

## **City History and Multi-scale Spatial Master-planning International Research Network**

China is urbanising at an unprecedented rate and this brings both opportunities and risks. On the one hand there is an opportunity to create new forms of sustainable urban development for a significant proportion of the world's population, to increase prosperity and contribution to the global economy, and to do so with the benefit of the latest advances in understanding and technology. On the other hand, if the wrong decisions are made the consequences in social, economic, political and environmental terms will be long term and irreversible. The UK and Chinese Governments through the UK-China Sustainable Development Dialogue, have agreed at the highest level to collaborate on research and knowledge exchange to help ensure that the way we develop our cities will become truly sustainable. This network is evidence of the UK government's commitment to this collaboration.

The network forms one of a small group of related networks funded by the UK's Engineering and Physical Sciences Research Council and inspired by the Dongtan Eco-city development north of Shanghai. It addresses two related topics: the historical development of Chinese and European cities, and spatial masterplanning at scales ranging from the local place to the whole metropolitan area. These topics tend to be researched by different groups of academics, however we believe there is much to be gained by bringing fields together since the lessons of history have much to bring to current design, planning and policy formation so far as urbanisation is concerned. Equally, there is benefit in bridging between western and Asian history and experience of industrialisation and urban expansion. A central focus for this network will be to investigate the way that urban spatial structure relates to social cultures. At times of rapid change it is often the heritage of social culture that is lost. This aspect of planning is currently seen to be a central to the creation of sustainable communities and is one where the benefit of cross cultural comparison in research is clear. Here we will investigate the use of spatial analysis and modelling methodologies to allow a common basis for cross cultural and historical comparison. In this way we will investigate the application of the latest analytic technologies in urban design, planning and policy formation.

We have brought together an international research network comprising all the leading UK research universities in this field with their leading counterparts in China, including the main Chinese professional and coordinating organisations, to discuss common interests and formulate proposals for Anglo-Chinese collaborative research and academic exchange. The network will complement and build upon other related initiatives rather than duplicate these, and is open to new entrants. We will include international researchers from Australia and the USA to ensure that we draw on relevant expertise wherever in the world that lies, and that our impact is global. The network will operate through a programme of workshops and exchange visits over the next two years with the following main objectives:

- To explore the technologies available to assist the spatial planning of large scale urbanisation, in particular the relationship between urban design and planning at a hierarchy of scales from the local place to the whole city;
- To explore the interactions between different disciplinary domains in the context of urban sustainability, and in particular to integrate different disciplines (historical, design, planning) through the framework of spatial structure and analysis;
- To find models for sustainable urban development in suburban areas;
- Building an international research community around spatial masterplanning, urban historical studies and its relation to the propagation of sustainable urban cultures;
- Detailed discussion of the research challenges and opportunities that arise as a result of the construction of Dongtan and in the broader context of urban sustainability;
- Identifying future research projects and methods of collaboration; The submission of projects for EPSRC and Chinese funding;
- To learn from Chinese experience how best to relate academia and municipal planning practice.

	Organisation	Contact	Expertise and Contribution
Chinese universities	Tsinghua University, Beijing	Prof. ZHU Wenyi Dean of Architecture, Prof. MAO Qizhi,	Research project on sustainable transportation and spatial design sponsored by BP and China Government. A long and significant record of international collaboration including with MIT. Will host a workshop.
	Tongji University, Shanghai	Prof. ZHENG Shiling Prof. CHEN Yi	Closely involved in the plan for Shanghai, the Dongtan development and in plans for the 2010 expo. Will host a workshop.
	South East University, Nanjing	Prof. WANG Jianguo Dean of Architecture	A leading research group with expertise in spatial morphology and ecological formation of city.
	Tianjin University	Prof. WANG Qiheng  Prof. LIU Tongtong	Prof. Wang is the foremost expert on Chinese traditional conceptions of space and landscape as these have affected the Chinese city. Tianjin is the world leading centre for research into Chinese urban history.
	Peking University	Prof. LU Bing, Head of Department of Urban and Regional Planning	Expert in spatial planning and computing. Strong linkages to Tokyo; Current research projects on Sustainable Development of Asian Cities in cooperation with Tokyo University, and the Relationship Between City Spatial Morphology and Density funded by NSFC.
	Chongqing University	Prof. ZHANG Xinguo, Dean of Architecture Assoc. Prof. JIANG Jia Long	Chongqing University has specific expertise in the conservation of architectural heritage, as well as in landscape. It is closely involved in the planning the expansion of the city following the three gorges dam.
	The University of Hong Kong	Prof. YE Arlen Min	Expert in the spatial analysis of high density and multi level architectural spaces. Also researches Chinese traditional housing and urban forms.
	The Polytechnic University of Hong Kong	Assoc. Prof. JIANG Bin, Land Surveying & Geo Information	Expert in spatial analysis and Geographic Information Science
UK universities	UCL, Bartlett, Graduate Studies	Prof. Alan PENN Prof. Bill HILLIER Dr Ruth CONROY-DALTON	Asialink project linking to Tianjin University and Chongqing University. Links also to Tsinghua and Tongji universities. Developers of the 'space syntax' methods of analysis in use by a number of Chinese research groups.
	UCL, Bartlett, Planning	Prof. Sir Peter HALL	Maintains strong links through a concordat with Tongji University and with Tsinghua. Consulted on Dongtan.
	LSE, Cities Programme	Prof. Robert TAVERNOR	The Cities Programme at LSE investigates the relations between social, economic and design context of urban development and city history.
	Cardiff University, City and Regional Planning	Prof. Chris WEBSTER	Current research into the history and trajectory of Chinese and European models of urban governance. This is related to an ESRC/DFID project on Chinese urban poverty and property rights. The Urban China Research Centre at Cardiff, is linked with an international Urban China network and to the China urban planning network organised through MIT.
	University of Birmingham	Prof Jeremy WHITEHAND	The leading researcher in Urban Morphology in the UK, especially in its relation to historical analysis of city growth patterns.
	University of Nottingham	Prof Brian FORD	Nottingham have extensive and longterm collaborations with China, including a dedicated university campus at Ningbo.
	University of Cambridge	Prof. Marcial ECHENIQUE	Has specific collaborations with Tsinghua and MIT and a long history of consultancy in urban economic modelling of Chinese city regions.
International Unis.	UNSW, Sydney, Australia	Prof. Peter MURPHY Dean, Built Environment and Planning, Prof. Bill RANDOLF, Director, City Futures Research Centre	Research expertise is in social equity implications of economic restructuring, including cost recovery pricing of urban services and privatized infrastructure provision; growth and change in peri-metropolitan and non-metropolitan amenity regions.
	University of Melbourne, Australia	Dr. ZHU Jianfei	Author of: <i>Chinese Spatial Strategies: Imperial Beijing</i> , Routledge, 2004. The seminal analysis of the spatial history of Imperial Beijing.
	MIT, Boston, USA	Prof. Bill MITCHELL, Dean of Architecture, Prof. Dennis FRENCHMAN, Prof. CHANG Yung-ho	The MIT China network is longstanding and highly successful – a special relationship is supported with Tsinghua and this provides regular exchange and collaboration.
Stakeholders	Chongming County	Dr Li Zhihong	The municipal authority within which the Dongtan development is located
	Shanghai Urban Planning Bureau	Dr WU Jiang	The Planning Authority responsible for the Shanghai plan and Dongtan
	China Academy of Urban Planning and Design	Dr. YANG Baojun, Chief Planner	A key stakeholder group for urban design and planning research and collaboration.
	Architectural Society of China	Prof. Chang Zhou, Secretary	Established in 1953 this is the leading architectural membership society and brings together all institutions – it will play a key role in promoting the network.
	China Urban Planning Society	Dr. SHI Nan, Secretary	A key stakeholder group for urban planning.
	ARUP	ZHANG Yuan-Yuan (Shanghai) Jeremy WATSON (London) Raymond YAU (Hong Kong) Richard HOUGH (Australia)	The main consulting masterplanners and engineers responsible for the Dongtan development and for numerous other building and infrastructure projects within China.
	Space Syntax Ltd.	Alain CHIARADIA, Tim TONOR	UCL technology transfer spin-out and SME specialising in spatial masterplanning using space syntax analysis techniques.

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