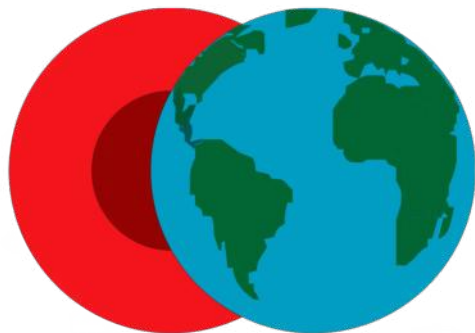


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Earth Science Teachers' Association

[www.esta-uk.net](http://www.esta-uk.net)

Registered Charity No. 1005331

Newsletter Editor: Maggie Williams

**ESTA COUNCIL 2012**[contact@esta-uk.net](mailto:contact@esta-uk.net)**Maggie Williams**

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**Welcome to ESTA News 2012**

The first issue of ESTA News for 2012 features photographs taken by the Editor on a recent visit to Venice. In 1987 the city, its islands and lagoon were collectively designated a UNESCO World Heritage Site. Venice is made up of 118 islands, 416 bridges, 177 canals and 127 campi (squares) so it is not surprising that Venice has been called 'City of Canals', 'City of Water' and 'City of Bridges'.

Do send photographs for the next newsletter to the Editor at [hiatus@liv.ac.uk](mailto:hiatus@liv.ac.uk)



San Giorgio Maggiore



San Pietro di Castello

**What's new in the field?****Geology of the Bath District: Brief Sheet Explanation plus map E265.**

This pack was published by BGS in 2011. (ISBN: 9786000008147) Price: £18.00.

**The Roadside Geology of Wales: Geologists' Association Guide No. 69**

This guide, written by Jim Talbot and John Cosgrove, was published in 2011. (ISBN: 9780900717512) Price: £19.

**Hertfordshire Geology and Landscape** by John Catt and published in 2010 by Hertfordshire Natural History Society. (ISBN: 978-0952168591) Price: £39.50.

**British Wealden Fossils** edited by David J. Batten, 2011.

(ISBN: 97814443667119) Price: £24.

**The Cannock Chase Geotrail.** Published by GeoConservation Staffordshire.

The leaflet is available from:

<http://www.esci.keele.ac.uk/srigs/Geotrails/CannockChase/cannockchase.html>

**Geology of the Jurassic Coast: The Isle of Purbeck - Weymouth to Studland**

This 2011 publication was written by Paul Ensom and Malcolm Turner. (ISBN: 9781907701009) Price: £9.95.

**The Geology of Barcelona: Geologists' Association Guide No. 70**

A useful guide by Wes Gibbons and Teresa Moreno published in 2012. (ISBN: 9780900717567) Price: £12.00.

**Carboniferous Geology Bowland Fells to Pendle Hill** edited by Paul Kabrna.

Published by Craven & Pendle Geological Society in 2011. (ISBN: 9780955528910) Price: £9.50.

**Rock Tales** by Chris Fletcher.

This 2011 publication includes sketch maps and stories about how Anglesey's geological landscape formed. (ISBN: 9781847713803) Price: £6.95.

**Field Geophysics** by John J. Milsom and Asger Erikson

Revised 4<sup>th</sup> edition published by Wiley-Blackwell, 2011. (ISBN: 0470749849) Price: £22.50

# Congratulations to two ESTA members

**Duncan Hawley:** Duncan received the Geography Association's Annual Award for Excellence at the GA Conference in Manchester in April, 2012. This award is presented to a person who has made a significant contribution to the GA's work over the year. Duncan has been an active member of the GA for many years and is a member of the Education Committee. During the last year he played a major role in developing and presenting the GA's position on the role of geography in the Earth sciences as part of the National Curriculum review.

**Chris King:** The Geologists' Association presented the Halstead Medal to Chris at their AGM in May, 2012. This medal is awarded for work of outstanding merit, deemed to further the objectives of the Association and to promote Geology.



Grand Canal. This canal is 4 km long. In 1818, Lord Byron swam the length of the canal.

Gondolas and private boats in a residential area.

The city of Venice was not built directly on the surface of the small islands in the lagoon, but is built on wooden platforms kept together by wooden piles driven deep into the compressed clay below.

The MOSE system is a civil engineering project that was started in 2003. It uses rows of mobile floodgates which isolate the Venetian lagoon from the Adriatic Sea when the tide reaches 1.1m to 3m above an established level. Together with other measures such as coastal reinforcement, raising the quay sides & paving and improvement of the salt marsh, mudflat and shallow water environments in the lagoon, the MOSE system will protect Venice against flooding.

This link explains how the MOSE system works: <http://www.i-italy.org/11150/how-italian-technology-trying-save-venice-mose-project-presented-new-york>

## Useful websites

<http://earthscienceguy.blogspot.co.uk/>

This gives Rod Benson's 'Earth Science Resource of the Week'.

<http://www.bgs.ac.uk/news/updates.html>

Check this link to get news and updates from the BGS.

<http://www.discoveringfossils.co.uk/>

This site has a collection of online resources and guided fossil hunts.

<http://www.geolsoc.org.uk/gsl/education/schools/climatecompetition>

Use this link to see the winning entries of the recent GSL poster competition on climate change.

<http://www.bgs.ac.uk/contacts/sites/keyworth/geologicalWalk/home.html>

This site shows the 'Walk through Geological Time' at BGS, Keyworth. Download the geological walk leaflet here.

<http://www.bgs.ac.uk/research/groundwater/catchment/EDENVALLEY.html>

This details results of an investigation of land use & groundwater quality in the Eden Valley.

<http://www.bgs.ac.uk/research/highlights/2012/lakeWindermere.html>

This outlines the results of the first geological survey of Windermere. The resulting map will help scientists understand how the lake evolved after the last Ice Age.

<http://www.bgs.ac.uk/research/groundwater/health/BottledWaterBritishIsles.html>

This site shows results of a BGS survey of the inorganic chemistry of bottled natural mineral waters & spring waters from across the British Isles. Analyses included the major ions and a range of trace elements.

<http://www.bgs.ac.uk/research/groundwater/waterResources/endOfDrought2012.html>

This useful link gives information about the 2012 drought in the UK and features BBC programmes about the drought.

<http://www.discover-the-world.co.uk/school/trip/en/study-aid/volcano/maps-and-diagrams/>

Log into this site and receive a free online Eyjafjallajokull Study Aid. (This resource won a GA silver award in 2012)

<http://www.schoolsobservatory.org.uk/obs>

The 'Go Observing' tool here allows teachers and students to download images from the Liverpool Telescope.

<http://www.bbc.co.uk/news/science-environment-17445936>

This site describes how satellite readings show Venice continues to sink.

<http://www.geolsoc.org.uk/page11356.html>

This site explains the reasons for the move away from the printed map to a digital 3D National Geological Model.



# Diary Dates 2012

## Until 2<sup>nd</sup> September

Exhibition: Scott's last expedition  
Natural History Museum, Cromwell Road, London, SW7 5BD  
Contact: [www.nhm.ac.uk/visit-us/](http://www.nhm.ac.uk/visit-us/)

## 9<sup>th</sup> - 10<sup>th</sup> June

Kempton Park Rock'n'Gem Show,  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 16<sup>th</sup>-17<sup>th</sup> June

Somerset Rock'n'Gem Show,  
Shepton Mallet, Somerset  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 27<sup>th</sup> June

Shell London Lecture: Sustainability of groundwater in a changing world

The Geological Society,  
Burlington House, Piccadilly, London, W1J 0BG  
Contact: [www.geolsoc.org.uk/gsl/events/shellondonlectures12](http://www.geolsoc.org.uk/gsl/events/shellondonlectures12)

## 4<sup>th</sup>-8<sup>th</sup> August

Kempton Park Rock'n'Gem Show,  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 11<sup>th</sup>-12<sup>th</sup> August

Rock'n'Gem Show, Royal Welsh Showground, Builth Wells  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 1<sup>st</sup> September

Hampshire Mineral and fossil Fair  
Community Centre, Lyndhurst, Hants  
Contact: [www.sotonminfoss.org.uk/smfsprog.htm#sep](http://www.sotonminfoss.org.uk/smfsprog.htm#sep)

## 5<sup>th</sup> - 8<sup>th</sup> September

Extractive Industry Geology (EIG) Conference,  
Edge Hill University, Ormskirk  
Contact: <http://www.eigconferences.com/>

## 8<sup>th</sup>-9<sup>th</sup> September

Newton Abbott Rock'n'Gem Show, Newton Abbott Racecourse  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 22<sup>nd</sup> - 23<sup>rd</sup> September

Newark Rock'n'Gem Show, Newark Showground  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 26<sup>th</sup> September

Shell London Lecture : Volcanoes and man  
The Geological Society,  
Burlington House, Piccadilly, London, W1J 0BG  
Contact: [www.geolsoc.org.uk/gsl/events/shellondonlectures12](http://www.geolsoc.org.uk/gsl/events/shellondonlectures12)

## 28<sup>th</sup>-30<sup>th</sup> September

ESTA Annual Conference: Digital tools for geology teaching  
BGS, Keyworth  
Contact: [linmarshall@btinternet.com](mailto:linmarshall@btinternet.com)

## 6<sup>th</sup> - 7<sup>th</sup> October

York Rock'n'Gem Show, York Racecourse  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 10<sup>th</sup> October

Shell London Lecture : Pollutants and human health in the age of man

The Geological Society,  
Burlington House, Piccadilly, London, W1J 0BG  
Contact: [www.geolsoc.org.uk/gsl/events/shellondonlectures12](http://www.geolsoc.org.uk/gsl/events/shellondonlectures12)

## 13<sup>th</sup> - 14<sup>th</sup> October

Newton Abbott Rock'n'Gem Show, Newton Abbott Racecourse  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 22<sup>nd</sup> - 23<sup>rd</sup> October

Lecture: Appreciating Physical Landscapes: Geotourism 1670 - 1970.

The Geological Society,  
Burlington House, Piccadilly, London, W1J 0BG  
Contact: [t.hose123@btinternet.com](mailto:t.hose123@btinternet.com)

## 27<sup>th</sup> - 28<sup>th</sup> October

Kempton Park Rock'n'Gem Show, Kempton Park Racecourse  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 3<sup>rd</sup> - 4<sup>th</sup> November

Cheltenham Rock'n'Gem Show, Cheltenham Racecourse  
Contact: [www.rockngem.co.uk](http://www.rockngem.co.uk)

## 10<sup>th</sup> -11<sup>th</sup> November

Festival of Geology  
University College London, Gower Street, London WC1E 6BT.  
Contact: [www.geologistsassociation.org.uk/Festival.html](http://www.geologistsassociation.org.uk/Festival.html)

## 14<sup>th</sup> November

Shell London Lecture: Geological Aspects of Renewable Energy.  
The Geological Society,  
Burlington House, Piccadilly, London, W1J 0BG  
Contact: [www.geolsoc.org.uk/gsl/events/shellondonlectures12](http://www.geolsoc.org.uk/gsl/events/shellondonlectures12)

## 19<sup>th</sup> December

Shell London Lecture : Incoming: Learning to love the meteorite  
The Geological Society,  
Burlington House, Piccadilly, London, W1J 0BG  
Contact: [www.geolsoc.org.uk/gsl/events/shellondonlectures12](http://www.geolsoc.org.uk/gsl/events/shellondonlectures12)

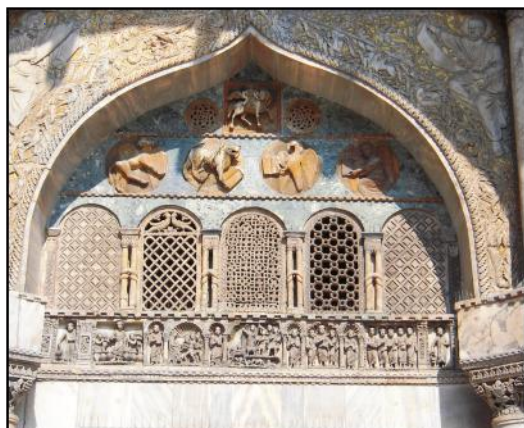
## Conferences in 2013 and 2014:

2<sup>nd</sup> - 5<sup>th</sup> January 2013 ASE Annual Conference, University of Reading

8<sup>th</sup> - 10<sup>th</sup> April 2013 GA Annual Conference: Looking to the future, University of Derby

September 2013 ESTA Annual Conference, Plymouth University

September 2014 ESTA Annual Conference, Open University



Basilica: Byzantine pierced stone screens showing delicate geometrical designs and intricate lattice-work



Detail of The Tetrarchs: porphyry statue near Basilica San Marco



St Mark's Square: detail of stone carving on a column

# New National Planning Policy Framework

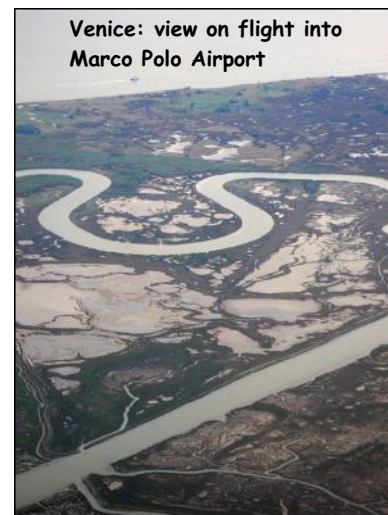
The new National Planning Policy Framework (for England) was published in March 2012 by the Department for Communities and Local Government:

<http://www.communities.gov.uk/publications/planningandbuilding/nppf>

This is a lot better for geoconservation than was expected following the June 2011 White Paper - "The Natural Choice: securing the value of nature". Intense lobbying by GCUK and others has paid off. A quick look at NPPF reveals Geo in three parts of section 11 - Conserving and enhancing the natural environment, and in the Glossary.

Landscape is more abundant, but we need to be ever vigilant!

John Reynolds (GeoConservationUK) [www.gcuk.org.uk](http://www.gcuk.org.uk)



Venice: view on flight into Marco Polo Airport



Aerial view of Venice

## Volunteers needed

Can you spare a couple of hours to look after the ESTA stand at one of the following conferences?

\*ESTA Conference, 2012 at BGS, Keyworth on 28<sup>th</sup>-30<sup>th</sup> September.

\*ASE Conference, 2013 at Reading University on 2<sup>nd</sup>-5<sup>th</sup> January.

\*The GA Conference, 2013 at the University of Derby on 4<sup>th</sup>-6<sup>th</sup> April.

If you can help, please email: [webmaster@esta-uk.net](mailto:webmaster@esta-uk.net) with the subject **BOARDS**.

(ESTA will pay volunteers their travel expenses)

## What's included with Newsletter 4.1?

The CD 'Metals - where on Earth do they come from?', which is included with ESTA NEWS 4.1 is an teaching resource provided for ESTA members by MinSouth: a London based society for students and professionals in the mining sector. MinSouth is a Local Society for the Institute of Materials, Minerals and Mining. Your CD includes two PowerPoints. The first deals with geology and the work of geologists in locating possibly economic metalliferous mineral deposits, while the second describes what mining engineers, mineral processors and extractive metallurgists do in order to obtain the metals contained in these deposits. These resources were compiled and designed by Tony Brewis who is a mining/mineral processing engineer. ESTA is not only grateful to Tony Brewis, Gavin Bowyer and other members of MinSouth Council for providing this CD to support the teaching of geology (a subject relevant to the mineral mining industry), but also welcomes the opportunity to develop links with MinSouth.

If you would like to find out more about MinSouth, please go to: [www.minsouth.org.uk/](http://www.minsouth.org.uk/)



Doge's Palace: official residence of 120 doges who ruled Venice (697 to 1797).



Basilica San Marco: facade showing fine marble statues.



Crumbling Venetian building. Porous stucco must be used for renovation. In Venice's damp conditions everything else tends to fall off in sheets causing a hazard to passers-by.

## Quotes of the day

Venice, the only place where you can get seasick by crossing the street. Anonymous

All that glitters is not gold.  
Shakespeare (The Merchant of Venice)

In 1966 121,000 Venetians lived in the historic centre whereas about 60,000 live there today. At this rate, some experts expect that in 2030 Venice may be a ghost town, populated only with tourists, coming in at morning until evening, like in a big theme park.

<http://www.veneto-explorer.com/facts-about-venice.html>

A city for beavers. Ralph Waldo Emerson

Venice would be a fine city if it were only drained. Ulysses S. Grant

Though there are some disagreeable things in Venice there is nothing so disagreeable as the visitors. Henry James

Venice is like eating an entire box of chocolate liqueurs in one go. Truman Capote

Streets flooded. Please advise. Robert Benchley, (telegram from Venice to his editor)

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