

## Peter Braithwaite BSc, MSc, DIC, CEng, CEnv, FICE, MCIWM

Director of Engineering Sustainability, Birmingham Centre for Resilience Research and Education

[School of Civil Engineering \(/schools/civil-engineering/index.aspx\)](/schools/civil-engineering/index.aspx)

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### About

Peter Braithwaite graduated from The University of Strathclyde, with a BSc (Hons) degree in Civil Engineering. After two years working for a site investigation contractor, he continued his studies gaining an MSc and DIC in Engineering Rock Mechanics from Imperial College, London.

Since completing his studies, he has had a varied international career in the construction industry and the built environment gaining expertise in sustainability, urban regeneration, geotechnical engineering, mining and environmental services. During his 27 years with Arup, he reached Director level and successfully developed both environmental and then sustainability businesses.

In 2008 he joined CH2M HILL to take on the role of Head of Sustainability for the London 2012 Olympic Development Agency Delivery Partner, with special responsibility for delivering energy, waste, water, materials, biodiversity and environmental impact sustainability targets.

Peter has special interests in sustainable urban regeneration, in particular investigating the cross discipline impacts of sustainable regeneration from planning, design, infrastructure, biodiversity and social impacts as well as the built form. He has particular interest in developing frameworks, key performance indicators and monitoring and assurance tools for a variety of applications including cities, such as Masdar in the UAE and for strategic sustainability programmes for corporate business as part of organisational change to a more sustainable model.

He was conferred as Honorary Professor in the School of Engineering at the University of Birmingham in 2006 and joined the academic staff on a part - time basis in November 2012.

### Qualifications

- Member of Chartered Institution of Wastes Management, 2002
- Fellow of Institution of Civil Engineers, 1991
- MSC, DIC in Engineering Rock Mechanics, Royal School of Mines, 1978
- BSc (Hons) in Civil Engineering, University of Strathclyde, 1975

### Biography

Peter Braithwaite graduated from The University of Strathclyde, with a BSc (Hons) degree in Civil Engineering in 1975. After two years working for a site investigation contractor, he continued his studies gaining an MSc and DIC in Engineering Rock Mechanics from the Royal School of Mines, Imperial College, London in 1978.

Over the next 15 years, the later 12 with Arup in Hong Kong and Birmingham, Peter developed his skills in geotechnical engineering and mining, working on projects in the Middle and Far East as well as the UK. This included working on, and ultimately leading as Project Director, a 10-year multi-million pound programme to investigate the extent and condition of old limestone mines in the West Midlands and the design and implementation of stabilisation works. Achievements included the adoption of innovative remote sensing techniques to map the water filled underground workings and research and development of a new infilling material, "rock paste", based on waste materials, as a cheap bulk stabilisation material.

Following the completion of the Limestone programme, Peter built up an environmental team for Arup in the Midlands. Under his leadership, the team grew to be 35 strong with an annual fee turnover in excess of £2m. His core expertise was in land regeneration and urban development. His major achievements included designing an innovative reclamation strategy for the £42m Pride Park redevelopment in Derby, which included the first use of a site specific contaminated land classification system. The project won numerous awards, including the national BCIA award for Civil Engineering and the British Commitment to the Environment Award, both in 1999.

For the last 15 years, Peter has developed expert knowledge in the field of sustainability and sustainable development. He has developed sustainability assessment tools, such as Arup SPeAR®, and delivered sustainability assessments, targets and action plans for numerous major built environment and infrastructure projects and programmes across the world.

In 2008 he joined CH2M HILL to take the role of Head of Sustainability for the London 2012 Olympic Development Agency Delivery Partner, with special responsibility for delivering energy, waste, water, materials, biodiversity and environmental impact sustainability targets. On completion of the Olympic Park, he has provided sustainability expertise to a number of major programmes including Masdar City and Qatar 2022 World Cup.

He has developed and implemented programmes to introduce sustainability into organisations, including stakeholder engagement, developing action plans and annual sustainability reporting against targets. His breadth of expertise includes managing business transformation in terms of environmental and sustainable development.

He has particular skills in developing new tools and services, sustainability objectives, strategies and targets for organisations and projects, sustainable development of urban regeneration projects, sustainable procurement and providing technical leadership for sustainability and environmental services

In recognition of his advanced technical and innovative work in sustainable development, Peter was conferred as Honorary Professor in the School of Engineering at the University of Birmingham, UK in 2006. He regularly presents papers at national and international conferences and seminars.

### Teaching

## Teaching Programmes

Mr Braithwaite is involved with teaching sustainability and sustainable development for;

- Postgraduate degree programme Construction Management Masters/MSc/Diploma
- Postgraduate degree programme Geotechnical Engineering and Management Masters/MSc/Diploma/ Certificate
- Undergraduate degree programme Civil Engineering BEng/MEng

## Research

### Research Themes

Sustainability in its widest form; developing tools, procedures and frameworks to enable sustainability to be better understood and embedded into mainstream policy making, business and construction.

Particular interests in researching and developing sustainable strategies and targets for government, organisations and projects, sustainable urban development, sustainable procurement and transformational change of organisations through embedding sustainability.

### Research Activity

- Liveable Cities- transforming the engineering of cities for global and societal wellbeing
- Sustainable Urban Development – Urban Futures
- Mapping the Underworld Network

## Other activities

### Internal Appointments

- Member of Birmingham Policy Commission for Future Cities

### External Appointments

- Chair Sustainability West Midlands (2012 – present)
- Member of journal editorial board for Proceedings of ICE Engineering Sustainability (2010 – present)
- CIWM Corporate Governance and Professional Ethics Committee (2006 – present)
- Director & Deputy Chair Business Council for Sustainable Development-UK Region (2002 – 2012)
- Member of Professional & Technical Panel for Specialists in Land Condition (SiLC) (2001-2012)
- Deputy Chair of Advantage West Midlands Steering Group Member for Environmental Industries Cluster (2000-2010)

## Publications

- Epstein D; Jackson R; Braithwaite P (2011), Delivering London 2012; Sustainability Strategy, Proceedings of ICE Civil Engineering 164 p27 – 33
- Patwardhan AS and Braithwaite PA (2011) Planning for Cities of the Future, Journal of Florida Engineering Society, May 2011, p13 – 15
- Holt DGA, Braithwaite P A, Jefferson I and Chapman D N (2010), Sustainability in geotechnics – how can this be implemented? Geologically Active: Proceedings of the 11th IAEG Congress
- Holt DA, Jefferson I, Braithwaite P and Chapman D N (2010). Embedding Sustainability in Geotechnical Engineering: Part A – methodology. Proceedings of the ICE Engineering Sustainability, 163: p127-135
- Holt DGA, Jefferson I, Braithwaite P A and Chapman D N (2010), Sustainable Geotechnical Design, Proceedings of the Annual ASCE Geo-Institute Conf. Geo-Florida 2010: Advances in Analysis, Modeling & Design, p2925 – 2932
- Jefferson I and Braithwaite P A (2009), Environmental Urban Geotechnics. Engineering Geology for Tomorrow's Cities, International Association for Engineering Geology and the Environment, 10th International Congress, p167 – 176
- Abreu D G; Jefferson I; Braithwaite and Chapman D N (2008), Why is sustainability important in Geotechnical Engineering? Proceedings of ASCE GeoCongress 2008, Geosustainability and Geotechnical Mitigation, p 821-828
- Braithwaite PA (2007), Improving company performance through sustainability assessment, Proceedings of ICE, Engineering Sustainability, Vol 160, p95-103
- Palmer R and Braithwaite PA (2005), Sustainable Planning for Development – Balancing the Conflicting Requirements, Jamaica Institute of Environmental Professionals 2nd National Conference, Sustainable Development; Myths and Realities
- Braithwaite P (2001), Sustainability Assessment of the Development of the New X-TYPE Jaguar, SAE 2001 Environmental Sustainability Conference

