#### Curriculum Vitae (Feb 2016)

**KOEN STEEMERS** BSc BArch MPhil PhD RIBA ARB Professorial Fellow of Jesus College Cambridge The Martin Centre for Architectural and Urban Studies Department of Architecture, University of Cambridge 1 Scroope Terrace, Cambridge CB2 1PX, UK

#### Profile

An architectural and built environment academic with an international profile, Professor Steemers was recently named in BD's inaugural list of the "50 most influential people in UK sustainability", including others such as James Lovelock and Jonathan Porrit. He studied Architecture at the University of Bath and subsequently joined Energy Conscious Design (now ECD Partnership, London), a pioneering architectural practice. His PhD work at the University of Cambridge developed new insights in to the links between urban design and energy consumption which generated a series of funded research projects and drew the attention of academics and practitioners. He was invited to act as consultant, notably to the Richard Rogers Partnership on numerous projects, and became a Director of Cambridge Architectural Research Limited in 1991 – a Department spin-off company and now a well-established "Cambridge phenomenon" company – and of architectural practice CH+W Design in 2015.

Koen was appointed Head of Department in 2008 after five years as Director of the Martin Centre and Head of Research for the Department. During this time he led the resurgence of research in the department that resulted in a trebling of funding turnover and the top research quality ranking out of all 'Architecture and the Built Environment' departments in the UK (Research Assessment Exercise of 2008). Under his Headship, this record was maintained in the 2014 review and complemented by the Department being ranked the leading place in the UK to study architecture.

He is leading his own team undertaking architectural research into human behavior, health and well-being, and heads a team of 14 researcher in the 'Behaviour and Building Performance' (BBP) Centre. He coordinates the MPhil course in Architecture and Urban Studies, regularly supervises ten PhD students and has produced 200 publications, including 10 books, with over 4000 citations.

Koen's expertise is based on being a registered architect (has practiced in the UK and Germany, and is a Director of CH+W Design); environmental design consultant (as Director of CAR Ltd); consultant to UN-HABITAT; President of PLEA (Passive and Low Energy Architecture international association); Fellow of Jesus College, Cambridge; Guest Professor at Chongqing University, China and at Kyung Hee University, Korea. He has extensive research assessment experience, including two stints on the UK Government's research reviews (RAE2008 and REF2014) and as deputy Chair of the Hong Kong Research Assessment Panel 2014. He is currently on the UK Green Building Council "Healthy Homes" task group.

#### Qualifications

1992	Ph.D. Department of Architecture, University of Cambridge
1990	RIBA and ARB professional accreditation
1988	M.Phil. in Environmental Design in Architecture, Department of Architecture, University of Cambridge
1986.	B.Arch. Department of Architecture, University of Bath
1984	B.Sc. in General Architectural Studies, Department of Architecture, University of Bath

#### **Professional history**

Jan 15	Director of architecture practice CH+W Design,	Cambridge

- Dec 05 ... Professor of Sustainable Design, Department of Architecture, University of Cambridge
- Oct 03 05 Reader in Environmental Design, Department of Architecture, University of Cambridge
- Oct 00 03 University Senior Lecturer, Department of Architecture, University of Cambridge
- Oct 95 00 University Lecturer, Department of Architecture, University of Cambridge
- Oct 93 95 Senior Research Associate, Department of Architecture, University of Cambridge
- Oct 92 93 Research Associate (0.6 pt time), Department of Architecture, University of Cambridge
- Oct 91 93 Senior Lecturer (0.4 pt time), Dept. of Architecture and Civil Engineering, South Bank University, London
- Oct 91 15 Director of Cambridge Architectural Research Limited, Cambridge
- Sep 88 90 Research Assistant (0.6 pt time), Department of Architecture, University of Cambridge
- Sep 88 91 Architect (0.4 pt time) at ECD Architects, London
- Aug 86 87
   Architect at Architekten Borchers Metzner Kramar in Darmstadt, Germany
- Apr-Sept 84 Architectural Assistant at ECD Architects, London
- Apr-Sept 82 Architectural Assistant at Ralph Lebens Associates, London

# Publications

Books:

- K. Steemers and N. Baker, 2017, Healthy Homes: Designing with light and air for sustainability and wellbeing, RIBA Publishing, London (In preparation: Book proposal has been accepted)
- R. Yao, K. Steemers and B Li, *Sustainable Urban and Architectural Design*, China Construction Industry Publications, Bilingual edition in English and Chinese, 279 pages, 2006. (ISBN: 7-112-08099-1)
- R. Yao, B. Li and K. Steemers (ed.), 2006, Asia-European Sustainable Urban Development, selected proceedings of International Conference on Asia-European Sustainable Urban Development, Chongqing, China, April 4-6 2006, Bilingual edition in English and Chinese, 2006. (ISBN: 0-903248-03-4)
- K. Steemers and M. A. Steane (ed.), *Environmental Diversity in Architecture*, Spon Press, London, 231 pages, Sept 2004 (ISBN 0-415-31478-X). (reviewed in 'Architectural Review' by Max Fordham ("...wonderful...the book is so important...should have a place at every practitioners elbow."), as well as in 'Building Research and Information Jnl.' by Professor Tzonis (Delft) and Professor Cole (Vancouver), 'Architectural Science Review' and 'Ecotech').
- R. Yao, B. Li and K. Steemers, *Sustainable Built Environment and Construction*, Chongqing University, in English and Chinese, 196 pages, 2003. (ISBN 0-903248-03-4)
- D. Hawkes, J. McDonald and K. Steemers, *The Selective Environment: An approach to environmentally responsive architecture*, Spon Press, London, 164 pages, 2002 (ISBN 0-419-23530-2). (Reviewed in the 'Architectural Review', vol. CCXII no. 1270, p 97, Dec 2002 "this book is a success")
- N. Baker and K. Steemers, *Daylight Design of Buildings*, James + James Science Publishers, London, 250 pages, 2002 (ISBN 1-873936-88-5). (Reviewed in 'Architectural Science Review', vol. 46 no. 2, pp 213-214, June 2003 "a clearly presented exposition... by two experts in the field")
- M. Barker, T. Blewett-Silcock, K. Eising, M. Gutschner, E. Kjellsson, E. Lutter, S. Nowak, K. Steemers and G. Toldi, *La Citta del Sole: Guida al fotovoltaico nelle aree urbane*, ETA, Italy, 55 pages, 2001 (ISBN 88-900442-8-4) (also printed in English as *Solar Electri-City Guide*, Insitut Cerda, Barcelona).
- K. Steemers and S. Yannas (eds.), Architecture + City + Environment, (Proceedings of the 17th International Passive and Low Energy Architecture Conference, Cambridge 2-5 July), (Foreword by K. Steemers), James + James Science Publishers, London, 852 pages, 2000 (ISBN 1-902916-16-6).
- N. Baker and K. Steemers, *Energy and Environment in Architecture: A Technical Design Guide*, E&FN Spon, London, 224 pages, 2000 (ISBN 0-419-22770-9).
- N. Baker, A. Fanchiotti and K. Steemers (eds.), *Daylighting in Architecture*, James + James Science Publishers, London, 380 pages, 1993 (reprinted in 1999) (ISBN 1-873936-21-4).

# Journal articles:

- A. Hargreaves, V. Cheng, S. Deshmukh, M. Leach, K. Steemers (2016), 'Forecasting how residential urban form affects the regional carbon savings and costs of retrofitting and decentralized energy supply', *Applied Energy*. <u>Accepted</u>.
- J. Anderson, K. Ruggeri, K. Steemers and F. Huppert, (2016/7), 'Urban public space and population well-being: findings from a low-cost community-led intervention'. *Environment and Behaviour*. Sage. <u>Submitted.</u>
- J. Anderson, K. Ruggeri, K. Steemers and F. Huppert, (2016/7), 'A well-being science of city urban design: mixed findings from a multiple prize-winning neighbourhood'. <u>In preparation (90% written).</u>
- G.Y. Yun, J.H. Lee, K. Steemers, (2016/7), 'Extending the applicability of the adaptive comfort model to the control of air-conditioning systems'. In preparation (90% written).
- V. Lee and K. Steemers, (2016/7), 'Overheating in buildings: a new assessment method accounting for exposure duration'. *International Journal of Biometeorology*. <u>In preparation (90% written)</u>.
- L. Gichuyia and K. Steemers, (2016), 'Overheating risk: Assessment method for building design and use', Int. Jnl. of Building Research and Information. In preparation (abstract accepted)
- V. Lee and K. Steemers, (2016), 'Thermal comfort and heat stress: Exposure duration in energy refurbishment for future climate scenarios'. *Int. Jnl. of Building Research and Innovation*. <u>In preparation (abstract accepted)</u>.
- T. Sharmin, K. Steemers, and A. Matzarakis, (2015), 'Analysis of micro-climatic conditions and outdoor thermal comfort perceptions in the tropical megacity', *Building and Environment*, Vol 94, December 2015, Pages 734–750.
- K. Steemers, (2015), 'Architecture for well-being and health', *Daylight & Architecture*, Spring 2015, Issue 23, pp 6-27. (also available online: <u>http://thedaylightsite.com/architecture-for-well-being-and-health/</u>).
- P Armitage, D Godoy-Shimizu, K Steemers and T Chenvidyakarn, (2014), 'Using Energy Display Certificates to Quantify Public Sector Office Energy Consumption', *Int. Jnl. of Building Research and Information*, pp1-19, DOI: 10.1080/09613218.2014.975416
- J.J. Sarralde, D.J. Quinn, D. Wiesmann, K. Steemers, (2014), 'Solar Energy and Urban Morphology: Scenarios for Increasing the Renewable Energy Potential of Neighbourhoods in London', *Renewable Energy*, Volume 73, January

2015, Pages 10–17 (available online <u>http://www.sciencedirect.com/science/article/pii/S0960148114003681 from</u> 7/7/2014).

- H. Ben and K. Steemers (2014), 'Energy retrofit and occupant behaviour in protected housing: A case study of the Brunswick Centre in London', *Energy and Buildings*, Volume 80, September 2014, Pages 120–130.
- W. V. Lee and K. Steemers (2013), 'Accounting for exposure duration in overheating risk assessment: A Chicago retrofit case study', ASHRAE Transactions, 119 (2).
- J. Chen, X. Wang and K. Steemers, (2013), 'A statistical analysis of a residential energy consumption survey study in Hangzhou, China', *Energy and Buildings*, 66, Nov., 193-202.
- D. Godoy-Shimizu, P. Armitage, K. Steemers and T. Chenvidyakarn, (2011). 'Using display energy certificates to quantify schools' energy consumption. *Int. Jnl. of Building Research and Information*, 39(6), 535-552.
- V. Cheng and K. Steemers, (2011), 'Modelling domestic energy consumption at district scale: A tool to support national and local energy policies', *Environmental Modelling and Software*, Elsevier, Volume 26, Issue 10, October 2011, pages 1186–1198, doi:10.1016/j.envsoft.2011.04.005.
- G. Y. Yun and K. Steemers, (2011), 'Behavioural, physical and socio-economic factors in household cooling energy consumption', *Applied Energy*, vol. 88, issue 6, pages 2191-2200, doi:10.1016/j.apenergy.2011.01.010.
- K. Steemers and S. Manchanda, (2010), 'Energy efficient design and occupant well-being: Case studies in the UK and India', *Building and Environment*, Volume 45, Issue 2, February 2010, pp. 270-278.
- Yun, G. Y., & Steemers, K. (2010). Night-time naturally ventilated offices: Statistical simulations of window-use patterns from field monitoring. *Solar Energy*, 84(7), 1216-1231. doi:10.1016/j.solener.2010.03.029
- K. Steemers and G. Y. Yun, (2009), 'Household energy consumption: a study of the role of occupants', *Int. Jnl. of Building Research and Information*, vol 38(1), pp. 625 637.
- F. Musau and K. Steemers, (2009), 'Space planning, ventilation and energy efficiency in offices', International Journal of Ventilation, vol. 8(1). (ISSN 1473-3315)
- G. Y. Yun, P. Tuohy and K. Steemers, (2009), 'Thermal performance of naturally ventilated buildings using a combined algorithm of probabilistic occupant behaviour and deterministic heat and mass balance models', *Energy and Buildings*, Vol. 41(5), pp. 489-499
- R. Yao and K. Steemers, (2009), 'Overview of an innovative EU-China collaboration in education and research in sustainable built environment', *Renewable Energy*, vol. 34(9), pp. 2080-2087 (ISSN 0960-1481)
- G. Y. Yun and K. Steemers, (2009), 'Implications of urban settings for the design of photovoltaic and conventional façades', *Solar Energy*, vol 83(1), pp. 68-80. (doi:10.1016/j.solener.2008.06.007)
- R. Yao, B. Li, K. Steemers and A. Short, (2009), 'Assessing the natural ventilation cooling potential of office buildings in different climate zones in China', *Renewable Energy*, vol. 34(12), pp. 2697–2705 (ISSN 0960-1481)
- F. Musau and K. Steemers, (2008), 'Space planning and energy efficiency in office spaces: The role of spatial and temporal diversity'. Architectural Science Review, vol. 51(2), pp. 26 38 (ISSN: 0003-8628)
- G. Y. Yun and K. Steemers, (2008), 'Time-dependent occupant behaviour models of window control in summer', *Building and Environment*, Vol. 43(9), pp.1471-1482
- G. Y. Yun, K. Steemers and N. Baker, (2008), 'Natural ventilation in practice: Building design, occupant behaviour and thermal performance', *Building Research & Information*, Vol. 36(6), pp.608-624
- F. Musau and K. Steemers, (2007), 'Space planning and energy efficiency in laboratory buildings: The role of spatial and temporal diversity', *Architectural Science Review*, vol. 50(3), pp.281-292 (ISSN: 0003-8628)
- B. Li, R. Yao, Q. Luo and K. Steemers, (2007), 'Image processing method in urban buildings solar energy design', *Journal of Chongqing University*, Vol. 30(8), pp.95-100 (ISSN:1000-582X)
- G. Y. Yun, M. McEvoy and K. Steemers, (2007), 'Design and overall energy performance of a ventilated photovoltaic façade', *Solar Energy*, vol. 81, no. 3, pp. 383-394 (ISSN: 0038-092X)
- V. Geros, M. Santamouris, S. Amourgis, S. Medved, E. Milford, G. Robinson, K. Steemers and S. Karatasou, 'A distant-learning training module on the environmental design of urban buildings', (2006), *Renewable Energy*, vol. 31(15), pp. 2447-2459 (ISSN: 0960-1481)
- B. Li, R. Yao and K. Steemers, (2006), 'Digital mapping analysis for urban solar assessment, Acta Energiae Solaris Sinica, Vol. 27(12), pp. 1247-1251 (ISSN 0254-0096)
- R. Yao, K. Steemers and N. Baker, (2005), 'Strategic design and analysis method of natural ventilation for summer cooling', *Building Services Engineering Research and Technology*, vol. 26(4), pp. 315-325. (ISSN 0143-6244)
- R. Yao, B. Li and K. Steemers, (2005), 'Energy policy and standard for built environment in China', *Renewable Energy*, Elsevier, Vol. 30(13), pp. 1973-1988
- C. Ratti, N. Baker and K. Steemers, (2005), 'Energy consumption and urban texture', *Energy and Buildings*, Elsevier, vol. 37(7), pp. 762-776 (ISSN 0378-7788).
- B. Li, M. Liu, R. Yao, K. Steemers, (2005), 'Sustainable Urbanisation: Energy and Environment in Chongqing', *Journal of Chongqing University*, English Edition, Chongqing University Press, Vol.4(4), Dec 2005 (ISSN 1671-8224)
- R. Yao and K. Steemers, (2005), 'A method for formulating the energy load profile for domestic buildings in the UK', Energy and Buildings, Elsevier, vol. 37(6), pp. 663-671 (ISSN 0378-7788)

- Macintosh, A. and K. Steemers, (2005), 'Ventilation strategies for urban housing: lessons from a POE case study', Building Research and Information: International Research Development, Demonstration and Innovation, Spon Press, London, vol. 33(1), pp 17-31 (ISSN 0961-3218).
- S. Abu-Sharkh, R.J. Arnold, J. Kohler, R. Li, T. Markvart, J.N. Ross, K. Steemers, P. Wilson and R. Yao, (2004), 'Can microgrids make a major contribution to UK energy supply?', *Renewable and Sustainable Energy Reviews*, Elsevier, vol. 1(15), pp.1-50 (ISSN 1364-0321)
- R. Yao, K. Steemers, N. Baker and B. Li, (2004), 'A method of energy efficient building design and planning', *Architectural Journal*, No 8, pp.62-64 (ISSN 0529-1399)
- M. Sinou and K. Steemers, (2004), 'Intermediate space and environmental diversity', *Urban Design International*, no. 9, pp. 61-71, Palgrave Macmillan (ISSN 1357-5317)
- K. Steemers, (2003), 'Towards a Research Agenda for Adapting to Climate Change', *Building Research and Information: International Research Development, Demonstration and Innovation*, Spon Press, London, pp 291-301, vol. 31 (3-4) (ISSN 0961-3218)
- R. Yao, K. Steemers and B. Li, (2003), 'Energy Efficient design for residential buildings in China', *Journal of Chongqing University*, vol. 2, pp. 41-45 (ISSN 1671-8224)
- Li, R. Yao, N. Baker and K. Steemers, (2003), 'Innovative use of strategic design tools in building design in China', Journal of Chongqing University, vol. 2 (ISSN 1671-8224)
- K. Steemers, (2003), 'Cities, energy and comfort', Energy and Buildings, Elsevier, vol. 35(1), pp 1-2 (ISSN 0378-7788)
- K. Steemers, (2003), 'Energy and the City: Density, buildings and transport', *Energy and Buildings*, Elsevier, vol. 35(1), pp 3-14 (ISSN 0378-7788)
- Ratti, D. Raydan and K. Steemers, (2003), 'Building Form and Environmental Performance: Archetypes, analysis and an arid climate', *Energy and Buildings*, Elsevier, vol. 35(1), pp 49-59 (ISSN 0378-7788)
- M. Nikolopoulou and K. Steemers, (2003), 'Thermal comfort and psychological adaptation as a guide for designing urban spaces', *Energy and Buildings*, vol. 35(1), pp 95-101 (ISSN 0378-7788)
- K. Parpairi, N. Baker, K. Steemers and R. Compagnon, (2002), 'The luminance difference index: a new indicator of user preferences in daylit spaces', *Lighting Research and Technology*, vol. 34(1), pp. 53-68 (ISSN 1365-7828)
- M. Nikolopoulou, N. Baker and K. Steemers, (2001), 'Thermal Comfort in Outdoor Urban Spaces: Understanding the human parameter', Solar Energy, vol. 70(3), pp. 227-235, Elsevier (winner of the ISB (International Society of Biometeorology) Scientific Award in human biometeorology) (ISSN 0038-092X)
- M. Nikolopoulou, N. Baker and K. Steemers, (1999), 'Improvements to the Globe Thermometer for Outdoor Use', Architectural Science Review, vol. 42(1), pp. 27-34 (ISSN 0003-8628)
- K. Steemers, N. Baker, D. Crowther, J. Dubiel and M. Nikolopoulou, (1998), 'Radiation Absorption and Urban Texture', Building Research and Information, E&FN Spon, London, vol. 26(2), pp. 103-112 (ISSN 0961-3218)
- K. Steemers, N. Baker, D. Crowther, J. Dubiel, M. Nikolopoulou and C. Ratti, (1997), 'City Texture and Microclimate', Urban Design Studies, Vol. 3, pp. 25-50 (ISSN 13508-3255)
- N. Baker and K. Steemers, (1996), 'LT Method 3.0: A Strategic Energy Design Tool for Southern Europe', *Energy and Buildings*, Elsevier, vol. 23(3), p. 251-256 (ISBN 0378-7788)
- K. Steemers, (1995), 'Research into Practice: Potsdamer Platz, Berlin', Architectural Research Quarterly, vol. 1(1), pp. 76-81 (ISSN 1359-1355)
- K. Steemers, (1994), 'Daylighting Design: Enhancing energy efficiency and visual quality', *Renewable Energy*, Pergamon-Elsevier, Oxford, vol. 5(5-8), pp. 950-958 (ISSN 0960-1481).
- K. Steemers, (1993), 'The Role of Lighting in the Environmental Performance of Buildings', *Facilities*, vol. 11(5), MCB University Press Ltd., Bradford (ISSN 0263-2772).
- Hawkes, D. and K. Steemers, (1991), 'Research into Practice: A case study in the application of technical studies in architectural design', *Renewable Energy*, Vol. 1(3/4), pp. 419-428, Pergamon-Elsevier, Oxford (ISSN 0960-1481).
- K. Steemers, (1989), 'Shading Devices', Building Technical File, no. 27, pp. 9-16 (ISSN 0264-6978).

# Book contributions/chapters:

- Mills, G., H. Cleugh, R. Emmanuel, W. Endlicher, E. Erell, G. McGranahan, E. Ng, A. Nickson, J. Rosenthal, and K. Steemers, 'Climate information for improved planning and management of mega cities (needs perspective)', Vol. IV of Urban Landscape: Critical Concepts in the Built Environment, edited by Anita Berrizbeitia, 21-54. London: Routledge, 2015 (ISBN 978-0-415-70695-7).
- WV Lee, K Steemers, 'Accounting for Exposure Duration in Overheating Risk Assessment--A Chicago Retrofit Case Study', ASHRAE Transactions 119(2), 2013.
- R. Yao and K. Steemers, 'Urban Microclimates and Simulation', in Yao, R. (ed.), *Design and Management of Sustainable Built Environments*, pp. 77-97, Springer, NY, 2013 (ISBN 978-1-4471-4781-7).
- S. Manchanda and K. Steemers, 'Environmental Control and the Creation of Wellbeing' in Rassia, S. Th. and Pardalos, P. M. (eds.), Sustainable Environmental Design in Architecture: Impacts on Health, pp. 69-82, Springer, NY, 28 November 2011 (ISBN 978-1-4419-0744-8) (DOI: 10.1007/978-1-4419-0745-5)

- Makrodimitri, M., Campbell, J.W.P., Steemers, K., 'Sustainability and Heritage Conservation. Assessment of Environmental performance and Energy Management for English Churches'. In: M'Sirdi, N., Namaane, A., Howlett, R.J., Jain, L.C., eds., Sustainability in Energy and Buildings. Berlin: Springer Publishing. SIST 12 (6) pp.353-364, 2011.
- K. Steemers, '30:30 Vision', a postscript in I. Lambot (ed), *30 Years of Energy Conscious Design*, pp. 116-119, Watermark Publ., Surrey, 2010 (ISBN 978 1 873200 71 1)
- V. Cheng and K. Steemers, 'Perception of Urban Density' in M. Mostafavi and G. Doherty (eds.), *Ecological Urbanism*, pp. 476-481, Harvard University Graduate School of Design, Lars Mueller Publ., Germany, 2010 (ISBN 978 3 03778 189 0)
- K. Steemers and M. Ramos, 'Urban environmental diversity and human comfort', in E. Ng (ed.) *Designing High Density Cities: For social and environmental sustainability,* pp. 107-118, Earthscan, London, August 2010. (ISBN 9781844074600)
- D. Raydan and K. Steemers, 'Environmental Urban Design', in M. Santamouris (ed.) *Environmental Design of Urban Buildings: An integrated approach*, James + James (Science Publishers), London, chapter 1, 2006 (ISBN 1-902916-42-5).
- K. Steemers, 'Environmental Issues of Building Design', in M. Santamouris (ed.) *Environmental Design of Urban Buildings: An integrated approach*, James + James (Science Publishers), London, chapter 3, 2006 (ISBN 1-902916-42-5).
- K. Steemers (ed.), 'Case Studies', in M. Santamouris (ed.) *Environmental Design of Urban Buildings: An integrated approach*, James + James (Science Publishers), London, chapter 9, 2006 (ISBN 1-902916-42-5).
- K. Steemers, 'Integrated Building Design', in M. Santamouris (ed.) *Environmental Design of Urban Buildings: An integrated approach*, James + James (Science Publishers), London, chapter 14, 2006 (ISBN 1-902916-42-5).
- Song, J. Y., Lee, B. G., Steemers, K., & Baker, N. (2007). The effect of ICTs on mobility and environment in urban areas. In J. M. Gomez, M. Sonnenschein, M. Muller, H. Welsch, & C. Rautenstrauch (Eds.), INFORMATION TECHNOLOGIES IN ENVIRONMENTAL ENGINEERING (pp. 313-319).
- D. Raydan, C. Ratti and K. Steemers, 'Courtyards: A Bioclimatic Form?', in B. Edwards, et al. (ed.), Courtyard Housing: Past, Present and Future, Spon Press, London, Sept 2004 (ISBN: 0-415-26272-0).
- M.A. Steane and K. Steemers, 'Environmental Diversity in Architecture', in K. Steemers and M. A. Steane (ed.), *Environmental Diversity in Architecture*, Spon Press, London, pp. 3-16, Sept 2004 (ISBN 0-415-31478-X).
- K. Steemers, M. Ramos and M. Sinou, 'Urban Diversity', in K. Steemers and M. A. Steane (ed.), *Environmental Diversity in Architecture*, Spon Press, London, pp. 85-100, Sept 2004 (ISBN 0-415-31478-X).
- K. Steemers, M. Ramos and M. Sinou, 'Urban Morphology', in Nikolopoulou, M. (ed.) Designing Open Spaces in the Urban Environment, CRES, Athens, pp. 17-21, 2004. (ISBN 960-86907-2-2)
- K. Steemers, 'Urban Form and Energy Use', in Echenique, M. and Saint, A. (eds.) *Cities for a new millenium*, Spon Press, London, pp. 115-124, 2001. (ISBN 0-415-23183-3) (Reviewed by Peter Hall in 'Environment and Planning B', vol. 30 no. 3, pp 472-473, 2002)
- K. Steemers, 'Modelli Semplificati per lo Studio del Microclima Urbano', in: M. Bottero et al, *La Citta Sostenibile*, pp.43-48, Arti Grafiche Stefano Pinelli S.r.I., Milan, 2000 (ISBN 88-87454-08-6).
- K. Steemers, M. Baker, J. Dubiel and C. Ratti, 'Urban Texture and Microclimate Studies', in: F. Sartogo, *Ecology and Architecture*, pp. 142-149, ALINEA Publishing, Florence, 1999 (ISBN 88-8125-257-0).
- K. Steemers, 'Design as Research and its Relationship to Scientific Investigation The Example of Museum Design' in: Cairns, G. and Worthington, J. et al (ed.) *Perspectives on Architectural Education*, Institute of Advanced Architectural Studies, University of York, pp.91-94, 1997 (ISBN 0 904761 61 4).
- N. Baker and K. Steemers, 'The LT4 Method: An Energy Design Tool for the Refurbishment of Residential Buildings', in: Brophy, V., Goulding, J. and Lewis, J. O., *Living in the City*, pp. 24-37, Energy Research Group, Dublin, 1996(ISBN 1-898473-30-7).
- N. Baker, K. Steemers and D. Hoch, 'The LT Method version 1.2: An Energy Design Tool for Non-Domestic Buildings', in: Goulding, J. R., Lewis, J. O. and Steemers, T. C., *Energy in Architecture: The European Passive Solar Handbook*, pp. 257-288, CEC, Batsford, London, 1992 (ISBN 0713469188).

# Reports

- Contribution to the commercial report: "Circadian House: Principles and guidelines for healthy homes", Velux, Denmark, November 2013.
- Contributions to the following UN Habitat reports, with PhD student Matthew French (ISBN Number (Series) 978-92-1-131938-5):
  - Affordable Land and Housing in Latin America and The Caribbean (Vol. 1), UN Habitat, Nairobi, Kenya, 2011.
  - Affordable Land and Housing in Asia (Vol. 2), UN Habitat, Nairobi, Kenya, 2011.
  - Affordable Land and Housing in Africa (Vol. 3), UN Habitat, Nairobi, Kenya, 2011.
  - Affordable Land and Housing in Europe and North America (Vol. 4), UN Habitat, Nairobi, Kenya, 2011.
- Consultancy report for the Department of Communities and Local Government, in collaboration with Faber Maunsell: "The building regulations and the planning system: A better regulation approach", October 2006.

- Competition assessment report for the Masdar City project, Abu Dhabi, in collaboration with Profs Glicksman and Norford at MIT, March 2007, and won by Foster + Partners Architects.

# Conference contributions and professional journal articles:

- Sharmin, T. and Steemers, K. (2015). Exploring the effect of micro-climate data on building energy performance analysis, SuDBE 2015: The 7<sup>th</sup> International Conference on Sustainable Development, Building and Environment, 27-29 July, Reading, UK. (Best Paper Award)
- Sharmin, T and Steemers, K. (2015). Use of microclimate models for evaluating thermal comfort: Identifying the gap. CISBAT 2015, International Conference: Future buildings & districts, 9-11 September, Lausanne, Switzerland. (doi:10.5075/epfl-cisbat2015-895-900)
- Sharmin, T and Steemers, K. (2015). Understanding micro-climatic conditions and outdoor thermal comfort perceptions from field measurements. AUM2015: The 5<sup>th</sup> Symposium on Applied Urban Modelling, 24-26 June 2015, Cambridge, UK.
- Hargreaves, A., Cheng, V., Deshmukh, S., Leach, M. and Steemers, K. (2015). Forecasting the regional cost effectiveness of energy efficiency and decentralized supply scenarios for reducing the carbon dioxide emissions of dwellings, SUSTEM 2015 International Conference, Newcastle-upon-Tyne, 9 July 2015.
- Sharmin, T. and Steemers, K. (2014). Harmonious accordance of indoor-outdoor comfort and building energy performance by ameliorating urban microclimate in different urban block types in tropical climate. IC2UHI - International Conference on Countermeasures to Urban Heat Island, Venice, Italy, October 13-15, 2014.
- Sharmin, T., Steemers, K. and Heo, Y. (2014). Investigating the Role of Microclimate on Building Energy Performance. PLEA2014
   30th International Conference Proceedings: Sustainable Architecture for a Renewable Future, Ahmedabad, India. 16-18
   December 2014.
- Lo, W.L, Steemers, K., (2014). A new subjective-objective approach to evaluating lighting quality: A case study of concert lighting for Cambridge King's College Chapel In: PLEA 2014: the 26th International Conference on Passive and Low Energy Architecture, Ahmedabad, India, 16-18 December 2014.
- Lo, W.L., Steemers, K., (2014). Perceived and Measurable: Lighting of Cambridge King's College Chapel for concerts as a case study. In: Proceedings of Experiencing Light 2014: International Conference on the Effects of Light on Wellbeing, Eindhoven, Netherlands, 10-11 November 2014.
- Sharmin, T. (2013).Impact of Canyon Geometry upon Urban Microclimate: A Case Study of High- Density, Warm-Humid Climate,CISBAT International Conference Proceedings, Lausanne, Switzerland, 4-6 Sept. 2013.
- W.V. Lee, K. Steemers (2013). "Reviewing Overheating Assessment in the Context of Health Risk A demonstration of the effects of retrofit in future climates", CISBAT International Conference on Cleantech for Smart Cities & Buildings from Nano to Urban Scale, EPFL, Lausanne, Switzerland, 4-6 September.
- W.V. Lee, K. Steemers (2013). "Unpacking Overheating Risks Through Exposure Duration: A demonstration of the effect of construction types in future climates". PLEA Conference, Munich, German, 10-12 September.
- T. Sharmin and K. Steemers (2013). "Effect of Canyon Geometry on Outdoor Thermal Comfort: a case-study of a high-density, warm-humid climate". PLEA Conference, Munich, German, 10-12 September.
- W.V. Lee, K. Steemers (2013). "Accounting for Exposure Duration in Overheating Risk Assessment A Chicago retrofit case study", ASHRAE Annual Conference, Denver, CO, USA, 22-26 June.
- W.V. Lee, K. Steemers (2013). "Beyond Benchmarking: Accounting for exposure duration in overheating risk assessment method
   London mid-terraced dwelling case study", CIBSE Technical Symposium, Liverpool, UK, 11-12 April.
- D. Godoy-Shimizu, P. Armitage, K. Steemers, T. Chenvidyakarn (2013). "Using Display Energy Certificates to quantify energy consumption in the UK non-domestic building stock", CIBSE Technical Symposium, Liverpool, UK, 11-12 April 2013.
- K. Steemers (2012), "1912-2012", Introduction to 'Prospects: 100 Years of Research + Practice', pp.11-15, University of Cambridge, 17 September 2012.
- Lo, W.L., Steemers, K., (2012). Application of the state of the art HDR imaging analysis in lighting research: A pilot study on King's College Antechapel, Cambridge. In: Proceedings of Experiencing Light 2012: International Conference on the Effects of Light on Wellbeing, Eindhoven, Netherlands, 12-13 November, 2012.
- M. Makrodimitri, J.W.P. Campbell, K. Steemers (2011). "Sustainability and Heritage Conservation. Assessment of Environmental performance and Energy Management for English Churches", Proc of Int Conf on Sustainability in Energy and Buildings -SEB '11, 1-3 June, Marseille, France.
- M. Makrodimitri, J.W.P. Campbell, K. Steemers (2011). "Sustainability in the historic built environment. Should we seal historic structures or let them breath? Upgrade of environmental performance of listed structures", Proc of Int Scientific Conf CISBAT 11, 14-16 September, EPFL, Lausanne, Switzerland.
- Makrodimitri, M., Campbell, J. W. P., & Steemers, K. (2011). 'Sustainability and heritage conservation. Environmental
  performance of large hall structures. Assessment of thermal comfort in historic churches'. In 27th international conference on
  Passive and Low Energy Architecture PLEA 2011.
- Makrodimitri, M., Papavasileiou, S., Campbell, J.W.P., Steemers, K., (2011). 'Heating historic structures. A review of heating systems in historic church buildings and implications related to conservation and comfort. The case of four historic churches in Cambridge'. Proceedings of Energy Management in Cultural Heritage conference – EM in Cultural Heritage 2011.

- V. Cheng, S. Deshmukh, A. Hargreaves, K. Steemers and M. Leach (2011) "A study of urban form and the integration of energy supply technologies", Proc. World Renewable Energy Congress, 8-11 May 2011, Linkoping, Sweden.
- V. Cheng, S. Deshmukh, A. Hargreaves, M. Leach and K. Steemers (2011) "Urban form and low carbon energy". EEDA Low carbon economy foresight event, 11 March 2011, Insight East, East of England Development Agency, Available online, http://www.insighteast.org.uk/viewResource.aspx?id=18181.
- Baker, N., Rassia, S. and K. Steemers, "Designing for occupant movement in the workplace to improve health", Proceedings of the 5<sup>th</sup> International Symposium on Sustainable Healthy Buildings, SHB2011, Seoul, Korea, 10 Feburary 2011 (ISBN 978-89-94935-00-3 94500).
- G. Mills, H. Cleugh, R. Emmanuel, W. Endlicher, E. Erell, G. McGranahan, E. Ng, A. Nickson, J. Rosenthal, K. Steemers (2010) "Climate Information for Improved Planning and Management of Mega Cities", Procedia Environmental Sciences, Volume 1, 2010, Pages 228-246, (doi:10.1016/j.proenv.2010.09.015).
- J. Chen and K. Steemers, "A Pilot Investigation of Occupant Behavior and Energy Demand for the Domestic Sector in China compared to the UK" to be published in the proceedings of the 1<sup>st</sup> China-UK Forum on Low Carbon Cities and Architecture (LCCA), December 2010, Harbin Institute of Technology.
- J. Anderson, M. French and K. Steemers, 'Sustainability as promoting well-being: psychological dimensions of thermal comfort'. *Conf Proc, Sustainable Building: Building SMART*, Dipoli, Finland, 22-24 September 2010.
- K. Steemers, 'Sustainable Design and Well-being', Proc. of the 1<sup>st</sup> International Symposium on Sustainable Health Building, Seoul, Korea, pp. 173-180, 6 February 2009. (ISBN 978-89-955194-5-5)
- Manchanda, S., & Steemers, K. (2009). Sustainability & satisfaction: Findings from field studies of office buildings in the UK and India. PLEA 2009 - Architecture Energy and the Occupant's Perspective: Proceedings of the 26th International Conference on Passive and Low Energy Architecture, 2009.
- Lo, W. L., & Steemers, K. (2009). The art of brightness and darkness: A critical investigation on daylighting quality.
   PLEA 2009 Architecture Energy and the Occupant's Perspective: Proceedings of the 26th International Conference on Passive and Low Energy Architecture. 2009.
- F. Oliveira and K. Steemers, 'Daylighting Museums: a survey on the behaviour and satisfaction of visitors', 25th Conference on Passive and Low Energy Architecture, Dublin, 22nd to 24th October 2008.
- G. Y. Yun, and K Steemers, 'User behaviour of window control in offices during summer and winter', *Renewables in a changing climate: Innovation in the built environment*, CISBAT international conference 2007, Lausanne, Switzerland, 2007.
- F. Oliveira and K. Steemers, 'Daylighting Museums: a pilot study on the behaviour and satisfaction of visitors', *Sun, Wind and Architecture Conf. Proc.*, NUS, Singapore, 2007.
- Dou, P., & Steemers, K. (2007). User preferences for routing and seating in response to daylighting design in an art museum. Sun, Wind and Architecture - The Proceedings of the 24th International Conference on Passive and Low Energy Architecture, PLEA 2007, 718-725.
- K. Steemers, 'Strategic sustainable architectural and urban design', Sustainable Built Environment and Construction, International Conference on Asia-European Sustainable Urban Development, Chongqing University, pp. 1-7, 2006 (ISBN 0-903248-03-4)
- V. Cheng, K. Steemers, M Montavon and R Compagnon, 'Urban Form, Density and Solar Potential', *PLEA 2006: 23<sup>rd</sup> Intl. Conf. on Passive and Low Energy Architecture*, Geneva, Switzerland, 6-8 September, pp. 701-706 (ISBN 2-940156-30-1), 2006
- M. Montavon, K. Steemers, V Cheng and R Compagnon, 'La Ville Radieuse by Le Corbusier: a case study', *PLEA 2006: 23<sup>rd</sup> Intl. Conf. on Passive and Low Energy Architecture*, Geneva, Switzerland, 6-8 September, pp. 941-946 (ISBN 2-940156-30-1), 2006.
- K. Steemers, 'Keys to sustainable architecture: Adaptability, robustness and diversity', *World Renewable Energy Congress*, 19-25 August, Florence, Italy, 2006. (Keynote paper) (Proc. on CD)
- R. Yao, Q. Luo, B. Li and K. Steemers, 'Calculation of solar energy in the urban context', *World Renewable Energy Congress*, 19-25 August, Florence, Italy, 2006. (Invited paper) (Proc. on CD)
- K. Steemers, 'Strategic sustainable architectural and urban design', Sustainable Built Environment and Construction, International Conference on Asia-European Sustainable Urban Development, Chongqing University, pp. 1-7, 2006 (ISBN 0-903248-03-4)
- M Echenique, A Short and K Steemers, 'A recurring question answered with a degree of optimism', arq: Architectural Research Quarterly, Volume 9, Issue 01, Mar 2005, CUP, pp 13-15.
- R. Yao, K. Steemers and B. Li, 'An assessment tool for natural ventilation in strategic building design', accepted for *PLEA2005*, Beirut, Lebanon, 13-16 Nov., 2005.
- R. Yao, K. Steemers and B. Li, 'Climatic suitability analysis for natural ventilation cooling of office buildings in China', accepted for *PLEA2005*, Beirut, Lebanon, 13-16 Nov., 2005.
- R. Yao, B. Li and K. Steemers, 'Field study on thermal comfort in hot humid climates', *CLIMA2005*, Lausanne, Switzerland, 9-12 Oct., 2005.
- R. Yao, B. Li and K. Steemers, 'Energy and comfort performance of natural ventilation systems in office buildings in China', *Proc. 26<sup>th</sup> AIVC Conference*, Brussels, Belgium, 21-23 Sept., pp. 21-26, 2005 (ISBN 2-9600355-8-5).

- K. Steemers, 'Sustainable Urban Design: Issues, research and Projects', *The World Architecture Journal*, no. 170, pp.34-39 and pp.90-93, August 2004 (ISSN 1002-4832).
- H. Mulligan and K. Steemers, 'Total Energy Use in Refurbishment: Avoiding the over-commitment of resources', *The World Architecture Journal*, no. 171, pp. 25-31, September 2004 (ISSN 1002-4832).
- M. Sinou and K. Steemers, 'Urban semi-enclosed spaces as climate moderators', in: W. de Wit (ed), *Built environments and environmental buildings, Proc. of PLEA 2004*, Eindhoven, The Netherlands, pp. 385-389, 2004 (ISBN 90-386-1636-8).
- R. Yao and K. Steemers, 'Energy design and the integration of solar systems within domestic buildings', in: W.G. Bustamente and E. Collados (eds), *Rethinking Development*, *Proc. of PLEA 2003*, Catholic University of Chile, Santiago, Chile, pp. 835-840, 2003, ISBN 956-14-0779-5.
- M. Sinou and K. Steemers, 'Environmental diversity in urban form', in: W.G. Bustamente and E. Collados (eds), Rethinking Development, Proc. of PLEA 2003, Catholic University of Chile, Santiago, Chile, pp. 481-485, 2003, ISBN 956-14-0779-5.
- B. Li, K. Steemers and R. Yao, 'Energy consumption for affordable thermal comfort in residential buildings in the "hot summer cold winter" zone in China', in: W.G. Bustamente and E. Collados (eds), *Rethinking Development, Proc. of PLEA 2003*, Catholic University of Chile, Santiago, Chile, pp. 1357-1361, 2003, ISBN 956-14-0779-5.
- M. Ramos and K. Steemers, 'Comfort in urban spaces: the roles of physiological and psychological parameters', in: W.G. Bustamente and E. Collados (eds), *Rethinking Development, Proc. of PLEA 2003*, Catholic University of Chile, Santiago, Chile, pp. 651-657, 2003, ISBN 956-14-0779-5.
- K. Steemers, M. Ramos and M. Sinou, 'Urban thermal diversity', *Proc. of Int. Conf. on Sustainable Devt. in Building and Environment, Jnl. of Chongqing University*, vol. 2, pp. 41-45, Oct 2003, ISSN 1671-8224.
- R. Yao, K. Steemers and B. Li, 'Energy efficient design for residential buildings in China', Proc. of Int. Conf. on Sustainable Devt. in Building and Environment, Jnl. Of Chongqing University, vol. 2, pp. 11-18, Oct 2003, ISSN 1671-8224.
- B. Li, R. Yao, N. Baker and K. Steemers, 'Innovative use of strategic energy design tools in building design in China', *Proc. of Int. Conf. on Sustainable Devt. in Building and Environment, Jnl. Of Chongqing University*, vol. 2, pp. 61-64, Oct 2003, ISSN 1671-8224.
- S. Manchanda and K. Steemers, 'Operable vs. Sealed Facades: Implications of Ventilation for Comfort and Health', *Proc CISBAT 2003* (EPFL, Switzerland, LESO PB Switzerland, Harvard University USA, MIT USA) pp. 209-214, Laussane, Switzerland, 8th October 2003.
- M. Sinou and K. Steemers, 'Urban Space: Thermal analysis of case studies', Proc. of the Intl. Conference in Sustainable Planning and Development, Skiathos, Greece, pp.921-930, 1-3 October 2003, ISBN: 1-85312-985-2.
- K. Steemers, 'Cities, energy and comfort', Introduction to a Special Issue of *Energy and Buildings*: On urban research, vol. 31, no. 1, pp 1-2, Jan 2003, ISSN 0378-7788.
- K. Steemers, Torwong Chenvidyakarn and Andrew Woods, 'Visualising ventilation: Salt bath modelling from research to practice', Design with the Environment, *PLEA 2002 Conference Proceedings*, Vol. 2, pp. 743-749, GRECO/ACAD, Toulouse, 2002.
- H. Mulligan and K. Steemers, 'Total Energy Use in Refurbishment: Avoiding the over-commitment of resources', *Design with the Environment, PLEA 2002 Conference Proceedings*, Vol. 1, pp. 61-67, GRECO/ACAD, Toulouse, 2002.
- K. Steemers, 'Adaptability and Change: Passive design versus climate change', *Proceedings of the Tyndall/CIB* International Conference on Climate change and the Built Environment, UMIST, Manchester, April 8-9, 2002.
- K. Steemers, 'FV in Citta: Una guida alla progettazione e alla realizzazione', *Energia dal Sole*, N.2-2002, EUROSTAMPA s.r.l., Torino, 2002, pp. 16-20.
- K. Steemers, 'PV in the City: A design and implementation guide', *Renewable Energy World*, James + James, London, no. 6, vol. 4, pp. 106-114, Nov-Dec 2001. ISSN 1462-6381
- K. Steemers, 'Bringing Sunshine to the City', The Architects' Journal, no. 7, vol. 214, pp. 38-39, 30 August 2001. ISSN 0003 8466
- M. Tsuchiya and K. Steemers, 'The environmental performance of the Squire Library in Cambridge, before and after remedial work', *PLEA 2001, Passive and Low Energy Architecture Conference Proceedings*, Brazil, 2001.
- K. Steemers, 'The Paradox of the Compact City', *The Architects' Journal*, no. 16, vol. 212, pp. 42-43, 2 November 2000. ISSN 0003 8466
- M. Nikolopoulou and K. Steemers, 'Thermal Comfort and Psychological Adaptation as a Guide for Designing Urban Spaces', in: K. Steemers and S. Yannas (ed.), Architecture + City + Environment, Proceedings of the 17th International Passive and Low Energy Architecture Conference, Cambridge 2-5 July, pp. 565-570, James + James Publishers, London, 2000. ISBN 1-902916-16-6
- K. Parpairi, N. Baker and K. Steemers, 'Daylighting Quality Through User Preferences: Investigating libraries', in: K. Steemers and S. Yannas (ed.), Architecture + City + Environment, Proceedings of the 17th International Passive and Low Energy Architecture Conference, Cambridge 2-5 July, pp. 611-616, James + James Publishers, London, 2000. ISBN 1-902916-16-6

- M. Nikolopoulou, N. Baker and K. Steemers, 'Can Urban Microclimatic Analysis Using Image Processing Techniques be Employed to evaluate Thermal Comfort Conditions?', in: K. Steemers and S. Yannas (ed.), *Architecture + City + Environment, Proceedings of the 17th International Passive and Low Energy Architecture Conference*, Cambridge 2-5 July, pp. 628-629, James + James Publishers, London, 2000. ISBN 1-902916-16-6
- C. Ratti, D. Robinson, N. Baker and K. Steemers, 'LT Urban: The energy modelling of urban form', in: K. Steemers and S. Yannas (ed.), Architecture + City + Environment, Proceedings of the 17th International Passive and Low Energy Architecture Conference, Cambridge 2-5 July, pp.660-665, James + James Publishers, London, 2000. ISBN 1-902916-16-6
- K. Steemers, 'Urban Environmental Research: Its role in the practice and policies of sustainable development', in: B. Norton, H. Lockhart-Ball and C. Buckle (eds.), *Building for Sustainable Development: A nuts and bolts approach, Proceedings of Conference C74 of the Solar Energy Society* (Oxford), pp. 53-60. Invited speaker, RIBA, London, 26 May 2000. ISBN 1-873640-31-5
- K. Steemers, D. Raydan, and J. Kang, 'A Search for an Evolutionary Approach to Environmentally Conscious Urban Design', in: M. Perez Latorre, et al (ed.), *Rebuilding the City of Tomorrow: Shaping our Cities for the 21st Century, REBUILD Conference Proceedings*, Barcelona, pp. 34-37, October 1999. ISBN 88-900442-0-9
- M. Nikolopoulou, N. Baker and K. Steemers, 'Thermal Comfort in Urban Spaces: Different forms of adaptation', in: M. Perez Latorre, et al (ed.), *Rebuilding the City of Tomorrow: Shaping our Cities for the 21st Century, REBUILD Conference Proceedings*, Barcelona, pp. 26-29, October 1999. ISBN 88-900442-0-9
- P. Kristensen, N. Baker, K. Steemers, K. Parpairi, M. Fontoynont and J. Clarke, 'Daylight Europe', in: Lewis, O. and Goulding, J. (eds.): *European Directory of Sustainable and Energy Efficient Building 1999*, James + James, London, 1999. ISBN I-873936-93-1
- K. Steemers and C. Ratti, 'Informing Bioclimatic Urban Design', in: Voyatzaki, M. (ed.), Architecture and Engineering: The teaching of Architecture for multidisciplinary practice, European Association for Architectural Education, 1999. ISBN 2-930301-00-7
- K. Steemers and C. Ratti, 'Nuovi strument per la progettazione bioclimatica urbana', *Housing*, issue no. 9, Etas Libri, Milan, 1998. ISBN 8845309169
- D. Crowther and K. Steemers, 'City Shape and Environmental Quality', *REBUILD: The European Cities of Tomorrow Shaping our European Cities for the 21st Century.* Butera, et al (ed.), ETA-Florence, 1998.
- K. Steemers and M. Nikolopoulou, 'Assessing the Urban Microclimate', *Environmentally Friendly Cities*, 15th PLEA Conference, Lisbon, June 1998. James + James, London, 1998. ISBN 1 873936 81 8.
- M. Nikolopoulou, N. Baker and K. Steemers, 'Thermal Comfort in Outdoor Urban Spaces', *Environmentally Friendly Cities, 15th PLEA Conference*, Lisbon, June 1998. James + James, London, 1998. ISBN 1 873936 81 8.
- K. Parpairi, Ø. Aschehoug, N. Baker and K. Steemers, 'Daylighting Design in Libraries: A comparative study', *CIBSE* National Lighting Conference, Lancaster University, 5-8 April, CIBSE, 1998, pp 327-333.
- N. Baker, K. Steemers and K. Parpairi, 'A Daylighting Design Guide from context to principles', *CIBSE National Lighting Conference*, Lancaster University, 5-8 April, CIBSE, 1998, pp 334-340.
- N. Baker, K. Steemers, K Parpairi and P Kristensen, 'A Daylighting Design Guide', *Right Light 4, Fourth European Conference on Energy Efficient Lighting*, Copenhagen, November 1997.
- N. Baker and K. Steemers, 'The Influence of Generalised Urban Parameters on Microclimate and Environmental Performance', invited paper, *Conference: Urban Development and Protection of the Ecological Environment*, Chinese Academy for Social Sciences, Ychang, China, April 1997.
- K. Steemers, 'Project ZED Towards zero emission urban development', in Fitzgerald, E. and Owen Lewis, J. (ed.) Research Digest 8 - Solar Energy in Architecture and Urban Planning, pp. 11-12, Published by the Energy Research Group, Dublin, April 1997. (No ISBN no.)
- K. Steemers, N. Baker, D. Crowther, M. Nikolopoulou, P. Richens and R. Clocquet, 'Project ZED: Defining Urban Texture and its Environmental Performance', *XIX Congress, International Union of Architects, UIA Barcelona* 96, July 1996.
- K. Steemers, N. Baker, D. Crowther and M. Nikolopoulou, 'Urban Design: Microclimate, Buildings and Energy', *PLEA* 96 *Building & Urban Renewal*, Louvain-la-Neuve, Belgium, pp. 331-336, 1996.
- D. Hawkes, J. Macdonald and K. Steemers, 'Selective Design for Environmentally Responsive Buildings', Solar Energy in Architecture and Urban Planning, H. S. Stephens, Bedford, pp. 258-261,1996.
- N. Baker, K. Steemers, D. Crowther, M. Nikolopoulou and P. Richens, 'The Urban Porosity Model: Simplified Parameters as Indicators of Environmental Performance', *Solar Energy in Architecture and Urban Planning*, H. S. Stephens, Bedford, pp. 300-305, 1996.
- K. Steemers, N. Baker, D. Crowther, M. Nikolopoulou and R. Clocquet, 'Project ZED: Modelling Environmental Characteristics of Urban Forms', *Solar Energy in Architecture and Urban Planning*, H. S. Stephens, Bedford, pp. 4-7,1996.
- S. Stankovic, K. Steemers and J. Kaplicky, 'Building as a Wind Concentrator: Assessment of Wind Energy Generating Potential in a Moderately Windy Urban Environment', *Solar Energy in Architecture and Urban Planning*, H. S. Stephens, Bedford, pp. 68-71, 1996.

- K. Steemers, N. Baker, D. Crowther, M. Nikolopoulou, S. Stankovic, J. Kaplicky, A. Levete, A. Pond, L. Adolphe and J. Schwenke, 'Towards Zero-Emission Urban Development', in: Zervos, A. and Sala, M., *Renewable Energy Development*, EDIFIR, Florence, 1996.
- N. Baker, K. Steemers, D. Crowther and M. Nikolopoulou, 'Can Simplified Urban Parameters Indicate Environmental Performance?', in: Lachal, B. et al (eds.), *Energy et Climat Urbain: Actes de la Journée du CUEPE*, Série de Publications du CUEPE no.62, Université de Genève, 1995.
- Brown and K. Steemers, 'EC Solar House Case Study Research Potsdamer Platz, Berlin', *CIBSE National Conference* 1995, 1-3 October, CIBSE, London, 1995.
- Brown, E. Dudley and K. Steemers, 'Development of a simple graphical design tool to evaluate sunshine and solar shading', *CIBSE National Conference* 1995, October, CIBSE, London, 1995.
- D. Hawkes, J. McDonald and K. Steemers, 'Design for Differing Climates', The Architect's Journal, 16 March, 1995.
- D. Hawkes, J. McDonald and K. Steemers, 'Selective Design for Environmentally Responsive Buildings', *Proceedings of Africa 2000: Towards the Millennium, Conference* in Cape Town, 3 7 April, 1995.
- K. Steemers, 'Towards Zero-Emission Urban Development', REBUILD Conference: Rebuilding the European City "Integration of Renewable Energies in Existing Urban Structures", 29-30 June and 1 July, Corfu, 1995.
- N. Baker and K. Steemers, 'An Energy Design Tool for use in Building Refurbishment', REBUILD Conference: Rebuilding the European City "Integration of Renewable Energies in Existing Urban Structures", 29-30 June and 1 July, Corfu, 1995.
- K. Steemers, N. Baker and H. Mulligan, Design Guides for Energy Efficient Non-Domestic Buildings: Schools, Hospitals, Colleges, and Offices, for BRECSU (EEO), Cambridge Architectural Research Ltd., Cambridge, January, 1995.
- K. Steemers, N. Baker and H. Mulligan, Case Studies of Energy Efficient Non-Domestic Buildings: Schools, Hospitals, Colleges, and Offices, for BRECSU (EEO), Cambridge Architectural Research Ltd., Cambridge, January, 1995.
- K. Steemers, 'Integrating Shading and Daylighting for Energy Efficiency', *European Conference on Energy Performance and Indoor Climate in Buildings*, Lyon, 24-26 November, 1994.
- K. Steemers, 'Daylighting Design: Enhancing Energy Efficiency and Visual Quality', *in*: Sayigh, A. A. M. (ed.), *Renewable Energy*, Part II, pp 950-958, Pergamon, Oxford, 1994.
- K. Steemers and N. Baker, 'Informing Strategic Design: The LT Method', North Sun 94 International Conference, Glasgow, 7-9 September. In: MacGregor, K. and Porteus, C. (eds.), *North Sun '94: Solar energy at high latitudes*, James & James, London, 1994.
- N. Baker and K. Steemers, 'LT Method 3.0: A Strategic Energy Design Tool for Southern Europe', *PLEA'94 Conf Proc*, July, Israel, 1994.
- N. Baker and K. Steemers, 'An Energy Design Tool for Mediterranean Climates', *ISES'94 Conf Proc*, July, Cyprus, 1994.
- N. Baker and K. Steemers, *The LT Method version 2.0: An Energy Design Tool for Non-Domestic Buildings*, for BRECSU, CAR Ltd., Cambridge, 1994.
- K. Steemers, 'Tools for Energy Efficient Design', in: Lewis, O. and Goulding, J. (eds.) *European Directory of Energy Efficient Building*, James & James, London, 1994.
- K. Steemers, 'Energy Tools for Designers', *Building Environmental Performance: Facing the Future, Conf Proc*, York, April 1994, BRE, Garston, 1994.
- K. Steemers and N. Baker, 'Daylighting in Architecture', Right Light Conference Proceedings, Delft, September, 1993.
- K. Steemers, N. Baker and E. Dudley, 'Strategic Design Tools', Proc. 3rd EU Conference on Architecture, H S Stephens, Bedford, 1993.
- K. Steemers, 'Environmental Urban Planning: Issues and Designs', *Proc. 3rd EU Conference on Architecture*, H S Stephens, Bedford, 1993.
- K. Steemers, 'Low Energy Urban Design: History, Theory and Case Studies', *Proc. 3rd EU Conference on Architecture*, H S Stephens, Bedford, 1993.
- K. Steemers, *Environmental Design Issues for Office Buildings in Cities*, RIBA Award Final Report (kept in the British Architecture Library, RIBA), 1992.
- K. Steemers, 'Low Energy Design in an Urban Context', *Proc. Passive and Low Energy Architecture Conference* (PLEA91), Seville, Kluwer, 1991.
- N. Baker and K. Steemers, 'Air Conditioning and the Natural Environment', ABC&D Journal, March, 1990.
- D. Turrent and K. Steemers, 'Beyond the Building Regs: Energy Efficient Housing', Architects Journal, April, 1990.
- K. Steemers, 'The Performance of External Shading Devices', Proc. 2nd EU Architecture Conf, Paris, Kluwer, 1989.
- K. Steemers, N. Baker and D. Hawkes, 'Energy Use and Urban Design', *Proc. 2nd EU Architecture Conf*, Paris, Kluwer, 1989.
- K. Steemers, N. Baker and D. Hawkes, 'Parametric Energy Modelling for Urban Situations', *Proc. 2nd EU Architecture Conf*, Paris, Kluwer, 1989.
- K. Steemers, 'Daylighting in Art Galleries', *Proc. Passive and Low Energy Architecture Conference* (PLEA'89), Porto, 1988.

# Graduate Students Supervised

Name Degree and year registered		Thesis / dissertation theme	Year completed	
Alex Coburn	Ph.D. 2014	Life in healthy buildings: Environmental quality and human flourishing	2018 (tbc)	
Rongweixin Chen	Ph.D. 2014	Adaptive thermal comfort in mixed mode buildings	2017 (tbc)	
Luoyi Yin	Ph.D. 2012	An Urban Design Approach for Sustainable Urban Regeneration	2016 (tbc)	
Linda Gichuyia	Ph.D. 2012	The Building Envelope: Overheating resilience in a carbon constrained tropical climate	2016 (tbc)	
Tania Sharmin	Ph.D. 2012	Impact of Street Orientation and Canyon Geometry on Outdoor Thermal Comfort and Building Energy Performance in a High Density, Warm Humid Climate	2016 (tbc)	
Alex Schweder	Ph.D. 2012	The Subject of Architecture: Performed renovations & psychological space	2016	
Wing L Lo	Ph.D. 2011	Perception and Light Quality in Architecture	2015	
Seunghyun Cha	Ph.D. 2011	Occupancy Patterns and Implications for Energy Use in Buildings	2015	
Sasha Amaya	M.Phil. 2014	The Great Escape: The Canadian City in Cinema	2015	
W Victoria Lee	Ph.D. 2010	Thermal Performance and Health Vulnerability in Buildings	2014	
Guangying Ren	M.Phil. 2013	Uncertainty analysis in building energy modeling	2014	
Kaitlin Veenstra	M.Phil. 2013	Innovation in energy efficient renovation	2014	
Amin Zyada	M.Phil. 2013	Low energy refurbishment of listed buildings	2014	
Jun Chen	Ph.D. 2010	Domestic Building Energy Use and Behaviour: China and UK	2014	
Peter Armitage	Ph.D. 2010	Non-domestic Building Energy Use and Occupant Behaviour	2016 (tbc)	
D Godoy-Shimizu	Ph.D. 2010	The Impact of City Characteristics on District Energy Schemes	2016 (tbc)	
J Sarralde Tassara	Ph.D. 2009	Urban Form and Energy Demand and Supply	2014	
Jamie Anderson	Ph.D. 2009	Wellbeing and Urban Design	2014	
Hui Ben	M.Phil. 2012	Energy Retrofit and Occupant Behaviour in Listed Housing	2013	
A Athanasopoulos	M.Phil. 2012	Planning the 'Territory-Less' City: Towards airport oriented development	2013	
Rongweixin Chen	M.Phil. 2012	A Behavioural Approach to Analysing Thermal Comfort		
Alex Coburn	M.Phil. 2012	Corridor Culture: Social interaction, relationship formation and strength of communities		
E Gavotsis	M.Phil. 2012	Practical Measurement and Reduction of Embodied Energy & Carbon	2013	
Raphaelle Suard	M.Phil. 2012	The Relationship Between Transport and Economic Activity	2013	
Y Zhu	M.Phil. 2012	Energy and Economic Analysis of Renovation Measures for Rural Residential Building in Northern China	2013	
Ye Zhang	Ph.D. 2008	Public Use of Urban Space	2013	
Pingping Dou	Ph.D. 2006	Adaptable Housing Design	2013	
Linda Gichuyia	M.Phil. 2011	The Building Envelope: Overheating resilience in a carbon constrained tropical climate	2012	
Joseph Kimanzi	M.Phil. 2011	Thermal and daylight characteristics in an atrium and adjacent spaces in buildings of the tropics	2012	
L Wan	M.Phil. 2011	Integrated evaluation model for urban public spaces	2012	
Matthew French	Ph.D. 2007	The Influence of Bioclimatic Principles in the Morphology of Latin American Informal Settlements	2011	
L Dai	M.Phil. 2011	Environmental analysis of atrium design in two climates	2011	
Patrick Fleming	M.Phil. 2011	The performance of structural timber in high rise buildings	2011	
P Francis	M.Phil. 2011	Outdoor comfort in Nairobi	2011	
D Kapodistria	M.Phil. 2011	Energy demand and retrofit strategies for housing in Greece	2011	
A Knera	M.Phil. 2011	Comfort and energy efficiency in future-proofing 1960 retrofit	2011	

D Krug	M.Phil. 2011	The environmental consequences of off-site construction	2011	
М Ма	M.Phil. 2011	Green belt policy and sustainable urban development		
K M Chandran	M.Phil. 2011	Sustainable urban design in Bangalore	2011	
S Papavasileiou	M.Phil. 2011	Energy efficiency and renewables strategies for listed churches		
Y Wang	M.Phil. 2011	The environmental performance of traditional Chinese houses	2011	
Fernanda Sa	Ph.D. 2006	Natural Lighting in Art Galleries	2010	
Vicky Cheng	Ph.D. 2005	The Perception of Density in Cities	2010	
Kam Leung	Ph.D. 2007	Relationship Between Urban Form and Environmental Performances in High Density Urban Areas	2010	
Manuel Santa Clara	Ph.D. 2007	The Application of Photographic and Image Processing Technique to the Characterisation of the Visual Environment	2010	
R Benton	M.Phil. 2009	Sustainable Higher Education	2010	
J Chen	M.Phil. 2009	Occupant Behaviour and Building Design Strategies in China	2010	
D Dantsiou	M.Phil. 2009	Heating and Cooling Strategies in Eco-Communities	2010	
E Loki	M.Phil. 2009	Tropical Daylighting: A Study of Toplighting Strategies	2010	
L Kiamba	M.Phil. 2009	Thermal Regulation Strategies in Warm-Humid Climates	2010	
S Liu	M.Phil. 2009	The Form and Fabric of Atrium Buildings	2010	
E Papkovskaia	M.Phil. 2009	An Investigation into Environmental Aspects of Plan Typologies	2010	
R Zeldenrust	M.Phil. 2009	Biomimicry in Architecture	2010	
Nadia Chow	Ph.D. 2005	Resolving natural ventilation and fire safety in sustainable buildings	2009	
Marylis Ramos	Ph.D. 2001	Comfort in urban spaces (deregistered from 2006)		
Shweta Manchanda	Ph.D. 2002	Ventilation: Implications for comfort and health	2008	
K Geens	M.Phil. 2007	Robust 'Passivhauses' in the UK	2008	
W V Lee	M.Phil. 2007	Mismatches in climatically and seismically responsive built forms	2008	
W L Lo	M.Phil. 2007	The art of brightness and darkness	2008	
P Njue	M.Phil. 2007	Investigating thermal comfort in transitional spaces	2008	
Geun Y Yun	Ph.D. 2004	Occupant behavior and energy use in buildings	2007	
A Barclay	M.Phil. 2006	Building occupancy patterns and energy consumption	2007	
Jiri Tencar	PhD 2005-06	Vegetation and the impact on the performance of atrium spaces (visiting Chevening student for 1 year from University of Prague)	2006	
S Chen	M.Phil. 2005	Eco-manufacturing	2006	
M Cox	M.Phil. 2005	Environmental performance and design	2006	
P Dou	M.Phil. 2005	Sustainable urban architecture	2006	
A Dale-Jones	M.Phil. 2005	Façade design	2006	
E Gardner	M.Phil. 2005	Sustainable building engineering	2006	
Filbert Musau	Ph.D. 2001	Space planning and energy efficiency	2005	
F Duran	M.Phil. 2004	Passive Cooling in an Urban Context	2005	
A Sdei	M.Phil. 2004	Passive Cooling in Housing	2005	
J Samson	M.Phil. 2004	Thermal Comfort in Outdoor Urban Circulation Spaces	2005	
T Chenvidyakarn	Ph.D. 2000	Naturally Ventilated Buildings: The role of water-bath modelling	2004	
Maro Sinou	Ph.D. 2000	Environmental Diversity in Urban Form	2004	
G Y Yun	M.Phil. 2003	Environmental performance of photovoltaic facades	2004	
L Chen	M.Phil. 2003	Energy and Urban Form	2004	
A Macintosh	M.Phil. 2003	Daylight Quality in Housing Design	2004	
F Russo	M.Phil. 2003	Modern Architecture in Brazil: A Bioclimatic Appraisal	2004	
S Hagan	M.Phil. 2002	The Material and the Digital from an Environmental Perspective	2003	
T Nelson	M.Phil. 2002	Environmental Strategies for Historic Structures	2003	
T Shelton	M.Phil. 2002	Economy and Ecology in Architecture	2003	
E Toogood	M.Phil. 2002	Natural Ventilation in Office Buildings in Cities	2003	

Abu Merghani	Ph.D. 1998	Thermal comfort and spatial variability in courtyard houses in hot dry climates	2001
T Ramasoot	M.Phil. 1999	Interior Design Strategy for Lighting	
E Pomeroy	M.Phil. 1999	Thermal Mass and Acoustics	2000
A Kenton	M.Phil. 1999	Natural Ventilation in Theatre Design	2000
R Cochrane	M.Phil. 1999	Solar Powered Cooling	2000
M Birks	M.Phil. 1999	A Discussion of Contemporary Strategies for Developing Urban Neighbourhoods	2000
Katerina Parpairi	Ph.D. 1996	Daylighting in Architecture: Quality and user preference	1999
C Gonzalez	M.Phil. 1998	Self Sufficient New Settlements in Semi-arid and Arid Regions (Degree not approved)	1999
A White	M.Phil. 1998	The effects of the building environment on occupants: The acoustics of dining spaces	1999
M Reynolds	M.Phil. 1998	Designing for Daylight and Energy Performance: A 'design support' tool evaluated	1999
F Musau	M.Phil. 1998	Building Density and Outdoor Air Temperature: The case of hot-humid cities	1999
M Nikolopoulou	Ph.D. 1993	Thermal Comfort in Outdoor Urban Spaces	1998
A Vargas Ruiz	M.Phil. 1997	Environmental Design for Cities: Traffic noise attenuation through urban design	
A Merghani	M.Phil. 1997	Environmental Analysis of Buildings in Hot-Arid Climates: Control of wind-blown sand and dust	
J Hakes	M.Phil. 1997	The Compact City	1998
P Fisher	M.Phil. 1997	Beyond the Membrane: The façade as a climatic filter	1998
M Bosch Dalmau	M.Phil. 1996	Daylight Strategies in Energy Refurbishment	1997
M Tsuchiya	M.Phil. 1996	Indoor Landscape Design in Atria in the Context of Environmental Control	1997
C Ratti	M.Phil. 1995	Urban Analysis for Environmental Prediction	1996
N Craddock	M.Phil. 1994	Sir John Soane and the Luminous Environment	1995
K Parpairi	M.Phil. 1994	Environmental Variety in Architecture: Vernacular Greek architecture and the work of A. N. Tombazis	1995
A Tuboku-Metzger	M.Phil. 1993	Building Form and Energy Use (Degree not approved)	1994
D Lim	M.Phil. 1993	The Living Building	1994
L Khemlani	M.Phil. 1992	Computers in Energy Conscious Building Design	1993
R Kelly	M.Phil. 1992	The Acoustics for Church Music	1993
G Clark	M.Phil. 1992	Architecture of the Winds: A study of the art and science of natural ventilation	1993

# **University Committees**

Cambridge Smart Cities Steering Group – Founding Executive Team Member (2016-)

Senior Academic Promotions Committee (representing the School of Arts and Humanities) - 2015

Search Committee for Chair of the MML Faculty – Chair (2014)

School of Arts and Humanities Senior Academic Promotions Sub-Committee – Member (2013-14)

Cambridge Forum for Sustainability and the Environment – Founding Member (2013-)

University Environmental Strategy Committee (and Environmental Policy Group) - Member

Energy and Carbon Reduction Project - Academic Advisory Group (2009-14)

Management Board for Cambridge Institute for Sustainability Leadership – Member (2009-15)

Council for the School of Arts and Humanities (CSAH) – Member (2009-14)

Gender Equality Group (sub-committee of the Equality and Diversity Committee) - Member (2010-12)

Senior Gender Equality Network – Member (2010-14)

CSAH Chair search committee – Member (2010-11)

NW Cambridge Sustainability Panel / Quality Panel – Member (2010-15)

Faculty and Department Committees Faculty Board and Degree Committee - Chair Senior Academic Promotions Committee - Chair Resources Committee - Chair Resources Committee – Chair Research Committee – Chair/Member Teaching Committee – Chair Academic Staff Committee – Chair Support Staff Committee - Member Tripos Part II Examiner - Chair Masters (MAUS and MAUD) Examiner – Member

# Current and past research grants

Dates	Title	Role	Funder	Budget
Dec 15 – Dec 20	Managing Air for Green Inner Cities (MAGIC)	CI	EPSRC	£4,173,134 (gross)
Oct 16 – Sept 17	An Urban Well-being Knowledge Transfer Fellowship (Jamie Anderson) with Buro Happold	PI	EPSRC (Impact Acceleration Account)	£53,000 (net)
Jul 14 – Jun 17	B-BEM: The Bayesian Building Energy Management Portal	CI	EPSRC	£569,000 (gross) £141,447 (net)
Apr 13 – Apr 18	User-TEC	PI	Danish National Science Foundation	DKK 210,000 (net)
Jul 12 – Jun 14	Meta-CDM: Multimodal Efficient Transportation and Airports – Collaborative Decision Making	PI	EU	£166,470 (net)
Dec 10 – Mar 13		PI	EU	£37,252 (net)
Oct 11 – July 14	Low Carbon Urban Design (LCUD): From Options Assessment to Policy Implementation	PI	Low Carbon Energy University Alliance (Tsinghua/Cam/MIT)	\$200,000 (net) \$600,000 (gross)
Sep 08 – Aug 13	Energy Efficient Cities	CI	EPSRC	£846,985 (net) £2,863,119 (gross)
Apr 08 – Mar 13	ReVISIONS: Regional visions of integrated sustainable infrastructure optimized for neighbourhoods	CI	EPSRC	£3,283,084 (gross)
Nov 07 – Oct 08	FCT/LT Portugal: model development	PI	IST, Lisbon	£10,846 (net)
Apr 07 - Mar 09	nCUBUS: Network for China-UK Building and Urban Sustainability	PI / coordinator	EPSRC	£135,911 (net)
Mar 07 - Dec 09	Shelter design and research	PI	Shelter Centre	£40,127 (net)
Jan 07 – Jun 09	SURE AFRICA: Sustainable Renewal	PI / partner	EU	£115,000 (net)
Oct 06 - Sep 09	Designing with light in libraries	PI	AHRC	£324,711 (net, inc PhD)
Jan 06 – Apr 07	Building Sustainable Communities	PI / partner	Land Securities	£15,000 (net)
Oct 05 – Mar 07	Specifications for Green Buildings Guide for China	PI	FCO	£20,000 (net)
May 05 – Jul 07	Sustainable Urban Spaces: case studies in Sao Paulo	PI / coordinator	British Academy	£6,873 (net)
Feb 05 - Dec 07	Sino-European Centre for Sustainable Building Design and Construction	PI / coordinator	EU	£182,582 (net)
Jan 05 – Dec 06	Sustainable Humane Habitat in Developing Countries (India)	PI / partner	EU	420,000 Euro (gross) 100,000 Euro (net)
Oct 03 – Apr 06	Clean and renewable energy and energy efficient design in western China	PI / coordinator	FCO	£75,000 (gross) £60,000 (net)
Feb 03 – Dec 03	Sustainable Urban Office Design Strategies for Melbourne	PI / coordinator	SEAV, Australia	£15,000 (net)
2002 - 08	Diverse small projects	PI	Various	£14,000 (net)
Jun 01 – Sep 02	Sustainable Building Form	PI / coordinator	Tyndall Centre	£27,500 (net)
Jan 01 – Mar 04	RUROS (Assessing the urban microclimate and outdoor comfort)	PI / partner	EU	£89,016 (net)
Jan 01 – Jan 04	Microgrids (Demand and Renewable Energy Supply)	PI / partner	Tyndall Centre	£16,735 (net)
Jul 00 – Feb 06	Environmental Design in Architecture	PI	EPSRC MTP	£417,929 (net)
Jan 00 – Mar 06	Low Energy Building Design	Joint PI	СМІ	£45,000 costs, 2 PhDs and 1 RA (net)

				£2,000,000 (gross)
1997 – 99	PRECis: The potential for renewable energy in cities	PI / coordinator	EU	£180,000 (net)
1995 - 98	Daylighting Design in Europe	CI / coordinator	EU	£144,000 (net)
1995 - 97	Project ZED: Zero Emission Development	PI / coordinator	EU	£168,000 (net)
1994 - 96	Selective Environmental Design	CI	Mitsubishi Fund	£100,000 (net)
93 - 95	Postdamer Platz, Berlin	PI / partner	EU	£ 80,000 (net)

# **External Examining**

BSc (Hons) in Architectural Studies, City University of Hong Kong, 2012-MRes Energy Demand Studies, University College London, 2010-2014 MRes Built Environment: Energy Demand Studies, Loughborough University, 2010-2014 MSc Architectural Engineering: Environmental Design, University of Bath, 2009-2013 MArch Environmental Design, Nottingham University, 2008-2011 MArch, Cardiff University, 2006-2009 MSc Energy and Environment, Architectural Association, London, c. 2004-2007 PhD examiner: EPFL Lausanne, Technical University of Delft, Technical University of Eindhoven, National University of Singapore, Norwegian University of Science and Technology, University of Louvain-la-Neuve, Architectural Association, University College London, Universities of Bath, Cardiff, Cambridge, etc.

#### Editorial board member:

arq: Architectural Research Quarterly (CUP) Journal of Building Engineering (Elsevier) Architectural Science Review (Taylor+Francis) Buildings (MDPI) Journal of Civil, Architectural & Environmental Engineering (China)

#### Other activities, appointments, affiliations and honours

Sept 2015 July 2015	Invited speaker at the 6 <sup>th</sup> Velux Daylight Symposium, London, 2-3 September 2015. Chair of the 7 <sup>th</sup> International Conference on Sustainable Development, Building and Environment, 27-29 July,
June 2015	Reading, UK.
	ESRC-NSFC Academic Reviewer Group Member (Urban Transformations in China)
May 2015 Mar 2015	Chair and speaker at the workshop on Architecture and Health, "Healthy Buidings 2015", Eindhoven, NL.
	Keynote speaker, "Urban form and energy", CEDEUS 2015, Concepción, Chile.
Mar 2015-	Member of the International Advisory Committee, Centre for the Sustainable Urban Development, Chile.
Oct 2014-16	Member of the AstraZeneca Sustainability Advisory Board, AstraZeneca, London.
Oct 2014-	Fellow of Jesus College, Cambridge.
Jan 2014 Nov 2013	Chair of the RIBA East Awards Jury. Expert contributor to the 'Circadian House: Principles and guidelines for healthy homes' report, Velux,
100 2013	Denmark.
May 2013	Invited speaker at the International Daylight Symposium, Copenhagen, 14-16 May.
May 2013	International advisor on the Academic Board, Architecture Section, University of Lausanne (EPFL).
April 2013	Founding member of the WHO Collaboration Centre (Chaired by Prof Derek Smith, Zoology, Cambridge).
Mar 2013	International research advisor for FCT, Lisbon, Portugal, 26-27 March.
Mar 2013	Invited presentation to a Health in Architecture International Workshop, Velux, Copenhagen, 6-7 March.
Jan 2013-	Founder member of the Cambridge Forum for Sustainability and the Environment (www.cfse.cam.ac.uk)
Sept 2012	Convenor of Centenary Symposium of the Department of Architecture, Cambridge, 17 Sept.
Mar 2012	Named as one of "the 50 most influential people in UK sustainability" in BD's inaugural green leaders list.
2012-14	Deputy Convenor for the Built Environment Panel for the Hong Kong Research Assessment Exercise 2014.
Dec 2011	Invited speaker on Comfort in the Urban Environment: From buildings to urban spaces at the Urban
	Climatology Conference, 5-10 December 2011, Chinese University of Hong Kong.
Nov 2011	Invited speaker on Design for Sustainability at "Sustainability Leadership in the Built Environment
	Programme", CPSL/UKGBC, The Møller Centre, Cambridge, 23rd – 25th November.
Oct 2011	External course examiner, joint Masters Degree in Building Energy Demand, UCL and Loughborough.
Aug 2011	Keynote: Occupants and Sustainable Design, "National and Latin American Conference on Comfort and
	Sustainable Construction, XI ENCAC, VII ELACAC", Buzios, Brazil, 17-19 August 2011.
July 2011	Invited speaker to the "Global Collaborative: Sustainable Developments Towards a Green Planet", Kyung Hee
	University, Korea, 18-28 July.
Mar 2011	Invited speaker, "Sustainability Leadership in the Built Environment Programme", Green Buildings
	Council/CPSL, Cambridge, 25.March.
May 2011	Convenor/speaker, Architects of the Future: Learning from the past and challenges for the future,
	"Sustainable Buildings in 2030 Symposium", Cambridge, 3 May.
Mar 2011	Invited speaker at "Cambridge 2030 Visions", Cambridge, 22 March.

Feb 2011	Keynote: Designing for occupant movement in the workplace to improve health, "5th International Symposium
	on Sustainable Healthy Buildings", Seoul, Korea, 10 January.
Feb 2011-14	UK Research Excellence Framework (REF 2014) Panel Member (C16 – Architecture, Built Environment and
lon July 2011	Planning)
Dec 2010	Consultant for UN-Habitat's "Adequate Housing for All" programme (with Matthew French) Keynote paper at the 1 <sup>st</sup> China-UK Forum on Low Carbon Cities and Architecture (LCCA), Harbin Institute of
Dec 2010	
	Technology, China ( <u>http://jzxy.hit.edu.cn/hyhd/dtlt/KeynoteSpeakers/</u> ): "A Pilot Investigation of Occupant Behavior and Energy Demand for the Domestic Sector in China compared to the UK" to be published in
	proceedings.
Nov 2010	Keynote at Conference: "La dimension territoriale des politiques énergétiques et de réduction des gaz à effet
101 2010	de serre", CPDT, Liège, 8-9 November.
Oct 2010	Speaker at the "RCUK Energy Review", Oxford, 27 October.
July 2010-13	Guest Professor, Kyung Hee University, Korea
July 2010	Invited speaker: Global Collaborative: Sustainable Developments Towards a Green Planet, Kyung Hee
	University, Korea (12-23.7.10)
Mar 2010	External PhD examiner, EPFL, Lausanne, Switzerland (10.3.10)
Mar 2010	Invited speaker, Seminar on Sustainable Architecture, Technical University of Norway, Trondheim (8.3.10)
Feb 2010	EPSRC Panel Member for "Process, Environment and Sustainability"
Nov 2009 Oct 2009-11	Member of the International Advisory Panel for Clean Energy, Singapore (19-20.11.09)
Oct 2009-11 Oct 2009-	Member of the Design and Conservation Panel, Cambridge City Council Committee Member of the Cambridge Programme for Sustainability Leadership (CPSL)
2009-	Steering Committee Member, SUE 3 Project "Urban Futures", EPSRC
June 2009	International Committee Member for PLEA 2009, Quebec, Canada (22-24.6.09)
June 2009	Invited speaker at Smart and Sustainable Built Environment (SASBE) (17-18.6.09)
	External examiner for MArch degree, University of Nottingham (16.6.09; 15.6.10)
April 2009-	Expert panel member to review sustainability of NW Cambridge
April 2009	Subject review panel member, Scott Sutherland School of Architecture and the Built Environment, Robert
	Gordon University, Aberdeen (21-22.4.09)
Mar 2009	Member of the "Urban Task Force" committee
Mar 2009	Invited speaker at the "Building Physics and Sustainable Cities" conference, Department of Engineerinng,
Eab 2000	University of Cambridge (17-19.3.09). Invited speaker at the "1st International Symposium on Sustainable Healthy Building", Seoul, Korea (6.2.09)
Feb 2009 Feb 2009	Reviewer of projects for the Dutch Technology Foundation (STW)
Dec 2008	External PhD examiner, The Bartlett, UCL (5.12.08).
Nov 2008	Professorial appointments committee, Technical University of Delft, Netherlands (14.11.08).
Nov 2008	External PhD examiner, Cardiff (11.11.08)
Oct 2008	Conference committee member, "Towards Zero Energy Building", Dublin, 2008.
July 2008	Invited keynote speaker at the Conference of Building Energy and Environment (COBEE), Dalian, China (14-
	16.7.08)
June 2008	Invited international expert, "Clean Energy International Advisory Panel", Singapore (chaired by Lord Oxburgh
	and Mr Lim Siong Guan). (18-20.6.08)
	Examiner, MArch, School of the Built Environment, University of Nottingham (11.6.08).
June 2008	Professorial appointments committee, Department of Civil and Building Engineering, Loughborough University (26.6.08).
May 2008	Panel member, "Question Time on Sustainable Design" (chaired by Griff Rhys Jones) at the RSA, London
May 2000	(7.5.08).
Mar 2008	Examiner, MArch, Welsh School of Architecture, University of Cardiff (19-20.3.08).
Feb 2008	Chair of "Sustain-Ability" conference, Department of Architecture, Cambridge (27.32.08).
Feb 2008	Invited speaker, "Thermal Comfort in Urban Planning and Architecture", University of Kassel, Germany (20-
	21.2.08).
Feb 2008	External PhD examiner, Aalborg University, Denmark (14.2.08).
Jan 2008	Invited speaker, "Heavyweight v. lightweight buildings", Environment Agency, GO-East, Cambridge (28.1.08).
Jan 2008	Examiner, MArch, Architectural Association, London (23.1.08).
Dec 2007	External reviewer, Masters course, UEL, London (19.12.07).
Nov 2007	External reviewer of a new MSC course, "Architectural Engineering", University of Bath (29.11.07).
Nov 2007	Invited 'guest of honour' speaker to open the "Sun, Wind and Architecture" conference, Singapore, and conference committee member (22-24.11.07).
2007	Conference committee membership: "Renewables in a changing climate - Innovation in the Built
2001	Environment", EPFL, Lausanne, 2007.
May 2007	External examiner at the Arabitectural Acception London (16.5.07)

May 2007 External examiner at the Architectural Association, London (16.5.07).

March 2007	Invited speaker at the "Ecobuild 2007" conference, Earls Court, London (2.3.07)
March 2007	( <u>http://www.innovationsforthebuiltenvironment.co.uk/</u> ) Invited international peer reviewer (subject review panel) at the Technical University of Delft (TU Delft), Netherlands (29.3.07).
March 2007	External course examiner, Welsh School of Architecture, Cardiff University (22-23.3.07).
Feb 2007	Invited speaker at "Debating the Evidence: Climate Change", CRASSH, Scott Polar Institute, Cambridge, 15- 16.2.07 (http://www.crassh.cam.ac.uk/events/2006-7/climatechange.html)
Dec 2006	Invited to advise the Deputy Prime Minister as an 'expert' on the principles of sustainable cities under the aegis of the China Task Force (13.3.07 and 20.12.06).
Dec 2006	Invited speaker at the Hong Kong Professional Green Building Council's symposium on "Urban Climate", 2.12.06 (http://www.hkpgbc.org/page7_2.html).
Dec 2006	Professorial appointments committee member at De Montfort University, Leicester (21.12.06).
Sept 2006	External PhD examiner at Lund University, Sweden (15.9.06).
Aug 2006	Invited keynote plenary speaker at the "World Renewable Energy Congress XI", Florence, Italy, 19-25.8.06 (http://www.wrenuk.co.uk/wrecix.html).
July 2006	Invited plenary speaker at the International Association of Urban Climate (IAUC) conference (ICUC-6) in Goteborg, Sweden.
March 2006	Co-chair and co-editor of proceedings, Sustainable Built Environment and Construction, International
2006-09	Conference on Asia-European Sustainable Urban Development, Chongqing University External examiner for the Welsh School of Architecture, Cardiff (RIBA Part 2).
2000-03	Research projects reviewer for both EPSRC (Engineering and Physical Sciences Research Council) and
	AHRC (Arts and Humanities Research Council), as well as the Nordic Science Foundation.
Oct 2005	International Expert Advisory Panel member and invited speaker at the 'Energy and Indoor Environment International Workshop', 12-14 October, University College Dublin.
Oct 2005	Invited co-presenter of 'Sustainable communities in the Pacific North-West' (with Chris Twinn, Arup) at the
0	DTI Global Watch Mission Seminar: 'Towards a low carbon society', 11 October, RIBA, London.
Sept 2005	Invited keynote speaker, session chair and scientific committee member at the CISBAT international
	conference 'Renewables in a Changing Climate: Innovation in Building Envelopes and Environmental Systems', at Ecole Polytechnique Federale de Laussane (EPFL), Switzerland.
Sept 2005	Invited speaker at the EPSRC sponsored Network for Comfort and Energy Use in Buildings (NCEUB) Annual
	Meeting, chaired by Prof Fergus Nicol, 14 Sept., University of Bath.
July 2005	Invited speaker to an international workshop on 'Urban Climatology and its Applications' (UWERN/IAUC),
	Cambridge, organized by the University of Birmingham.
July 2005	Member of a DTI 'Global Watch Mission' to Canada and USA on Low Carbon Technologies.
April 2005 Jan 2005-10	Guest Professor to Aalborg University, Denmark. President of PLEA (the Passive and Low Energy Architecture Association) – an international association of
Jan 2005-10	over 2000 members, 40 Associates and 6 Directors (incl. Profs. Baruch Givoni, Steve Szokolay and the late
Nov 2004	Prof. Jeff Cook). Formally appointed as referee of the international journal 'Building and Environment' (Elsevier).
Oct 2004	Invited speaker at NUTAU (Architectural Technology and Urbanism) International Conference, Sao Paolo,
	Brazil.
Sept 2004	Member of the Editorial Board for the international journal 'Architectural Science Review' (Sydney).
Sept 2004	Appointed member of the RAE 2008 panel 'Architecture and the Built Environment' (UoA 30), nominated by
March 2004	RIBA, SCHOSA and URG(B)E (Universities Research Group for the Built Environment)
March 2004 Jan 2004	Member of the Advisory Board for the International Network of Tropical Architecture (iNTA). Invited keynote speaker and International Referee Panel of the 1st International Tropical Architecture
Jan 2004	Conference 'Architecture and Urban Design in the Tropical Regions: Sustainability and Society', Centre for
	Advanced Studies in Architecture, National University of Singapore (Keynote panel members: Prof Ken
	Yeang, Prof Alexander Tzonis, Prof Donald Watson and Prof Dean Hawkes)
Jan 2004	Member of the Industrial Steering Committee of the INREB / Faraday Consortium (Integrated Renewable
0000	Energy in Buildings) Members (FURO(D) - Universities Research One of far the Built Environment
2003 2003	Member of URG(B)E – Universities Research Group for the Built Environment Member of the Technical Executive Committee of the PLEA 2004 Conference, <i>Built Environment and</i>
2000	Environmental Buildings, Eindhoven, Netherlands.
Oct 2003	Invited keynote speaker and co-chair of the Scientific Committee, 'International Conference on Sustainable
	Development in Building and Environment', Chongching University, China.
April 2003	Invited speaker at a Professional Course on Sustainable Buildings, at MIT, coordinated by Prof. Glicksman.
Mar 2003	Speaker and coordinator of eight CPD events on 'Low Energy Design' for BRE, RIBA and the Carbon Trust
	(in Glasgow, Cardiff, Cambridge and at the BRE in Watford)

Sep 2002	Appointed as Director of the Martin Centre for Architectural and Urban Studies and Head of Research for the Department of Architecture, University of Cambridge (term of appointment until the next RAE – 2007/8).
2002/3	Invited by Dr Alan Meier of the Lawrence Berkeley Laboratories (LBL) in California to guest edit a special issue of <i>Energy and Buildings</i> 'On Urban Research', vol. 31 no. 1, Jan 2003 (ISBN 0378-7788).
2002/3	Member of the Technical Executive Committee of the PLEA 2003 Conference, <i>Rethinking Development: Are</i> we producing a people oriented habitat? Chile.
Sep 2002	Appointed Director of PLEA.
June 2002	Invited speaker at a 3-day professional Summer Course on Sustainable Buildings, MIT Mass., USA.
2002	Guest Professor at the Faculty for Urban Construction and Environmental Engineering, Chongqing University,
2002	Sichuan Province, P. R. China
2002	Member of the International Advisory Committee of the PLEA 2002 Conference, <i>Design with the environment</i> ,
	22-24 July 2002, Toulouse, France.
2002-2006	Member of the Editorial Board of Architectural Research Quarterly, CUP.
2002	Assessor of the RIBA/BRE Ideas Competition for Urban Sustainability, Edinburgh.
2002	Member of the International Scientific Committee for Climate Change and the Built Environment International
	Conference, Manchester, 8-9 April.
2001	Assessor of the RIBA Sustainable Schools Competition, London.
2001	Winner of the ISB (International Society of Biometeorology) Scientific Award in human biometeorology for: M.
	Nikolopoulou, N. Baker and K. Steemers, 'Thermal Comfort in Outdoor Urban Spaces: Understanding the
0000 0000	human parameter', Solar Energy, Vol. 70, No. 3, pp. 227-235, Elsevier, 2001.
2000-2003	Cluster coordinator for the EU <i>EnerBuild</i> Network, responsible for the <i>Building and Urban Design (incl. Refurbishment</i> ) sector.
July 2000	Chairman of the PLEA2000 International Conference, Cambridge (over 250 delegates).
July 1999	Appointed 'Expert Evaluator' under the EU Fifth Framework Programme Energy, Environment and
,	Sustainable Development
Oct 1998	Fellow of Wolfson College, Cambridge
Jan 1997	Joint Director of the Martin Centre, Department of Architecture.
1997	EU Leonardo da Vinci Exchange Programme: NTNU, Norway, July-September.
1996	Assessor for the European Students' Competition Solar Buildings, Stuttgart, Germany (award ceremony in
	Florence, Italy).
1995	Assessor for the European Architectural Ideas Competition Living in the City, Dublin, Ireland.
1994	Member of the Technical Committee: World Renewable Energy Congress, Reading.
1993	Member of the Scientific Committee: European Conference on Architecture, Florence.
1990	RIBA membership and ARB professional accreditation.
1000	Awarded the DIDA Dessered Award

1990 Awarded the RIBA Research Award.