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**OXFORD
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School of the **Built Environment**

INTRODUCTION AND OVERVIEW



These continue to be busy times for OISD. As well as planning for a major new conference on Low Carbon early next year, we are also working closely with the new Thames Gateway Institute for Sustainability and planning further collaborations with academic and industry partners. Our new EPSRC research funding through Dr Rajat Gupta (and which you can read more about later on in the newsletter) also gives us the opportunity to work with the University of the West of England, Heriot Watt University and Arup amongst other end users. We are also continuing to build on the strong links we have with the Environmental Change Institute and Smith School for Enterprise and Environment at Oxford University.

Several of our recently completed projects were highly rated ('tending towards outstanding') by independent peer review including, for example, EPSRC Sustainable Urban Brownfield

Regeneration: Integrated Management, EPSRC City Form and Professor Fergus Nicol's work with Dr Hom Rijal and Rev Professor Michael Humphreys on thermal comfort. We were also pleased to see that the recent results of the UK-wide Research Assessment Exercise (RAE) showed that the School of the Built Environment is a major player in international research in the fields of 'Architecture and the Built Environment' and 'Town and Country Planning'. They also show that the School, which includes the Oxford Institute for Sustainable Development (OISD) as its primary research vehicle, is ranked fifth in the country in terms of 'Research Power'. The School's submission included staff from all three constituent departments of the School – Architecture, Planning, and Real Estate and Construction. It was based around the research agenda and narrative set by the Oxford Institute for Sustainable Development and was made within the Unit of Assessment 31, Town and Country Planning. According to the RAE results, which were published on 18 December 2008:

- 80% of the School's research activity is rated as being of 'international' quality.
- Some 40% of the School's research activity is rated as 'internationally excellent' or 'world leading'.
- The number of Full Time Equivalent (FTE) staff submitted was the

second highest of any HEI in the Unit of Assessment (UoA31).

- When both research quality and quantity (FTE) are taken into account, Oxford Brookes is ranked as the fifth highest university for 'Research Power' in this UoA.

We were therefore very pleased that the capacity and excellence of research has been proven by the RAE results. A conscious decision was taken to develop an RAE submission based around OISD and this has paid dividends, particularly in terms of our power ranking, which reflects a broad and diverse base of research excellence. The quality of the research undertaken within OISD and the wider School is exemplified by the commitment of all our staff, and provides us with an excellent platform to strengthen our research position still further over the next five years. Indeed the results also give us a good opportunity to review our structure as we move forwards and you will see some changes to the website as we simplify and consolidate the groups within OISD in order to make our message clearer and more effective in the outside world.

We hope you enjoy this newsletter; more information on these stories and other breaking news can be found on the redesigned and updated OISD website at: www.brookes.ac.uk/schools/be/oisd/.

Professor Tim Dixon
Director of the Oxford Institute for Sustainable Development (OISD)



COUNTERPOINT: INDUSTRY EXPERT AND ACADEMIC RESPONSE

Sigma® Home Research Project



Stewart Dalgarno, Director of Product Development, Stewart Milne Group

The UK's 21 million dwellings are responsible for 27% of CO2 emissions, consume half of water supplies and produce 8% of waste. The Stewart Milne Group is at the forefront of housing innovation, utilising modern methods of construction, and is striving to address the highest standards of performance, as outlined in the Code for Sustainable Homes.

Over the last two years our Sigma® Home, the UK's first five star-rated prototype home under the Code, has been part of a research and development initiative taken forward in partnership with Oxford Brookes University. This has enabled us to explore the challenges raised, identify practical solutions and assist key stakeholders in the housing sector with the feasibility of building near zero carbon homes in an affordable fashion.

The research has provided hard evidence and occupancy feedback to improve our future design and build systems. The invaluable lessons learnt have already informed our second generation of the Sigma® 2 Build System and emerging range of Sigma Homes, which were launched at the BRE INSITE 2009 exhibition on 1 June.

The research summary brochure is freely downloadable from www.stewartmilne.com on the Sigma page.

Following the significant success of this research, the Stewart Milne Group is developing the partnership with the University on several fronts, including a major bid with other national housing developers, to take forward fabric-solutions for Code 4 housing which do not overly rely on renewable technology, and assisting the Department of Architecture with its courses in terms of providing live research projects for Masters students and donating factory material for construction projects in Year 1. We look forward to a continuing successful relationship with the University which provides mutual benefits at many levels.

COMMENT

Our relationship with the Stewart Milne Group is a strategic one which simultaneously focuses on two key aims for the University: developing the regional economy (one of the Stewart Milne Group's two housing manufacturing plants is based in Witney, a few miles down the road from OBU) and producing world-leading research. We hope to develop the relationship on numerous levels including further collaborative bids for research and consultancy, CPD and KTPs where appropriate.

The Sigma® Home project represents applied research at its best – directly influencing the development of zero carbon housing and fundamentally influencing thinking about its design at all levels – in this case, away from the 'eco-bling' approaches which focus on satisfying energy demand and towards reducing the demand in the first place, by improving the performance of the building itself and understanding user behaviour, introducing acceptable change strategies, where appropriate.

A number of highly innovative occupancy feedback techniques were used in the research including a co-heating test, a domestic thermal comfort survey and occupant video analysis (the last two being the first to be linked in the UK). OISD: Architecture is at the forefront of domestic occupancy feedback research and we feed our findings directly into our teaching at both undergraduate and postgraduate levels, so that our students are at the cutting edge of learning. Stewart Milne's willingness to assist with our teaching on several levels is exemplary and demonstrates the added value that successful industrial partnerships can bring to the University.

Dr Fionn Stevenson, Co-director of OISD: Architecture Unit

EPSRC Success

Dr Rajat Gupta, from the Department of Architecture, has been awarded a grant of £186,901 by EPSRC over three years to undertake research on 'Adapting suburban neighbourhoods for a changing climate: Identifying effective, practical and acceptable means of suburban re-design (SNACC)'. The proposed research answers the question: how can existing suburban neighbourhoods be best adapted to reduce further impacts of climate change and withstand ongoing changes? Smita Chandiwala, from the Department of Architecture, will be working on the project as a Research Fellow. The research grant is part of a 3-year collaborative project worth £651,000 with the University of the West of England, Heriot-Watt University and a range of industry partners as well as researchers from overseas. The project is funded under the EPSRC's call on Adaptation and Resilience to Climate Change.

New EPSRC Research Begins on 'Understanding Walking and Cycling' - December 2008



Tim Jones: Research Fellow in OISD: Spacial Planning Unit

Tim Jones and Alison Chisholm from OISD: SPU and the Department of Planning have begun research with partners from the Universities of Lancaster and Leeds on a three year EPSRC-funded project titled 'Understanding Walking and Cycling'.

Understanding WALKING & CYCLING

An increase in walking and cycling for short journeys in urban areas could significantly reduce traffic congestion, improve the quality of the urban environment, promote improved personal health and contribute to a reduction in carbon emissions. Yet recent reviews of research on travel behaviour have emphasised that the ways in which travel decisions are made remain poorly understood, especially in the context of complex and contingent household travel arrangements. This means that policies and interventions to promote walking and cycling are being developed without full understanding of their likely impacts across the population, which may lead to unintended effects and limited success. The research aims to develop a better understanding of how

decisions about short-distance, everyday mobility are made, and about how these decisions – especially with regard to walking and cycling – are embedded in individual and household circumstances.

Working in four study sites across England, the researchers will adopt intensive and innovative qualitative methods, linked to established quantitative techniques, to demonstrate the ways in which economic, social, cultural, environmental and perceptual factors interact to construct different personal identities of walking and cycling. Engaging a range of stakeholders throughout, the project will assess the implications that these have for travel behaviour and the development of policies and interventions designed to promote more sustainable travel. Alison Chisholm said:

"By understanding more about the personal and household factors that influence the decision of whether to walk or cycle, we hope that this project will contribute something new and valuable to efforts to boost sustainable transport and improve quality of life. This is crucial at a time when issues such as local traffic congestion, public health and climate change are high on the political agenda."

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OISD Hosts International Workshop on Social Sustainability and Urban Regeneration



OISD recently hosted a workshop involving a 'Delphi' group of urban regeneration experts from across Europe as part of the research it is conducting within the

European Investment Bank's funded EIBURS research programme. The workshop, which was held on 19 - 20 February 2009, is the first part of the final stage of the three year research programme which began in 2006, focusing on how to measure and integrate social sustainability within urban renewal projects across the EU. The main aim of the workshop was to bring together our research project participants and EIB representatives in order to share knowledge, expertise and best practice in the fields of urban regeneration, social sustainability, delivery mechanisms for regeneration and financial instruments for urban areas. Some fourteen speakers were involved in the workshop, which focused on regeneration projects in Cardiff, Rotterdam, Turin and Barcelona.

Mateu Turró, responsible for urban projects at the EIB and coordinator of the EIB-Universities Action Programme (EIBURS), participated in the workshop and stressed the importance of cooperation between researchers and practitioners in the field of sustainable communities in order to establish adequate indicators of project quality. He explained that new developments in EU policy, which support integrated urban planning and innovative methods of financing, will also require assessment methods that are still in their infancy. He also praised the work carried out by the OISD, supported by the EIB, in finding appropriate indicators for social sustainability. He suggested that:

"The workshop was very timely in providing focused discussions between the research team and regeneration experts, and the outcomes will certainly contribute to firm proposals for the practical application of social sustainability indicators."

Prof Tim Dixon (Director of OISD) said: *"This workshop presented us with a very important opportunity to tap into the talents of experts associated with some of the most important regeneration projects across Europe. Measuring*

social sustainability upstream and downstream within these projects presents tremendous challenges, but the interview work we have conducted within the EU and the workshop findings both suggest that the development of a new, generic social sustainability framework can advance our knowledge and thinking in this field. We are grateful to EIBURS for funding this work."

UPE8 – 8th International Symposium on Urban Planning and the Environment



Dr Robin Ganser, Senior lecturer in Spatial Planning

More than 210 delegates from all over the world attended UPE 8 which focused on Parallel Patterns of Urban Growth and Decline: Sustainability issues and challenges for Spatial Planning in 21st century cities and regions.

The UPE 8 Symposium explored the planning as well as the environmental consequences of the growth and shrinkage phenomena in urban and rural areas. It provided a global forum for the latest research and practice with application to local, regional and national planning, especially dealing with issues of sustainability. The results of UPE 8 are set to have a direct impact on future planning for growth and shrinkage in Rhineland-Palatinate, Germany. In this context the Ministry for the Interior and Sports - responsible for spatial planning - welcomed the opportunity to learn from UPE 8.

Dr.-Ing. Robin Ganser (Department of Planning, OBU, Spatial Planning

Research Unit) developed the conference theme, which was unanimously supported by the board of the International Urban Planning and Environment Association (IUPEA). He also provided academic and organisational advice to the local hosts at the University of Kaiserslautern. Robin joined the IUPEA board in 2004. IUPEA organises symposia jointly with local hosts around the world (bi-) annually. Planning for the next Urban Planning and Environment Symposium, to be held in China in 2010, has already started. More information can be found at: www.upe8.org.

UK-India conference on 'Urban Sustainability and Green Buildings for the 21st century'



Mr Peter Dent, Prof Ashok Lall, Dr Rajat Gupta - Q&A session between experts and attendees

The Architecture Cluster of the Oxford Institute for Sustainable Development (OISD) convened an agenda-setting UK-India conference on 'Urban Sustainability and Green Buildings for the 21st century', organised in partnership with the Commonwealth Association of Surveying and Land Economy (CASLE) and RICS India, held on 15 May 2009 at the India International Centre in Delhi. Dr Rajat Gupta, Co-Director of the Architecture cluster, chaired the conference and Peter Dent of OISD: International Land Market Group gave the keynote lecture. Smita Chandiwala of OISD: Architecture was invited as an expert speaker on the UK's Code for Sustainable Homes.

The conference had a range of plenary sessions, expert workshops, and Q&A sessions with about 24 speakers from UK and India giving presentations on the subject of cities and sustainability; carbon mapping; green building design and performance; sustainable materials and construction; environment rating systems for green buildings; strategies for green buildings-what works; post-occupancy building evaluation; and green buildings in the market-investment and values. The target audience of about 250 delegates comprised of built environment professionals, policymakers, academics and researchers.

OISD: ILM and CENDEP at UN Habitat 4th World Urban Forum, Nanjing



Dr Ramin Keivani: Reader and Research Coordinator, International Land Markets Group



Dr Andrea Colantonio: Research Fellow, International Land Markets Group

Dr Ramin Keivani and Dr Andrea Colantonio (International Land Markets Group in OISD) and David Sanderson (Centre for Development and Emergency Practice, CENDEP) were invited to present at the fourth World Urban Forum on harmonious urbanisation, in Nanjing, China, 3-6 November 2008. The World Urban

Forum is a biennial gathering - established by the UN and Habitat, attended by a wide variety of partners, ranging from non-governmental organisations, community-based organisations, urban professionals and academics to governments, local authorities and national and international associations of local governments. This year more than 8000 delegates attended the event.

Dr Keivani participated in two events in Nanjing. He was invited by the International Labour Organisation to present the results of a recent research carried out by OISD: ILM on the scope for green job creation through green refurbishment in developing countries. The second event was organised by UN-Habitat as a special session on private sector consultation with a focus on corporate responsibility towards harmonious cities.

Dr Colantonio took part in a session focusing on the linkages between sustainable development theory and urban policy hosted by Network-Association of European Researchers on Urbanisation in the South (N-AERUS). He discussed how approaches to urban social sustainability have been linked to the promotion of urban policies geared towards the promotion of social capital, citizens' participation, capacity building and, more recently, city liveability strategies.

David Sanderson was invited by the NGO Practical Action to participate in two events. In the first event he made a presentation on urban governance and facilitated the final wrap up comments as part of a half day training event on participation. In the second event he chaired a panel discussion on turning commitments to participation into reality.

Forbes Davidson, Senior Specialist, Institute for Housing and Urban Development Studies (IHS), Rotterdam, The Netherlands said: "The N-AERUS meeting at the World

Urban Forum in Nanjing was important as it is the most significant link between researchers in Europe and developing countries, and was an input into the key UN-HABITAT meeting on research. The paper presented by Dr Colantonio gave a clear view on the significance of measuring urban social sustainability, balancing the more developed areas in the environmental and economic fields. He also made a useful comparison between issues in northern and southern cities, linking the European base research to the international debate."

For additional information on the fourth World Urban Forum please visit the [World Urban Forum web site](#) and the [UN Habitat web site](#).

Or www.brookes.ac.uk/schools/be/oisd/news/UN_Habitat_4.html.

IASTE 2008 Conference

Held in the Examination Schools on Oxford's High Street on 12-15 December 2008, the IASTE conference was co-hosted with the University of California, Berkeley. It brought together 260 delegates from all over the world and from a variety of disciplinary backgrounds including architecture, anthropology, historic conservation, architectural history and planning.

The conference was opened by His Royal Highness The Duke of Gloucester, who commented on the fundamental importance of traditional architectural heritage in a time of globalisation and environmental change. The 162 papers presented dealt with a number of issues, including the regeneration of traditional architectural heritage, the use of tradition in fundamentalist ideologies and the potential of tradition as a coping mechanism in post-disaster and post-conflict rehabilitation processes.

Special events associated with the conference included an opening reception in the Norrington Room of Blackwell's Bookshop, walking tours of Historic Oxford, Modern Oxford and

Cowley Road, and a closing reception kindly hosted by the Trevor Osborne Property Group in the Malmaison Hotel in Oxford Castle.

In the News

Dr Aylin Orbasli, Reader, Department of Architecture

Dr Aylin Orbasli was invited, in an independent capacity, to make a keynote presentation to the UNESCO Workshop to discuss the Future of the World Heritage Convention. The workshop was held at the UNESCO headquarters in Paris on 25-27 February and was attended by State Party representatives, the World Heritage Convention Advisory Bodies (ICOMOS, IUCN and ICCROM) and invited observers.

The purpose of the closed workshop was to discuss the future of the World Heritage Convention as it approaches its 40th anniversary in 2012. The workshop considered the values, messages and image of the Convention, the operation of the Convention and its role in conservation of cultural and natural heritage.

Dr Orbasli's presentation on 'Conservation and Sustainability' focused on a broader definition of sustainability where cultural heritage was concerned that encompassed issues of protection while enabling communities to equitably benefit from economic development and improvement in their quality of life. The presentation highlighted the importance of cultural and social sustainability when addressing the conservation of cultural heritage assets.

John Glasson, Professor Emeritus in Environmental Planning

Each year the UK Academy of Social Sciences (AcSS) confers the award of academician (of the AcSS) to a limited number of people who have made a significant contribution to Social Science and its promotion. John Glasson, Professor Emeritus in Environmental Planning at Oxford Brookes University, was one of the 49 people to receive the

award in 2009, in recognition of his work in planning education, research and practice, and especially for his work in socio-economic impact assessment and regional planning.

Prof Glasson has also been appointed as a visiting professor in UTM (University of Technology, Malaysia) to advise on courses and research developments there. He is also a member of the 5-person Anglo-Dutch Independent Review Panel, which assesses the 'Thames Estuary 2100 Plan'— a plan designed to protect the estuary, and London, from climate change and in particular from the

possibility of storm surges, produced by the Environmental Agency.

With Prof Helen Lawton Smith, Birkbeck, John Glasson was successful in recent (2008) NESTA (National Endowment for Science, Technology and the Arts) call for proposals to write keynote chapters for new high profile publication by NESTA on 'Innovation through Adaptation'. Five submissions were chosen, including the one by John and Helen on 'Milton Park (Oxon): An example of a high-technology innovative location'. The report will be launched at a national conference in the summer 2009.

FORTHCOMING EVENTS

Date	Course/Conference Title
2009	
Thursday 16 April 10 week evening course	Certificate in Environmental Assessment: Procedures & Process
Monday 26 October	Introduction to Planning Law
Monday 2 November	Planning Law Update
Thursday 19 November Friday 20 November	Strategic environmental assessment and sustainability appraisal – a linked two day course
TBC	Introduction to the Planning Process
TBC	Screening, Scoping & ES Review under the 1999 EIA Regulations (as amended)
2010	
Start in January 2010	Certificate in Strategic Environmental Assessment by Distance Learning
January 2010 OISD Conference	Now or Never: A Low Carbon Built Environment for the 21st Century

The above are the confirmed courses to take place, however, we will have additional courses taking place that have not as yet been confirmed.

Please visit our CPD website: www.brookes.ac.uk/schools/be/planning/shortcourses.

Here you will find up-to-date information regarding our CPD programmes, publicity brochures and booking details.

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Example of Recent Outputs

Successful bids (2008-2009)

Client/Funder	Project title	OISD researcher	Total Value
EPSRC	Suburban neighbourhood adaptation for a changing climate (SNACC)	Rajat Gupta, Smita Chandiwala	£186,901.00
Corus UK	Air tightness of envelopes	Nicholas Walliman	£36,500.00
Corus UK	Pre-Engineered Interfaces Envelope	Nicholas Walliman	£28,500.00
European Coil Coating Association	Energy performance of Buildings using coil-coated metal envelopes	Chris Kendrick	£30,000.00
British Council (UKIERI)	Cityform India	Shibu Raman	£27,193.00
The Steel Construction Institute - RFCS Project	Renovation of Buildings Using Steel Technologies (ROBUST) - Phase 2	Ray Ogden	£25,000.00
Netwell Centre	The Nestling Project	Elizabeth Burton	£21,000.00
Homes and Communities Agency	The Carbon Challenge: Developing an environmental evaluation of housing performance in new communities	Fionn Stevenson	£15,380.00

Recent publications – Books

Book title	Year	Author	Publisher
Building the New Jerusalem: Architecture, housing and politics 1900-1930	2008	Mark Swenarton	IHS BRE Press
The Palgrave Dictionary of Transnational History	2009	Steve Ward	Basingstoke: Palgrave
'Sustainable Commercial Property' In Calvillo, A. (ed) Environmental Alpha: Climate Change and Institutional Investors	2009	Tim Dixon	John Wiley & Sons (USA)
Policy Options to Protect Biodiversity under Climate Change: Atlas of Biodiversity Risk	2009	Jake Piper and Elizabeth Wilson	Sofia: Pensoft

Other reports

Title	Year	Author	Publisher
A critical and comparative evaluation of approaches and policies to measure, benchmark, reduce and manage CO2 emissions from energy use in the existing building stock in cities of developed and rapidly-developing countries. Case Studies of UK, USA and India. In: World Bank Workshop on Cities and Climate Change. Washington, USA.	2009	Rajat Gupta and Smita Chandiwala	World Bank
Measures to enhance trust in Land Administration Systems and engender their proper use. In: World Bank Seminar on Land Governance in Support of the MDGs: Responding to new challenges. Washington, USA.	2009	Richard Grover	World Bank

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