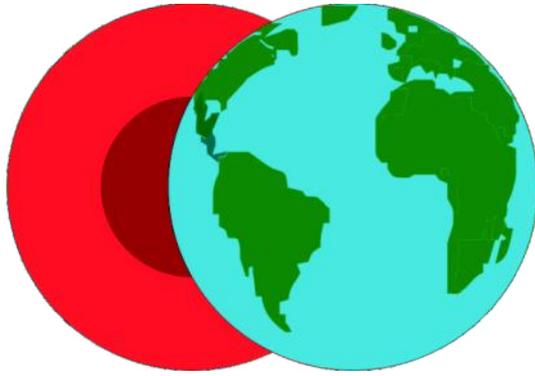


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Earth Science Teachers' Association

www.esta-uk.net

Registered Charity No. 1005331

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Happy New Year from ESTA News

This is our last issue of ESTA News for 2010 and we send you seasons greetings and best wishes for 2011. We aim to keep you in touch with ESTA's activities and up to date with news of events, training sessions, conferences, courses and field work activities.

In this edition many photographs show old and new quarries and illustrate some of the 'other' activities that can take place in these quarries when they are no longer working. Quarries featured include: Park Hall Quarry in Staffordshire, Bardon Hill Quarry, Leicestershire, the Alexandria Quarry near Llanberis, and two smaller quarries near Llanferres in North Wales and in Abereddi Bay, Pembrokeshire.



Do send photographs for the next newsletter to the Editor at hiatus@liv.ac.uk

What's new in the field**Fossils of the Gault Clay: Field guide to fossils no. 12.**

Published by the Palaeontological Society, this guide is a wealth of information about the fossils in the Gault Clay. (ISBN: 978-1-4443-3542-2) Price £18.

Geologists' Association Guide No 67: The Dalradian of Scotland by Jack Treagus.

This follows the usual GA guide format and gives a background description of the geology followed by a series of excursions. (ISBN: 978-0900717-85-7) Price £19.

An Excursion Guide to the Moine Geology of the Scottish Highlands by Rob

Strachan, Ian Alsop, Clark Friend & Suzanne Miller

Published in 2010 by National Museums Scotland, this book details 14 different excursions in the Northern Highlands. (ISBN: 978-1-905267-33-0) Price £17.99.

Exploring the Limestone Landscapes of the Peak District by T. Ford and J. Gunn.

A walking and cycling guide was published by the British Cave Research Association in 2010. (ISBN 978-0-900265-35-8) Price £5.50.

Landscapes of Cumbria. No 4 Lakeland Rocks: An Introductory Guide by Alan Smith.

Published by Riggside Publications, this is a useful introductory guide. (ISBN: 0-9544-678-3-7) Price £4.99

Countryside Explorer: Rocks. This is one of a series of booklets, published by the Countryside Commission for Wales (CCW), aimed at primary school children. Available free direct from CCW, Tel: 0845 1306 229

Lake District Mountain Landforms by Peter Wilson.

An excellent guide to the landforms of the Lake District and also a good introduction to the science of geomorphology, published in 2010 by Scotforth Books, Lancaster. (ISBN 13: 978-1904244-56-1) Price £20.

Assynt 1:50 000 (Scotland Special Sheet) Bedrock Geological Map,

Published by BGS in 2007. (ISBN: 978-0-7518-3511-3 flat or folded and cased ISBN 978-0-7518-3512-0) £12.

The Purbeck Limestone Group. Virtual geology field trips to Purbeck Limestone quarries in South Dorset.

CD available from: Alan Holiday, 7, Whitecross Dr., Weymouth, Dorset, DT4 9PA. £5 (inc. p&p)..

Geology Exam entries up!

This year A2 entries were up to 1893 from 1740 last year, a 9% rise, AS entries were up to 2635 from 2438 (an 8% rise) but the biggest leap was at GCSE level, to 1007 from 812 (a 19% rise), and all this before the new GCSE Geology specification 'kicks in' next year.

Keep up the good work everyone!

iGeology

This is the new free iPhone App that lets you take a geological map of Britain with you wherever you go to help you learn about the rocks beneath your feet. And with the 'phone's GPS, you'll know exactly where you are. (From early 2011 Android smartphone users will be able to use iGeology)



Do you know?

- ❖ You can support the **GEOTREX** project by contributing your ideas, worksheets, schemes of work and other teaching resources? Please submit items by email to: webmaster@esta-uk.net with the subject **GEOTREX**.
- ❖ The **Corti Science Prize** is organised by a small charity dedicated to promoting science education for young people. As part of this they run an annual science essay competition, with a £2000 cash prize, for A-Level students planning on studying a science subject at university. This year's competition opened on 1st November and closes on 31st March 2011. The title of this year's essay is: "Pick an experiment or theory from the history of your subject, explain it, and discuss its effects on Society since then." More information, tips and entry forms can be downloaded from: <http://www.cortiscienceprize.org/>



**Energy
from the sea**
Why not come to the
Durham Conference
to find out more?

Useful websites

http://myweb.facstaff.wvu.edu/talbot/RGW/1-INTRO_files/1-INTRO.htm

This website covers the 'The Roadside Geology of Wales' and gives 18 roadside routes across all parts of Wales.

www.jncc.gov.uk/default.aspx?page=2947

The Joint Nature Conservation Committee (JNCC) is making all of its GCR site reports available through this JNCC website.

www.bgs.ac.uk/earthwise

A bumper new edition of Earthwise Magazine was published this Autumn. Earthwise is a twice-yearly, full-colour magazine focusing on geoscience themes across the range of the BGS's activities and expertise. UK Government austerity measures mean that BGS need to make some savings so until further notice this magazine is only available online at this web address.

http://www.geoparkshetland.org.uk/our_geopark.html

Geopark Shetland was added to the Global Network of National Geoparks in 2010. Find out more.

www.nerc.ac.uk/publications/planetearth/2010/summer

More austerity measures - 'Planet Earth' is now only available as an E-magazine or pdf here.

<http://www.earth4567.com/>

Two new Earth Science teaching presentations for 7 to 9 year olds added to this website.

www.beachy-head.ukfossils.co.uk

This site deals with Beachy Head fossils and fossil collecting.

<http://www.wwnorton.com/college/geo/egeo/index/animations.htm>

This site shows some great animations.

http://www.bgs.ac.uk/education/climate_change/home.html

This is where to find the British Geological Survey's Climate Change website.



ESTA Annual Secondary Workshop

- * We will be running the 2011 ESTA Secondary Workshop on Saturday May 7th in the Science Learning Centre at Keele University. We hope you will be able to join us. Travelling expenses will be paid by ESTA and a buffet lunch will be provided.
- * Previous events have been an excellent way to meet other like-minded teachers from a range of schools, colleges and universities. You can exchange ideas, catch up with news - and have fun developing teaching materials.
- * Ideas and suggestions for teaching materials that you'd like to see developed are welcome.

If you are interested in participating, or have ideas for new teaching materials, please email Chris King at: chris@cjhking.plus.com

Diary dates

5th-8th January 2011

ASE Annual Conference, University of Reading

Further details: www.ase.org.uk/

8th January

Lecture: **Braving the Elements**

University of Southampton, SO17 1BJ

Further details: www.rsc.org

12th January

Lecture: Shropshire Unconformities

Shire Hall, Shrewsbury

Further details: info@shropshiregeology.org.uk

15th - 16th January

Chepstow Race Course Rock n Gem Show

Further details: www.rockngem.co.uk

19th January

Lecture: Icelandic volcanoes, interactions between volcanoes, ice and atmosphere

The Geological Society, Burlington House.

Piccadilly, London, W1J OBG

Further details: www.geolsoc.org.uk/

19th January

GEES Event: Geoscience Graduates for the 21st Century

School of Earth & Environment, University of Leeds

Details from:

www.gees.ac.uk/events/2011/earthsci11/earthsci11.htm

22nd - 23rd January

The Hop Farm Rock n Gem Show, Paddock Wood, Kent

Further details: www.rockngem.co.uk

5th - 6th February

Newton Abbott Rock n Gem Show

Further details: www.rockngem.co.uk

9th February

Lecture: Longmyndian fossils

Shire Hall, Shrewsbury

Further details: info@shropshiregeology.org.uk

16th February

Lecture: Challenged by carbon: Geologists, the oil industry and climate change

The Geological Society, Burlington House.

Piccadilly, London, W1J OBG

Further details: www.geolsoc.org.uk/

26th - 27th February

Hatfield House Rock n Gem Show

Further details: www.rockngem.co.uk

16th March

Lecture: A mole in London: tunnelling beneath the city for major transport and infrastructure projects

The Geological Society, Burlington House.

Piccadilly, London, W1J OBG

Further details: www.geolsoc.org.uk/

19th- 20th March

Kempton Park Racecourse Rock n Gem Show

Further details: www.rockngem.co.uk

14th-16th April

Conference: Progress in Geography

University of Surrey, Guildford

Further details: <http://www.geography.org.uk/>

20th April

Lecture: The Anthropocene: Living in a new age

The Geological Society, Burlington House.

Piccadilly, London, W1J OBG

Contact: www.geolsoc.org.uk/



Looking forward to ESTA Conference 2011

ESTA's Annual Conference (1st-3rd July) will be hosted by the Department of Earth Sciences at Durham University. The conference is aimed at all those teaching Earth Sciences, at all levels from Primary to HE, with a programme that includes:

- * Interactive workshops dealing with a wide variety of Earth Science topics using Durham's state-of-the-art facilities
- * Keynote lectures focusing on the energy crisis
- * Field trips visiting the North Pennines AONB (a UNESCO European and Global Geopark) and other global type localities.

The conference will be held on the Science Site at Durham University where the Department of Earth Sciences is in a new purpose-built building.

www.durham.ac.uk/earth.sciences

For more information about the Conference Programme or the Department of Earth Sciences at Durham University, please contact Dr. Paula Martin: paula.martin@durham.ac.uk.

For more information about bookings please contact the Conference Administrator, Linda Marshall: linmarshall@btinternet.com

What's new on the ESTA website

* ESTA forum

A discussion area for ESTA members has been set up to encourage debate about matters of interest to the membership. Because of the nature of web forums it is not possible to exclude non-members from joining in, but the fact that you have to register with a genuine email address before you can make a comment is our guarantee of the safety of the forum.

*STEGO

A new resource area (**S**econdary **T**eachers **E**xchanging **G**eology **O**nline) for KS3 and KS4 has been added parallel to GEOTREX. At present it only has a couple of items in it, but it is intended that items in GEOTREX that would be suitable for KS3 and KS4 might be linked in. (The area is password protected and is found off the Resources menu - teaching resources - STEGO)

*News and updated resources

The news section of the website has been updated and new items added to GEOTREX.



The ESTA Webmaster taking a break on his field visit to Bardon Hill Quarry.

Percy the Plesiosaur appeal - in memory of Fred Broadhurst

In 1960, Fred Broadhurst, a geologist at Manchester University, led a student field trip to the Yorkshire coast. A piece of fossilised bone was discovered, which turned out to be part of a near-complete plesiosaur. This fossil was rescued, placed on display at the University and named 'Percy' by Fred. If you would like to join the appeal to preserve this rare fossil visit: www.percyappeal.co.uk

Volunteers needed

Can you spare a couple of hours to help look after the ESTA stand at various conferences (e.g ASE 2011 at Reading, GA 2011 at Guildford & ESTA 2011 at Durham)? It's a new way to meet people - and we will pay your travel expenses. If you can help, email: webmaster@esta-uk with the subject BOARDS.

Rocks and books available for collection

Various rock and mineral kits, microscope slides, posters and geology books have been donated for distribution to those in need. If you are interested in 'adopting' these items, please contact Jane Giffould by email: jgiffould@aol.com or 'phone 01787 476700. Jane lives in Essex within easy reach of the M11. She will be at the ASE 2011 Conference and will probably have these resources with her.

Just to show there is the right way of using a rock or quarry face - and the wrong way!



"During my second year at Edinburgh (1826-27) I attended Jameson's lectures on Geology and Zoology, but they were incredible dull. The sole effect they produced on me was the determination never as long as I lived to read a book on Geology."
Charles Darwin

"A geologist is a fault finder."
Anon

"Gneiss Chert!"
(Seen on a T-shirt by Isabel - on Twitter)

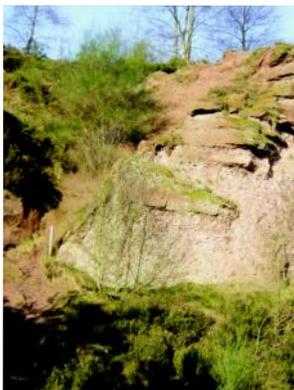
Quotes of the day

"My formula for success?" ... "Rise early. Work late. Strike oil."
J.Paul Getty

"Physical geography and geology are inseparable scientific twins."
Sir Roderick Impey Murchison

"We learn geology the morning after the earthquake."
Ralph Waldo Emerson

"With their four-dimensional minds, and their interdisciplinary ultraverbal way, geologists can wriggle out of almost anything."
John McPhee



Photographs of quarries in this edition were taken by the editor during 2010. In the UK there are many disused quarries. Most of these were originally used for supplying stone for local needs. Many are in private ownership. The owner's permission should be sought before visiting any potential quarry for fieldwork activities. Please also remember that:

- * A disused quarry might have been used for landfill and may have been backfilled entirely.
- * Old quarry faces are rarely maintained and may be unstable.
- * Quarries are often poorly drained; the floors may be boggy and quarry lakes may be very deep and cold.
- * Many old small quarry sites may no longer be easily recognisable as quarries due to erosion, vegetation and infilling.
- * Old quarry sites become re-vegetated and may contain features of ecological value.
- * Quarry sites may be of particular geological interest regionally (RIGS), others may be a Sites of Special Scientific Interest (SSSI).

n.b. The GeoconservationUK Education Project [Earth Science On-Site] uses former aggregates sites to develop and publish examples of high quality Earth Science field teaching activities for schools. (See the link below)

ESTA NEWS is published biannually.
The next copy deadline is 15th May 2011.

http://www.ukrigs.org.uk/esos/wiki/index.php5?title=Main_Page