Technology (TU Delft) took a stance by not constructing a new-built house but demonstrating the energy renovation of a typical Dutch terraced house. Around a quarter of Dutch housing consists of terraced houses built between 1946 and 1975, which have a poor energy performance, endure moist and mould problems and to modern-day standards offer too little living space. Nonetheless, inhabitants cherish these homes; almost everyone in the Netherlands once spent a part of their life in them.

The TU Delft team chose a real house as the reference for their retrofit design, the home to one of the students' grandfather and father, currently vacant. All actual features, unfavourable as they are, were taken as the basis: few existing houses are optimally designed for energy neutrality. The team worked on a gentle plan that enables inhabitant to stay in the house during intervention. Hence the name Prêt-à-Loger, ready to live in.

Basis of the Prêt-à-Loger concept is a new skin around the house: thermal insulation in the façade and roof, a greenhouse structure to the south-east, and phase change materials in the crawlspace. The smart and bioclimatic design ensures the use of local circumstances, optimised by an intelligent application of modern technology.

The eye-catching feature, the greenhouse, integrates several elements of the house's climate design. Its greatest importance however lies in the added value to the dwellers: in spring and autumn it can be used as living space, in winter it is a winter garden buffer, and in summer it can be fully opened, becoming the terrace to the garden. The garden was redesigned with the help of NL Greenlabel, a foundation that promotes sustainable gardening.

At SDE2014 Prêt-à-Loger was awarded five prizes, among which was the Sustainability award, based on the holistic perspective on people, planet and prosperity in the everyday life of common people. This is also reflected by the many public visits to the project. The house was rebuilt on the TU Delft campus, serving demonstration, educational and research purposes.

LI Honglian, YANG Liu, Wang Shusheng, Huo Xujie, Kong Liming

Xi'an Univ. of Arch & Tech. Xi'an 710055, China

ANALYSIS AND PREDICTION OF THE BUILDING ENERGY CONSUMPTION UNDER CLIMATE CHANGE FOR XIAN, CHINA

Climate plays an important role for building energy consumption. Excessive emission of greenhouse is the main reason for climate warming, which will have a major impact on building energy consumption. Under the climate change, the research and development of the hourly data generation method and quantitative simulation is the basis for the future building energy simulation analysis. However, the existing studies focused on specific regions, lacking large-scale, long time series of meteorological data and hourly meteorological database which reflects the climate change. Based on the historical observation data during 30 years in Xi'an of China, the paper got the recent-term, mid-term and far-term hourly meteorological data of the typical meteorological year in Xi'an by choosing recent prediction of SRES A1B and B1 of Inter-governmental Panel on Climate Change (IPCC) and using a statistical downscaling method of compensation method—"Morphing". Then it produced the EPW format for the building energy simulation software—EnergyPlus. This paper predicted and analyzed quantitatively the impact of future climate change on building energy consumption in Xi'an and researched the coupling relationship between them. Result showed that building energy consumption of Xi'an has a little reduce based on the climate prediction data in SRES A1B and B1 provided by the IPCC report until the end of the century, but the energy structure will take place in significant change, the heating energy consumption will reduce and the cooling energy consumption increase significantly.

George Xexakis¹, Andy van den Dobbelsteen²

Delft University of Technology, ¹ Faculty of Civil Engineering & Geosciences,

² Faculty of Architecture & the Built Environment

THE GAP BETWEEN PLAN AND PRACTICE: ACTUAL ENERGY PERFORMANCE OF THE ZERO-ENERGY REFURBISHMENT OF A TERRACED HOUSE

Prêt-à-Loger, TU Delft's entry to the Solar Decathlon Europe 2014 (SDE2014), demonstrated the conversion of a common terraced house to energy neutrality, whilst adding value to its living quality. The house was retrofitted according to principles of smart & bioclimatic design, using local circumstances intelligently in the sustainable redesign. Basis of the Prêt-à-Loger concept is a new skin around the house: thermal insulation in the façade and roof, a greenhouse structure to the south-east, and phase change materials in the crawlspace. The project received a lot of acclaim and was awarded five prizes at SDE2014.

During SDE2014, under the circumstances of Versailles, France, the Prêt-à-Loger house proved to be energy producing, and simulations indicated that over a year's period it would be net zero energy. In spite of these promising results, there are several ways in which a zero-energy (re)design may perform differently than predicted, also in the case of Prêt-à-Loger. Firstly, there may be a difference between design and realisation. Secondly, simulation models may not predict the actual performance correctly. Thirdly, user behaviour can be a decisive factor.

With Prêt-à-Loger, the first category could be monitored by the team itself. The fact that the house was constructed three times could however cause small construction deviations from the ideal situation. The second category is the main topic of the research project presented in this paper. Real-time measurements in the house (reconstructed at the TU Delft campus) are executed to validate simulations. Different user behaviour is applied to test differences in actual energy performance, providing useful insight for millions of homes.

The results show, for building envelope characteristics, there is no significant difference between the simulations and reality. A higher variation in the predicted energy can be accounted to user behaviour, specifically to experienced comfort and specific user actions.

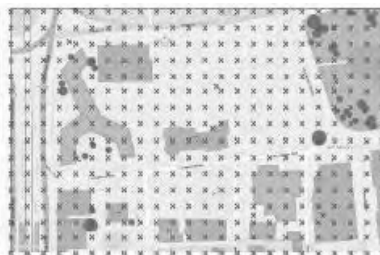
Chengzhi Peng

ENVIRONMENTAL SIMULATION FOR DESIGNING WITH CLIMATE CHANGE: FRAMEWORK, EXPERIMENT AND REFLECTION

The paper presents a framework of environmental simulation for site-specific climate change adaptation design at urban neighbourhood and building scales. The simulation framework consists of four elements: (a) urban microclimate modelling, (b) generation of site-specific climate change adapted weather data, (c) outdoor-indoor coupled environmental simulation for building energy analyses, and (d) evaluation of site-specific climate change adaptation design features. An experimental workflow is formed through linking together a number of existing software tools and datasets. Although computationally expensive, the workflow can generate visual and numerical results showing how an existent or proposed building in its immediate neighbourhood context may perform under its microclimatic conditions of present-day and future years. The simulation framework and workflow was applied to postgraduate research and design programmes as a step toward climate action. Given that site-specific climate change adaptation design now a possibility, we reflect on a number of pedagogical propositions as informed by our current experiment.



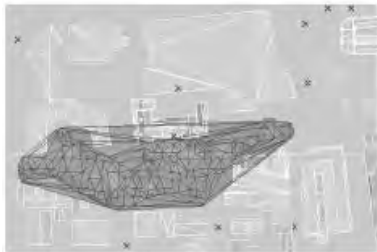
PMV value



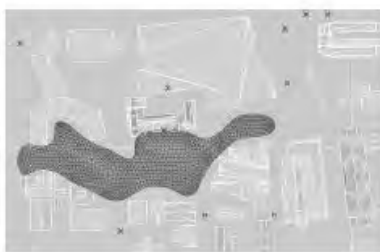
Sampling Grid (R > 246, B < 82)



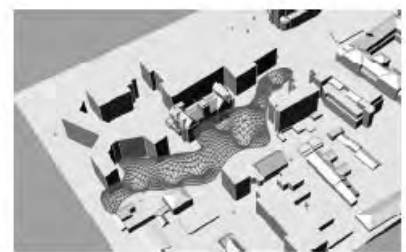
Points Selection



Mesh Generation



Mesh Relaxation



Kangaroo Relaxation

ABSTRACTS

Laurence Pattacini

University of Sheffield, Department of Landscape

URBANISM, RIVERS AND RESILIENCE

Urban rivers are often at the heart of urban settlements, and resilience combined with adaptability have become key concepts in contemporary approaches to urbanism (Picket, Cadenasso et al. 2013). This paper focuses on the dynamic and sometimes problematic relationship between rivers and the built environment, and explores how adaptability and resilience might shape the design of urban forms along rivers. This will draw on an ongoing PhD study that provides a critical review of urban riverside industrial sites in Europe in relation to sustainable regeneration strategies. The objective of the study is to identify a conceptual framework to inform the decision making process for the urban regeneration of riverside sites.

In cities throughout Europe the resilience and adaptability of rivers has been tested through historic transformative processes, from their instrumental role providing industry with power and sewers and their more recent rediscovery as prime locations for new urban developments and leisure. With the departure of heavy industries from cities, urban river corridors, also referred to as 'blue' corridors, have over the past thirty years changed rapidly in land use and perception (Holzer, Hundt et al. 2008, Prominski, Stockman et al. 2012). At the heart of the development of urban ecology, urban rivers demonstrate the resilience of natural processes but also their role in providing sustainable places to live in. Rivers have a major role to play in mitigating the impact of climate change and the urban heat island effect, and provide restorative urban open spaces. They are instrumental in urban regeneration and the catalyst for innovative approaches to issues such as flooding and the creation of new urban neighbourhoods (Marshall 2001, Geoff Petts, Heathcote et al. 2002, Kibel 2007).

Choo Yoon Yi and Chengzhi Peng

School of Architecture, The University of Sheffield, United Kingdom

CORRELATING URBAN MICROCLIMATE MODELLING WITH ENERGY USE DATA ANALYSIS TO INFORM SITE-SPECIFIC CLIMATE CHANGE ADAPTATION DESIGN

Designed to inform the energy bill of each residential neighbourhood in South Korea, an Apartment Management Information System (AMIS) was introduced. We analyse the AMIS datasets across 8 cities and City of Seoul was identified as the highest increased energy use city for summer (August) cooling over the annual average use with 48.52% while City of Gwangju was the lowest with 28.74%. Likewise, 25 city districts were examined in City of Seoul and it showed that the Gangnam district had the highest increase rate (67.66%) while the Gwanak district had the lowest (27.85%). The increase rate (IR) in this paper is the term to present increased energy use for summer cooling over annual average energy use. Within Gangnam, 103 neighbourhoods were investigated to identify two neighbourhood sites as case study for the highest and lowest increased energy use neighbourhoods for summer cooling: 111.85% and 40.40% respectively. Moreover, based on the findings from the increased energy use in Gangnam, energy use clusters were classified and it was found that the increased energy use had correlation with the floor area per apartment, the property price per m² and the elevation of the apartment neighbourhood. To further identify key parameters of urban microclimate which affected the increased energy use for summer cooling, a microclimate change simulation framework was proposed. The findings through the computational microclimate modelling imply that high temperature during the night-time may result in increased energy consumption: the range of potential air temperature in 2014 was predicted to 24.4°C - 26.6°C in the lowest energy use neighbourhood and 27.0°C - 32.4°C in the highest energy use neighbourhood at 5am (peak gap temperature hour). Moreover, the potential impacts of climate change on the case study sites were predicted to have an increase air temperature of 2.4°C in the lowest energy use neighbourhood and 2.3°C in the highest at 5am in 2050 from current (2014) in the city of Seoul.

Paul Goodship

The Bartlett School of Architecture, University College London

THE SOCIAL AND SPATIAL TRANSFORMATIVE IMPACT OF AN URBAN CABLE-CAR: THE CASE OF MEDELLIN

In Latin America, informal settlements are fast becoming a recognised part of the city, increasing international awareness of urban poverty and segregated communities. This has led to the rapid rise of spatial interventions of which urban cable-car transportation is one of the most popular, these aim to address the physical causes of segregation such as steep slopes and poor road network by providing a vastly improved form of mobility. Politically, their low cost, relatively quick construction, minimum disruption to existing homes and low emission levels, makes them very appealing to municipalities. However, as Peter Brand says “it would be illogical to suppose that aerial cable-car projects such as the Metrocables in Medellin will provoke, in and of themselves, broader processes of urban improvement” (Brand, 2013).

So how can we better interpret the social and spatial gains improved integration offers and does this make slum upgrades more resilient?

Through the case of Medellin, this paper explores how improved spatial connectivity (provided by urban cable-cars) affects local movement patterns, which consequently affects local commercial patterns, allowing for a discussion on how formal and informal commerce respond to its reconfiguration of the urban grid. Using a space syntax methodology, the cable-cars in Medellin are analysed to determine spatial integration levels and then correlated to local movement patterns to guarantee accuracy. After this spatial analysis, local socioeconomic data, which specifically focuses on commercial activities (both formal and informal) are recorded on site and analysed. Then both the spatial analysis and local socioeconomic data are cross-referenced, with the correlations between the two discussed. This allows the impact of spatially reconfiguring an urban grid using a cable-car to be related to local commercial activities and movement patterns.

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¹ Faculty of Architecture, Urbanism and Design, Federal University of Uberlândia, Brazil.

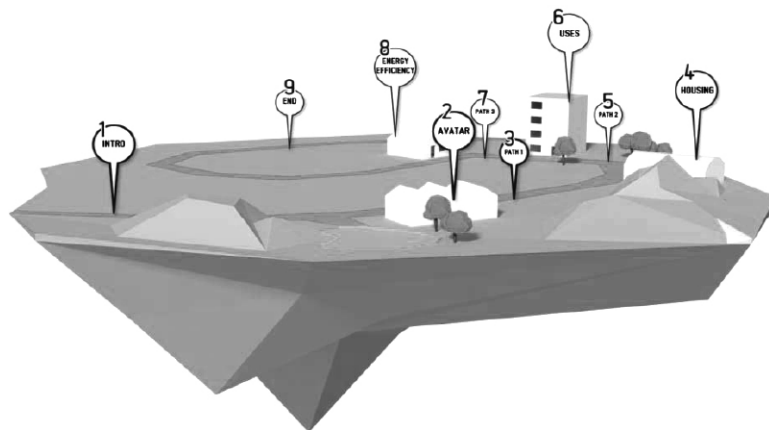
² Faculty of Computer Science, Federal University of Uberlândia, Brazil.

³ Faculty of Architecture, Urbanism and Design, Federal University of Uberlândia, Brazil.

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POST-OCCUPANCY EVALUATION OF APARTMENTS: THE USE OF TECHNOLOGY AND DIGITAL INTERFACES TO AMPLIFY ITS EFFICIENCY

Based on classic literatures which testify to the relevance of post-occupancy evaluation (POE), and state the importance of knowledge of these results used in the making of short, mid and long term decisions in the design and construction of buildings, this study discusses new methodological possibilities for the area. The objective is to develop methodological procedures for functional and behavioral post occupancy evaluation in apartment buildings, through the development of specific software and the utilization of digital interfaces. The study aims to make the POE process in housing more efficient, through the use of electronic equipment (laptops, tablets, PDAs), presenting reflections and discussing the possible interfaces that can be used between humans and computers, Human-Computer Interactions (HCI), in the area of POE research; establishing three concepts to obtain this relationship: usability, applicability, communicability. The digital media resource aims at minimizing if not eradicating reoccurring problems in traditional POE, insofar as increasing the efficiency of evaluation results, reducing the execution time and budget costs, as well as triggering a wider interest on the part of respondents. The results of this study look to contribute to the current debate on the production of quality apartment buildings since the objective is the more efficient POEs and the availability of results as much for society, as the agents in the real estate market. This research also points out the capability of such proposed mechanisms to increase the resilience of housing and population by obtaining data and information about living, culture and places.



Fionn Stevenson and Magda Baborska Narozny

TECHNICAL AND SOCIAL REDUNDANCY FOR LOW CARBON LIVING

Buildings and communities need to be more resilient in the face of unknown and unpredictable effects of climate change, economic crises and resource depletion. This paper defines resilient design in socio-eco-systemic terms and focuses specifically on the redundancy (ability to switch between numerous available choices beyond optimal design) of available means and methods in housing and home environments in order to prevent performance failure either in unexpected circumstances or in response to varying user needs, working with climate change. Redundancy analysis covers technologies, fabric and systems interrelated with social aspects and the extra capacities of a housing community compared to an individual trying to keep control of internal environment.

This one year UK case study of the LILAC award winning co-housing development in Leeds, UK, focuses on the environmental redundancy in ventilation and heating systems. Social redundancy is then linked with capacity to share resources and ideas and to learn collectively. Analysis includes environmental and community engagement and comfort expectations. Results obtained through a wide variety of building performance evaluation methods interrelated with action research indicate the benefits of introducing extra redundancy in housing design and community development to accommodate varied user preferences, increase energy savings and cope with unexpected failures. Recommendations include better understanding of cost factor of time or monetary contribution needed to implement social or technical redundancy. These costs should be evaluated in the context of savings made through greater resilience achieved.

Professor Rajat Gupta, Mariam Kapsali and Matt Gregg

Low Carbon Building Group, School of Architecture, Oxford Brookes University

CLIMATE RESILIENCE IN NEW-BUILD SOCIAL HOUSING: CHALLENGES, OPPORTUNITIES AND UNINTENDED CONSEQUENCES

New low-carbon houses in the UK are designed to reduce heat loss through improved air-tightness and increased insulation, potentially raising the risk of summertime overheating now and in the future. This paper uses a socio-technical building performance evaluation approach to empirically examine the extent of climate resilience, specifically against overheating, of six case study dwellings across three low carbon social housing developments in Southeast England. Using a combination of physical monitoring of environmental conditions, window opening/closing, and commissioning review of ventilation and heating systems, actual data is gathered on the way people operate their homes to reveal any unintended consequences that can accentuate overheating risk and discomfort. The findings indicate that indoor environmental conditions are determined by a complex relationship between the performances of building fabric, systems as well as interaction of occupants with them, which is determined by their understanding and comfort expectations. High summertime indoor temperatures are linked to window opening patterns and heating system faults. If climate resilience is not considered at the design stage of low energy housing, the overheating risk will increase, thereby further widening the performance gap.

ABSTRACTS | STRAND 2

LOCAL RESILIENCE AND SOCIETY

KEYNOTE DIALOGUES

BUILDING LOCAL RESILIENCE: CAN IT BE PLANNED FOR?

CHAired BY BEATRICE DE CARLI

PROFESSOR ADRIANA ALLEN

ANDREW SIMMS

LOCAL RESILIENCE AND SOCIETY

KEYNOTE ABSTRACTS

Professor Adriana Allen

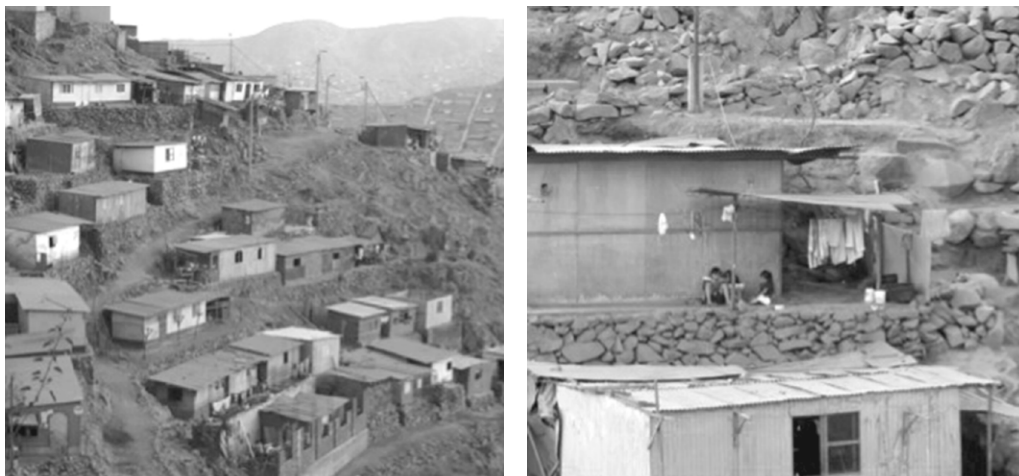
Professor of Development planning and Urban Sustainability at The Bartlett Development Planning Unit, University College London

THE MAKING AND UNMAKING OF LOCAL RESILIENCE (AND JUSTICE)

Scholarship on urban resilience initially focused on the environmental impacts of climate change, but today has expanded to take in the multi-dimensionality of urban life, including infrastructure, emergency response systems, healthcare, rule of law, and the making of communities. This interest in communities has stemmed from the idea that social capital is one of the key elements that strengthen a society's ability to manage shocks. Thus, it is often assumed that social capital enables societies to react quickly and rationally to hazards, avoid descending into chaos, reorganise in creative ways, adapt, and improve. This begs the questions, what happens when injustices are prevalent in society? Does this weaken a city's resilience? And is there a deeper and more complex relationship between injustice and resilience?

Many scholars have argued that resilient cities are more just cities. This view stems from the idea that hazards - and also food, water and energy insecurity - tend to affect the urban poor more than the wealthy, making certain social groups and areas more prone to experience environmental injustices than others. But could it be the case that a city's resilience-enhancing measures have embedded within them pre-existing injustices? What if the process of increasing the resilience of the city as a whole happens at the expense of the rights of certain groups? If urban resilience focuses on the degree to which cities are able to reorganise in creative ways and adapt to shocks, do pervasive inequalities in access to environmental services have an effect on this ability?

Zooming into the resilience-seeking practices of ordinary women and men in the periphery of Lima, Peru, I intend to explore the above questions and ultimately to call for a repoliticisation of resilience, where not only scale but also justice matters.



The everyday making of resilience in the periphery of Lima. Photos by A. Allen

LOCAL RESILIENCE AND SOCIETY

KEYNOTE ABSTRACTS

Andrew Simms

FANTASY ECONOMICS AND RESILIENCE

We need resilient communities in a world dominated by divisive economic doctrine, and dancing on the edge of several planetary boundaries while stepping decisively over others. How can we create places in which we can not only survive, but thrive? Sheffield has seen its fair share of visionaries and utopians, so I asked myself what kind of city I would ideally like to live in. This is a game of fantasy economics.

When we think about a truly sustainable, resilient urban economy – it is not just about the use of classic economic instruments – taxes and incentives – it is about the architecture of our whole livelihoods – food, transport, energy, our homes and work places and how they interact. The kind of place I would like to live would have: a transport policy that reduces cars to being mere guests on our roads, to allow living streets, the economy of foot & pedal to flourish. A City-wide currency that captures and multiplies the value of all the exchanges that occur in the economy, and makes it harder for wealth to be sucked out to inflate hedge fund and remote shareholder pockets. There would be banks that are there to be economically and socially useful for the communities they locate in, and the city should be able to mobilise its own capital. Local people are directly involved in key decisions about how resources are allocated and in deciding priorities for the place where they live.

Urban centres would be more than the just playthings for multinational retail brands to clone and from which they extract our money. There is comprehensive urban greening through both productive and aesthetic gardening and farming, this reconnects communities with the food chain and improves the urban appearance and environmental quality. There is, of course, a radical carbon reduction plan. For overall conviviality – I want an environment that encourages open, public spiritedness, not one that promotes self-interested acquisitiveness so there are checks and balances on the excessive visual pollution of advertising. There will be housing that brings us together as communities, makes us feel good and makes it easier to live low-impact lives. And, we will do away with plastic bags.

This is the kind of place that I would like to live in. It is, of course, a complete fantasy, isn't it?

LOCAL RESILIENCE AND SOCIETY

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Jenny Pickerill

University of Sheffield

BUILDING ECO-HOMES FOR ALL: INCLUSIVITY, JUSTICE AND AFFORDABILITY

This paper explores how we can (and in many places already do) build more inclusive eco-housing. This requires understanding the interweaving pressures that push up the price of housing per se, from capitalist processes, state/government processes, to social processes. It also requires identifying those costs that are excluded from current calculations, such as the unaccounted environmental impacts of housing, and lifetime and maintenance costs. Inclusive and affordable eco-housing is about basic rights to secure, safe, healthy and cheap to run shelter. Affordable eco-housing is an outcome of social justice. There are identifiable changes that can be made to existing ways in which housing is financially valued, building is permitted, and houses financed.

Using examples from fieldwork of over thirty case studies of eco-housing in Britain, Spain, Thailand, and the USA, and data collected through interviews participation and photography, the possibilities of inclusive housing are examined. The current ways in which housing is 'costed' is limited and limiting, and the processes of why and how we build houses creates unaffordable housing.

New economic models are being developed and tested, community and communal approaches to eco-housing have been trialled and new models of living and designing tried. There are many examples of affordable eco-housing which are diverse, inclusive and potentially replicable. However, many of the existing examples of affordable eco-housing rely upon self-labour, government initiatives, large loans or free land. This paper offers a supportive but critical analysis of the extent to which existing innovative approaches have overcome long-standing forms of exclusion and injustice. By examining a broad range of international material it is possible to argue the extent to which it is possible to build eco-homes for all.



Glatz Zsófia and Bence Komlósi

CO-HOUSING DEVELOPMENTS FOR RESILIENCE IN HOUSING: KNOWLEDGE TRANSFER TO INCREASE THE NUMBER OF CO-HOUSING DEVELOPMENTS

Co-housing projects think globally and act locally, they are bottom-up and non-profit, they are based on sharing and are community-oriented, they have a direct democratic structure and are self-managed and they are flexible in terms of economic- and social structure. Co-housing developments have all the characteristics to create resilience in housing. To characterise the blocking actors of co-housing developments we should talk about non-co-housing and co-housing countries such as Hungary and Switzerland.

Hungary, like many other post-socialist countries in Europe, suffers from a serious housing crisis. Bottom-up initiated co-housing projects could be a potential solution, but the development process is blocked by several factors: bad memories about “top-down housing cooperatives” forced by the socialist regime, the lack of tradition in bottom-up developments and the lack of knowledge about cohousing. How can we start the process? As one cannot change the collective memory of a whole country, the first step to realise co-housing projects is knowledge transfer - introduction and education.

Switzerland - as many other co-housing countries such as Austria, Germany and Denmark - has a more than one hundred years old co-housing history and tradition. In Switzerland, new generations can learn the rules of the co-housing from the preceding generations and the country has a well developed co-housing network, education- and training system. Despite all these facts, only 5% of the housing stock is co-housing. How can we increase this ratio? We should promote co-housing developments even more with events, workshops and visiting tours. The goal and the tools are the same whether we talk about non-co-housing or co-housing countries. We want to move more and more people to increase the number of co-housing projects. To reach this goal we have to develop the process of knowledge transfer for every stakeholder on every platform and on every level.

Emanuele Giorgi, Giorgio Davide Manzoni and Tiziano Cattaneo

RESILIENCE: CO-FIGHTING THE CRISIS

The crisis we are living can be split into three fields: an economic crisis, an environmental crisis and a crisis of values. They are crises that affect different aspects of life, while remaining strictly connected to each other. Our Western society has not yet proven to be able to reform substantially itself so enough to respond strongly to this crisis situation. Moreover a pushed individualism makes stronger the perception of helplessness in front of the crisis. However, from various fields, innovative experiences are growing: they want to solve this situation, making the crisis as an opportunity to realize changes that can establish new relationships between people. This happens also in architecture, realizing spaces that can promote new ways of living. New forms of collaboration and sharing are being developed in the Western world: in particular, cohousing, coworking and codesign. These sharing networks have born as a reaction to the effects of the crisis but in the same time they fight the causes of the crisis itself. The research aims to compare case studies of cohousing and traditional housing with a reading tool that express the concept of resilience, in particular, concerning the concept of community. This comparison puts in evidence how cohousing can be considered a resilient way of living buildings and cities. These experiences arise often for economic reasons but the analysis shows how they produce soon other effects: they increase personal support and relationships; from the considered cases is observed that these forms of sharing promote often neighbouring production, local trade and environmental sustainability.



Marina Montelongo A., Rafael P.M. Wittek

Department of Sociology, University of Groningen, The Netherlands

INTERDEPENDENCE AND SUSTAINED COLLECTIVE ACTION. THE CASE OF FOUR COLLECTIVE HOUSING COMMUNITIES IN MEXICO CITY

This study explores under which conditions collective action breaks down in some communities but stays sustainable in others. The main purpose of our explorative qualitative study is to identify the micro-level pathways that lead to the maintenance and decay of collective action. Drawing on sharing group theory, and common pool resources theory, we claim that different interdependence settings lead to different types of cooperation, and that only under certain conditions, cooperation will remain stable over time. A multi-method comparative case study approach was used. Interview, observational, video, and survey data was collected in four different low- income urban collective housing communities in Mexico City in 2010. Content analysis reveals five major mechanisms linking interdependencies to cooperation or its absence. First, in all four communities, real property transfers and /or damages resulting from an earthquake triggered successful agency- collective action. Second, in all four communities, urgency- collective action resulted from events caused by the poor construction quality of real estate. Third, repeated collective action in the form of recreational activities was found in those groups where inhabitants successfully capitalized the opportunities of a relative abundant space. It was also found where neighbours were able to organize around use and maintenance of common property. Four, powerful norm violating newcomers caused breakdown of cooperation in one community. Fifth, collective action was absent in the community where common space was scarcest. Here, scarcity triggered conflicts about access to and use of space. Our study contributes to the literature on cooperation by pointing to differences in interdependencies settings and compliance to norms, as major indicators to predict sustainable collective action.

Kristanti Dewi Paramita and Tatjana Schneider

University of Sheffield

WASTE DISPOSAL PRACTICES IN NEIGHBOURHOODS FACING RECURRING CRISES

Jakarta—the capital city of Indonesia—is frequently drowned, as current water infrastructure along its main city river Ciliwung is inadequate for a city that accommodates ten million people. As vulnerable parts of the city have been flooded at least two times every year in the past five years, there are challenges on how these parts may thrive in such an exposed site.

This article, based on fieldwork observations of current self-organised waste disposal practices by informal settlement dwellers in the frequently flooded site around the Ciliwung river, proposes to explore how these recurring crises in urban infrastructure and services have led to physical and socio-material adaptations to the practices of the inhabitants of the informal settlements in question.

It will be discussed, how, in the absence of formal waste collecting services (as formal communal waste bins are always carried away by the flooding), the dwellers have found alternative ways of disposing waste individually. Waste disposal practices are tightly connected not only to the location of each dwelling in relation to the river but to the daily routes taken by the dwellers within and around the neighbourhood. These routes connect key areas of the neighbourhood such as entrances, pathways, public toilets and nearby public places that further influence how waste disposal is organised. There are also relations between the occupation of the dwellers and the amenities within their dwelling which in turn have impact on the site of disposal and further treatment of the waste.

The research on which this article is based is an attempt to rethink the intertwining of the dwellers waste disposal organisation with the ecological and spatial formation of the neighbourhood and addresses the need of formal waste services to understand how the production and disposal of waste is related to each dweller's daily practices.



ABSTRACTS

Axel Becerra Santacruz

RISK AND RESISTANCE: GLOBALIZATION, SHIFTING BOUNDARIES OF GOVERNABILITY AND THE PRODUCTION OF NEW SPACES OF CONFLICT AND SELF-GOVERNMENT

(by video)

This paper will focus on the urban challenges that contemporary Mexican communities are experiencing in the face of new trends and processes linked to globalization and by implication social conflict. It is argued that in these conditions, the meaning of contemporary concepts such as sustainability & resilience, particularly in the fields of architecture and urbanism, will require a different conceptualization, one which is not reliant on conventional Western design approaches where these tendencies have been less intrusive. In particular, the concept of resilience –understood to mean constructive adaptation to risk- is merely an ideological concept meant to transfer responsibility for confronting serious problems generated through globalization down to the level of the community and individual, despite the fact that the responsibility lies in larger macro-economic forces and conditions. The purpose here is to suggest that adaptation to such ‘invisible’ and destructive forces is more likely to take the form of resistance, which may help generate a certain form of resilience, but which it must be considered analytically (and politically) separate in both theoretical and practical terms.

This paper sustains these arguments with a focus on urban conditions in the Mexican state of Michoacán, and the ways that a system of parallel governance developed alongside a formal legal framework for dealing with insecurity. The paper unpacks a series of alternative currents (‘illegal’ tactics) operating outside more formalized state-civil society relationships, and identifies them as a form of resistance to global forces that are producing new forms of risk.

Mina Rahimian, Lisa Domenica Iulo and Daniel Cardoso Llach

Department of Architecture, the Pennsylvania State University

THE CASE FOR A COLLABORATIVE ENERGY SHARING NETWORK FOR SMALL SCALE COMMUNITY MICROGRIDS

Energy production is typically a regional enterprise, with the majority of energy produced far from the main areas of demand causing tremendous problems in terms of lack of resiliency and flexibility in handling the ever changing demands at the user's end. On the other hand, microgrids as local energy infrastructures have offered resiliency by allowing neighborhoods to exercise greater control over the production of the energy they consume. As a system, the flexibility and resiliency that embodies the microgrid has to reside across all of its components and functions. Although microgrids integrate various techniques of automation, optimization, pervasive control and computation in its system, but equally important is addressing the human factors. Users, as an undeniable part of microgrid's operational system, are thus required to act with respect to being resilient and flexible. By making all the information of every grid component accessible to the demand side via energy metering systems and feedback loops, microgrids play an important role in filling the gap of energy illiteracy, increasing user's awareness and understanding about how energy is consumed in their homes and thus helping them to make informed energy consumption decisions.

Research on delivering high quality energy-related information on user's activities and consumption rates signify the effectiveness of such information for inspiring and motivating users to change their behavior towards more energy saving ones but however the issue of making these behavior changes durable and integrated to one's lifestyle, is still remaining a topic for further investigation. Accordingly this research attempts to encourage new ways of thinking about user's engagement in the resiliency of their microgrid in terms of a collective process by combining computational means of feedback delivery with a collaboration incentive structure, requiring user's self-organized participation in a shared-energy community endeavor.

Claudia de Biase and Bianca Petrella

INTERETHNIC AND RESILIENT CITIES: URBAN PLANNING IN ITALY

Nowadays, the phenomenon of social exclusion is growing up, especially in the middle-great cities. Private affairs are acquiring a greater and greater control over the choices and the projects connected to urban transformations and, at the same time, they are ignoring the collective needs. The binomial private-collective affairs risks to weaken the resiliency of the cities, in other words it risks to weaken the ability of the urban system to react to the changes in a positive way. Since the urban system is complex, the preponderance of the profit-oriented logic weakens those components that should aim to reconstruct a new and effective balance. As known, the urban plan (UP) depends on the normative choices and on the political-administrative decisions. According to this, the UP – that does not have empowerment – is not a tool that can engrave on the resiliency of the city by itself, by increasing the capacity of structuring fair and sympathetic urban systems. Since the UP is merely a tool of technical support to the political project, it is clear that the role that it can play for the realization of a resilient city strictly depends on the policy choices (about integration or expulsion, assimilation or exclusion, hybridization, solidarity, marginalization, and citizenship, etc.). In reference to the Italian context, the paper investigates if and how the UP can provide effective responses to the needs of the most vulnerable citizens and, in particular, of the immigrants' urban life. The UP defines, in fact, the articulation of the "adapted space", which must set the conditions through which each need can be expressed and satisfied, through which a suitable offer corresponds to the social demand, not only in quantitative terms but also in symbolic, aesthetic, semantic and identity terms. Therefore, the paper explores how public spaces can be structured and organized so that even "other" cultures can identify and acquire new shared identities and how different interests that often conflict between them (as, for example, between market and welfare) can be mediated. In the end, the paper tries to figure out whether and how the UP can make a contribution to the solution of conflicts between the above contrasting interests. The last research question deals with the tools that can support the act of planning or of developing (decision support – participatory processes) since they can let us understand if they can be effectively implemented, ensuring the contribution of the weaker members and the fulfilment of their needs.

Karen Foley and Philip Crowe

DEVELOPING COMMUNITY RESILIENCE THROUGH ACTIVE LANDSCAPE ENGAGEMENT

Professional bodies are mandated to reflect on their core body of knowledge and to adapt their practice to face new challenges. Landscape architecture is no exception. There has been a significant rise in the use of the word “resilience” in the research literature in recent years, although it is still a relatively new term in urban planning debate (Porter and Davoudi, 2012). Work around resilience is evolving as a powerful notion transcending both the natural and the social sciences (Wilson 2012) and interdisciplinary discourse on resilience now includes consideration of the interactions of humans and ecosystems via socio-ecological systems. This paper considers how new ideas arising from resilience studies could be used in the practice of landscape architecture. An EU funded project, “TURAS” (transitioning to urban resilience and sustainability) brings urban communities and businesses together with local authorities and researchers to collaborate on developing practical new solutions for more sustainable and resilient European cities. One strand of this project considers the resilience of human communities, particularly at the local level, where actions influencing resilience are the most tangible. One output from this research is an emerging framework for adaptive co-management and design as a means of transferring urban resilience into mainstream practice. This paper examines the TURAS framework and its objectives through the lens of the discipline of landscape architecture and considers where ideas of social resilience and the practice of landscape architecture intersect. One of the innovations currently being trialled, the “Geotimeline”, is discussed.

Katharina Borsi, Lucelia Rodrigues, Laura Alvarez and Mark Gillott

THE SOCIAL VALUE OF PLACE: AN APPRAISAL METHOD FOR SUSTAINABLE NEIGHBOURHOOD DEVELOPMENT

The recent decades have seen an increasing emphasis on a more comprehensive understanding of neighbourhood resilience, one that combines physical assets and social structures. Neighbourhoods are formed by the synergies between their physical and social structure. Individuals and groups connect to place physically and emotionally and knowing how society values public places is vital to implement sympathetic schemes that positively enhance health and well-being and in turn, increase social resilience. In order to deliver more sustainable developments at the necessary pace given the recent housing crisis, research needs to find pragmatic ways to transfer emerging theories and paradigms to practice.

This paper introduces an appraisal method that correlates an appraisal of the physical quality of place with an appraisal of the social value of public spaces by key actors of local community groups. The method is one of the components of a wider multidisciplinary system-thinking study based on an ecological urban model still in process. A pilot study was carried out in The Meadows, Nottingham, UK. The results highlighted correlations between the socio-political and the physical structures of the neighbourhood. Furthermore, some discrepancies appeared between the data emerging from current urban appraisal techniques and the social value of public places method. This suggests that current urban design practice might be biasing key data through the application of traditional methodologies that focus only on the physical structures of place.

Ben Fagan-Watson and Kevin Burchell

Policy Studies Institute at the University of Westminster

WHAT DOES COMMUNITY RESILIENCE LOOK LIKE IN PRACTICE? HOW INSTITUTIONS SEE THE ROLE OF COMMUNITIES IN RESPONDING TO HEATWAVES IN THE UK.

The concept of resilience is well-established in policy, as well as popular and professional discourse. The notion of community resilience, though, is relatively new, and has only recently been taken up in policy (Cabinet Office 2011b; Defra 2012; 2013). Twigger Ross et al (2011) define community resilience as an ongoing process of communities working with local resources – alongside local expertise – to help themselves and others to prepare for, respond to, and recover from emergencies. However, when regional and national policy documents mention community and voluntary groups – and local residents – the roles of these actors in developing and implementing resilience are not clearly explained. The documents tend to focus on infrastructure development and institutional emergency responses (Greater London Authority 2011; Defra 2013; UK Government 2013; Public Health England 2014b).

In this context, community resilience seems to be something that is bestowed on passive communities by active local institutions; all of the local agency of Twigger Ross' definition is lost or missing. The challenge that policy makers face in trying to define the roles of communities in resilience raises various problems. Research and practice in a range of domains (and over a long period) highlights the limits of institutional responses, and emphasises that community-led action and other forms of public participation and engagement can effectively complement institutional responses (Arnstein 1969; INVOLVE 2005; Twigger Ross et al 2011; Cinderby et al 2014; DECC 2014). An active community with local agency could play a key role in preparing for, responding to and recovering from emergencies.

ABSTRACTS

Beatrice De Carli

University of Sheffield, School of Architecture

COLLECTIVE ACTIONS FOR LOCAL RESILIENCE: LEARNING FROM GRASSROOTS STRATEGIES IN SÃO PAULO

Significant lessons can be drawn from grassroots experience of self-organising to challenge the uneven distribution of urban resources and opportunities in cities. This paper examines the household and community strategies used by low-income dwellers living in squatted buildings in the city centre of São Paulo, and asks how resilience narratives can help understand and articulate the outcomes of these micro strategies of citizenship across multiple scales. The city centre of São Paulo is increasingly a key site for local housing movements to challenge the rules and practices of spatial injustice in Brazil. In a context where housing for low-income groups is in short supply and, critically, continues to be characterized by highly skewed social and spatial distribution, squatted buildings have emerged since at least the 1990s as laboratories for the production of alternative ways of inhabiting the city. The paper reflects on a transdisciplinary action-research project taking place in the city centre of São Paulo. It explores the networked strategies of individual and groups inhabiting a building known as Ocupação Marconi, and it focuses on the production of the building being seen as a device for generating collective resilience from the micro-scale. The aim is to discuss how attention towards similar micro strategies might allow for bringing out the transformative potential of resilience thinking.

Fabio Franz and Bianca Elzenbaumer

School of Architecture, The University of Sheffield & Leeds College of Art

MONTAGNA VIVA, THE LIVING MOUNTAIN: CONVERSING WITH AN EXPERIMENT IN MAKING (THE LOCAL) IN COMMON

In April 2015, we travelled to a village in the Northern Apennines in Italy to visit the citizen led initiative Montagna Viva. This two-day excursion was part of an ongoing series of exchanges we have been cultivating with initiatives experimenting with the commons, radical education and practical making, whilst also developing (as Brave New Alps) a project dealing with the question of how to foster non-capitalist spaces in the rural area of the Southern Alps where we both grew up. These exchanges are driven by a yearning to create alliances that strengthen and inspire everyone involved. For us, these alliances can also help counteract the sense of isolation – and possible worthlessness – that may arise when activating cultural projects for progressive social change outside centralising and catalysing metropolitan nodes. While enacting this yearning for connectedness and dialogue, we inscribe ourselves in a feminist knowledge politics that is about working out shared meanings and creating transversal conversations as a “mapping gesture” (Puig de la Bellacasa, 2002), which charts operational points for orientation and further conversation. In this sense, by writing this text, we want to open up our conversation with Montagna Viva for others to join in and to (hopefully) find elements that energise, nurture and trigger multiform experimentation in a diversity of contexts.



Images courtesy: Montagna Viva

ABSTRACTS

Elke Krasny and Meike Schalk

RESILIENT SUBJECTS: ON FEMINIST PRACTICES

Seen through the lens of resilient subjects this lecture aims to rethink the separation between public space and domestic space. Subjects are understood both as subjects (ie subjecthood) and subjects (i.e. as subject matter). We will analyse resilient subjects by way of connecting examples of feminist activist practices across different times and geographies. Taking our point of departure from an exploration of the literal meaning of resilient, at once flexible and strong, supple and tough, we will unpack resilient subjects in feminist practices with a special emphasis on acting in solidarity by way of joining bodies, spaces, matters, minds, and knowledges. The focus is on one hand on how feminist practices create durationality, solidarity and connectivity by way of sharing resources and knowledge. On the other hand we aim to foreground how these practices counter-act precariousness, racism, xenophobia, and violence. Taken together, these feminist practices connect the personal and the social, and show that a different analysis of the relations between the public space and the domestic space is needed in order to arrive at theorizing and practicing (as) resilient subjects.

The examples chosen for this lecture include the activist art project International Dinner Party (organized by artist Suzanne Lacy in 1979), the Downtown Eastside Women's Centre Vancouver (founded by a group of First Nation and Chinese women in 1973), the Mothers of the Plaza de Mayo Buenos Aires (they began their marches in 1977), the walks and research of the Precarias a la Deriva (begun in Madrid in 2002), and artist Marissa Lobo's installation and performance Iron Mask, White Torture (Vienna Secession 2010).

Drawing on Chandra Talpade Mohanty's work on transnational feminism we will connect her theoretical work with the practices of resilient subjects across the arts, activism, public and domestic space. "Imagined communities of resistance" (Chandra Talpade Mohanty) are understood as resilient subjects. They counteract representational regimes and hegemonic power relations within globalized capitalism. We aim to understand how resilient subjects, in their transgressive and durational dimensions, build lasting alignments between the personal, the social, the public and the domestic.

Ranald Lawrence and Kevin Fellingham

TACKLING CLIMATE CHANGE: COMPARING STUDIO APPROACHES IN SHEFFIELD AND CAPE TOWN

The urgency of climate change, and the collective responsibility it entails, requires a greater understanding of cultural approaches to environmental change and its interaction with diverse social contexts. This requires an extension of our understanding of climate change from the scientific to the socio-cultural realm. Cultural understanding implies investigation that extends to the human scale, revealing challenges that are often overlooked at a national or intergovernmental level.

This paper will compare how climate change is approached as a design input in different cultural contexts, detailing work undertaken by design-research studios in the Universities of Sheffield and Cape Town to address local responses to climate change as part of the Worldwide Universities Network 'Transcultural Understanding of Designing with Climate Change' project.

The Sheffield studio's work is focused on adaptation through design, informed by the modelling of future climate scenarios. This represents a cultural context where there is popular political will to devote time and resources to mitigating climate change, and various codes set out minimum standards for response. The Cape Town studio is focused on a context of rapid urbanisation, skills shortages, and a low tax base, where the state is unable to provide basic services such as electricity and water to many citizens. A lack of reliable data about energy consumption means that environmental decision-making is intuitive; while the peculiarities of the unequally developed economic and political context requires a more nuanced approach to engagement with communities.

ABSTRACTS

Marcella Del Signore¹, Cordula Roser Gray²

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LEARNING FROM NEW ORLEANS: THE CONSTRUCTION OF RESILIENT STRATEGIES FOR URBAN ECOSYSTEMS

There is no other modern day example of recovery equivalent to the task at hand than New Orleans and the Gulf Coast. The magnitude and quantity of recent storms in conjunction with rapid land loss along the coast have demanded development proposals that simultaneously address needs and opportunities for social, ecological and economic innovation. Many objectives are at stake such as community vitality, infrastructural integrity, flood control, sustainable coastal ecosystems, and commercial and recreational activities. It is evident from past mistakes that the future viability of coastal communities is contingent on an adaptive urban realm. Success lies in the ability to provide reconfigured infrastructural systems and habitable urban landscapes that embrace processes taking on an agency of resilience and connectivity. Design at every scale has to take into consideration an unpredictable and fluid context. Policy and governance have to adapt in equal measure to environmental, economic and social needs of a community. And the community has to genuinely participate in this process.

This paper aims at evaluating the many lessons learned in the storm's aftermath and reflects upon the needs identified by stakeholders through prototypically connecting local opportunities with larger regional urban systems in order to identify a set of responses unique to the vulnerability of coastal communities. Underpinned by a deeper understanding of ecological, communal and other regional networks to which such communities are irrevocably linked, the discussion emphasizes the interdependent nature of complex, coupled human-natural systems and the challenge ahead for designers as they envision futures in these changing socio-demographic, economic and environmental conditions. Architectural responses at varying scales designed in conjunction with multiple stakeholders increase the likelihood of successful implementation and facilitate the development of policies and funding mechanisms that build resiliency. The projects featured investigate the contextual relationship to community, water and infrastructure, connecting community based and non-profit organizations, private-public investment, government agencies, and academia to reduce vulnerability through knowledge sharing, community-driven idea development and policy advocacy.

Tharinee Ramasoot and Pratima Nimsamer

Faculty of Architecture, Silpakorn University, Bangkok, Thailand

ASSESSING THE ADAPTATION CAPACITY OF RIPARIAN VERNACULAR HOUSES IN THE FACE OF CLIMATE CHANGE: CAN LOCAL WISDOM BE USED TO IMPROVE FLOOD RESILIENCE IN AYUTTHAYA, THAILAND?

This paper discusses the adaptive capacity to flooding of riparian vernacular houses in Ayutthaya, Thailand. The adaptation strategies of vernacular houses, which were refined over time, were the brainchild of local wisdom that embraced flooding rather than perceived flooding as disaster. However, since 1960s, modernisation as well as the introduction of new building technology and materials has affected how people built their houses. This paper investigates the development of riparian vernacular houses and analyses how their adaptive capacity to flooding have changes during the course of this development. The analysis are based on the results of the field survey of the damages caused by annual floods and the severe flood in 2011 to building systems and the results of the interviews with local people. It was found that most vernacular houses could cope with the annual flood reasonably well compared to modern houses but in the 2011 flood when the flood level was around 1.8 metre high the adaptation capacity of vernacular houses was drastically reduced. In the face of climate change, this 25-year return period of 2.5-metre flood may be shortened to 10 years in the future. This suggests that the local wisdom, particularly in terms of the characteristics of vernacular houses, may be used to improve resilience to annual flood but when confronted with climate change, some modifications are required to improve the adaptive capacity of vernacular houses.

ABSTRACTS | STRAND 3

LOCAL RESILIENCE, PEDAGOGY AND PRACTICE

KEYNOTE DIALOGUES

RESILIENCE WITHIN THE LEGACY OF THE MODERN CITY
CHAired BY DOINA PETRESCU

DANIEL D'OCA
PROFESSOR JÖRG STOLLMANN
PROFESSOR KATHERINE GIBSON

LOCAL RESILIENCE, PEDAGOGY AND PRACTICE

KEYNOTE ABSTRACTS

Daniel D'Oca

Design Critic in Urban Planning and Design
Harvard University Graduate School of Design

WHEN LIFE GIVES YOU LEMONS

A surprisingly high percentage of older New Yorkers are aging in “towers-in-the-park,” a much maligned mid-century planning typology that was characteristic of large-scale residential development in the 1950s-1970s. This fact might seem less than ideal on the surface: conventional wisdom about tower-in-the-park developments—passed down from critics like Jane Jacobs, Robert Goodman, and New Urbanist-minded practitioners—is that they are difficult to live in, much less age in. To this day, these “marvels of dullness and regimentation,” as Jacobs put it, are put on trial for exacerbating—if not causing—a slew of urban pathologies, from poverty, to crime, to social isolation. Perhaps surprisingly, though, the tower-in-the-park typology can work quite well for seniors. Tall buildings make elevators a given; wide, smooth-surface hallways easily accommodate wheelchairs; superblocks provide communal park space; and common space on the ground floor is ideally suited for senior care offices, activity rooms, and other community uses. Moreover, while they are often criticized for being inward-facing and detached from their surroundings (Jacobs lamented that they were “sealed against any buoyancy or vitality of city life”), in reality, many tower-in-the-park developments are well-integrated into their neighborhoods, and have a very porous edge that enables residents to easily access neighborhood amenities.

Another way to put this would be to say that the tower-in-the-park, like many maligned architectural typologies, has proven surprisingly resilient. In this lecture, I will discuss the tower-in-the-park and a few other “lemons” that have succeeded in surprising and ways, including the post-industrial, shrinking city; the regional shopping mall; and the traditional, single-family, suburban subdivision.

LOCAL RESILIENCE, PEDAGOGY AND PRACTICE

KEYNOTE ABSTRACTS

Professor Jörg Stollmann

Chair for Urban Design and Urbanisation, TU Berlin

ACADEMY OF A NEW GROPIUSSTADT - REALITY CHECK

Gropiusstadt is a mono-functional settlement with a population of 36,000. Originally conceived by Walter Gropius and his office, The Architects' Collaborative (TAC), in the early 1960s, it was predominantly financed by the federal social housing program. Since the early 1990s, the increasing retreat of the public sector in housing provision and maintenance of public spaces challenges the spatial as well as social cohesion in those developments. Being prone to a similar process renders Gropiusstadt an exemplary case study. In a series of consecutive and parallel projects, the Academy of A New Gropiusstadt (AnG) attempted to test the settlement's current and future potential for socially and environmentally sustainable development. By means of urban interventions, the AnG aimed at redefining and fostering a common agency to accept and negotiate conflicting agenda. Partly a story of failure, partly of success, this quest of a new common ground is rooted in the specific locality of the place. In strengthening modes of co-production with the inhabitants, the AnG aims at redefining popular architecture.

The design and planning goals as well as the lived reality in modern mass housing settlements challenge the bourgeois middle-class ideals, which form the cultural background of most design professionals. Thus, in education as well as in practice, there is plenty to learn about who actually lives in mass housing settlements in the first place, which everyday routines and practices make up the good life within them, and what the spatial, economic, and ecological qualities are in reality. Such a re-evaluation seems especially relevant in the context of current discourses on climate-adapted and energy-efficient urban design. Mass housing settlements provide small, space-saving apartments, and large unsealed open surfaces. As their proprietors operate a respectable number of buildings, energetic optimization measures can be implemented efficiently. Thus, rehabilitating this late modernist heritage seems worthwhile. To do so, the gap between the residents' everyday lives and professional designer's inadequate knowledge about them has to be bridged, an endeavor the AnG, as an academic laboratory, wants to take on.

LOCAL RESILIENCE, PEDAGOGY AND PRACTICE

KEYNOTE ABSTRACTS

Professor Katherine Gibson

Professorial Research Fellow

Institute for Culture and Society at the University of Western Sydney

CULTIVATING ETHICAL ECOLOGICAL-ECONOMIC SENSIBILITIES: STRENGTHENING RESILIENCE IN MONSOON ASIA

The frequency and magnitude of typhoons and cyclones, flooding and landslides has risen dramatically over the last 20-30 years. In South and Southeast Asia (Monsoon Asia) this time span has coincided with unprecedented population growth and increased vulnerability to climate uncertainty. Not just here, but all over the world, there is an urgent need for resilient forms of habitation and livelihood to be strengthened. Yet urban growth and economic development in Asia shows little sign of departing from a Western model of industrial and consumption oriented development that has degraded environments and led to the climate crisis. In this lecture I argue that building resilience must be linked to reconfiguring our notions of economy and ecology in ways that help us take responsibility for being alive together as life. I illustrate how the hyper-separation of economy and ecology that has been central to modernist thinking stands in the way of valuing the vast diversity of community economic practices of mutual support and assistance by which people share scarce resources, rescue each other and possessions, and begin to rebuild shelters in the aftermath of crisis.

This presentation will be delivered by skype in Cinema 3, with an introduction by Kim Trogal.

LOCAL RESILIENCE, PEDAGOGY AND PRACTICE

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LOCAL RESILIENCE, PEDAGOGY AND PRACTICE

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85	Jasmine Shahin De Montfort University, Leicester, UK	Urban History & Cultural Resilience in Dubai's Emerging Architectural Model
86	Kehan Li, Edward Ng and Xin'An Chi School of Architecture, The Chinese University of Hong Kong	Looking into the Changing Rural Vernacular Dwellings with a Sustainable View: A Case Study on Bingzhongluo Township in Southwest China
87	Alan Derbyshire	Vernacular form of the Boka Kotorska: Memory, Tradition and Inherent Resilient Thinking
88	Doina Petrescu and Constantin Petcou Co-Founders of aaa Studio	Co-Producing Urban Resilience
89	Nanni Grau, Silvia Carpaneto, Frank Schönert, Christian Schöningh	Holzmarkt Village: Participatory Neighbourhood Development in Berlin
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91	Timothy Moore and Barnaby Bennett University of Melbourne and University of Technology Sydney	Rebuilding over time: The Christchurch Convention Centre and The Commons

Luis Berrios-Negron

GREENHOUSE SUPERSTRUCTURES AS SOCIAL PEDESTALS: DISPLAYING SITE-SPECIFIC NON-LOCALITY AS A POSSIBLE

In this paper I will propose that greenhouse superstructures are not just the surface envelop of an industrial typology: they are more so a spatial archetype. As such, they are historiographical boundary objects that at times display the spatiotemporal dimensions and geopolitical flows of environmental form in accelerated climate change. This above mentioned hypothesis is reflected through the manifold of “resilience” as defined by Prof. Lawrence Vale - of resilience being “a window into conflicting human values”. The aim of this effort is to ultimately centre the manifold notion of “greenhouse” as an index that points away from itself towards the impact of anthropological and technocratic ideologies on agricultural and spatial production. It is these binary ideologies that arguably create what we sense to be a crisis of scale, now further articulated as the hyperobject of climate change as a disjuncture that we nostalgically entertain as a chasm between the human condition and the living environment. Parsed by augmenting the notion of greenhouse superstructure as concept, building, technology, gas, problem, discourse, and solution, the hypothesis looks to articulate the greenhouse as a site-specific non-local sensation on the expanding sculptural field. What this expanding sculptural netherworld implies needs to be rigorously addressed for it may very well become what tautologically heightens the greenhouse to the providence of our atmosphere and landscape. To elaborate this potentiality, I will first present the schematics and precedents of the dissertation, including four installations in Germany, Brazil, and Sweden. These sections then lead to an argument instantiated by thinking of the greenhouse as social pedestal. This fundamentally questions the correlational crisis of scale in environmental form. In this case, the objective is therefore to embody the notion of non-local site-specific resilience as modes of pedagogy and production that aspire to destabilise the anthropological machine, as resilient modes not limited to historic, scientific, artistic, correlational, nor speculative conventions.

Camillo Boano

THE MAGICAL ENCOUNTER BETWEEN RESILIENCY AND EMANCIPATION? A WHATEVER ARCHITECTURE

Adopting an alternative route and trying to avoid an unnecessary relativism vortex and a theoretical nonsense, I would say they have not precise definitions and rigorously determined semantic borders and I would consider them as “notions in struggle” as they continually operate in a series of tensions and reconfiguration. This short reflection will focus around the current debate over the need to reclaim the political emancipatory project of architecture, against a technocratic, biopolitical and arrogant one. I would offer few interventionist concepts or idée-forces that attempts to reconfigure the given matrix of references of such concepts, suggesting architecture should “practicing dissensus”, meaning should develop strategies and interventions that require political thinking and speech to activate new idea of order and new subjectivities and “becoming inoperative”, meaning acting in neutralizing its ordering forces and making it available for free uses. With an explicit although incomplete reference to Jaques Rancière and Giorgio Agamben political reflections offers a renewed perspective on design by suggesting a reorientation between politics and aesthetics that would not simply reorder power relations, but create new political conditions as well as— new subjectivity. The dismantling of the ontological pillars of the Western philosophical and political tradition with the work of Jaques Rancière and Giorgio Agamben proposes a notion of politics, which renounces representation and upsets the temporality of political imaginary, thus undermining any political project construed around images of the future.

Katrina Wiberg

CLIMATE CHANGE AND WATERSCAPES OF VALUE: CO-CREATING RESILIENCE IN URBAN LANDSCAPES THROUGH DIVERSITY AND HYBRID JUSTIFICATIONS

Resilience and climate change adaptation (CCA) are closely connected to the concepts of value. From this departure, handling of water (HOW) is a pressing issue which involves values at many levels: it challenges economies, questions governance, planning, settlement patterns, land-use, spatial understandings, infrastructural strategies, sensory sensations, use of materials and daily life practices. Furthermore, water represents uncertainty and does not acknowledge administrative boundaries. Approaching this through the acknowledgement of watersheds reveals how water forces diverse actors to act together which is closely related to actions and spatial practices of value in urban landscapes.

Values, however, are plural and relationally dependent. Different actors see them differently from their varying fields of interests, professions and time perspectives. How do we bridge fields of value across disciplines, engagements and traditional boundaries in order to engage with concepts of value as a way to qualify actions in a practice-oriented context? This is the basic point of view of this paper. This paper proposes the approach of Boltanski and Thévenot to engage with this issue. They present a way of identifying and justifying values with their 6 Regimes of Justification (Boltanski, 2006): the inspirational, the domestic, the opinion, the civic, the market and the industrial regimes. These regimes can provide a methodological approach to clarify, decode and encode values, which ALSO can allow for mutual understanding and collaborative creation. The subject matter is approached through best-practices of watershed projects in Seattle explored through research by design methodologies. The over arching aim is to develop methods to discuss, engage and envision resilience and (future) values in urban landscapes in an age of uncertainty.

Clemens Bernardt, Sandra van Assen and Alexander van Spyk

TRANSITION SKILLS

To contribute positively to systemic transitions within local communities, architects need to be critical, reflective, far-sighted communicators. This paper presents educational practices developing adaptive, systemic and co-creative approaches within the training of architectural Masters students. It evaluates the first outcomes of a four-year research through design studio, executed by the Academy of Architecture in Groningen, in which experiential learning helps development of heightened awareness, appropriate mind sets and critical thinking; enabling students to identify problems and challenges specific to their profession. Students, stakeholders, teachers and researchers involved in the studio form a learning community that critically monitors the educational program. By working on “live” projects, the studio produces insights concerning local scale energy transition in the North of The Netherlands.

Global issues urge fundamental changes in the Dutch energy system and recent accumulations of earthquakes resulting from natural gas exploitation in the region of Groningen make the ‘energy transition’ inevitable (Rotmans et al. 2001). Whilst alternatives, proposed by the Dutch government, mainly consist of isolated, mono-functional interventions (Boer and Zuidema, 2014), the studio investigates integrative systemic scenarios that seek to enhance resilience on a human scale by embedding the energy transition within local communities. However, systemic transitions may be unpredictable, as they tend to play out within complex spatial, social and economic arenas, involving multiple, multi-level stakeholders. Shove and Walker (2007) caution professionals, involved in long-term transitions, to remain critical during the “[continuous] cycle of problem-definition, intervention and response”.

Ziegler and Bouma argue that analysing is designing in the reversed direction. The first year’s outcomes consist of adaptive architectonic interventions within local communities, integrating flows of energy, food and waste. Using interviews with the learning community, the paper describes the educational processes leading to these outcomes, focusing on the formation and elaboration of the appropriate questions concerning stakeholders’ interests; how these questions are kept central and deepened throughout projects; how they are represented at their closure and, above all, how they renew awareness concerning future regional needs. Initial findings stress the necessity of a circular research through design process, not necessarily to solve, but to accurately define those needs.

David Fannon and Michelle Laboy

LEARNING COMPREHENSIVE BUILDING DESIGN THROUGH A RESILIENCE FRAMEWORK

A framework for building resilience is critical to contemporary architecture practice, which is challenged to design buildings now that will first shape and then sustain a dramatically different and uncertain future. This framework is both a conceptual structure to define and organize characteristics of buildings as adaptive systems across physical and time scales (resilience as outcome), as well as a practical guide to organize design decisions and strategies that lead to specific solutions (resilience as a process). Students need this framework—both the theory and its real-life application—to learn ways design mitigates harm, nourishes life, and adapts to a changing world. Merging a lecture course with a design studio creates a cohesive pedagogy around problems of resilience, and provides critical context to the teaching of Comprehensive Building Design. The course Integrated Building Systems interrogates texts and case studies around issues of resilience to engage critically with conventions of design and construction, systems thinking, and ecology. The Comprehensive Design Studio uses real sites, integrated design and interdisciplinary collaboration to provoke the critical application of resilience principles and elicit design solutions for a complex environment of uncertainty and change. This framework reverses the traditional studio sequence, beginning with building systems rather than a program or a site, and emphasizing life-cycle sensitive design. Four phases overtly organize systems and design decisions from the more to less permanent, constantly shifting physical and time scales: from passive systems, to ecosystems, scenario-planning, and ultimately the synthesis and detailing of assemblies. Learning comprehensive building design through an ecological resilience framework emphasizes passive and structural solutions as the means to flexibility, durability, climate adaptation, reduced environmental impact, ecological integration, and human comfort.

ABSTRACTS

Li Wan, Edward Ng, Xin'An

UNIVERSITY-BASED RURAL SUSTAINABLE DEVELOPMENT ASSISTANCE STRATEGIES

Approximately half of China's current population resides in rural areas, which are rapidly developing over the past few years. Nonetheless, over 100 million Chinese are still living below the national poverty line. China cannot achieve sustainable development without the progress of its poor rural areas. Accordingly, with their expertise, knowledge, and human resources, universities must support the sustainable development of such areas. In this study, the features and experience of university-based rural development programs in China and other countries are reviewed. The challenges encountered by the poor rural areas of China and their sustainable development model are then discussed. Consequently, a series of strategies for implementing university-based rural program in poor rural areas of China are proposed by considering both the international experience and the current Chinese situation.

Sandra Denicke-Polcher

The Cass. School of Architecture, London Metropolitan University

ARCHITECTURE OF MULTIPLE AUTHORSHIP: BEYOND THE ACADEMIC YEAR

The research is based at the Cass. School of Architecture, London Metropolitan University, and examines socially engaged live projects within the school's design studio. As deadlines of live projects with real collaborators and partners are not defined by the academic calendar, the studio involves different student cohorts over several years during different phases of a project, ultimately enabling an on-going live and adapting engagement with a place and its community. The paper suggests a new structure within the academic institution, which sits between academia, practice and the city. Every year, the participating students learn a different skill driven by the city and its environment, however, always in relation to previous cohorts' activities whose work they take over to develop while it evolves. Not only do the students benefit from working on projects with continuous involvement in a specific place, but the ongoing engagement with a place also empowers communities and influences the profession of the architect. Students gain a presence in the place and establish new networks amongst communities, all required to make comprehensive and often radical changes within the city, which include physical as well as social designs. This experience equips students with a skill-set to develop self-initiated projects. As a result, the paper proposes reducing the current education from seven years to an EU competitive length of five years, where the practical year-out experience recommended by the RIBA occurs during the academic education through attending the Live Projects Studio. In order to discuss this method of teaching, the paper focuses on a case study situated in Hayes, West London, which started in 2012 and is currently ongoing.

Morgan Ip

AHO - Oslo School of Architecture and Design: Institute of Urbanism and Landscape

PARTICIPATORY MAPPING IN THE CO-DESIGN OF THE FUTURE NORTH

It is important for designers of the built environment – from the varying scales of architecture, urbanism, and landscape – to capture and reflect locally specific human voices in the anticipation and design of future communities in the face of great change. The world is increasingly challenged with the complex dynamics of climate change and globalism. This is particularly acute in the Arctic where warming temperatures increase access and potential exploitation of natural resources, and has related socio-cultural and environmental impacts.

The Norwegian-Russian borderland has a rich and diverse cultural history that is as informed by place as by the many people populating its fjords, valleys and plateaus. A variety of resources, from minerals to fisheries to oil, have shaped and continues to affect the character of the region in varying degrees. How do people here anticipate and respond to changes and contribute in the co-design of their physical and social realms? Further, do or can the neighbouring communities of Vardø and Kirkenes, Norway, and Nikel, Russia, engage with and learn from each other in this regard?

This paper is a component of ongoing PhD research based on a residency at the Barents Institute in Kirkenes that investigates the participatory co-design potential of a locative-mapping tool, MyBarents.com, which was developed by community activists in nearby Murmansk, Russia. The online platform enables the plotting on an interactive map of ideas for civic improvement that can be up-voted, tweeted, or discussed in a forum. The aim of the platform is to enable visual and accessible communication of ideas between diverse community members, and reveals potential to instigate change. Participative observation and semi-structured interviews, key components of ethnographic research, are paired with the innovative locative-based social medium to capture both broad and deep discourses on public engagement in shared community futures. Together, these tools are explored to document and understand a particular cluster of Arctic cultural landscapes, and the synergies and divergences that occur within. These in turn aim to influence design professionals and decision makers at formal and informal levels.

Renata Tyszczuk and Julia Udall

Sheffield School of Architecture, University of Sheffield

FUTURE WORKS: STORIES OF ENERGY, INDUSTRY AND RESILIENCE

The Future Works project, based in the English Midlands is sparked by widespread concern about the future resilience of energy, work and making, in a region that has good claim to being the hearth of industrial manufacturing. The project is gathering communities at a series of factory sites to develop collaborative accounts of past, present and future energy system changes as they affect the workplace. In the context of the UK Climate Change Act's cross-party commitments to the reduction of carbon emissions, the project explores the changing relations with energy in industry and the role of co-production in these transformations.

Future Works' aim is to invite a sense of shared ownership of the dilemmas and choices faced by a range of present-day industries with the prospect of a carbon constrained future. The paper will present initial work of the project that has drawn on past histories and memories, present activities and future scenarios to rethink how a range of people involved with industry can pro-actively engage with change. We have traced the transformations of materials, tools, skills and ideas, and engaged people's creativity in addressing pressing questions around energy futures and the consequences of change for everyday life. The paper will explain the methodological and theoretical considerations that led to the decision to work with stories on the project and will plot some of the opportunities and challenges presented by this approach. We have been exploring the related notions of storyteller and toolmaker as we experiment with different ways of giving voice and agency to a wider range of people and things in building local resilience.

Armina Pilav

COLLECTIVE DOCUMENTATION OF EXTREME URBAN TRANSFORMATIONS: EVIDENCE OF URBAN RESILIENCE DURING THE WAR IN SARAJEVO (1992–1996)

The aim of this paper is to analyze citizens' strategies for surviving dangerous wartime urban conditions in Sarajevo, as made evident through different documents—photos, videos, and architectural drawings—produced by many authors during and after the war. Heterogeneous in its materiality, this study relies on the personal and professional life experiences of each citizen-author. It sketches the social and physical components of the city, at a time when the urban environment was made perilous due to continuous bombing, and a lack of public transport, electricity, water, and food. In the period between 1992 and 1996 in Sarajevo and in other Bosnian cities, survival became the most important activity for citizens. The inability of the city and the people living in it to function normally demanded as they developed innovative surrogates for the everyday objects not available to them—invented objects for cooking, lightening their spaces, sleeping, and self-protection. Likewise, they developed alternate models of the safe transportation of goods and bodies, along with other urban functions. Their war documentation is extremely important, as Sarajevo's destruction, which quickly transformed the prewar, compact city into the ruin—was and continues to be difficult to describe, document, and represent. Using wartime Sarajevo as case study, this article examines the importance of collective creation of documents about citizens' adaptation to extreme urban conditions. Considering these documents is central to the formation and maintenance of a collective memory, as citizens undertake post-war reconstruction efforts, as artists and writers develop materials for art projects and documentary films on the urban wartime conditions, and as scholars craft academic research and studies about the war across disciplines—architecture, urbanism, sociology, anthropology, and cultural studies. Finally, this article takes media expressions as methodological tools for the reading and analyzing urban transformations and resilient efforts to respond to such changes during the war. The aim is for these studies to be used as well for other urban emergencies, such as crises due to natural disasters or the shrinking of de-industrialized cities.

Philip Crowe¹, Karen Foley² and Aoife Corcoran³

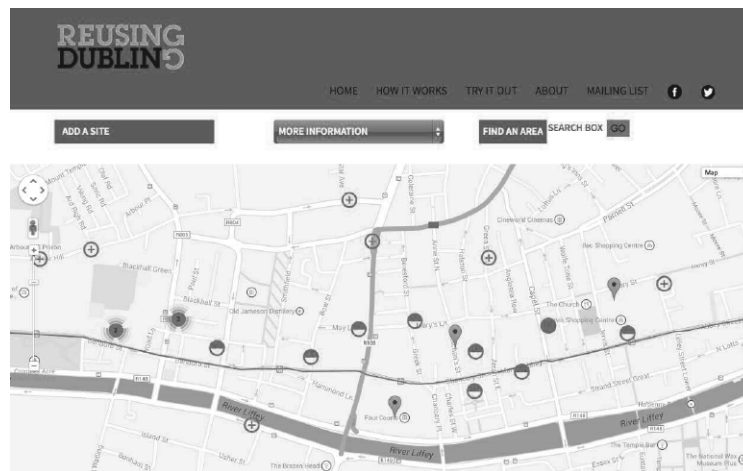
¹School of Architecture: Landscape Architecture, University College Dublin

²School of Architecture: Landscape Architecture, University College Dublin

³School of Geography: Planning and Environmental Policy, University College Dublin

CREATING A TEMPLATE FOR CHANGE: A CENTURY OF MAPPING UNDER USED SPACES IN DUBLIN

The EU FP7 TURAS project seeks new adaptive and flexible approaches to urban planning and governance that can build social-ecological resilience in response to the convergence of crises. This paper identifies the mapping of underused spaces as an example, exploring the practice through reexamination of a map showing vacant sites in Dublin from 1914 influenced by Patrick Geddes (1854- 1932) and a contemporary crowd-sourced web-mapping application, 'Reusing Dublin', developed by the TURAS Project. Geddes recognized the potential of a multi-disciplinary, inclusive and interactive process of civic survey as a means to engage citizens with local issues, and by extension with global issues. Vacant sites were considered a resource for alternative uses and the 1914 Dublin map of vacant sites provided a management tool for change in response to a severe housing crisis. A century later, Geddesian thinking can be observed in contemporary ICT applications such as 'Reusing Dublin', which facilitates the mapping of underused spaces in a participatory civic survey process. Underused spaces are identified through existing inventories, student projects and online crowd-sourcing. Users can discover and share information on any identified underused space and connect with others in relation to any particular space. The website therefore empowers citizens to identify opportunities and self-organise, building adaptive capacity to change in an uncertain future. A network of underused spaces is revealed, providing a template for change within which communities can precipitate social-ecological innovation and therefore contribute to the transition to urban resilience and sustainability.



Sarah Wigglesworth

Sheffield School of Architecture, University of Sheffield

YOUR HOME, MY HOME: LESSONS IN PARTICIPATORY DESIGNING WITH OLDER PEOPLE

Despite the well-acknowledged increase in the population of older people and the UK's obvious need for housing of all kinds, the provision of housing designed with the needs of older people in mind is especially limited and limiting. Housing directed at such a group tends to be restricted by conservative business models that often treat all occupants as a defined 'consumer'. Equally, the procurement models employed for 'affordable' housing for older people are paternalistic and unimaginative.

Older people are consistently cut out of the discourse on what makes a suitable set of choices for them, and participatory design research that involves older people can help address the shortcomings of a system in which people are treated either as passive consumers of a 'product' or as residents on whom housing is imposed by others.

The Dwell Project (Design for Wellbeing in Environments for Later Life, a design research project based at the University of Sheffield's Department of Architecture) aims to show how the opinions, desires and needs of the older person is key to designing imaginative and appropriate housing for this group. Using evidence gathered from the engagement sessions that lie at the heart of the project, this paper aims to demonstrate the insights that such work can give the designer. Through reflecting on the carefully managed process of brief development, feedback and testing of design options with older participants, the paper aims to explore how design can help develop a set of choices that are more tuned to the needs of older residents in Sheffield. The paper focuses on two aspects of spatial design: first, housing for the downsizer market, demonstrating how providing a wider choice of options for this group of people could stimulate the housing market generally. The second aspect relates to the work we are doing with neighbourhood groups seeking improvements in the public realm that will enable greater mobility for older people. The paper will conclude by making the assertion that housing meeting the needs of older people could set a new standard for all people, no matter what age.

Helen Jarvis

SOCIAL ARCHITECTURES OF COMMUNITY RESILIENCE: SHARING AND AGEING IN 'ICONIC' INTENTIONAL COMMUNITIES

This paper explores the intangible qualities of sharing, mutuality and social constructions of ageing that distinguish the inhabited scale of intentional community from conventional streets, rural hamlets and master-planned estates. Previous research on the micro-social practices of intentional community points to the socio-spatial significance of sharing (Jarvis 2011; 2015). The discussion draws on composite ethnographic observations representing three 'iconic' intentional communities: Christiania (Denmark); Findhorn ecovillage (Scotland); and Moora Moora (Australia). In different ways each has evolved beyond a purely oppositional enclave to connect internal interests and novel ideas with external support and collaboration. Learning from these enduring sites of experimentation is timely because planners and politicians express growing interest in the role of locally determined place-making. This is evident in the European Charter on shared social responsibility 2011, the UK Sustainable Communities Act 2007, and the Localism Bill 2011. The expectation is that an increased share of collective responsibility yields greater innovation and improved quality of life, not least with respect to an ageing population. The paper seeks to shed light on the intangible processes and attributes of community resilience that formal urban planning typically overlooks. By engaging with a deeper socio-technical understanding of intergenerational sharing, this paper challenges the priority usually given to 'age-specific' and 'design led' supportive environments. The aim is to recover a purposeful and humanistic scale of association that accounts for intangible (sensory and affective as well as dialogical) network relations in the communities observed. The analysis raises a wider set of issues that we need to think about when considering interdependent patterns of formal and informal support structures, including opportunities for 'ageing alternatively'.

Carolyn Butterworth and Rowan Mackay

PROVOCATEURS OR CONSULTANTS? THE ROLE OF SHEFFIELD SCHOOL OF ARCHITECTURE IN THE CO-PRODUCTION OF CASTLEGATE

Communities need support now more than ever to build resilience within their neighbourhoods. To face the challenges of shifting demographics, funding cuts and the alienating processes of development requires a strong sense of community identity and agency.

The UK government's austerity cuts have not only made communities more vulnerable in the short-term, they are also slicing away the support required to enable communities to weather challenges in the long term. The city of Sheffield has been hit hard by cuts, forcing the City Council (SCC) to reduce spending by 8% between 2013 and 2015. Despite SCC's priority of "building strong communities", cuts have hit right at the heart of communities - closing libraries, abolishing community assemblies and tightening many services outside core delivery (Sheffield City Council.2015). As a result, in Sheffield, as elsewhere, public service delivery is changing:

In this context of austerity a new relationship between SCC and Sheffield University School of Architecture (SSoA) is developing. In a neglected city centre area called Castlegate, SSoA is brokering a dialogue between the area's fragmented communities and SCC.

A community's ability to exercise control over its built environment plays a key role in its capacity to build resilience in the face of an uncertain future. This paper presents co-production as the means by which dialogue can be fostered and control devolved to communities, by exploring how partnerships between SSoA, SCC and local partners have been formed through recent activities in Castlegate.

Opportunities and tensions inherent in this relationship are often manifested through questions about the role a university can and should play in building community resilience. Drawing on interviews with students, academics and local partners in Sheffield, the differing priorities, timescales and expectations inherent in this partnership are examined, and suggestions made, so that it might serve as a model for future co-production in urban regeneration. In doing so, the aim is to explore how work produced in academia can maintain its critical pedagogical position while still fulfilling a useful role in facilitating co-production in local communities with, and even on behalf of, local authorities.

Jasmine Shahin

De Montfort University, Leicester, UK

URBAN HISTORY & CULTURAL RESILIENCE IN DUBAI'S EMERGING ARCHITECTURAL MODEL

The proposed paper will explore the emerging architectural model of Dubai and the challenges that such a model presents to its growing community, in addition to the many criticisms targeting its existing urban development strategies. Despite the apparent shallowness of the city's urban artefacts, the paper will investigate different urban transformations that influenced the perception and conception of the city since the early 1900's. The paper will argue that architecture and urbanism must not only explore their capacity in providing environmentally sustainable site-specific solutions, but must also expand their role to reinforce the city's socially perceived values, especially in cosmopolitan urban centers like Dubai. Through a critically informed hermeneutic study, which bases its theoretical framework on Hans Georg Gadamer's concept of effective history, the paper will investigate two case studies that shed light over some cultural challenges that newly found global spaces offer to their resident communities, whose need for identification is arguably dependent on fostering strong symbolic ties with the urban built environment around them. Accordingly, the paper will conclude that a re-interpretation of history can become a possible tool for establishing cultural resilience as an architecturally and socially perceived value.

Kehan Li, Edward Ng and Xin'An Chi

School of Architecture, The Chinese University of Hong Kong

LOOKING INTO THE CHANGING RURAL VERNACULAR DWELLINGS WITH A SUSTAINABLE VIEW: A CASE STUDY ON BINGZHONGLUO TOWNSHIP IN SOUTHWEST CHINA

The valuable pristine nature, multi-ethnic, religious culture, and biodiversity of Bingzhongluo Township have spurred its reputation as a “Primitive Paradise”. Bingzhongluo Township is located in the upper region of Salween in the mountainous and needy rural area of Southwest China. The representative log-construction vernacular architecture and unsophisticated settlements fully translate local harmonious social relationships and regional folk culture into physical space forms. However, the majority of academic studies on vernacular architecture in Bingzhongluo typically focus on the traditional aspect, ignoring the silent but dynamic changes influenced by corresponding economic, social, and environmental development. Moreover, the Chinese government has invested a significant amount of human, physical, and financial resources and is preoccupied with execution policies on rural development, aiming at sustainability but selecting a modernization model as a general strategy. Impelling political instruments induces the mass destruction of traditional villages and the large-scale construction of New Socialist Countryside. Inadequate and off-subject research output on Bingzhongluo could not build interaction and application links for governance. Therefore, regional-scale vernacular architecture research and adaptability of policy should be reconsidered. The endogenous development paradigm is operable in constructing sustainable rural Southwest China according to its specific complicated topography and vulnerable development. Rural Built Environmental Sustainability Assessment System (RBESAS), which is based on endogenous development criteria and sustainability scope, has been established for this region. This study used RBESAS to qualitatively evaluate local self-reliance and development capacity in built environment in Bingzhongluo. Furthermore, questionnaires on vernacular architecture were distributed to conduct “bottom-up” intensive field studies in a typical area in Qiunatong Village of Bingzhongluo. This study performed a sustainability-oriented analysis on built environmental circumstance and vernacular architecture to give several significant responses to renewal issues in Bingzhongluo.

Alan Derbyshire

VERNACULAR FORM OF THE BOKA KOTORSKA: MEMORY, TRADITION AND INHERENT RESILIENT THINKING

This study examines the potential to establish a more resilient model of urban development in the Boka Kotorska region of Montenegro against a backdrop of dynamic adjustment to economic models, urban form and the cultural identity of local communities. The research is on-going and as such this paper should be regarded as a snap shot of the progress made so far in bringing in to being a more practical model for ecological urbanism.

Many European post communist regions are attempting to re-invent the urban landscape from economically un-viable industrial sites to 'prestige' developments, but at what cost? Developers are quick to market the vernacular as benchmarks of tradition and therefore more sustainable, however the resilience of such schemes is questionable. The resulting outcomes conform to ascribed sustainable criteria, but offer few signs of resilient thinking and innovation. Analyzing regions in transformation within former Yugoslavia and reasoning that ecology and culture are two sides of the same coin, this paper considers the reshaping of urban form and the effect on cultural identity. Through case studies the author highlights the role of postmodern vernacular developments and their impact in homogenizing formerly distinctive environments. This is contrasted with the potential for the actuality of cultural traditions in cultivating and embedding resistant measures to climate change.

ABSTRACTS

Doina Petrescu¹ and Constantin Petcou

Co-Founders of aaa Studio

¹Sheffield School of Architecture, University of Sheffield

CO-PRODUCING URBAN RESILIENCE

Co-production has become a buzzword in these times of austerity: it calls for the necessity to engage citizens in self-providing services within a context in which public services have become inefficient and need reforming, where the Welfare State is not present anymore to organise such services. If co-production is currently seen as the economic and social solution to this problem (Boyle and Harris, 2009), we understand it also as a shift in the power relationships that surround services and production. In the context of the city, co-production could become also a political project rooted in Lefebvre's idea of social production of space (Lefebvre, 1991). It is not only about citizen needs but also about citizen rights; in this case, the citizen rights to the city, which are not only the rights to occupy space in the city but the rights to decide about how the city is developed, managed and used. While needing to adapt and find solutions to the long term environmental and economic crisis societies face today, our cities have to become resilient; they need to organise themselves in order to thrive in rapidly changing circumstances. This need for resilience should be directly connected to a right to resilience for all citizen, a right to be informed about, decide, act upon and manage the future of cities (Maguire and Cartwright, 2008). This is a truly ambitious co-production project that should involve all city dwellers. Such a project needs ideas, tools and spaces, time and agency. It needs agents and activators.

Can architects be such agents? What tools and means can be used at times of crisis and scarcity? How can progressive practices be initiated while acting locally and at a small scale? How can civic cultures of collaboration and sharing be reactivated and sustained in both economic, environmental and social terms?

In order to answer these questions, the paper reflects upon the research based practice of atelier d'architecture autogeree across a number of projects conducted in different neighbourhoods in Paris and its suburbs since 2001. These projects explore current possibilities for co-producing urban resilience by introducing networks of resident-run facilities that form local ecological cycles and everyday life eco-civic practices.

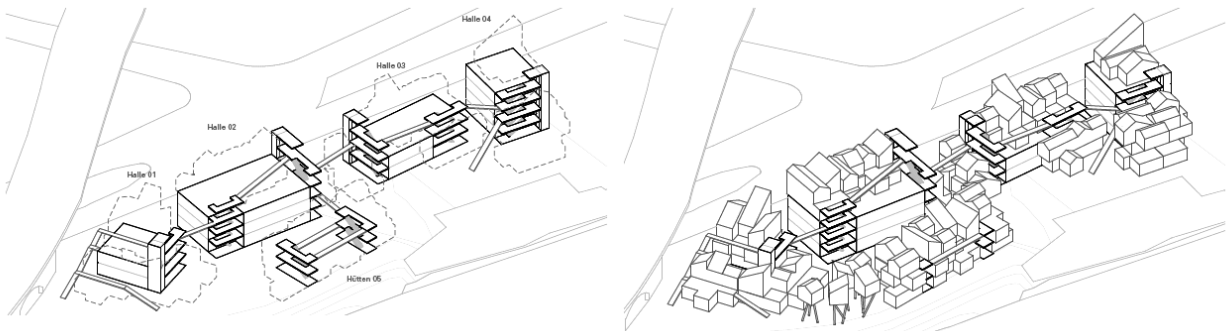
Nanni Grau, Silvia Carpaneto, Frank Schönert, Christian Schöningh

HOLZMARKT VILLAGE – PARTICIPATORY NEIGHBOURHOOD DEVELOPMENT IN BERLIN

By 2025, Holzmarkt in Berlin will be developed into an innovative inner city quarter, whose guiding vision is the close integration of nature, culture and work. Nestled in the “Mörchenpark”, a public green corridor located along the banks of the Spree River, the quarter comprises three central elements: a hotel, a technology startup centre called “Eckwerk” and the “Village” as a commercial complex including a club and restaurant, which will be explained in more detail below.

Holzmarkt Village is situated on the former riverside premises of the legendary BAR25. After a five-day, non-stop party, the venue was closed in 2010 so the property could be sold to the highest bidder.

In 2012, seven bar owners prepared a development concept, founded a cooperative and secured an investor. Participating in the auction process, they outbid the commercial investors and were awarded the contract for the property, which they committed to develop over a ten-year period.



Peter Merrett

SUFFOCATING CITIES: OBSTACLES TO URBAN SELF-ORGANISATION

This paper discusses the need for research at the interfaces of alternative architectural practice and legal, regulatory and procedural frameworks of the construction industry in order to improve the reach and influence of alternative approaches. Investigation into design participation and alternative practices in architecture has developed methodologies to democratise the design process by better engaging user groups and investigating potentials for self-organisation in the production of the built environment. No longer do architects merely impose their own vision of form on inert urban matter. Architects have begun to understand the built environment as a complex ecosystem which has grown up without a blueprint; where the role of architectural design is to facilitate a form of urban growth that is driven from within. The scarcity of development land and the time and cost associated with regulatory approval has placed the ability to build or adapt well beyond the reach of many citizens. However, initiatives such as Self Build, Live Projects and other bottom-up building practices develop strategies and methodologies that build local resilience. As yet, the reach and influence of these new forms of urban development has been limited. Can these methodologies be made to fit within a dominant system of development driven by neoliberal economic policies favouring short-term economic gain? With the emergence of the community asset as a new form of ownership, development may begin to realign its priorities in favour of longer term social gain. Is there evidence that our complex regulatory systems are suffocating the underlying forces of self-organisation that shape our towns and cities? What are the obstacles that must be overcome in order to make new forms of urban development possible? Is there a case for change in regulatory control in order to stimulate sustainable urban renewal and build local resilience? Through a review of case studies in urban self-organisation, the paper will identify how access to sources of capital, productive labour and governmental power are limiting citizens' ability to influence the built environment and reducing our capacity to self-govern.

Timothy Moore and Barnaby Bennett

University of Melbourne and University of Technology Sydney

REBUILDING OVER TIME: THE CHRISTCHURCH CONVENTION CENTRE AND THE COMMONS

In 1997 the NZ\$15 million Christchurch Convention Centre (designed by Warren and Mahoney Architects) was opened. In March 2012, it was demolished. The building was one of over a thousand buildings in the Christchurch Central Business District that were damaged during the earthquake sequence that affected the city between September 2010 and late 2011. This paper will examine the design and construction of the new Christchurch Convention Centre in contrast with The Commons, a temporary community project located adjacent to the former convention centre's location. The new Convention Centre Precinct, also designed by Warren and Mahoney with Woods Bagot Architects (between its Adelaide, Sydney and Melbourne offices) is expected to cost over NZ\$500 million. The developments in Christchurch provides an opportunity to contrast the development of public projects with different levels of engagement by its citizens.

The current machinations of the two projects are viewed with respect to emerging discussions in architecture and urban theory that refer to the “civic economy”, which identifies a transition in the delivery of civic infrastructure beyond traditional models of market, state or community. By comparing these two projects, this paper will analyse the transitional period of Christchurch towards recovery, as an opportunity to move from top-down delivery to participatory and incremental models in order that architecture and urbanism can strengthen its civic purpose. The emergence of temporary (or transitional) projects in post-quake Christchurch help to articulate an emergent set of practices that anticipate changes happening to other cities in the twenty-first century.



Little Kelham designs by Citu,
our hosts for Friday night's conference dinner

Website | www.citu.co.uk
Twitter | [@CituUK](https://twitter.com/CituUK)

THURSDAY 10 AND FRIDAY 11 SEPTEMBER

OTHER EVENTS

THURSDAY EVENING AT EXCHANGE PLACE STUDIOS

DISRUPTIVE WORKSHOPS

FRIDAY EVENING PROGRAMME

SUMMER SCHOOL PRESENTATION

DIALOGUES AT CANDLELIGHT

CONFERENCE DINNER HOSTED BY CITU

THURSDAY | EVENING AT EXCHANGE PLACE STUDIOS

Co-Producing The City: Live Works

DRINKS AND TALKS AT EXCHANGE PLACE STUDIOS

HOSTED BY YORKSHIRE ARTSPACE

Website | www.artspace.org.uk

Twitter | @YArtspace

Facebook | Yorkshire Artspace

Exchange Place Studios

Exchange Street

Sheffield

S2 5TR

Thursday 10 September 2013

18.15- 19- 45

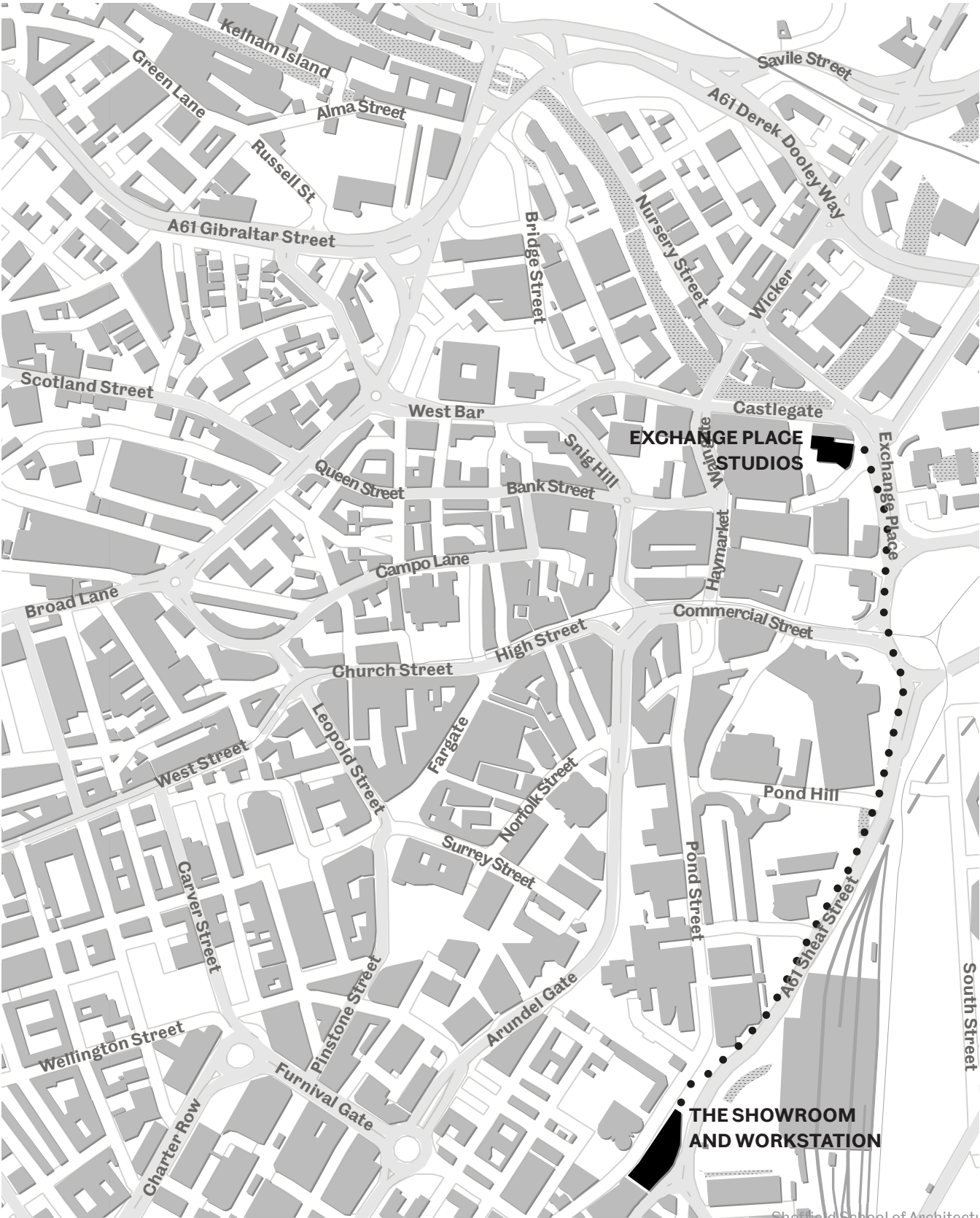
Delegates are invited to Castlegate, an area in Sheffield city centre where The University of Sheffield is working in partnership with Sheffield City Council to foster creative and resilient development.

Castlegate is a historic market centre, the site of Sheffield Castle and features some fine examples of Victorian and post-war architecture. Now Castlegate is undergoing drastic change, the markets have closed and moved elsewhere and the future of the area is uncertain.

SSoA is working 'in-residence' in Castlegate with the local community, artists and policy-makers to generate dialogue, ideas and ambition for the area. Carolyn Butterworth (SSoA) and Rachael Dodd (Yorkshire Artspace) will present this work and how it is informing long-term resilient regeneration of the area.

THURSDAY | EVENING AT EXCHANGE PLACE STUDIOS

Getting there



Resilience by Design: Inhabiting fragile territories

CELIA MACEDO AND ALEJANDRA ALBUERNE, ASF

The proposed disruptive idea ASFUK has coined the term Resilience by Design to explore the interface between socioeconomic development and the environment in both rural and urban contexts. For, Tierra Baja an AfroColombian community living within a beach/mangrove ecosystem of Cartagena, Colombia there is instability at this interface. While the community work to develop a Territorial Management Plan, a fundamental aspect of the documentation required in order to obtain collective land ownership titles from the State of Colombia, they need to understand the interdependency between governance, and the fragile territory in which they live. What does it mean to legitimise occupation of a fragile ecosystem, and will a sense of ownership create a greater sense of responsibility?

An outline of how the workshop will be run

The methodology has a strong emphasis on participatory engagement and design as a tool for advocacy and sociospatial transformation within challenging environments. The workshop will be structured around 3 stages: navigating the issues at stake from the perspective of a member of the community, evaluating the impact of formalising the collective land title on a range of stakeholders within and external to the community, and finally mapping approaches to land use, conservation and risk management. Participants will be encouraged to reflect on the value of this approach in understanding resilience at the human scale.

Notes

Architecture Sans Frontières – UK (ASFUK) aims to make community and international development issues integral to the practice and teaching of architecture. ASFUK teaches inclusive, participatory, and empowering methods of working effectively within communities to alleviate poverty and increase community capacity.

www.asfuk.org

A Resilience by Design workshop took place in Colombia in September 2014 with Fundación por la Educación Multidimensional (FEM), an organisation working to improve major social, cultural, and educational disparities within Colombia.

Disrupting the incumbent city of the future

BRIONY TURNER

The basis for the built environment of the 'city of the future' is already here. Open knowledge, open design, the 'internet of things' and digital manufacturing have the potential to enable people to hack, shape, change and improve their homes and neighbourhoods to better meet their needs. This power to create cannot just result in changes to the design of resilient buildings. It will necessitate changes to economic, political and social forms. Some suggest that we are entering the third industrial revolution in placemaking.

This workshop will display the latest in urban innovation and will facilitate, through a 'shock' scenario (catastrophic flood), participants to deconstruct and challenge our incumbent city of the future. They will explore through the eyes of future data-rich citizens what the implications are for smart technology and the underpinning 'invisible forces' of how our built environment and supporting infrastructure is designed, produced, refurbished and governed in an age of open source, potentially individual-centric, knowledge. The workshop will culminate in participants developing a manifesto for how climate-smart, resilient cities can be delivered with the shackles of our incumbent regime removed.

Constructed Scarcity: Exploring resilience through a diagrammatic and multi-scalar analysis of the built environment produced under conditions of scarcity

DR. ISIS NUNEZ FERRERA.

The idea of this workshop is to use the concept of 'constructed scarcity' in the built environment as a lens that can help us to better understand resilience at a human scale. This approach was developed through a PhD research¹ and is based on the premise that scarcity in the built environment is a constructed condition, and therefore expands beyond the material to social, economic and political realms. Its methodology conceives 'scarcity' as a heuristic device, using a series of transcalar diagrams that illustrate a different understanding of how a spatial or environmental issue is produced, and the complexity of systems and relations at play.

The workshop will begin with a 15min presentation of how to read and construct the diagrams and a brief introduction to the case study. Further activities include an initial working table examining in detail the different aspects of the diagrams and a final working table discussing potential interventions using the diagrams as a map: Where would you start? Who needs to be involved? At which scale? Which are the key sites of intervention?

Materials will include large-scale diagrams used as templates illustrating the micro-scenario (experienced scarcity, usually at the neighbourhood level) and relevant multiple scales (constructed scarcity). Participants will be given a set of materials, including personal narratives and photos taken by the residents, quick facts about policy and government programmes, and mobile symbol/colourcoded devices to complete the diagrams and propose interventions.

The workshop will conclude with a brief reflection of how this methodology can help us rethink approaches and challenge assumptions about resilience in the built environment.

Chef-field Co-Cooking. Remodelling a co-housing development

ZSÓFIA GLATZ AND BENCE KOMLÓSI

Cooking and community dinners play a key role in cohousing projects. Cooking and eating bring people together. Food can be vegetarian, allin, soup, salad, cooked, baked ...etc, the most important is the process. How can participants make decisions, share tasks, help each other and have fun together? Every community cooking and dinner is like a mini co-housing development. It needs initiators, participants, working groups, decisions have to be made and cooking process has to be organised and performed by the group.

CO-COOKING is CO-BUILDING

CO-EATING is CO-LIVING

Co-building is like co-cooking. Co-building a community, a house, a good relationship, ...etc. Co-living is like eating together. If you share the responsibilities of cooking you will appreciate the commonly cooked food much more.

Co-cooking workshop schedule:

Step 1. Brainstorming - data collection. What do we want to eat? Tastes and ingredients? How many courses do we want? What do we like? Is there anyone who is vegetarian or vegan, is on a specific diet?

Step 2. Decision making - consensus, weighted voting, democratic. What are we going to cook? Working groups? Who is responsible for the different tasks?

Step 3. Cooking - construction site. Preparation, cooking, baking, decoration.

Step 4. Eating - eating together is living together.

"Our mission is to empower, educate and inspire as many people as possible to love and enjoy good food."

Activating neighbourhoods on the front line of physical upheaval and gentrification

CANY ASH

The workshop will explore tactics which champion existing social capital and valuable networks. What do we do to unmask the superficial but often very compelling language of the regeneration industry, fuelled by big data and smart city talk. How do we honour the daily rituals which keep city culture complex, agile and resilient.

Reflecting upon recent work for Southwark Council Peckham CoDesign and the self initiated and managed Canning Town Caravanserai, Ash Sakula will be facilitating a session to explore the governance of contested space involving businesses and residents from diverse communities. Architects have an unusually wide skill base to draw on enabling them to express the potential of shared space and effectively negotiate with landholders and local government. We invite you to:

- Explore methods of designing in participation and designing for participation
 - Look at models for radically open and permeable governance of shared space
 - Discuss ways of unblocking the flow of communication between communities and civil servants.
- Architects need to intervene creatively and publicly to demonstrate that they offer better value than the consultants who specialize in controlling information and boring people into passivity.

Using the pressing and volatile topic of the new Right to Buy initiative, the Ash Sakula team will share some stories about their CoDesign methods involving local architects, artists, property lawyers, lighting designers, horticulturalists, and slam poets. A small estate in a West London Borough will be designated as the context for the event and participants will be assigned local personas. The team will dole out quick tasks demanding alliances and quick win tactics to make the case for densification with the active involvement of the resident community. The proceedings will be uploaded to the conference blog to solicit further debate.

The context

"As a result of new right to buy plans, more than half a million affordable homes across London are in danger of being sold off with no plans to replace them. This will speed up social cleansing in our capital, turning our housing crisis into a housing catastrophe, and following out the heart and soul of our great city." Sadiq Khan

The opportunity

"Government is slow, the street is fast" Eileen Conn

Preparing the Arctic to the Unknown

TANEHA KUZNIECOW BACCHINI, CLAUDIU FORGAC, ARJAN VAN TIMMEREN, RICHARD ASHLEY.

The workshop aims to test possible disruptive scenarios in three different topographic positions of a generic sub- arctic landscape: downstream (plain) area/ mid- section area (slopes)/ upstream (ridge). The workshop is structured in the following steps:

1. The theme of the workshop is introduced and three or six teams (of 3 people each) are formed; depending on the workshop applications, we suggest a group of 9 or 18 participants. Each team receives a generic sub-arctic context (handout) containing the hydrological system and a description of the natural and urban context (20 min.)
2. The disruption is unknown, therefore each team is asked to prepare a set of spatial measures (either at the parcel, street or catchment level) meant to prepare their site to unknown changes, while the three coordinators assist them; the outcome of this step is a map illustrating the proposed measures (30 min.)
3. Each team receives a random disruption and tests the capacity of their proposal to face it. A 'resilience map' is produced as a critical reflection on how the measures responded to the disruption. (20 min.)
4. After the presentations of the two maps (2-3 min/team), the workshop ends with a discussion on the findings, synergies and challenges encountered throughout the process.

FRIDAY | EVENING PROGRAMME

A candlelight dinner, hosted by Citu at Little Kelham

Program for the evening

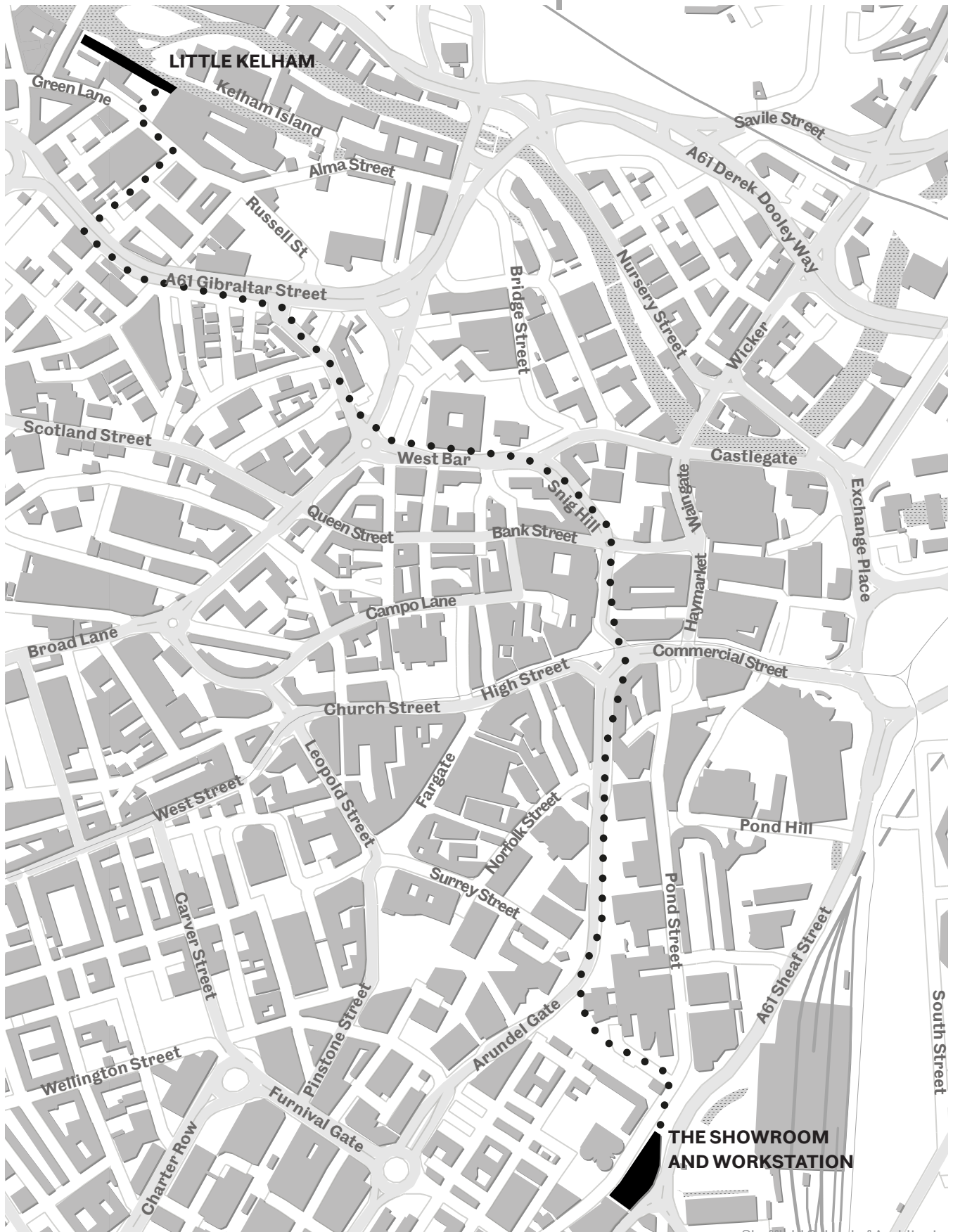
- 16.15 Walk to Riverside Warehouse, Little Kelham
- 16.45 Making Cities Summer School Presentation, led by Simon Chadwick
- 17.45 Talks: *How to be a Resilient Pioneer*, by Chris Thompson and Karen Stafeckis of Citu
- 18.00 Dialogues at Candlelight
Adriana Allen and Andrew Simms
(Abstracts on pages 42-43)
- 19.30 Drinks and a few words from Matthew Bigland, The Milestone
- 20.00 Conference Dinner
- 21.00 Live Jazz Band
- 23.00 Close

Finding Little Kelham

Riverside Warehouse
Green Lane
Sheffield
South Yorkshire
S3 8SE



FRIDAY | EVENING PROGRAMME



FRIDAY | SUMMER SCHOOL PRESENTATION



Making Cities Summer School 2014
Working in The Well at the Arts Tower, Sheffield



Making Cities Summer School, SSoA

The Making Cities Summer School offers an energetic five-day programme of events where students examine the fabric of the City Centre of Sheffield and propose solutions to vacant, under used and underdeveloped sites within the city.

Students are mentored by architects from some of Britain's leading practices. Working together in our studios at the top of the Arts Tower, participants use a giant model of the city to develop ideas and concepts.

Sheffield is a fascinating city of rich heritage and complex urban systems. Throughout the centuries, Sheffield's industrial and economic significance has shaped the city, leaving a tantalising array of challenges and opportunities:

The focus of our Summer School is to examine the fabric of the City Centre of Sheffield and propose solutions to vacant, under used and underdeveloped sites within the city. Each day is packed with design workshops, skills sessions, walks, site visits and film shows. There is also an evening programme of talks by each of the contributing architecture practices. During the closing event, groups will present their proposals to delegates of the Architecture and Resilience on a Human Scale Conference. The closing event will give participants the exciting opportunity to engage with leading researchers and practitioners in architecture, engineering, urban design, planning, landscape, geography, and other fields related to spatial studies.

FRIDAY | SUMMER SCHOOL PRESENTATION



Making Cities Summer School 2014
Exhibiting to the public at Tudor Square, Sheffield

Making Cities 2015 Presentation

Presentation of work at Conference Dinner
Friday 11 September
Little Kelham, Kelham Island

Participating practices include:

Haworth Tompkins
Hawkins/Brown
Penoyre & Prasad
Norton Mayfield
Bauman Lyons

Presentations from artist David Cotterrell

Contact

For further information about the Making Cities Summer School please contact us on ssoa@sheffield.ac.uk, or call 0114 222 0399

Sheffield School of Architecture staff:

Simon Chadwick
Cith Skelcher
Satwinder Samra
Leo Care
Mark Emms

DIALOGUES AT CANDLELIGHT

BUILDING LOCAL RESILIENCE: CAN IT BE PLANNED FOR?

CHAired BY BEATRICE DE CARLI

THE MAKING AND UNMAKING OF LOCAL RESILIENCE (AND JUSTICE)



Professor Adriana Allen

Professor of Development Planning and Urban Sustainability
The Bartlett Development Planning Unit, UCL

Abstract on page 42

Strand 2: Local Resilience and Society

FANTASY ECONOMICS AND RESILIENCE



Andrew Simms

Co-founder of New Weather Institute, fellow and former director of
NEF (New Economics Foundation), author of *Tescopoly*

Abstract on page 43

Strand 2: Local Resilience and Society

Conference dinner at Little Kelham

A candle lit pop-up dinner in an unrefurbished riverside warehouse on the site of Little Kelham low energy housing development.

Hosted by Citu

Citu was formed in 2004 by Chris Thompson, who wanted to disrupt the housing market by doing things a different way.

For Chris, sustainability wasn't about making sacrifices; it wasn't about lifestyle, the environment or politics, it just made sense to waste less and do things in a more efficient and innovative way. This ethos of minimising waste and seeking out new ways of doing things now applies to everything Citu does, from design, to construction, to the final building and how people use it.

Citu successfully transformed the former Shaftesbury House in Beeston, Leeds, into Greenhouse - a multi award-winning low carbon development which utilises solar, wind and ground source energy. The team is now developing Little Kelham, which will see over 150 low-carbon Citu Houses being built on the site of two former factories in the Kelham Island area of Sheffield. The project will see important historic buildings such as Green Lane Works and Eagle Works being restored to provide arts, office and retails space.

The Citu Houses are super-insulated, meaning they will be heated passively by the warmth given off electrical appliances, humans and pets. Residents will also be able to control and monitor energy usage from a smartphone or tablet.

Website | www.citu.co.uk

Twitter | [@CituUK](https://twitter.com/CituUK)

Presentations from Chris Thompson and Karen Stafeckis of Citu

HOW TO BE A RESILIENT PIONEER

Chris Thompson

Managing Director: Chris is a former student of Loughborough University. Upon setting up Citu in Leeds over a decade ago, he completed a number of developments in the city before taking on projects further afield. He has used his background in construction and financial management to adapt a hands-on approach to development to ensure delivery on time and budget.

Karen Stafeckis

Development Manager: Karen, a graduate of the University of Sheffield, played a major role in the Greenhouse development and is now a crucial part of the team delivering Little Kelham. Prior to working for Citu Karen was head of sustainability at Turner and Townsend.

Catered by The Milestone

The Milestone opened its doors in 2007 and has honed its identity to become a Sheffield favourite restaurant with strong, gutsy food, local sourcing and nose-to-tail, root-to-tip cooking using every part of the animal or vegetable.

The team is passionate about incorporating local landscapes and nature into dishes by foraging for fresh herbs and in the last year cultivating their home grown produce, grown in their city centre urban garden two minutes from the restaurant. An education for the team and diners alike.

Being selective and providing outstanding quality is top of their priorities as well as continuing to think outside the box. July 2015 has seen the restaurant introduce a commercial recycling composter with the vision to create a cycle turning all food waste into compost used to grow their herbs and vegetables. The Milestone believes in the integrity of their ingredients and strives to take the next step towards self sustainability.

The Milestone | 84 Green Lane at Ball Street | Kelham Island | Sheffield S3 8SE
t. (0114) 272 8327

Music from Sheffield University Jazz Orchestra

Sheffield University Jazz Orchestra (SUJO) was first established 15 years ago and has been giving student musicians the opportunity to play big band music to the highest standard ever since. SUJO draws repertoire from the golden age of the big band - the 30s, 40s and 50s - and from composers such as Duke Ellington, Maynard Ferguson, Neal Hefti and Count Basie.



SUJazzOrchestra on Facebook

SATURDAY 12 SEPTEMBER

**ARCHITECTURE
PRACTICE RESEARCH:
DESIGNING FOR
RESILIENCE**

AND

**FROM HOME TO CITY:
SCALES OF RESILIENCE**

KEYNOTE DEBATE

TINA SAABY

PROFESSOR KRISTIEN RING

CRISTINA CERULLI

SATURDAY | PROGRAMME

Architecture Practice Research: Designing for Resilience

Page	Speaker	Paper Title
113	Neil Winder	St Rita: A Climate Change Adaptation New-Build House
114	Robert Barker BACA Architects	The UK's First Amphibious House
115	Emma Flynn	Living Architecture: Demonstrating resilience to climate change and resource depletion
116	Irena Bauman	Management Before Fabric: Mal- adaptations or barriers to adapting exiting buildings for greater resilience to climate change

Strand 3. Co-Producing Urban Resilience

Abstracts on pages 90-94

Strand 3: Local Resilience, Pedagogy and Practice

Doina Petrescu and Constantin Petcou Co-Founders of aaa Studio	Co-producing Urban Resilience
Nanni Grau, Silvia Carpaneto, Frank Schönert, Christian Schöningh	Holzmarkt Village – Participatory Neighbourhood Development in Berlin
Peter Merrett	Suffocating Cities: Obstacles to urban self-organisation
Timothy Moore and Barnaby Bennett University of Melbourne and University of Technology Sydney	Rebuilding over time: The Christchurch Convention Centre and The Commons

From Home to City: Scales of Resilience | Keynote debate

118	Tina Saaby Chief City Architect, City of Copenhagen	Architecture and Resilience on Human Scale: From City Municipality to the Neighbourhoods
119	Prof. Kristien Ring Aa Projects Berlin + University Of South Florida USA / Visiting Prof. Sheffield	Self-Made City
120	Cristina Cerulli Sheffield School of Architecture and Studio Polpo	Sustaining Communities' Collective Endeavours: Stories From Sheffield

Castlegate publication | *Imagine Castlegate*

SATURDAY | ARCHITECTURE PRACTICE RESEARCH: DESIGNING FOR RESILIENCE

Neil Winder

GreenYard Architecture

ST RITA: A CLIMATE CHANGE ADAPTATION NEW-BUILD HOUSE

St Rita, a Norwich new-build urban family house, is the architect's second regional case study where 21C Stage 1 climate change adaptation design [2cad] has been fully integrated with mitigation design into its construction and operation.

This lightweight wooden house design has a wall and roof construction designed to assist in keeping summer heat out and winter heat in. The envelope responds quickly to rapid weather shifts, heavy weather events and a reduced diurnal range and sheds any embodied envelope warmth soon after temperature drop.

Comprehensive rising and cross ventilation, a walk-in earth floored undercroft, upside-down planning, large external structures and extensive south and west plant life used as a living building material, providing shade and evapo-transpiration assistance, form working elements of the 2cad.

It also embodies a range of ecological design elements including a high softwood timber use, a waterless composting toilet, a grey water reed bed, biomass space heating and hot water and very low carbon emissions with almost zero environmental impact.

St Rita is a fast weather response, low technology, low carbon, lightweight building that examines one way of responding to inevitable first stage climate change. It will be completed and fully planted up late 2016. Those that live in it within its first ten year development period will be able to provide information on its successes and failures for further case studies.

The architect considers the possibility that 2cad for housing is now equal in importance to climate change mitigation design. That these two design areas should be employed together and need each other. This 2cad stage is the first of three, or more, possible adaptation design stages over time, with St Rita providing one early stage regional case study approach that could be identified and integrated into current UK house design.

About Neil Winder of GreenYard Architecture.

He is an architect running a solo practice developing, over the last 20 years, adaptation and mitigation architecture within his own ecological housing design in small new-build housing projects.

SATURDAY | ARCHITECTURE PRACTICE RESEARCH: DESIGNING FOR RESILIENCE

Robert Barker

BACA Architects

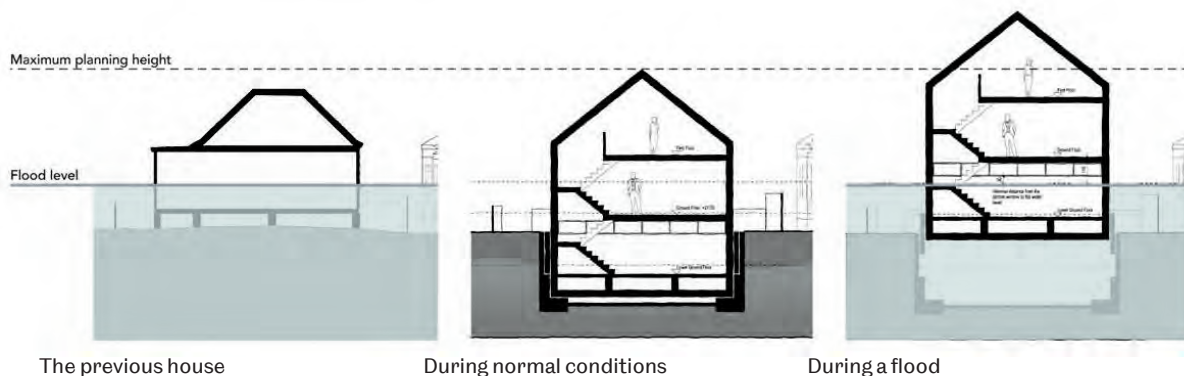
THE UK'S FIRST AMPHIBIOUS HOUSE

The owners of the UK's first amphibious house – Formosa – on the banks of the River Thames in Marlow will be moving in by the end of 2014. Designed by Baca Architects - specialists in waterfront architecture and flood resilient developments – the unique house is located on an island in the picturesque stretch of the River Thames that passes through Marlow, in Buckinghamshire, a site designated as Flood Zone 3b and a Conservation Area.

What is an Amphibious House?

An amphibious house is a building that rests on the ground but whenever a flood occurs, the entire building rises up in its dock, where it floats, buoyed by the floodwater. Amphibious construction brings together standard components from the construction and marine industries to create an intelligent solution to flooding. The house itself sits in the ground and the floating base is almost invisible from the outside. Amphibious designs can vary to suit the location and owners' preferences.

The amphibious design allowed the floor level to be set less than 1m above the ground level instead of 2m, had the house been static. This enabled a 225sqm 3-bed dwelling to be constructed over three floors in place of the existing 1-storey 90sqm house without significantly increasing the ridge height, and therefore achieved full planning. Construction is slightly more expensive than mainstream house building due to the requirement for two foundation systems: the dock and the hull; but overall the costs are comparable to a typical basement extension, or around a 20-25% uplift on a similar size new house. The technology is ideally suited to areas of high flood-risk or if there is uncertainty regarding future flooding levels, as well as in historical or sensitive landscape settings where more heavy-handed solutions would be unacceptable.



SATURDAY | ARCHITECTURE PRACTICE RESEARCH: DESIGNING FOR RESILIENCE

Emma Flynn

Research & Development Lead at AStudio

LIVING ARCHITECTURE: DEMONSTRATING RESILIENCE TO CLIMATE CHANGE AND RESOURCE DEPLETION

Energy from depleting fossil fuels consumed in the construction and operation of buildings accounts for approximately half of the UK's emissions of carbon dioxide. With global warming increasing, amplifying extreme weather conditions and frequency, buildings can no longer remain static and unresponsive to their surrounding environment. Architecture must become adaptive, reactive to changes in climate, and reducing CO₂, not generating it. As a tree responds to and moderates its surrounding environment, nature can become a key inspiration in developing mechanisms to reduce the impact of climate change. At Astudio Architecture, our research looks to incorporate fundamental processes in living and natural systems in the architectural design of responsive surfaces and building services. These 'bio-responsive' facades combine both biological and technical systems which adapt to, and harvest from, the immediate climatic environment. Working alongside, Rachel Armstrong, Professor of Experimental Architect at Newcastle University, Sustainable Now Technologies, and students at Brunel University we are developing a photobioreactor façade system for the production of biofuel and have recently commissioned the first operational industrial algae production unit in the UK. The PBR facade uses the process of photosynthesis to cultivate algae in uniquely designed photobioreactors, capturing carbon from the atmosphere and producing biofuel as an output to power the building, offsetting the building's carbon footprint and energy needs. When designed within a holistic building engineering strategy this living architecture can impact all areas, water filtration, power, heat and light. A truly dynamic element. This research paper will demonstrate the importance of responsive living facades in the resilience of our built environment, documented through our practice research and our collaborations with industry and academic institutions to include: algae PBR façade systems; salt hydrate phase change materials for the regulation and storage of thermal energy; and bioluminescent bacteria for illumination.

SATURDAY | ARCHITECTURE PRACTICE RESEARCH: DESIGNING FOR RESILIENCE

Irena Bauman

Sheffield School of Architecture, Univeristy of Sheffield

Director at Bauman Lyons Architects

MANAGEMENT BEFORE FABRIC: MAL-ADAPTATIONS OR BARRIERS TO ADAPTING EXISTING BUILDINGS FOR GREATER RESILIENCE TO CLIMATE CHANGE

The intensity and frequency of extreme weather events will have far reaching effects on buildings. Two research by design projects carried out by multidisciplinary teams led by Bauman Lyons Architects applied detailed reiterative computer modelling of new taxonomy of adaptations to two very different building typologies to establish adaptation strategy in anticipation of increasing overheating caused by climate change. The modelling revealed that existing commercial buildings can be successfully adapted to climate change and that the payback period of such adaptations is commercially viable. In fact, the research also established that through these adaptations buildings could be weaned- off air conditioning on which they currently depend.

However, the study also highlighted mal-adaptations or barriers to acting on this knowledge. This paper explores the case for adaptation and the three main categories of mal-adaptations that stand in the way of retrofitting buildings for resilience to climate change:

Existential: Denial about potential climate change impact. This is true of individuals as well as of institutions. The denial takes the form of negation (it will not happen), denialism (protection of institutional interests) and disavowal (knowing that climate change is happening but inability to come to terms with the need for action).

Management: Client management structures and decision-making processes do not accommodate the potential for strategic planning for climate change. Properties are managed though uncoordinated and disjointed decision-making. Budgets for maintenance that could be used to implement adaptations to improve comfort and reduce running costs, are set annually determined by what has happened in the years before rather than what lies in the years ahead.

Legislative: Lack of policy incentives; conflict between current building regulations based on the need to conserve energy and the benefits of high thermal mass for keeping buildings cool in future climates. Conflicts also with planning legislation.

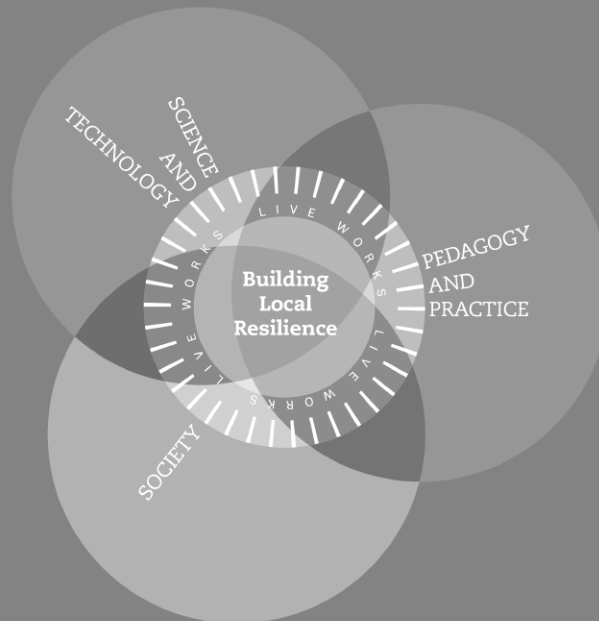
SATURDAY | HOME TO CITY: SCALES OF RESILIENCE

INVITATION

City & Cultural Engagement and
Sheffield School of Architecture present:

Home to City: Scales of Resilience

A public event within the
'Architecture and Resilience on the Human Scale'
conference, hosted by SSoA



Speakers

Tina Saaby The Chief Architect of
Copenhagen
Kristien Ring Author of 'Self Made City.
Berlin'
Cristina Cerulli Lecturer at SSoA

Respondent

Irena Bauman Professor at SSoA and
Director of Bauman Lyons
Architects

Chair

Prof. Vanessa Toulmin Director of City &
Cultural Engagement

Followed by the launch of 'Imagine Castlegate' Publication
and conference closing drinks



The
University
Of
Sheffield.

Saturday 12 September 2015
10.00-13.00

Showroom Cinema, Cinema 3
15 Paternoster Row, Sheffield

SSoA

Get in touch: @SSoA_news | #SSoAResilience | resilience_ssoa@sheffield.ac.uk | www.sheffield.ac.uk/architecture/latest/events/resilienceconference

Tina Saaby

Chief City Architect, City of Copenhagen

ARCHITECTURE AND RESILIENCE ON HUMAN SCALE: FROM CITY MUNICIPALITY TO THE NEIGHBOURHOODS

Challenges such as increasing population and ongoing climate changes require us to radically rethink our approach to urban development of the cities. Cities have to operate on a higher strategic level with a focus that goes beyond the individual projects. The leadership in the cities has to look at the long term perspective to create a resilient strategic framework for the future city development - a framework that will ensure the future cohesion in the city. At the same time, we need to engage the different stakeholders and invite them to take active part and ownership in this process.

"From City Municipality to the Neighbourhoods" will centre on three citywide strategies concerning urban life, urban nature, and climate adaptation, respectively. I would like to discuss how these strategies generate cohesion between the different local environments and the residents in the city, as well as how the local initiatives affect the strategic framework that creates cohesion in the city as a whole.

My presentation during the City Debate will include examples from the Copenhagen Climate Resilient Neighbourhood and introduce some of the many players that are involved in the local development process.

Copenhagen Climate Resilient Neighbourhood

The Skt. Kjelds Neighbourhood is known internationally as Copenhagen's first climate resilient neighbourhood. It is a temporary, area-based initiative where the urban experience is improved by combining cloudburst management and new urban spaces.

With the residents as active partners, a series of innovative demonstration projects are realised and serve as inspiration for the surrounding city. The projects include Taasinge Square which is the first climate resilient square in the city, and Ostergro roof farm, an urban organic rooftop garden involving the neighbours in cooperative urban agriculture.

Cristina Cerulli

Lecturer at Sheffield School of Architecture and director at Studio Polpo

SUSTAINING COMMUNITIES' COLLECTIVE ENDEAVOURS: STORIES FROM SHEFFIELD

The neoliberal production of the built environment, with its focus on short term gains, its opaque way of accounting for its processes (e.g. without externalizing the cost of environmental damages), and its individualistic nature, is unsustainable and unjust. Collective endeavors within cities seem like an antidote to the isolation of the neoliberal city and an essential ingredient to create a shift towards a more just city. Lefebvre points to the potential of the 'lived spaces' of everyday life to resist the abstract space' of the neoliberal city, with collective endeavors creating a particular type of 'concrete', 'lived spaces', challenging and undermining the production of 'abstract space' (Lefebvre 1991).

What do we need to enable and facilitate collective processes in the city? How can we instigate and sustain such endeavors? How can collective endeavors outlast their initial momentum? What are the ethical challenges that these initiatives face?

The proliferation of bottom up initiatives through which communities take charge of at least some aspects of the production of their built environment will be discussed in relation to the notions of scale, capacity and currency, in an attempt to unpack the complexities and to reveal tensions around what is often taken at face value. Drawing from personal experiences of practice and research in the city of Sheffield, and focusing in particular on the Portland Works Project - a heritage site purchased through community shares - this talk will put forward thoughts for a framework to support the emergence of and sustain collective action and learning in the city. Support systems for collective action will be proposed as a way to 'strengthen the signal' of small, perhaps marginal initiatives, as they have the potential to create positive feedback loops and trigger the emergence of a more equitable and vibrant city and society. Crucially the challenges to the longevity of those initiatives will also be discussed alongside thoughts for mitigating those challenges.

Professor Kristien Ring

Aa Projects Berlin + University Of South Florida USA / Visiting Prof. Sheffield

SELF-MADE CITY

SELF-MADE CITY is about alternative mechanisms of urban development. The success of our cities in the future will hinge upon how we utilize further development to improve urbanity—with an adequate amount of suitable, affordable housing and planning that meets our growing ecological challenges. The housing markets of our major cities are determined today however, mainly by profit-driven developments. New alternatives offer the increase of choice and reduction of costs at the same time—projects that help to foster neighborhoods and to enable affordable, adaptable, customized living solutions. Collective projects in the form of co-housing, associations or other alternative development models, help to meet this challenge and have produced an architectural quality and urban diversity in recent years that is exemplary.

Sustainable development involves not only high-quality, resource saving and flexible design, but must also add to urban vitality by considering social issues of inclusion and community as well as hybrid uses that fuel urban interaction. Through active participation, future users develop a vested interest in the building, community and neighborhood that goes beyond their own personal needs and surroundings—active users being the key in determining the success of sustainable concepts. The kinds of benefits these projects bring and that are needed for vibrant, livable, sustainable cities can be looked at under three main themes: Inclusion and Community, Urban Vitality and Quality of Life, as well as Experimental and Resource Saving Design. These points and many important qualities will be illustrated with best-practice examples that show how initiatives can be scaled-up to have a large-scale and lasting impact on sustainable urban development.

Kristien Ring, AA PROJECTS, is the author of SELF-MADE CITY and curator of the URBAN LIVING exhibition (shown at the DAZ, Berlin May-July 2015 and in Madrid, October 2015). Blog: www.urbanlivingberlin.de

About The Engaged University

The City and Cultural Engagement team delivers collaborative projects with the City of Sheffield. We want a vibrant city, which embraces the creative potential of its internationally-leading University. We aim to build bridges between academics, students and communities to foster innovative, collaborative and aspirational projects in the city.

Projects have an urban development, cultural or green environment theme: in particular we have an interest in the interconnected areas of cultural development and place making.

We aim to create short-term cultural and economic vibrancy in neglected parts of Sheffield city centre awaiting redevelopment, with the focus on Castlegate. In June 2015, the University, the Council and various artists' studios came together to stage the Castlegate Festival. Since 2013 a group of academics from 7 different disciplines has been supporting the Council in redevelopment plans for the area.

Engaged University projects also include: ReNew Sheffield, Love Square and Grey to Green.

<http://www.sheffield.ac.uk/about/city>

Professor Vanessa Toulmin

Professor Vanessa Toulmin is Director of City and Cultural Engagement and Chair in Early Film and Popular Entertainment. Her work is varied but includes 5 years as Strategic Advisor to Blackpool Council on Heritage and Regeneration with the Winter Gardens sale and refurbishment part of her work in the resort. She is currently leading on city centre vibrancy with particular reference to culture, the public realm and urban landscapes for the University as a collaboration with Sheffield City Council and other University colleagues.

Castlegate publication: *Imagine Castlegate*

Presented by Carolyn Butterworth, LiveWorks, SSoA

The University of Sheffield is working in partnership with Sheffield City Council to foster creative and resilient development in Castlegate, a historic area of the city that is undergoing drastic change. This book presents the rich and diverse projects that have resulted from this partnership and in collaboration with members of the local community, artists and businesses. The book features the following:

The creative public engagement activities of
The Engaged University

Live projects and design proposals by
School of Architecture and Department of
Landscape students and academics

The work of local heritage groups and
researchers from The University of Sheffield

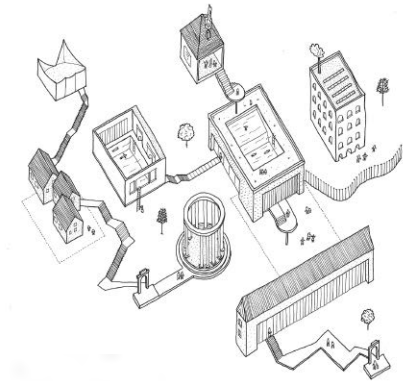


SATURDAY | CLOSING DRINKS

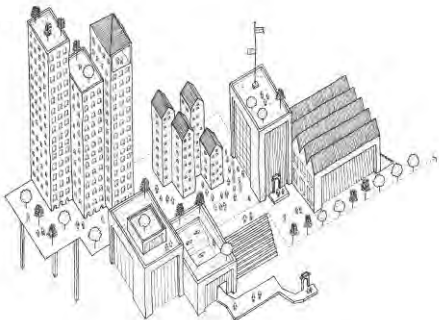


Book launch will be followed by conference closing drinks
in The Workstation

MARCH SSOA | THINKING ABOUT RESILIENCE



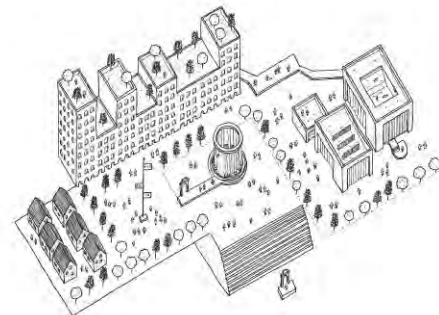
Separated city
A well connected yet sprawling city with lots of open civic space.



Dense city
A city with boundaries and no space to breathe and grow.

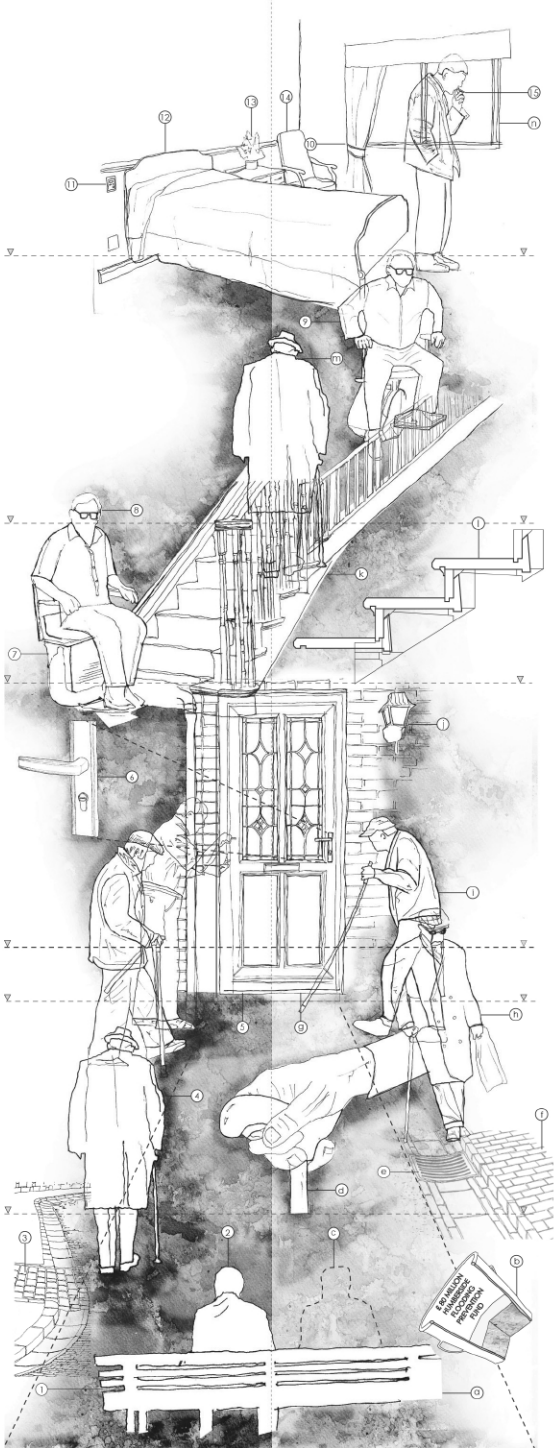


Integrated city
An efficient city with many interconnected buildings and civic spaces.



Climate smart city
The city of the future with sustainably designed buildings and generous civic spaces.

City scenarios



A Visual Bibliography of Elderly Vulnerabilities



Andrew McKay, Y6
The Institute For All Ages
Thinking about urban resilience and city scales

Samuel Kapasa, Y6
The Beautiful Inevitability of Ageing & Flooding
Thinking about flood resilience in a social context

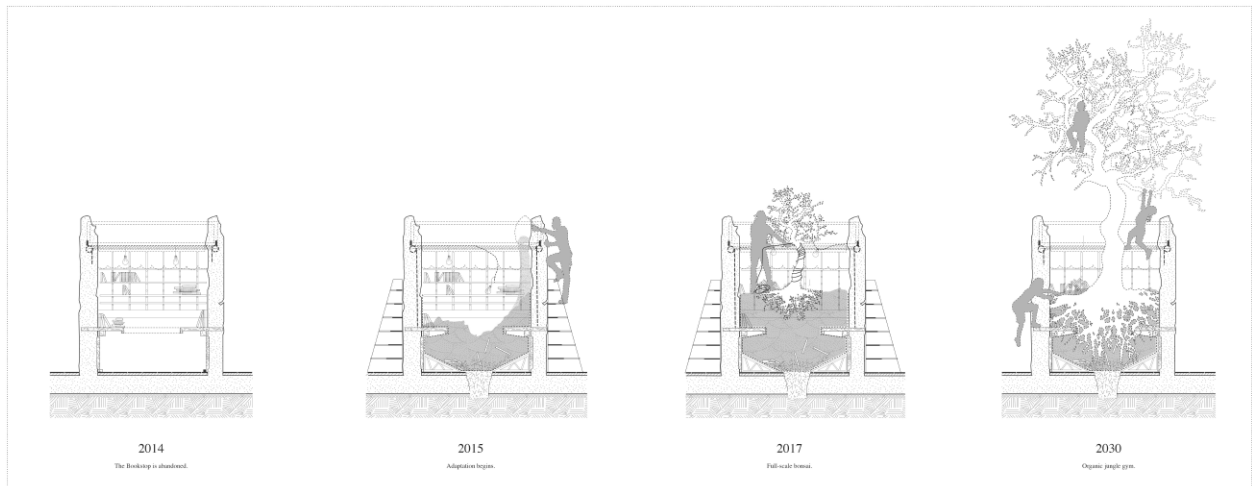
MARCH SSOA | THINKING ABOUT RESILIENCE



Armand Agradiador and Alexander Schofield, Y6

Hydrogeneration

Thinking about energy resilience in Ambergate, Derbyshire



Sita Jobanputra, Y5

Old Castle Park: Curating the Ruin

Thinking about environmental resilience within the urban realm



Paul Bailey, Y5

Participatory Budgeting: a democratic assembly space for Downtown Cairo

Thinking about social resilience and expression

NOTES

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NOTES

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Acknowledgements

Architecture and Resilience on the Human Scale conference has been shaped by many hands and minds. Discussing, programming, budgeting, designing, printing, marketing, proofreading, coordinating, evaluating, writing, recording, tweeting, worrying, chasing and chasing again, booking, sourcing, fetching, begging, responding, adjusting, imagining and creating are just some of the tasks that we shared among many.

To all those who contributed we offer a big collective thank you.

In particular though, we would like to offer special thanks to our administration team: **Samantha Dobrinski**, **Sara Lancashire**, **Lynn Li**, and **Janet Richardson**; our Media unit manager **Ralph Mackinder**; and our assistants **Maria Henshall**, Year 6 MArch Student at SSoA and recipient of the on-campus appointment and **Chloe Piper**, an architect all the way from Australia who volunteered to help on the day.

Extra special **THANK YOU** to **Kim Trogal**, our postdoctoral research assistant, who has stitched many of the strands into a cohesive whole with skill, dexterity and true integrity.

Kim was a postdoctoral research assistant with Professor Irena Bauman, (2013-2015) contributing to a new, school-wide research platform, Building Local Resilience. She is currently a Postdoctoral Research Fellow at Central Saint Martins. She completed her architectural studies at University of Sheffield, including a PhD in Architecture (2012) for which she was awarded the RIBA LKE Ozolins Studentship. Kim is co-editor, with Prof. Doina Petrescu, of the book 'The Social (Re)Production of Architecture' (Routledge, forthcoming). Kim has worked in architectural practice and taught at Sheffield School of Architecture.

The intellectual agenda for the conference was shaped by **Fionn**, **Jian**, **Doina** and **Irena** working together for many months before the call for papers was first published.

