

Proceedings of the 18th Extractive Industry Geology Conference 2014 and Technical Meeting 2015



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St. Andrews, 11th-14th June 2014
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EIG CONFERENCES LTD

Extractive Industry Geology Conferences Ltd is a not for profit company limited by guarantee set up in June 2008 (company number 6621989). The company was established to maintain the well recognised series of biennial conferences that have been held since 1978. The aims of the EIG company are:

1. To run conferences, meetings, site visits and other functions for the benefit of professional persons and students involved in Extractive Industry Geology.
2. To publish Proceedings of conferences and other documents and may support a relevant research as appropriate and may sponsor students undertaking approved courses.

The EIG is run by geo-professionals working within or for the extractive industry sector. There is no formal membership requirement of the EIG which comprises those persons having a particular interest in Extractive Industry Geology. The Company is administered by a series of Trustees (also referred to as Directors) whose appointment and powers are set out in the Articles of Association. There are currently four Trustees, namely:

Chairman	Craig Arditto
Company Secretary	Peter Scott
Treasurer	Graham Smith
Non Executive Director	Geoffrey Walton

Trustees are responsible for the sound running of the company and are ultimately responsible for its proper conduct. No Trustee or other member of the EIG has any shares within the company and no company assets can be assigned to any member of the EIG.

The Trustees report to the Management Board of the EIG which is made up of two sub groups known as the Organising Committee and the Consultative Committee. The roles of these two groups are loosely defined as follows:

- The Consultative Group are the wider body of volunteers whose guidance and advice are sought by the Trustees and Organising Committee.
- The Organising Committee is drawn from the Consultative Group and is specifically tasked with delivering the events and objectives of the Company under the guidance of the Trustees.

An AGM is held annually, and in a conference year, the AGM is held during the conference where all attendees of the conference are encouraged to attend.

The Chairman of the 2014 conference was Clive Mitchell; the Chairman for the 2016 conference (and of the organising committee) is Simon McCurdy.

Front cover photograph:
Hanson's Shap Beck quarry, working Carboniferous Limestone (with permission Hanson UK and courtesy of Peter Scott).

HISTORY OF EIG CONFERENCES AND PUBLICATIONS:

- 1st 9th-10th March 1978. Burlington House, London. No publication.
- 2nd 16th-17th March 1981. Nottingham Playhouse, Nottingham. Some papers published in Transactions of the Institution of Mining and Metallurgy, Section B, Applied Earth Sciences.
- 3rd 21st-22nd March, 1983. University of Warwick. Publication: Atkinson, K and Brassington, R (Eds) 1983. *Prospecting and evaluation of non-metallic minerals*. Institution of Geologists, 263pp.
- 4th 25th-26th March 1985. University of Nottingham. Publication: Scott, P.W. (Ed). 1988. *Extractive Industry Geology 1985*. Industrial Minerals Unit, University of Hull on behalf of the Geological Society (Miscellaneous Paper No. 18), 129pp.
- 5th 23rd-24th March, 1987. University of Keele. Some papers published in Transactions of the Institution of Mining and Metallurgy, Section B, Applied Earth Sciences.
- 6th 17th-18th April, 1989. University of Birmingham. Publication: Gaskarth, J.W. and Lumsden, A.C. (Eds) 1989. *Extractive Industry Geology: Proceedings of 6th Conference*. Institution of Geologists, 267pp.
- 7th 13th-14th April, 1992. University of Leicester. No publication.
- 8th 18th-19th April, 1994. University of Sheffield. Some papers published in Transactions of the Institution of Mining and Metallurgy, Section B, Applied Earth Sciences and in Minerals Industry International.
- 9th 15th-18th April, 1996. University of Warwick. Subsumed into Geoscience 1996 conference of the Geological Society. No publication.
- 10th 1st-2nd July, 1998. Crossmead Conference Centre, University of Exeter. Some papers published in Transactions of the Institution of Mining and Metallurgy, Section B, Applied Earth Sciences.
- 11th 8th-10th May, 2000. Assembly Rooms, Bath. Joint with North American 36th Forum on the Geology of Industrial Minerals. 1st Ansel Dunham Lecture by Richard Fox, RMC Aggregates Ltd. Publication: Scott, P.W. and Bristow, C.M. (Eds) 2002. *Industrial Minerals and Extractive Industry Geology*. Geological Society Publishing House, 384pp.
- 12th 8th-10th April, 2002. University of Leicester. 2nd Ansel Dunham Lecture by David Highley, British Geological Survey. No publication.
- 13th 2nd-4th September, 2004. University of Leeds. 3rd Ansel Dunham Lecture by David Manning, University of Newcastle upon Tyne. Publication: Walton, G. (Ed) 2005. *Proceedings of the 13th Extractive Industry Geology Conference*, Minerals Industry Research Organisation, 255pp.
- 14th 14th-17th June, 2006. University of Edinburgh. 4th Ansel Dunham Lecture by Peter Scott, Camborne School of Mines, University of Exeter. Publication: Walton, G (Ed) 2008. *Proceedings of the 14th Extractive Industry Geology Conference*. EIG Conferences, 109pp.
- 15th 25th-28th June, 2008. Cardiff University. 5th Ansel Dunham Lecture by Nigel Jackson, Executive Director, Quarry Products Association, and Chairman, CBI Minerals Group. Publication: Scott, P.W. and Walton G (Eds) 2010. *Proceedings of the 15th Extractive Industry Geology Conference*, EIG Conferences Ltd 186pp.
- 16th 8th-11th September, 2010. The University of Portsmouth. 6th Ansel Dunham Lecture by Geoffrey Walton, PGW&A LLP and Managing Director, Dustscan Ltd. Publication: Hunger, E. and Walton, G. (Eds) 2012. *Proceedings of the 16th Extractive Industry Geology Conference*, EIG Conferences Ltd 194pp.
- 17th 5th-8th September, 2012. Edge Hill University. 7th Ansel Dunham Lecture by Andrew Bloodworth, British Geological Survey. Publication: Hunger, E., Brown, T. J. and Lucas, G. (Eds.) 2014. *Proceedings of the 17th Extractive Industry Geology Conference*, EIG Conferences Ltd., 202pp.
- 18th 11th-13th June, 2014. University of St. Andrews. 8th Ansel Dunham Lecture by Duncan Wardrop, Wardrop Minerals Management Ltd. Publication: Hunger, E. and Brown, T.J. (Eds.) 2016. *Proceedings of the 18th Extractive Industry Geology Conference 2014 and technical meeting 2015*, EIG Conferences Ltd., 250pp
- 19th 7th-9th September, 2016. University of Birmingham.

Back cover photographs (from top left): Gypsum beds at the extraction horizon in British Gypsum's Birkshead Mine, Vale of Eden, Cumbria; Foss Barytes Mine, near Aberfeldy; Peter Scott explaining the geology of the Assynt Region, NW Highlands, Scotland to Dennis Bryan of Western Lithium, USA at the Knockan Crag Visitor Centre; EIG delegates at the University of St Andrews before the conference meal (all courtesy of Adrian Charters); a view of the foreshore from University grounds at St Andrews (courtesy of Clive Mitchell); EIG delegates at Lafarge Tarmac's Thrislington Quarry, Co. Durham (courtesy of Peter Scott). Background: Lafarge Tarmac's Daviot Quarry, near Inverness, working granitic gneiss (courtesy of Peter Scott).