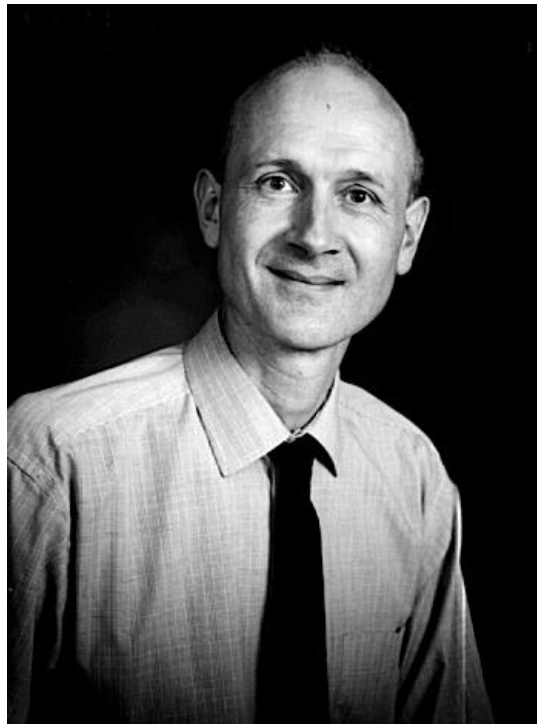


Background details

NAME: Sebastian Galileo Macmillan
DATE OF BIRTH: 16 January 1952, at St Albans, Herts
NATIONALITY: British
STATUS: Married, three children (born 1984, 1986, 1988)
HOME ADDRESS: 17 Lynfield Lane, Cambridge CB4 1DR
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Qualifications

1970-73 University of Liverpool School of Architecture (BA, Hons Architecture 2:1)
1974-76 University of Liverpool School of Architecture (Bachelor of Architecture, Hons 2:1)
1977-80 Royal College of Art (PhD, 1980) (holder of SRC Studentship)
1977 Registered architect, Architects Registration Board (registration no. 44781)
1978 Chartered member of Royal Institute of British Architects (membership no. 4547360)
1988 Fellow of the Royal Society of Arts



Employment and appointments

University of Cambridge – Department of Engineering – Course Director for Interdisciplinary Design for the Built Environment Masters course

In the summer of 2006 I became the Acting Course Director and was appointed to the post from 1 July 2007. I had been associated with the course since 1996 and had been a supervisor, examiner and lecturer. The course is aimed at post-professional graduates in engineering, architecture and related disciplines, and is part-time. It comprises a series of intensive residential weeks which the students spend at the university, each week being made up of lectures from leading UK speakers, together with workshops and a studio design project, which is undertaken in small teams. Between these weeks students complete written assignments. The tasks of the Course Director include promotion, recruitment, managing the residential weeks, providing supervisory support for students. Within the university there are committees to attend, and externally the course benefits from an Advisory Panel and has accreditation from the Joint Board of Moderators (representing ICE, IStructE, and the Institution of Highways and Transportation).

Eclipse Research Consultants (1984 to date)

Established Eclipse Research Consultants in 1984 in partnership with Ian Cooper as a spin-off from Cambridge University. Eclipse specialises in issues concerned with research and innovation in the design, management and use of the built environment, including research into the processes of design and construction, the compilation and technical authoring of new guidance and advice, and impact assessment studies of new information and design tools.

Consortium Manager (part-time), CaRB (Carbon Reductions in Buildings) project (2004-2009)

Appointed from 2004 as part-time Project Manager to the CaRB consortium. The members of the consortium are De Montfort University, University College London, and the universities of Reading, Manchester and Sheffield. CaRB is a major research project (£3m over 4 years) funded by the EPSRC and Carbon Trust as part of Carbon Vision Buildings (CVB) - a research programme aimed at reducing carbon emissions from the UK building stock.

Secretary to the Carbon Vision Building Engagement Group (2005-2009)

Appointed from 2005 as Secretary to the CVB Engagement Group which oversees the three consortia that form CVB – Carbon Reductions in Buildings (CaRB), Building Market Transformation (BMT) and Technology Assessment for Radically Improving the Built Asset Base (Tarbase).

Engineering and Physical Sciences Research Council – Sector Programme Manager (1999-2001)

Responsible for maintaining, developing and promoting the momentum of the *Construction as a Manufacturing Process* programme through networking with academia, the professional institutes, the construction industry and government support agencies. Reinforced links between the programme and the Construction Directorate of DETR, the Construction Best Practice Programme, the Movement for Innovation, the Construction Research and Innovation Strategy Panel, and the Construction Associate Programme of Foresight. Defined a strategic framework for UK construction research. Established a Sector Target Advisory Group (STAG) and chaired meetings of the STAG to assess research proposals and advise EPSRC on the allocation of funds (£3.75m annually). Monitored progress of funded teams from academia and industry and reported to EPSRC.

Senior Research Associate (part-time), The Martin Centre for Architectural and Urban Studies, Department of Architecture, University of Cambridge (1996-2004)

Main tasks were to identify research opportunities and sources of funding, to assist with the preparation of research proposals, and to manage research projects as investigator and/or on behalf of others.

Department of Architecture Research Assessment Exercise submissions 1996 and 2001

Helped to review and edit the Department of Architecture's RAE 1996 submission, when we were graded 5, up from 4 in 1992. For the 2001 RAE submission, I constructed the Department's submission in its entirety (all but for two paragraphs). It was graded at only 4, though the gradings of schools of architecture by the 2001 Panel (of which I was also a member) have been widely questioned and criticised as too harsh.

Won funding for the following projects:

AQIT - Achieving Quality through Interdisciplinary Teamwork (1997-1998)

Funded by EPSRC under the LINK programme *Integration in Design and Construction*. PI named as Robin Spence, although I managed it on a day to day basis.

AQIT-2 - Measuring the benefits of interdisciplinary teamwork in construction (1999-2001)

Follow up to AQIT, funded by EPSRC. Findings from both projects were widely published. PI named as Robin Spence, although I managed it on a day to day basis.

Mapping the Design Process during the conceptual phase of building projects (1998-2000)

Funded by EPSRC under the Construction as a Manufacturing Process programme. PI named as Robin Spence, although I managed it on a day to day basis.

Exploiting the internet to improve collaboration between users and design team: the case of the new Computer Laboratory building at Cambridge

Co-investigator with Paul Richens for this EPSRC-funded project. It was concerned with establishing what at the time (late 1990s) was a novel internet-based communication system between the consultants, the future occupants, and the university Estates Management and Building Services department for the University's new Computer Laboratory.

Modelling energy use in the global building stock – a pilot survey to identify available data sources

Investigator with co-investigator Jonathan Kohler for pilot study about the global building stock to assess the resources needed to build a database of global building stock data that could be used *inter alia* in the E3MG global economic model which is being developed as part of the Tyndall Centre's ETech+ project 'Technology policy and technical change, a dynamic global and UK approach'.

Designing dynamic environments for the performing arts (2005-2008)

Responsible for final compilation and editing of the successful bid to AHRC, PI Alan Short.

Research Assessment Exercise (RAE) (1996 and 2001)

Member of the Industry Sub-panel for Unit of Assessment 33, Built Environment, for the 1996 HEFC Research Assessment Exercise. Industrial member of the Built Environment Unit of Assessment main panel for the 2001 RAE, nominated by the RIBA.

Other items

Member of the Cambridge University Engineering Design Centre Steering Committee, 2002-2006.

Member of the Cambridge University Engineering Department CMI project *Across Design*.

Participant in Cambridge University Engineering Department project on sustainability for Land Securities, led by Peter Guthrie.

Chair of RIBA Research & Innovation committee from 2006. (Deputy Chair 2004-06). Previously: member of the RIBA Higher Education Research Advisory Forum (2000-2004); member of the RIBA Research Committee (1992-2000).

Member of the EPSRC College of Referees and regular referee to EPSRC for research grant proposals in the area of design and the built environment.

DTI Partners in Innovation programme assessor for 1999, 2000, 2001 and 2002.

Regular referee for *Design Studies* and *Building Research & Information*.

Member of the Sounding Panel for AHRC-supported project *Designing dynamic environments for the performing arts* at the Department of Architecture, University of Cambridge.

Member of the steering group for the *CityForm* project, Oxford Institute of Sustainable Development.

External assessor for pre-RAE review of the Construction Management department of Liverpool John Moores University, 2006.

External assessor for pre-RAE review of the Built and Human Environment Research Institute, University of Salford, 2005.

External assessor for mock RAE 2008, Built and Human Environment Research Institute, University of Salford, 2007.

External assessor for Interior Spatial Design course at Chelsea College of Art, 2005.

Member of assessment panel for joint AHRB/EPSRC programme *Designing for the 21st Century*, 2004

Conducted a Research Review of the Faculty of the Built Environment, Dublin Institute of Technology, spring 2003.

Member of 2003 Adjudication Panel for Technological Sector Research - Strand III Core Research Strengths Enhancement, part of the Irish Government's National Development Plan.

Advisor to the Architects for Change group of the RIBA over the *Why Women Leave Architecture* study by University of West of England (2002-2003)

PUBLICATIONS LISTED BY TYPE¹

Books

- 2009 *Integrated teams make sustainable buildings – the O'Neill Report*, published by the Specialist Engineering Alliance.
- 2006 *The Value Handbook*, Commission for Architecture and the Built Environment, 60 pages, ISBN 1 84633 012 2. Re-printed 2007.
- 2004 Editor, *Designing Better Buildings: quality and value in the built environment* Spon Press, 220 pages, ISBN 0 415 31526 3. Author of Chapter 1 *Design as a generator of value*. Includes 18 chapters by leading figures such as Jon Rouse, Sunand Prasad, Richard Feilden, Dickon Robinson, Michael Dickson. Foreword by Robin Nicholson.
- 2001 With Robin Spence and Paul Kirby (joint editors), *Interdisciplinary Design in Practice*, pub. Thomas Telford, London, 227 pages. ISBN 0 7277 3008 8. Three authored chapters: Chapter 12 (with Christopher French) Successful teamwork from day one: running an interdisciplinary design workshop; Chapter 13 Managing an interdisciplinary design team effectively; Chapter 14 (with John Steele) Towards an interdisciplinary design process.
- 1996 Editor of second edition of *Environmental Management for Hotels: the industry guide to best practice*, Butterworth-Heinemann, Oxford, 236 pages, ISBN 0 7506 2728 X.
- 1984 Editor, jointly with I. Cooper and J. Powell, *Designing for Building Utilisation*, E. & F.N. Spon, ISBN 0-419-13470-0. Author of chapter on 'Architects' design strategies; some justifications for current practice'.

Refereed Journal Articles

- 2010 Architectural research and its enemies, ARQ (Architectural Research Quarterly), vol 14, no 1, pp 11-16.
- 2008 with Joseph Lampel and Harry Scarborough, 'Managing through projects in knowledge-based environments' Special Issue Introduction by Guest Editors, *Long Range Planning*, vol 41, no 1, pp 7-16.
- 2006 'Chronicles of the revolution', A review of the book *Change in the Construction Industry: an account of the UK construction industry reform movement 1993-2003* in *Building Research & Information*, vol 34, no 6, pp 600-603.
- 2006 'Added value of good design', *Building Research & Information*, vol 34, no 3, pp 257-271.
- 2005 With Foley, J. 'Patterns of interaction in construction team meetings', *CoDesign*, vol 1, no 1, pp 19-37.
- 2002 'The right vision for construction R&D? Responding to the Fairclough Report', *Building Research and Information*, vol 30 no 5, pp 328-333.
- 2002 With J. Steele, P. Kirby, R. Spence and S. Austin, 'Mapping the design process during the conceptual phase of building projects' *Engineering, Construction and Architectural Management*, vol 9, no 3, pp 174-180 [also published in *Proceedings of CIB W96 Commission on Architectural Management: Design Management in the Architectural and Engineering Office*, (held in Atlanta, May 2000) edited by G Augenbroe and M Prins, CIB Report/Publication 263, pages 97-108, CIB Rotterdam, March 2001, ISBN 90-6363-027-1.]

¹ pdf files of most recent publications can be found on my consultancy website www.eclipse-research.co.uk

- 2001 With Simon Austin, John Steele, Paul Kirby and Robin Spence. 'Mapping the conceptual design activity of interdisciplinary teams', *Design Studies*, vol 22 no 3 pp 211-232.
- 2001 With Simon Austin, John Steele, Paul Kirby and Robin Spence, 'Development and verification of a generic framework for conceptual design', *Design Studies*, vol 22 no 2 pp 161-191.
- 2001 'How does innovation link to research? A review of *Building Innovation: complex constructs in a changing world*' by David Gann, *Building Research and Information*, vol 29, no 3, pp 250-252.
- 2000 Michael Busseri and Jason Palmer, Improving teamwork: the effect of self-assessment on construction design teams, *Design Studies*, vol 21, pp 223-238. [Written by two Research Assistants at the Martin Centre under supervision.]
- 1997 with Tim Knowles and Jason Palmer, 'Environmental initiatives in the hospitality sector', *The Environment Papers Series*, vol 1, no 1, March 1998, pp 30-40, ISSN 1460-1745, published by Glasgow Caledonian University.
- 1983 with I. Cooper and J. Powell, 'Information for Designers', *Design Studies*, vol 5, no 2, pp 113-120.
- 1983 'Synopsis of some recent published studies of the design process and designer behaviour', *Design Studies*, vol 4, no 2, pp 133-140.
- 1981 'Architectural designers' values and the evaluation of their designs', *Design Studies*, vol 2, no 3, pp 131-137.
- 1981 'Empirical and theoretical studies of design judgement: a review', *Design Studies*, vol 2, no 1, pp 19-26.

Conference papers and invited presentations

- 2010 Evidence-Based Architecture, Debate III organised by BD magazine at BDP offices, Clerkenwell, 29 July 2010.
- 2010 with D Clements-Croome and D Mumovich, Designing Intelligent Schools, paper to CIB World Congress, Salford, May 2010.
- 2009 Panellist, Quantifying Quality: can good design be measured, Higher Education Design Quality Forum, Dana Centre, London, 1 December 2009.
- 2008 The influence of building design on scholarly performance – the perceptions of stakeholders in 20 new UK primary schools, paper to Architecture and Behaviour Conference, Monte Verita, Ascona, 14-15 April 2008
- 2005 Zulkiflee Abdul Samad and Sebastian Macmillan, 'The valuation of intangibles: explored through primary school design' paper to CIB W096 Architectural Management, Special meeting on 'Designing value: new directions in architectural management' Technical University of Denmark, Lyngby, Denmark, November 2005.
- 2004 Zulkiflee Abdul Samad and Sebastian Macmillan, Improving design quality and value in the built environment through knowledge of intangibles, paper to International Engineering Management Conference (IEMC) 2004, Singapore, October 2004.
- 2004 Zulkiflee Abdul Samad and Sebastian Macmillan, The underlying real estate value of intangibles in the built environment, paper to International Real Estate Research Symposium (IRERS) 2004, Kuala Lumpur, Malaysia, April 2004.
- 2001 with Simon Austin, John Steele, Paul Kirby and Robin Spence, 'Identifying and managing iteration within the early stages of the building design process', Proceedings of International Conference on Engineering Design (ICED), Glasgow, August 2001, pp 123-130.

- 2000 with John Steele, Simon Austin, Paul Kirby, Robin Spence, 'One step forward and three back: a study of the patterns of interdisciplinary conceptual design'. Proceedings of the Design Research Conference 2000, Coventry, UK, September 2000.
- 1999 with J. Steele, P. Kirby, R. Spence. and S Austin, 'Using training workshops to map interdisciplinary team working'. Proceedings of Chartered Institute of Building Services Engineers National Conference 1999. Harrogate, UK. Pages 38-49, September 1999.
- 1999 with J Steele, S Austin, P Kirby and R Spence, 'Interdisciplinary interaction during conceptual design', pages 297-305, volume 1, *Proceedings of the 15th Annual Conference of ARCOM* (the Association for Research in Construction Management), Liverpool John Moores University, September 1999. Published by ARCOM, Department of Construction Management and Engineering, University of Reading. ISBN 0-9534161-2-7. 2 volumes. Edited by Will Hughes.
- 1999 with J Steele, S Austin, R Spence and P Kirby, 'Mapping the early stages of the design process', pages 1175-1178, volume 2, *Proceedings of ICED 99* (the 12th International Conference on Engineering Design), Munich, August 1999. Published by Technische Universitat Munchen, ISBN 3-922979-53-X. 3 volumes. Edited by U. Lindemann, H. Birkhofer, H. Meerkamm and S. Vajna.
- 1996 with David Curtis, 'The Energy Design Advice Scheme - enlarging the role of the profession', *Proceedings of CIBSE/ASHRAE (Chartered Institution of Building Services Engineers, American Society of Heating, Refrigeration and Airconditioning Engineers) Joint National Conference*, Harrogate, 30 Sept - 2 Oct 1996, volume 1, pages 361-365, ISBN 0 900953 74 8.
- 1994 with David Curtis, 'The Energy Design Advice Scheme - the first two years', *Proceedings of the First International Conference on Buildings and the Environment*, Organised by Task Group 8 (Environmental Assessment of Buildings) of CIB (Conseil International du Batiment), BRE, Watford, 16-20 May 1994.
- 1993 with David Bloomfield and Ian Cooper, 'Environmental Performance Modelling in practice - the pros and cons', paper to *CIBSE National Conference*, Manchester, 1993.
- 1992 'Designers' experiences in using energy and environmental modelling', paper to *BEPAC (Building Environmental Performance Analysis Club) Winter Seminar and AGM*, RIBA, 9 December 1992.
- 1991 with L Shorrocks, J Clark, and G Moore, 'BREDEM-8, a monthly calculation method for energy use in dwellings: testing and development', paper to *BEP (Building Environmental Performance) '91*, proceedings published by Building Environmental Performance Analysis Club.
- 1986 with R. Brewer and I. Cooper 'People, an unresolved problem in the provision of design guidance and tools for low energy building', paper to International Climatic Architecture Congress, Louvain-la-Neuve. Proceedings published by CIACO, ISBN 2-78085-079-4.
- 1984 'Speculative housing: a critical appraisal of the design quality of some starter homes', paper to Conference on Design, Quality, Cost, Profit, Portsmouth Polytechnic, November 1984. Proceedings published by E. & F.N. Spon as *Quality and Profit in Building Design*, edited by Brandon & Powell, ISBN 0-419-13390-9.
- 1982 'Design processes and value theory', paper to *Design Policy Conference*, Royal College of Art, July 1982: Proceedings edited by Richard Langdon, published by the Design Council, 1984, ISBN 0-85072-142-3.
- 1979 with B.G.J. Thompson et al, 'Applications of CEDAR3: case studies from the pre-production trials of a large interactive computer-aided building design system in

United Kingdom Central Government organisations', *Proceedings PARC79 (Planning, Architecture and the Computer) Conference*, IMK Berlin.

Professional and technical press articles

- 2007 'All for one: collaboration is the key to good design' *RIBA Journal*, March 2007, vol 114, no 3, pp 72-75.
- 2005 'Valuable lessons: workshops put a price on intangibles' *RIBA Journal*, September 2005, vol 112, no. 9, Practice Supplement page X.
- 2005 'Professor Bruce Archer, Mechanical engineer who established design as an academic discipline', obituary, *The Independent*, 20 May 2005, p 52-53.
- 2002 'Teamwork is not rocket science', *Civil Engineering*, volume 150, issue 1, February 2002, pp 7-8.
- 2001 'Measuring Teamwork', *Construction Manager*, July/August 2001, page 24.
- 1998 With N Baker and M Buckley, 'Educational Environments', *Architects' Journal*, vol 207, no 8, pp 53-54, 26 February 1998.
- 1982 'At the point of decision', *Building*, 28 May 1982, pp 47-48.
- 1980 with B.G.J. Thompson, 'Computer Aided Design in Practice', *RIBA Journal*, May 1980, pp 67-69.

Best practice publications and case studies

- 2008 Wysing Arts Centre, CABA case study, available at www.cabe.org.uk.
- 2007 *Environmental Sustainability: design guidance note*, Sport England.
- 2007 With David Adamson, Tony Pollington, Kevin Thomas, *The business case for integrated collaborated working*, Constructing Excellence.
- 2004 *Partnering workshops to promote teamwork in the construction of Oakfields Primary School, Wickford, Essex: a case study*, Constructing Excellence.
- 2004 *Effective Teamwork - a good practice guide for the construction industry*, Constructing Excellence (one of key outputs from the LINK/EPSRC funded project Achieving Quality through Interdisciplinary Teamwork.)
- 2003 *CHP in hotels - a guide for owners and managers*, Good Practice Guide 384, Action Energy/CHP Club.
- 2000 *The design team's guide to environmentally smart buildings - energy efficient options for new and refurbished offices*, Good Practice Guide 287, Energy Efficiency Best Practice programme.
- 1999 *Energy efficient refurbishment of schools - the achievements of Bolton Council*, Good Practice Case Study 381, Energy Efficiency Best Practice programme.
- 1998 *Energy management for hospitality students - a teaching pack*, Energy Efficiency Best Practice programme.
- 1998 *Effective management of energy in sports centres - Kirklees Metropolitan Council*, Good Practice Case Study 360, Energy Efficiency Best Practice programme.
- 1997 *Energy efficient refurbishment of hotels and guesthouses - a guide for proprietors and managers*, Good Practice Guide 205, Energy Efficiency Best Practice programme, 16-page guide.
- 1996 *Energy efficiency action pack - for retail premises*, Good Practice Guide 190, Energy Efficiency Best Practice programme, 12-page guide with eight loose-leaf inserts.

- 1996 *Energy efficiency in the catering and hospitality industry: a bibliography and commentary for lecturers and students* (2 volumes), Energy Efficiency Best Practice programme.
- 1995 *Protect our environment - save energy, a guide to managing energy in hotels*, four-page guide with 6 posters, published by BRECSU on behalf of the DoE and the SAVE programme of DGXVII of the European Commission.
- 1995 *The Derwentwater Hotel, Keswick, UK*, Good Practice Case Study 297, Energy Efficiency Office Best Practice programme.
- 1995 *The Munich Park Hilton Hotel, Germany*, Good Practice Case Study 296, Energy Efficiency Office Best Practice programme.
- 1994 *Is your energy use under control? - a practical guide to assessment and action*, Good Practice Guide 136, Energy Efficiency Best Practice programme.
- 1994 *Energy efficient house design - exploiting solar energy*, Good Practice Guide 73, Energy Efficiency Office Best Practice programme.
- 1993 *Energy Efficiency in Hotels - a guide for owners and managers*, Energy Consumption Guide 36, Energy Efficiency Office Best Practice programme.

CRISP (Construction Research and Innovation Strategy Panel) reports

- 2005 CRISP Commission 04/13: Report of the Be/nCRISP Value Task Group.
- 2003 CRISP Commission 02/08: A review of CRISP Task Group recommendations and action plans.
- 2001 CRISP Commission 00/29: An Action Plan for the Environment Agency.
- 2001 CRISP Commission 00/23: An Action Plan for the Economic and Social Research Council.
- 2001 CRISP Commission 00/22: An Action Plan for the Highways Agency.
- 2000 CRISP Commission 00/14: An Action Plan for the Construction Innovation and Research Management (CIRM) Division of the Department of Environment, Transport and the Regions (DETR).
- 2000 CRISP Commission 00/13: An Action Plan for the Engineering and Physical Sciences Research Council.
- 1999 CRISP Commission 99/5: A review of current industry and research initiatives on design.

Other publications

- 2005 *Better designed buildings - improving the valuation of intangibles* This DTI-supported study addressed the need for new valuation methods that credit the intangible benefits arising from good design. The following reports are available at www.eclipse-research.co.uk:
- Introduction to 'intangibles' - a literature review
 - Workshop at PriceWaterhouse Coopers
 - Workshop at CABE
 - Workshop at RICS
 - Final report (17 pages)
 - Summary report (9 pages)

- 2004 Macmillan, S. and Köhler J.H. (2004) 'Modelling energy use in the global building stock: a pilot survey to identify available data sources', *Tyndall Centre Technical Report 6, University of East Anglia*.
- 1998 *Energy Design Advice Scheme (EDAS): Operations and Achievements 1992-1998*, ETSU S/T1/00133/REP, published by Energy Technology Support Unit for the Department of Trade and Industry [an edited version of my final report to BRE.]