



**OXFORD  
BROOKES  
UNIVERSITY**

School of the Built Environment

## INTRODUCTION & OVERVIEW



Welcome to the second issue of the OISD newsletter! As you will see from reading the newsletter, the last six months have provided OISD with some excellent opportunities to showcase and highlight the quality of the research we produce.

In fact we were delighted to see that the findings from a new HEFCE report into sustainable development in higher education in England suggest that OISD is one of the key players in sustainable development research. The report analyses 93 higher education institutions where research is carried out, and suggests that in terms of income, staff and students, OISD is amongst the most important sustainable development research institutes in England. This view is also reinforced in a Times Higher Education article which lists Brookes as influential, while noting that often sustainable development is treated patchily within institutions.

The HEFCE report highlights the challenges we face if higher education is to practise what it preaches. In OISD

and the wider School for the Built Environment, we closely link research and teaching to integrate the sustainable development agenda in everything we do, and we believe our inclusion amongst the key players reflects this, and also the strong green ethos at Brookes. For example, in addition to being home to OISD, Oxford Brookes has a strong tradition of taking environmental issues seriously. The University was recently placed in the top five most environmental universities, and received a 'Highly Commended' accolade in the 2007 Green Gown awards in recognition of its green initiatives. Brookes' good practice in this area was also referenced in the recent Universities UK report, Greening Spires.



OISD has also joined the UK Green Building Council (UKGBC). The UKGBC was launched in February 2007 to bring cohesion to the green building movement and is a campaign for a sustainable built environment. Its main task is to bring clarity, purpose and co-ordination of strategy to the sector. UKGBC is a membership organisation, consisting of businesses from across the industry, all of whom do believe the challenge of sustainability is an opportunity, not a threat. In addition to industry, UKGBC members include NGOs, academic institutions and government agencies. We were pleased to receive this testimony from Paul King,

Chief Executive of UKGBC, who said: *"I'm delighted OISD at Oxford Brookes has joined the UK Green Building Council's campaign for a sustainable built environment. Our members are increasingly drawn from right across the built environment - and the private, public and third sectors. OISD at Oxford Brookes has an enviable reputation as a key player in sustainable development research and we look forward to a very active involvement in our work to break down the barriers, whether in government policy or industry behaviour, to a more sustainable built environment."*

As further evidence of our strong consultation links with government and the education sector, we have recently produced written responses to the HEFCE Paper on a revolving green fund for campus redevelopments in the UK, and also to the ESRC/DEFRA consultation on a new centre for sustainable behaviour research. OISD is also currently working on a response to the DCLG consultation on eco-towns, which builds on the recent appearance by Dr Peter Headicar (OISD: EASP Group) on BBC South today, speaking about the Weston-on-the-Green development, and Lynne Mitchells' (OISD: WISE) invitation to input into the TCPA's Eco-towns Housing and Inclusive Design Guidance.

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

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

## GUEST COLUMNS

## COUNTERPOINT:

## Industry Expert and Academic Response

## Partnering for low carbon homes

Home Group (Home) is one of the largest Registered Social Landlords in the UK managing over 56,000 homes across the country and employing over 4,000 staff. Home also acts as a partner to the Housing Corporation building around 1,500 new homes annually.



Since April 2008, the Government has introduced a minimum mandatory requirement within the social housing sector to build all new homes to Level 3 of the Code for Sustainable Homes (CSH), which is now the accepted national standard for the sustainable design and construction of new homes.

Introduction of the new code has presented a complex challenge to our in-house team of Architects, incorporating the 9 categories and 34 sub-categories of the CSH to enable user friendly appraisal at design stage and robust financial modelling to achieve minimum Level 3. The 'Get REAL (Renewable, Environmentally Aware, Low-carbon) project team was formed within Home 12 months ago and tasked with developing a Sustainability Appraisal Tool (SAT) to support Home's internal design team.

Working with Dr Rajat Gupta and Smita Chandiwala from OISD: Architecture Unit, has allowed the development, validation and applications of a user-friendly and robust SAT toolkit which has been received favourably by our design teams.

Having successfully completed the first phase of this collaboration, we expect SAT to become a key tool in appraising

designs against the CSH within Home. We will be moving towards a second stage with Dr Rajat Gupta to implement a roll-out of this toolkit across the social and private housing sector. The collaboration with OISD: Architecture Unit and Dr Rajat Gupta has proved very effective, innovative and successful, and we look forward to developing and continuing this industry-academia Partnership into a low carbon future.

On behalf of the Get REAL team.



Farooq Mohammed MBA, MCMI, MBIFM, ICIQB  
Head of Property Services  
Property & Business Development

The collaboration with Home Group has strengthened our belief that applied and close-to-industry research undertaken in a rigorous academic environment can have a huge impact on practice. In this case our user-friendly SAT toolkit has been rapidly implemented in Home, and a range of possibilities for the next-stage roll-out of this toolkit to the wider house-building sector are being explored.

This partnership clearly builds on OISD: Architecture's capability to develop innovative and research-based solutions in achieving a low carbon future. The Unit has built an international reputation for carbon-counting research through the development of its award-winning DECoRuM model ([www.decorum-model.org.uk](http://www.decorum-model.org.uk)) which is able to cost,

count and reduce domestic carbon emissions on an urban scale. Principles of DECoRuM modelling are applied across different sectors in the UK and USA.

Dr Rajat Gupta

## COMMENT: Moving towards a low carbon future

Moving rapidly towards a low carbon built environment is necessary to meet Government targets and avoid hazardous climate change. The OISD Architecture Unit holds leading-edge expertise in developing innovative solutions for carbon-counting and carbon-reduction on a building and neighbourhood level. Following on from the successful development and commercial application of the GIS-based DECoRuM model as a carbon reduction planning toolkit, funding has been secured over 3.5 years from EPSRC and Ice Energy to use DECoRuM in assessing the potential of heat pumps to provide low-carbon domestic heating and cooling in a changing climate. An extensive year-long monitoring of how people use heat pumps in their homes is being undertaken.

Expanding the carbon-counting research portfolio, principles of DECoRuM modelling are being applied in developing carbon maps of University campus buildings of Oxford Brookes (UK) and Arizona State University (USA) to maximise carbon reductions in higher education. This follows on from a successful project in developing evidence-based guidance on sustainable and low carbon construction for UK's Further Education Sector, using lessons learnt from post-occupancy evaluations of sustainable colleges. It is vital that these research-based approaches and findings are integrated into contemporary planning, building design and construction in our move towards a low carbon future.

Dr Rajat Gupta ([rgupta@brookes.ac.uk](mailto:rgupta@brookes.ac.uk)) from Architecture Unit in Architecture, Culture and Technology Group

## BRIEFINGS

### OISD Conference asks, can the built environment change to survive?

In 2050, when we look back on the first decade of the 21st century as the time the world woke up to climate change, where will the finger of blame lie for our slow response?

Certainly, there will have been no shortages of warnings. On 15 January 2008, **Change to Survive: Creating a 21st Century Sustainable Built Environment** not only highlighted the research of OISD, but also the seriousness of the problem. Is the UK ready and willing to make the necessary transition to sustainable economic growth? Dr David Vincent, Director of Policy at the Carbon Trust, said he doubted it – how will we meet the massive cut in emissions needed – equivalent to a cut in household energy use to a tenth of current levels – to meet 2050 carbon reduction targets?, he asked.

If we are to survive what is generally agreed to be the greatest challenge of our time, then it is to academic and industry/public sector partnerships we have to turn for solutions. The conference attracted over 80 delegates, including property developers Barratt Homes and John Laing, local authority planners and politicians, property investors, architects and others to hear what academics from Oxford Brookes University have to offer.

Measuring the energy efficiency of the existing building stock is an essential first step. Dr Rajat Gupta, co-director of the Architecture Unit at OISD, has developed the award winning DecoRuM model for measuring carbon emissions on a large scale. This enables planners to measure the likely carbon emissions of whole neighbourhoods. He is now leading an industry-funded project to develop a toolkit for the UK's Code for



Sustainable Homes. Elizabeth Wilson is currently working on a EU Framework6 project with partners across Europe which will influence future policy. Her research focuses on ways of adapting to and mitigating the effects of climate change.

Professor Georgia Butina Watson has worked extensively on the concept of identity and what makes a place, summarised in her recent book *Identity by Design*. She identified what she calls 'the four pillars of sustainability': permeability, variety, legibility and resilience. This is being put into practice, for example, at the Thames Gateway, where researchers have recently evaluated development proposals in Hackney, with regard to both sustainability and urban design.

OISD (in partnership with Brookes' Business School) is also developing the concept of Corporate Social Responsibility (CSR) through an Oxford Brookes University network aimed at business. It is working on developing the sustainable use of materials in the building industry and new methods of construction. It can also provide the skills to analyse existing buildings, showing how green credentials can be improved. The conference heard that social sustainability is as important as environmental sustainability, and Professor Elizabeth Burton outlined research into the link between well-being and the design of neighbourhoods. Research has disproved the notion that older people like living in the new high density urban neighbourhoods being created in city centres, she said. In another stream of research, Dr Carol Dair has run the

Sustainable Lifestyles Plus project, seeking to establish whether sustainable development can bring about a change in behaviour in residents. For example, if better provision is made for cycling, will people be more likely to give up their cars?

Commenting on the success of the conference and South East Excellence's key sponsorship of the event, Pat Tempany, Head of Urban Renaissance and Housing, SEEDA said:

*"South East Excellence was pleased to support the OISD 'Change to Survive' event on the 15th January 2008. We were particularly encouraged by the level of attendance and the range of public and private sector participants. It is of paramount importance that different organisations and sectors work together to address climate change and work towards creating a sustainable built environment. This event was a step towards achieving that, and gave us all food for thought about the need to apply sustainability principles across all aspects of our business."*

Summing up, Tim Dixon said University researchers were working closely with industry and government on a range of sustainability projects.

*"Our mission is to really make a difference, and contribute to a more sustainable environment and better quality of life. We face tremendous challenges, but we hope by building on our strong research partnerships with industry and the public sector that we will have a real impact on the outside world. As Mahatma Gandhi said in a different context, 'We must be the change we wish to see.'"*

Contact: Prof. Tim Dixon  
(tdixon@brookes.ac.uk)  
Director of the OISD

## OBU International Visiting Fellowship Scheme

The Impacts Assessment Unit and Dr Anastásios Perdicóúlis (Assistant Professor, University of Tras-os-Montes e Alto Douro, Portugal) have been successful in securing funding from the Oxford Brookes International



Visiting Fellowship scheme. The fellowship will enable Dr Perdicóúlis to visit Oxford Brookes during the summer of 2009 for an extended study period. During this time he will work with colleagues in the Impacts assessment Unit to further develop methodological research in the field of causality analysis in impact assessment, in addition to pursuing work that seeks to enhance the integration of Environmental Impact Assessment / Environment Management Systems.

Contact: Dr. Graham Wood  
([gjwood@brookes.ac.uk](mailto:gjwood@brookes.ac.uk))  
Environmental Assessment and Spatial Planning Group

## Rural Development and Spatial Planning Challenges

Globalisation, economic restructuring, and demographic changes including selective migration, household fissioning and ageing, have all influenced rural development over the recent years. This goes hand in hand with the decline in the importance of

agriculture and other sectors of the traditional rural economy. While the above trends are almost universal, the rural context and the individual consequences are diverse: some rural areas suffer from decline and loss of population - others are facing huge spatial development pressures.



Sponsored by the British Academy of Sciences, Dr.-Ing. Robin Ganser, OISD: Environmental Assessment and Spatial Planning Group, and Prof. Suocheng Dong, Chinese Academy of Sciences have jointly started to research the above rural spatial planning challenges. They will draw from experiences in England and in China specifically focusing on the challenge of safeguarding minimum standards in terms of quantity and quality provision of infrastructure and services in rural areas as well as rural development which focuses on existing settlements and 'eco-villages' with a view to preserve built heritage as well as the open countryside.

A first phase of this cooperation saw Prof. Dong visiting Oxford Brookes University in March 2008. Both researchers used the Breakfast Seminar as a platform to discuss research-related ideas with colleagues mainly from the School of the Built Environment. This research visit was also integrated in Dr. Ganser's undergraduate teaching on 'Rural Development and Management'. In this context the students enjoyed the opportunity to learn about current rural

development research issues and to discuss recent developments in China with our guest. The further research programme foresees a visit of Dr. Ganser and fellow English scholars to China.

This rural development research extends a strong track record of the Department of Planning in this topic area. Two names in particular have to be mentioned in this context: for several decades Profs. Martin Elson and John Glasson have been playing a leading role in rural planning research in the UK.

Contact: Dr.-Ing. Robin Ganser  
([ganser@brookes.ac.uk](mailto:ganser@brookes.ac.uk)) from  
Environmental Assessment and Spatial Planning Group

## UK Government gets wise to OISD research

OISD continues to lead the way in sustainable living as recent government policy quotes Brookes academics and their ground-breaking work in urban design.

Findings produced by the WISE (Wellbeing in Sustainable Environments) Research Unit have informed two recent UK government policy documents. The National Strategy for Housing in an Ageing Society: Lifetime Homes, Lifetime Neighbourhoods, produced by the Department for Communities and Local Government last month, quotes a section from Mitchell, Burton and Raman's 2004 publication Neighbourhoods for Life: a checklist of recommendations for designing dementia-friendly outdoor environments. In November 2007, the Welsh Assembly Government referenced Burton and Mitchell's 2006 book Inclusive Urban Design: Streets for Life (Architectural Press) in their Final Interim Guidance Document: Planning and Inclusive Design (Access Statements).



A three year research project funded by the Engineering and Physical Sciences Research Council (EPSRC) on designing dementia-friendly outdoor environments, inspired Professor Elizabeth Burton and Lynne Mitchell (co-founders of WISE) to develop the concept of Neighbourhoods for Life. These are neighbourhoods which people find easy to access, find their way around, use and enjoy as they grow older.

Professor Burton, Director of WISE, said: *“It is important to us that all our research is of use to policy and practice so we are very pleased that our Neighbourhoods for Life concept is having such an impact.”*

Contact: Lynne Mitchell ([lmitchell@brookes.ac.uk](mailto:lmitchell@brookes.ac.uk)) from Sustainable Urban Environments Group

### Evaluating regeneration through conservation

In 1999 Townscape and Heritage Research Unit (THRU) team in the then School of Planning, led by Dr Alan Reeve and Philip Grover from Brookes and Dr Robert Shipley from the University of Waterloo in Canada, were awarded a £400,000 contract to undertake a longitudinal evaluation of the Townscape Heritage Initiative (THI) programme, by the Heritage Lottery Fund. The aim of the THI is to regenerate socially and physically



West Wemyss 2000

deprived built environments of conservation value by investing in the restoration of the built heritage. The underlying philosophy in the programme is that restoring the physical fabric can have a catalytic effect – leveraging in further investment, bringing disused buildings back into use, and increasing local confidence and the image of deprived areas. The THI programme has supported some 140 projects throughout the UK over the last eight years, and has been funded to the tune of some £100 million.

The aim of the research has been to evaluate the regeneration effects of the programme, and to determine its effectiveness through a close analysis of 17 projects as a representative sample of the programme as a whole. These cases range from large, urban quarters, such as the Merchant City in Glasgow; to small hamlets, such as West Wemyss on the east coast of Scotland.

The interim conclusions will be published early in 2008; but it is clear from the research so far that restoring the heritage fabric can have profoundly positive consequences in some places, but make very little differences in others. This will be fleshed out over the next few months when the key variables that make the difference between these two outcomes are examined: the nature of the built fabric; the commitment of the conservation



West Wemyss 2004

team; the scale of funding in relation to the scale of the problem; the economic context; the knowledge and values of the actors involved, or pure luck. The team will be publishing an executive summary of the work on the Heritage Lottery Fund website later in the year, for those who are interested in following this work up.

Contact: Dr. Alan Reeve ([arreeve@brookes.ac.uk](mailto:arreeve@brookes.ac.uk)) from Urban Design Group

### Two New Research Reports Completed for RICS

Researchers in the International Land Markets Group have completed two major funded research projects for the Royal Institution of Chartered Surveyors (RICS). These are:

- *A Green Profession: RICS Members and the Sustainability Agenda* (carried out in conjunction with University of Melbourne and Georgia State University with support from King Sturge); and,
- *Why China, Why Now? The role of property markets in supporting economic and social development in China*

The Green Profession research (led by Prof. Tim Dixon, Dr Andrea Colantonio and David Shiers) suggests that property professionals consider sustainability highly relevant in their daily professional work. Legal compliance, ethical motivations and responsibility to protect the

environment are the most important drivers in maintaining engagement, based on a major survey of 47 000 RICS members, with telephone interviews and case study work across three main global regions (UK and continental Europe, America and the rest of the world).

Stephen Brown, Head of Research at RICS said:



*“With issues of sustainability and sustainable development becoming an increasingly important factor in the global political and business agendas, this report is an invaluable document for the industry and will contribute towards our aspirations of creating a sustainable future. Committed RICS faculties in the area of planning and development, facilities management, environment, minerals and waste management and rural and project management around the world can become key leaders and essential players in the battle against climate change within the built environment worldwide.”*

For further details see the project website at the OISD website.



In the Why China Why Now? report, funded by RICS and Shui On Land, Dr Albert Cao and Dr Ramin Keivani explore the degree to which China’s property markets are ready, both to take their place on the world stage as part of the global investment market, and to play their role in supporting the development of the Chinese economy and society. In the foreword to the report Mr See Lian. Ong (Chairman of RICS Asia Pacific) writes:

*“This report by Oxford Brookes University provides a clear analysis of the processes driving property markets in China to date and puts forward a clear set of recommendations as to how this can be sustained, supporting the harmonious economic and social development of China. I welcome and commend this report and I am sure that the recommendations that it puts forward can be of great value in supporting the future development of the Chinese economy and society.”*

Further details of the report may be found on the RICS website (<http://www.rics.org>).

Contact: Prof. Tim Dixon ([tdixon@brookes.ac.uk](mailto:tdixon@brookes.ac.uk)), (A Green Profession) and Dr. Albert Cao ([aco@brookes.ac.uk](mailto:aco@brookes.ac.uk)) from International Land Markets Group, (Why China, Why Now?)

## Forthcoming Events

Date	Course/Conference Title
<b>2008</b>	
Two day course Tuesday 20 & Wednesday 21 May	Strategic Environmental Assessment & Sustainability Appraisal
Thursday 22 May	Appropriate Assessment of Plans
Monday 13 October	Introduction to Planning Law
Monday 10 November	Planning Law Update
Three days conference Friday 12 to Sunday 15 December	IASTE Conference: the 11th Conference of International Association for the Study of Traditional Environments (IASTE): 'Interrogating Tradition: Epistemologies, Fundamentalisms, Regeneration and Practices'
TBC	Introduction to the Planning Process
TBC	Screening, Scoping and ES Review Under the 1999 Environmental Impact Assessment Regulations
<b>2009</b>	
Will start in January 2009	Certificate in Strategic Environmental Assessment by Distance Learning: 15 days work of a CD and Web-based distance-learning certificate course on SEA run by Dr Riki Therivel. It could count for CPD (Continuing Professional Development) credits and 20 CATS at M Level credits, for those who want an academic qualification.

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: <http://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.

Contact: Karen Hughes, Short Course Co-ordinator, [khughes@brookes.ac.uk](mailto:khughes@brookes.ac.uk) or Tel: 01865 483560 Fax: 01865 483406

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## Example of Recent Outputs

### Successful bids (2007-2008)

Client/Funder	Project title	OISD researcher	Total Value
ESRC	Infrastructure and spatial planning (ESRC Fellowship)	Tim Marshall	£213,690.00
EPSRC	Walking and cycling: for sustainable and healthy communities	Tim Jones, Shibu Raman	£200,197.00
Living Steel	Building physics analysis, monitoring and construction audits of Living Steel demonstration projects	Christopher Kendrick, Ray Ogden	£155,000.00
British Energy	Socio-Economic Impacts of proposed new nuclear build in the UK	John Glasson, with Andrew Chadwick and Bridget Durning	£103,100.00
Berkeley Group Holdings PLC/ John Comerford	Support for Climate Change Awareness Programme	Peter Dent	£60,000.00
Stewart Milne Group	Post Occupancy Evaluation of Sigma Home	Fionn Stevenson, Hom Rijal	£27,500.00
Home Group	Development of a sustainability appraisal tool	Rajat Gupta, Smita Chandiwala	£25,500.00

### Recent publications – Books

Book title	Year	Author	Publisher
Regional Planning	2007	John Glasson and Tim Marshall	Routledge
Architectural Conservation: Principles and Practice	2007	Aylin Orbasli	Wiley-Blackwell
Your Dissertation in Education	2008	Nicholas Walliman and Scott Bucker	SAGE Study Skills
Standards and Thresholds for Impact Assessment	2008	Michael Schmidt, John Glasson, Lars Emmelin and Hendrike Helbron	Springer
Professional knowledge development for sustainable communities	2008	Bridget Durning, John Glasson, Juliet. Carpenter and Georgia Butina Watson	RTPI/ASC

### Other reports

Title	Year	Author	Publisher
How to conserve energy in further education colleges	2007	Rajat Gupta and Smita Chandiwala	Seacourt Publishers
A case study of an Academy building: City of London Academy	2007	Rajat Gupta and Smita Chandiwala	Seacourt Publishers
The Energy Performance of Buildings Directive and Commercial Property Investment: A Situation Review	2007	Tim Dixon, Claire Roberts and Miles Keeping (King Sturge)	Investment Property Forum Research Programme

## Primary Contact

### Director

Prof. Tim Dixon                      T: 01865 484202                      E: [tdixon@brookes.ac.uk](mailto:tdixon@brookes.ac.uk)

### Research Manager

Dr. Bridget Durning                      T: 01865 483430                      E: [bdurning@brookes.ac.uk](mailto:bdurning@brookes.ac.uk)

### HEIF3 Support Team and Newsletter Co-ordinators

Dr. Bousmaha Baiche                      T: 01865 483279                      E: [bbaiche@brookes.ac.uk](mailto:bbaiche@brookes.ac.uk)

Dr. Noriko Otsuka                      T: 01865 483675                      E: [notesuka@brookes.ac.uk](mailto:notesuka@brookes.ac.uk)

**Website:** <http://www.brookes.ac.uk/schools/be/oisd/>

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