

Shell London Lecture Series: Stranger than Fiction: Worlds around and beneath us

www.geolsoc.org.uk/shelllondonlectures13

Geological Society of London

Rivers under the sea



SPEAKER: *Jeffrey Peakall (University of Leeds)*

The modern sea-floor has an abundance of giant channels that can be thousands of miles long, up to several miles wide, and hundreds of metres deep. These submarine channels are the feeder systems and arteries of submarine fans, the largest sedimentary deposits on Earth. Surprisingly these giant ocean-floor channels are perhaps the most poorly known large-scale (up to thousands of miles long) geomorphic feature on the planet. Certainly the channels on Mars, and even Venus, are far more widely recognised! These channels are fed by fast moving particulate-laden flows that are denser than the surrounding seawater and known as turbidity currents. Initiation of these flows can result in small tsunamis, and as they travel downslope they can damage sea-floor infrastructure and communications cables; for example they were responsible for a major internet failure in 2006 in the far east. Such submarine channel flows may also play a key role in the carbon cycle through transport and burial of organic material. In addition, the deposits of ancient submarine channels are of increasing importance as hydrocarbon reservoirs, particularly in the Gulf of Mexico and offshore West Africa. Our early models and understanding of these submarine channels were based around comparison with their terrestrial cousins, rivers, yet recent work has highlighted just how dramatically different submarine channels and rivers really are.

Date: Wednesday 17 April 2013

Timings: This lecture will be given at 3pm and 6pm on this day (with tea/coffee served for half an hour before each), so please let us know, when applying for tickets, which talk you would like to attend.

Venue: The Geological Society of London, Burlington House

Entry to this lecture is free to all, but places are allocated on a ballot basis. Please call at reception (to your right) or contact the Society by post, phone, fax or email (see below).



For further information, please contact:
Conference Office, The Geological Society,
Burlington House, Piccadilly, London W1J 0BG
T: 020 7434 9944 F: 020 7494 0579
E: registrations@geolsoc.org.uk
W: www.geolsoc.org.uk/shelllondonlectures13
Follow us on [twitter](#) #shelllecture



In association with
www.shell.com

Shell London Lecture Series Stranger than Fiction: Worlds around and beneath us

All past lectures can be viewed on our website at www.geolsoc.org.uk/shelllondonlectures13

2013 Programme

9 January	Reconciling past and future worlds: Geology and ground engineering	<i>Jackie Skipper, Geotechnical Consulting Group</i>
27 February	Landslides and subsidence: Engineering geology in an age of austerity	<i>David Shilston, GSL President</i>
27 March	Exceptionally preserved fossils: Windows on the evolution of life	<i>David Siveter, University of Leicester</i>
17 April	Rivers under the sea	<i>Jeffrey Peakall, University of Leeds</i>
29 May	Latest developments in Carbon Capture and Storage	<i>Paul Garnham, CCS Project Manager, Shell</i>
3 July	New discoveries of life at deep-sea hydrothermal vents	<i>Adrian Glover, Natural History Museum</i>
11 September	Dwarfism in animals on islands	<i>Victoria Herridge, Natural History Museum</i>
9 October	The Mars Science Laboratory mission: The Curiosity Rover's exploration of Gale Crater	<i>John Grotzinger, Caltech</i>
20 November	Shearwater: Geology Under Pressure	<i>Caroline Gill, Senior Production Geologist, Shell</i>
18 December	Lakes Beneath the Ice	<i>Martin Siegert, Edinburgh University</i>



For further information, please contact:
Conference Office, The Geological Society,
Burlington House, Piccadilly, London W1J 0BG
T: 020 7434 9944 F: 020 7494 0579
E: registrations@geolsoc.org.uk
W: www.geolsoc.org.uk/shelllondonlectures13
Follow us on [twitter](#) #shelllecture



In association with
www.shell.com