



Profession

Sustainability Consultant

Current Position

Director

Joined Arup 1985

Qualifications

Fellow of Royal Society of Arts
B.Sc. (Hons) Architectural Engineering
Chartered Engineer 1984

Professional Associations

Corporate Member: Chartered Institution
of Building Services Engineers
Corporate Member: Energy Institute

Committees

English Heritage / Commission for
Architecture & the Built Environment:
EH/CABE Urban Panel
BRE Certification Sustainability Board
Overseeing BREEAM/ CSH
RIBA Sustainable Futures Committee
Building Regulation Part L review group.
CIBSE Natural Ventilation Application
Manual AM 10: management
committee for review. 2004-2005
UKGBC – Zero Carbon Definition Task
Group

Awards

Building Services Awards 2005
Engineer's 'Taking the Lead' finalist
H&V News/Emap Building Services:
Engineer of the Year 1996 & 2002
H&V Air Movement Product 2002:
Design of heat-recovery wind cowl
Energy Globe Award 2002:
Housing & buildings for BedZED
Building Services Awards 2002:
Environmental Initiative for BedZED

Key Data

Chris Twinn has been actively involved in the design, specification and construction of building engineering services and environmental systems in buildings since 1979.

After spending 5 years working in Arup Associates' integrated architect/ engineer/QS multi-discipline design teams he developed a particular interest in integrating building fabric and services. This has led to an in-depth involvement in the design of fabric and systems for environmentally sensitive buildings, for which he is recognised as a leader in his field.

Chris specialises in the design and delivery of projects where sustainability, with its resource use, social and financial aspects, is a key issue.

Selected Publications

'Mixed-Mode Ventilation Design' CIBSE Applications Manual 13: 2000, section author

'Urban Office' chapter author 'European Directory of Sustainable & Energy Efficient Buildings 1997', James&James

'Specifying Environmental Conditions for Naturally Ventilated Buildings' chapter author, Natural Ventilated Buildings - Buildings for the Senses, the Economy & Society, E & FN Spons

'The New Parliamentary Building' author of technical paper CIBSE National Conference 1997

'Passive control of relative humidity to $\pm 5\%$ ' author of technical paper CIBSE National Conference 1997

'Urban Office of the Future?' CIBSE Journal March 1996

'Power Politics', CIBSE Journal January 1996

'Displacement ventilation - Fact or Fiction?', CIBSE Journal June 1994

Occasional columnist for various technical journals

Selected Design Projects

Barangaroo Development, Sydney
500,000m² mixed use, carbon-neutral, water positive, high density urban new-build.

Samsung Zero Energy House, Seoul
Type 1 carbon neutral with on-site energy autonomy & 80% water use reduction.

Pennbury Ecotown, Leicester Coop team developing a new zero carbon town of some 15,000 homes and 20000m² mixed use

Hanham Hall Carbon Challenge Working for Barratt on the design of the first English Partnership zero carbon development.

Kingspan Zero Carbon Lighthouse
First completed building to achieve Level 6 of the UK's new Code for Sustainable Homes

Stratford City & 2012 Olympic Village
1,200,000 m² mixed-used development with 300 unit retail centre. Development of sustainability strategy, including pathway to 80% carbon reductions and community wide energy systems.

Dongtan Eco-City, Shanghai
Masterplanning, design and business strategy for a carbon neutral city of 1 million people designed to permit a 'one planet' lifestyle Eco-footprint.

Ashford Zero Energy Development
Mixed-use sustainability development of 1000 homes. Carbon neutral using low energy building design & renewable energy.

Beddington Zero Energy Development
Mixed-use sustainability development of 85 homes. Zero fossil energy using advanced low energy building design with carbon-neutral biomass CHP. Extensive water and materials recycling. Photovoltaic solar power generation for electric cars.

National Energy Foundation Headquarters, Milton Keynes
Natural cooling, natural ventilation and exemplar low energy use office building.

Jersey Archive Centre
 $\pm 5\%$ Relative humidity close-control using passive moisture and thermal abilities of the building fabric, with natural ventilation.

New Parliamentary Building (23,000m²), Portcullis House, Westminster, London
Building fabric thermal capacity used to control indoor climate. Night ventilation natural cooling. Highly integrated services, structure and architecture. Ventilated facade with full heat recovery. Direct aquifer cooling source. Low energy use services systems.