



The Black Country Geological Society

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**Copy date for the
next Newsletter is
Saturday 1 August**

Newsletter No. 231

June 2015



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Trilobitter please...

Guide to Geological Field Recording



BCGS 1st Field Trip, July 1975 - Doultons Clay Pit, Saltwells.
Photo by Peter Parkes. Details and more photos on our website.

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For enquiries about field and geoconservation meetings please contact the Field Secretary.
To submit items for the Newsletter please contact the Newsletter Editor.
For all other business and enquiries please contact the Honorary Secretary.
For further information see our website: www.bcgs.info

Future Programme

**Until further notice indoor meetings will be held in the
Abbey Room at the Dudley Archives, Tipton Road, Dudley, DY1 4SQ
7.30 for 8.00 o'clock start unless stated otherwise**

**Please let Andy Harrison know in advance if you intend to go to any of the field or
geoconservation meetings. If transport is a problem for you or if you intend to drive
and are willing to offer lifts, please contact Andy with at least 48 hours notice.**

Saturday 13 June (Field meeting): Rock around The Wrekin, led by Andrew Jenkinson, (Shropshire Geological Society). Meet at 10.30, Forest Glen car park, (GR: SJ 638093), approx 1km south of M54 Junction 7. We will look at the Forest Glen Quarry, the Wrekin (views towards Snowdonia and the Cotswolds), the Cambrian unconformity of the Ercall (Ordovician Shineton Shales over the Lydebrook Sandstone), the Carboniferous Limestone (with Little Wenlock Basalt intrusion), and the opencast coal mines of the Coalbrookdale Coalfield. After a picnic lunch we'll visit the Ironbridge Gorge, Silurian Wenlock Limestone sites and others. Concluding with a brief discussion as to whether OS grid square SJ60 is in fact the most geologically varied 100 sq km in the whole world! Finish 4.30 (approx.) Wear suitable footwear for some slightly rough walking.



BCGS 40th Anniversary

Saturday 4 July, 11.00 - 3.30 at Dudley Museum and Art Gallery

St James's Road, Dudley, DY1 1HU



This is a joint event with the Museum and Art Gallery's bicentenary celebration of the publication of William Smith's geological map of England and Wales, featuring a rare copy of the 1815 map. There will be talks and displays to celebrate the Society's 40 year history, a buffet, and a chance to catch up with BCGS members and friends. Invitations and full details have now been sent out to BCGS members and invited guests.

**NB: The Museum and Art Gallery will be open as usual, featuring the two anniversary displays.
The talks and buffet are for BCGS members and invited guests only.**

Please respond by Monday 15 June 2015, to secretary@bcgs.info (postal address and phone number above). This will help with organising the catering.



BCGS 40th Anniversary Field Visits

18 July and 15 August (details below)



Don't miss this unique opportunity to compare 'then' and 'now' as we retrace the steps of the Society's pioneering members through the first two field meetings. You can read reports of those meetings in Newsletters 1 and 2

(August and November 1975) on our web site, and there are photos of those 1975 site visits on our new photo archive - have a look to get a real flavour of how things have changed! Ed.

Saturday 18 July (40th Anniversary Field Visit): An Introduction to Black Country Geology Part 1 - Revisited, led by Andy Harrison. Meet at the car park on Walton Hill, Clent (SO 944802) at 10.00 for an overview of Black Country geology, followed by visits to the Rubery Cutting, NCC Cutting, Wren's Nest (alternative to Castle Mill Basin) and Saltwells LNR, looking at the Lower Palaeozoic rocks of the region. We will retrace the footsteps undertaken during the Society's first field visit in 1975, look at the features seen at the time and see what has changed in the past 40 years. Lunch at the Hollybush Inn, Bromsgrove Rd, Hagley, Stourbridge, West Midlands DY9 9UG (off the A491). Please bring stout footwear and contact the BCGS Field Secretary, Andy Harrison, tel: 07973 330706 or fieldsecretary@bcgs.info to express an interest in attending this trip, and to provide numbers for lunch.

Saturday 15 August (40th Anniversary Field Visit): An Introduction to Black Country Geology Part 2 - Revisited, led by Andy Harrison. Meet at the Dudley Archives for 10.00. We will retrace the footsteps undertaken during the Society's second field excursion in 1975 to the Old Marl Pit at Tividale, Allsops Hill Quarry, Rowley, Halesowen Grammar School and Queslett Road. This visit will explore former sites that exposed the Upper Coal Measures and Triassic rocks of the region and see how these have changed in 40 years. Please bring stout footwear, a packed lunch and contact the BCGS Field Secretary, Andy Harrison tel: 07973 330706 or fieldsecretary@bcgs.info, to express an interest in attending this trip.

Monday 21 September (Indoor meeting): Speaker: Ralf Gertisser. (Title tbc.)

Monday 19 October (Indoor meeting): 'In search of ancient subduction sites in the UK'. Speaker: Chris Darmon, Geo Supplies and 'Down to Earth' magazine.

Monday 16 November (Indoor meeting): 'Insights into the glacial history of the British Isles: the newest methods and theories'. Speaker: John Groves.

Monday 7 December (Indoor meeting, 7.00 for 7.30 start): BCGS Members' Evening and Christmas Social.

Procedures for Field Meetings

Insurance

The Society provides public liability insurance for field meetings but personal accident cover is the responsibility of the participant. Details can be obtained from the Secretary. Schools and other bodies should arrange their own insurance as a matter of course.

Health and Safety

If you are unsure about the risks involved or your ability to participate safely, you should contact the Field Secretary. Please take note of any risk assessments or safety briefing, and make sure that you have any safety equipment specified. The Society does not provide hard hats for use of members or visitors. It is your responsibility to provide your own safety equipment (eg. hard hats, hi-viz jackets, safety boots and goggles/glasses) and to use these when you feel it is necessary or when a site owner makes it a condition of entry. Hammering is seldom necessary. It is the responsibility of the hammerer to ensure that other people are at a safe distance before doing so.

Leaders provide their services on a purely voluntary basis and may not be professionally qualified.

Other Societies and Events

BCGS members are normally welcome to attend meetings of other societies, but should always check first with the relevant representative. Summarised information for the **next two months** is given in our Newsletter. Further information can be found on individual Society web sites.

The Oxford Mineral Show

Sundays: 12 July, 13 September & 29 November 10.30 - 4.00. Exeter Hall, Kidlington, North Oxford, OX5 1AB. Free Admission. Free parking on site. For further information see: www.oxfordshow.co.uk

Manchester Geological Association

Sunday 28 June: Field Visit to the Wirral. Leader: Hilary Davies. This excursion will visit a number of sites on the west coast of Wirral in West Kirby, Hoylake and Thurstaston to examine a variety of Triassic exposures and a thick layer of Irish Sea till. Joint trip with GeoLancashire.

Tuesday 28 July: Field Visit to Criggion Quarry. Leader: John Peate, Principal Geologist, Hanson UK. Criggion Quarry, located south of Oswestry and west of Shrewsbury, produces aggregates for use in ready-mix concrete, asphalt production and the construction industry.

For further information about meetings go to: <http://www.mangeolassoc.org.uk/> or email Penny Heyworth at: outdoors@mangeolassoc.org.uk Visitors are always welcome.

Mid Wales Geology Club

Wednesday 17 June: 'Concretions and how they form'. Speaker: Tony Thorpe.

Wednesday 15 July: Evening Field Trip - The Building Stones of Llanidloes: a geological walk, (6.30 - 8.30) led by club members.

Sunday 26 July: A Day of Fossils, Llandrindod Wells. Leaders: Joe Botting and Lucy Muir.

Saturday 8 August: Stiperstones: the making of a landscape. Leader: Andrew Jenkinson.

Further information: Tony Thorp (Ed. newsletter & Hon. Sec): Tel. 01686 624820 and 622517 jathorp@uku.co.uk Web site: <http://midwalesgeology.org.uk> Unless otherwise stated, meetings start at 7.15 (tea/coffee & biscuits) with talks at 7.30 at Plas Dolerw, Milford Road, Newtown.

Shropshire Geological Society

Saturday 20 June: Half-day meeting: Building with Stone around Abbey Foregate, Shrewsbury. Joint meeting with Shropshire Archaeological Society. Leader: David Pannett. Book to reserve a place and obtain joining instructions from David Pannett; e-mail: jessicapannett@hotmail.co.uk; telephone: 01743 850773.

Wednesday 15 July: Half-day Rockhop: Ironbridge Gorge Geotrail. Leader: Chris Rayner. Booking to reserve a place and obtain joining instructions from Chris Rayner: telephone: 01952 510463 email: primrose@outlook.com

Saturday 18 July: Day meeting: Churches of South Shropshire, looking at the building stones. Leader: Mary Steer. Booking to reserve a place and obtain joining instructions from Mary Steer: telephone: 01743 235047 email: eric.steer1@btopenworld.com

A nominal charge is levied for attendance by non-members. Further info at: www.shropshiregeology.org.uk/

Woolhope Naturalists' Field Club - Geology Section

Sunday 14 June: Tortworth Inlier. Leader: Dave Green. Meet at 10.30 in the lay-by (Grid ref. ST 691931) on the B4059, 200 yards SE of J14 on the M5 (head towards Wotton-under-Edge from the motorway). Pub/packed lunch. Please bring stout footwear. There will be a £5 charge for members (£10 non-members).

Sunday 12 July: Goodrich area. Leaders: Beth Andrews &/or Elliot Carter. Meet at 10.00 in the free public car park at Bishopswood (Grid Ref. SO 582188). This is on the right of the B4234 just south of the Kerne Bridge river crossing. Please do not park in the village hall car park, which is accessed through the public car park. Bring a packed lunch and drinks, suitable footwear and clothing for the weather conditions.

Guests are welcome, but must take day membership of the Club: £2.00. Further information: Sue Hay on 01432 357138, email svh.gabbros@btinternet.com or visit their web site: www.woolhopeclub.org.uk/Geology_Section/default.htm

Warwickshire Geological Conservation Group

Wednesday 17 June: Evening Geological Walk around Meriden, from the Upper Carboniferous to the Pleistocene deposits of the Blythe Valley. Meet at 7.00 on Old Road, Meriden, at the eastern end of the village, off the B4102 (GR: 251820) adjacent to Queens Head (CV7 7JP). Leaders: Brian Ellis & Ian Fenwick.

Saturday 25 July: North Staffordshire Geology - Mow Cop & Hulme Quarry. Meet at the lay-by N. of Mow Cop (SJ 868586) at 10.30. Coach to be arranged. Leaders: Dr Pat Cossey & Eileen Fraser.

For more details visit: <http://www.wgcg.co.uk/> or contact Ian Fenwick swift@ianfenwick.f2s.com or 01926 512531. There is a charge of £2.00 for non-members.

Open University Geological Society - West Midlands Branch

Sunday 7 June: Day trip: Abberley Hills and Martley. For full details and joining instructions please contact Sandra Morgan at sandra.morgan.13@gmail.com

Herefordshire and Worcestershire Earth Heritage Trust

Thursday 18 June, 10.30 - 1.00: Guided Walk: 'Building Stones of Bromyard'. Leader: Beth Andrews. Meet at 2.00 in front of Bromyard Library/Leisure Centre, Cruxwell Street, Bromyard, Herefordshire HR7 4EB for a two mile walk around Bromyard town centre. This event is part of Herefordshire Walking Festival. Spaces are limited. Please book through <http://www.walkingfestival.com/> Fee: £5 for adults, free for children.

Saturday 4 - Sunday 5 July, from 9.00: Bromyard Gala - 'A Thousand Years of Building with Stone' - project stand. Bromyard Gala Showground, The Burgess Farm, Avenbury HR7 4JY. Family friendly activities, drystone walling demo. See <http://www.bromyardgala.org.uk> for admission charges.

Sunday 12 July, 10.00 - 4.00: Lickey Hills Geo-Champions at Kings Norton Canal Festival, Kings Norton Park, Pershore Road South, Kings Norton, Birmingham B30 3EP. Event celebrating the 200th anniversary of the completion of the Worcester - Birmingham canal. Geological displays, children's activities.

Sunday 12 July, 10.00 - 1.00 (approx): 'Walk around the Ice Age in Colwall'. Leader: Dick Bryant. Look at changes to the landscape wrought by Arctic climatic conditions, and by the reversal of the drainage in the valley half a million years ago. Meet on Colwall Green outside the primary school, (Malvern, WR13 6DU). Free. (Donations to the H&W Earth Heritage Trust welcome.)

For further information contact Herefordshire & Worcestershire Earth Heritage Trust, Geological Records Centre, University of Worcester, Henwick Grove, Worcester, WR2 6AJ. www.EarthHeritageTrust.org Telephone: 01905 855184. Email: eht@worc.ac.uk

Geologists' Association Annual Conference

Friday 9 - Saturday 10 October: 'Building our Future' at the British Geological Survey, Keyworth, Nottingham NG12 5JY, focussing on Building Stones. To register: conference@geologistsassociation.org.uk. Further information: <http://www.geologistsassociation.org.uk/>

The Geology of the Marches - Murchison to the Modern Era Symposium: Friday 2 - Sunday 4 October

Open to all in the Assembly Rooms, Ludlow. Self-guided Ludlow geology trails; Museum Resource Centre workshops; Three keynote lectures; Discussion groups; Displays; Museum tour; Symposium dinner; Choice of guided field trips.

Emeritus Professor Martin Rudwick (Cambridge): 'The King of Siluria - how the Marches became known to geologists everywhere'.

Dr Alex Liu (Bristol): 'Pits, Mounds & Animal Evolution, what we have learned from the Ediacaran Rocks of Shropshire'.

Emeritus Professor David Siveter (Leicester): 'Sensational soft-bodied fossils from 425Ma volcanic ash: The Herefordshire Lagerstatte'.

Further information, links to trail guides, booking forms, full programme and charges:
www.geo-symposium.eu email Paul pauloliver@hotmail.com or David 01886 888398

Open Day - BGS Keyworth

Saturday 27 June, 10.00 to 4.00. The British Geological Survey will be holding an Open Day at its [Environmental Science Centre](#) in Keyworth. They are planning a packed day illustrating the wide scope and applications of their research activities. There will be something for rock lovers of all ages - from newbies to experienced earth scientists. All of the activities will be under cover, so rain or shine, it should be a good day out for all the family.

GeoFest 2015

'GeoFest' is the Abberley and Malvern Hills Geopark's annual three-month long celebration of its geology, landscape and associated heritage. Events are hosted and run by the members of the Geopark Forum. Through the months of June, July and August there will be walks, talks, and children's activities plus 'Ask the Expert' sessions and demonstrations exploring the geology, landscape, history, archaeology and wildlife of the Geopark. Below is a selected summary of GeoFest events.



GeoFest Guided Geology Walks:

Saturday 6 June: Geology, Landscape and Building Stones Walk - 'Ledbury Town' (and surrounding landscape). Leader: Andrew Jenkinson. Start: 2.00 at the Market House, High St. Ledbury, HR8 1DS. Est. finish: 5.00. Cost: £2 adult / £1 child. Bookings: 01938 820764 / andrew@scenesetters.co.uk

Saturday 20 June: Geology and Landscape Walk - 'The Malvern Hills'. A study of selected geological sites on and adjacent to North Hill. Start: 9.30 at Tank Quarry, North Malvern Road, WR14 4NA. Est. finish: 1.00. Cost: £3 adult / free child (must be 10 years+). Booking: redwards@waitrose.com

Sunday 21 June: Geology and Transport History Walk and a Steam Train Ride - 'Bewdley and Arley.' Train ride on the SVR returning to Bewdley on foot via the Wyre Forest. Start: 10.15 at Bewdley Railway Station. Est finish: 4.00. Cost: £3 plus train ticket. Booking: amhg@outlook.com or 07547 481440.

Saturday 11 July: Geology and Industrial Archaeology Walk - 'Stourport Canal Basin', and the Windswept Dunes of Hartlebury Common. Leader: Andrew Jenkinson. Start: 2.00 at the north riverside beneath the Stourport-on-Severn bridge, DY13 8XB (GR SO 808711). Est. finish: 5.00. Cost: £2 adult / £1 child. Booking: 01938 820764 / andrew@scenesetters.co.uk

Saturday 1 August: Guided Walk - 'The Wyre Forest'. A six mile walk exploring the history, archaeology, geology and natural beauty of the forest. Start: 11.00 at Bewdley Museum entrance. Est. finish: 4.00. Cost: £4. Booking: 08456 035699.

Other Geofest Events:

Sunday 28 June, 11.00 - 3.30: The Geopark at Bodenham Arboretum, Wolverley, DY11 5TB. Learn about the Geopark in the lush setting of the Arboretum. Cost: Arboretum admission fee (valid 11.00 - 5.00).

Sunday 19 July, 12.00 - 3.00: 'Ask the Expert'. An informal drop-in session at Bewdley Museum, Load Street, DY12 2AE for the whole family to learn about some of the rocks, minerals and fossils found in the Earth's crust. Bring along your own specimens for discussion and identification by local geologists.

Thursday 6 August, 10.00 - 4.00: The Geopark at Hartlebury Castle, Worcestershire County Museum, Hartlebury Castle, Hartlebury, DY11 7XZ. Learn about the Geopark. An informal drop-in session for the whole family to learn about the rocks, minerals and fossils found in the Earth's crust. Cost: Museum admission fee.

Sunday 9 August, 12.00 - 3.00 : 'Ask the Expert'. For details refer to the Sunday 19 July event.

Saturday 4 July - 6 September: Exhibition - Fossils of the Abberley and Malvern Hills Geopark. Bewdley Museum, 10.00 - 4.30 daily.

For full details view the GeoFest calendar or download a GeoFest 2015 programme at: www.geopark.org.uk
General enquiries: amhg@outlook.com or phone: 07547 481440.

Editorial - BCGS 40th Anniversary Year

Thanks to all those of you who have sent photos and other BCGS documents and memorabilia gathered over the last 40 years. The photo archive has grown considerably since the last issue, but the more the better! Please keep searching your archives for anything which you think might be of interest. We'd also still like some more reminiscences to publish (with or without photos) in the Newsletter later this year. We haven't nearly enough yet for a 40th anniversary 'story poster' as I outlined in the last issue. So please keep spreading the word that we want lots of contributors for this project - even just one sentence will do! Here's a reminder to help you get your thinking caps on, and then contact the Newsletter Editor or Hon. Secretary (details on p.2).



- How long have you been a BCGS member?
- Do you have any recollections (pleasant or painful!) of BCGS meetings or field trips?
- Do you have any photos or documents you can send to us? (They will be returned.)
- What does (or did) the Society mean to you?

The programme for the day is now complete, and you will have received details with your invitation. **Don't forget to respond to the Hon. Secretary by Monday 15 June.**

The photographic competition has spread its wings this year, with more participating groups - and more and bigger prizes! This is due to the generosity of Geotechnical Engineering Limited, and the Geological Society's Publishing House. The scope of the competition is confined to the British Isles this year, so it's well worth taking a little extra trouble with your home-grown geo-photography to 'have a go' without the threat of competition against stunning geo-photos from around the rest of the world!

Finally, we have two very special field trips to look forward to on 18 July and 15 August. Leading us on these occasions will be our Field Secretary, Andy Harrison, but he will be following in the footsteps of founder members Peter Oliver and Alan Cutler, who jointly led the original versions of these trips in 1975. Alan has contributed much to the Society throughout its history, and served for many years on the committee. He was the first Chairman, and later served as Vice-Chairman until 2013. We are delighted that Alan will be talking to us about the history of the Society at our anniversary event. You'll see from the item below (p.9) that the Geologists' Association's Halstead Medal has been awarded this year to Peter Oliver, a fitting coincidence (and a bit more reflected pride for the BCGS following Graham Worton's receipt of this award in 2013 - see Newsletter 220, August 2013, p.6). As well as co-leading those first two field trips, Peter was the first BCGS Newsletter editor, and also served as Vice-Chairman from the Society's inception. He played a leading role in establishing the Society's firm foundations from which we all benefit today. We will be pleased to welcome Peter and his wife Cherry to our anniversary celebration. ■

Julie Schroder

Photographic Competition 2015 - 'Geologica Britannica'

2015 is the bicentenary (200th year anniversary) of William Smith's famous geological map: 'A Delineation of the Strata of England and Wales'. The West Midlands, North West and Southern Wales Regional Groups of the Geological Society and the Black Country Geological Society present a joint group Photographic Competition celebrating the William Smith Map Bicentenary (1815 - 2015). The competition is sponsored by Geotechnical Engineering Limited.

Theme: 'Geologica Britannica' exhibiting the geology of the British Isles, and applied geology in the British Isles.

Awards and Prizes

1st Prize: £200 sponsored by Geotechnical Engineering Limited; £150 special publication gift voucher donated by the Geological Society's Publishing House; William Smith Map Reproduction and Memoir

2nd Prize: £150 sponsored by Geotechnical Engineering Limited, plus Geological Map of Great Britain, Bicentennial edition

3rd Prize: £100 sponsored by Geotechnical Engineering Limited, plus Geological Map of Great Britain, Bicentennial edition

4th and 5th Prizes: Geological Map of Great Britain, Bicentennial edition

6th - 10th Prizes: One highly coveted Geological Society Hammer USB stick each

Deadline for Entries: 1 December 2015

Terms and Conditions

The Contest is only open to UK residents who live/work within the postal districts of the Southern Wales, West Midlands and North Western Regional Groups (BCGS members likewise, living within the West Midlands region): West Midlands post-codes starting: B, CV, DY, HR, ST, SY, TF, WR, WS and WV. Southern Wales post-codes starting: CF, LD, NP and SA. North-West post-codes starting: BB, BL, CH, CW, FY, L, LA, LL, M, OL, PR, SK, WA and WN.

NB: The Group reserves the right to request proof of address in the event of a prize being awarded.

It is first and foremost a bit of fun and is aimed primarily at amateur photographers. It isn't open to professionals and because we want something original, entries must not have won other competitions. For the purposes of this competition, a professional photographer will be considered to be someone who makes more than half their annual income from the sale of their photographs. Entrants under the age of 12 years need to have parent or guardian consent to enter.

The title for the contest is 'Geologica Britannica'. This is open to individual interpretation, but should include some geological content. Whatever you decide to photograph, please do it responsibly. Take care not to disturb any animals or damage the environment. Always follow local laws and the countryside code.

Entrants can submit up to four photos, which must be their own work and must not be merged or manipulated. Entrants may crop, enlarge, and enhance photos to remove spots or scratches, make it brighter, clearer etc. but they must not manipulate the content. In all cases, the Judges reserve the right to exclude any image whose authenticity they believe to be questionable.

Entries should be emailed electronically to JointPhotoComp@geolsoc.org.uk together with the entrant's name, address and a note of where the images were taken. Entries can only be accepted as JPEG files of at least 1Mb in size. ►

By entering the competition all entrants grant to the Geological Society the right to publish and exhibit their photographs on the Geological Society's website, social media channels and in Geoscientist magazine. The competition closes at midnight on Tuesday 1st December 2015.

All entries will be judged by an independent panel of Judges during early January 2016.

The Judges will select the 10 best based on their composition, technical ability, appeal, geological content and originality. The Judges will then select the 3 overall winners. If after reasonable attempts a winning entrant cannot be contacted, the Group reserves the right to offer the place to the next best entry.

Awards shall be presented on an evening to be confirmed during February 2016 at a central location within Birmingham, West Midlands.

Sponsor: Geotechnical Engineering Limited are very pleased to have been invited to sponsor The Geological Society joint groups Photographic Competition in the Bicentenary year of William Smith's Map. ■

Halstead Medal awarded to BCGS Founder Member



Peter Oliver (left), receiving the Halstead Medal from Paul Oliver

The Geologists' Association's prestigious Halstead Medal is awarded annually 'for work of outstanding merit, deemed to further the objectives of the Association and to promote Geology'. We are delighted to report that it has been awarded this year to a BCGS founder member, Dr. Peter Oliver. The award is in recognition of his work in geoconservation, in particular for founding and developing the Herefordshire and Worcestershire Earth Heritage Trust and for his role in instigating the Abberley and Malvern Hills Geopark, inaugurated in 2004.

Peter has for several decades given generously and tirelessly of his time, ideas, energy and personal resources to inspire enthusiasm for geology. His voice has been a powerful one in the field of geological conservation. Following his pioneering work with the

BCGS, in 1996 he formed the Herefordshire and Worcestershire RIGS Group, serving as its director for many years. The Group was renamed 'Herefordshire & Worcestershire Earth Heritage Trust' and as a direct result of Peter's efforts has grown to be the largest and one of the leading geoconservation organisations of its type in the UK.

It is fitting for us that this award has been made to Peter in our 40th Anniversary year, when our July and August field trips will follow in the footsteps of our founder members. If you look carefully at the archives, you will see that those first two field trips in 1975 were led jointly by Peter and Alan Cutler (see Editorial, p.7 for more on this).

As Peter was unable to attend the award ceremony, it was received on his behalf by Dr. Paul Oliver. In the words of Peter's wife, Cherry: "Paul Oliver, a Geologists' Association Council Member, accompanied by his wife, Sue, received the Halstead Medal on Peter's behalf at the GA AGM. A few days later Peter and myself met with Paul and Sue at the Cob House (*near Worcester*) for lunch and a very pleasant chat, with Peter and Paul reminiscing about colleagues that they knew from Birmingham University days. There were some fond and sometimes amusing tales to be told. Peter was very proud and happy to receive the handsome and prestigious medal from Paul. I am proud of Peter for his achievements. He has worked very hard and often long hours, never saying 'No' to any request for help".

The proposal for the honour was submitted by the H&W EHT with support from the Geology Trusts and GeoConservationUK. ■

Julie Schroder, with thanks to Cherry Oliver, and the H&W EHT for their contributions

Field Meeting Report

Saturday 25 April: Broadway Quarry, Worcestershire. Led by Steve Birch (BCGS).



Broadway Quarry is situated east of the village of Broadway, off the A46 on the northern limits of the Cotswold Hills in Worcestershire. We met Steve outside the quarry entrance at 10.30 on a windy, cool and sunny morning for a look at the exposures in the quarry. Comprising an Old and New Quarry, the site was formerly worked for freestone. Today it is privately owned and has been landscaped to keep some of the former quarry walls exposed. During our visit we were warned to be careful not to disturb a pair of nesting peregrine falcons.

The quarry wall exposures represent the lower part of the Middle Jurassic (Aalenian and Bajocian) Inferior Oolite Group, which traverse approximately 11Ma of geological time from base to top. The Birdlip Limestone Formation (made up of the Cleeve Cloud Member, Scottsquar Member and Harford Member) forms the lowest sequence of strata exposed. Overlying this formation is the Aston Limestone Member, comprising the Lower Trigonina Grit, Gryphaea Grit, Notgrove Freestone and the Rolling Bank Member. This stratum is in turn overlain by the Salperton Limestone Formation, which consists of The Upper Trigonina Grit and the Clypeus Grit. An east-west trending fault through the centre on the quarry has downthrown the younger strata of the Old Quarry (the Clypeus Grit) against the older units of the New Quarry.



Within the New Quarry the sequences exposed comprise the Birdlip Limestone Formation (oldest) and the Aston limestone Formation (youngest).

All three units of the Birdlip Limestone Formation are represented and typically include:

- **Cleeve Cloud Member** - The lowest stratum of the Birdlip Limestone Formation comprising blocky yellow and orange-brown to light brown fractured oolitic limestone, which is also cross bedded and contains fossil bivalves, brachiopods (terebratulids), gastropods, echinoids, belemnites and a variety of animal burrow types (such as Thalassinoides).
- **Scottsquar Member** - The middle stratum of the Birdlip Limestone Formation that consists of thick beds of yellow-brown and blue-grey muddy limestone. Corals are present at the base of this stratum and become progressively more abundant higher up the layer. ►

- **Harford Member** - The uppermost stratum of the Birdlip Limestone Formation, which comprises two layers. The lower layer is formed of brown and yellow-brown fine silty calcareous sandstone and sands with abundant nodules/concretions of calcite. The upper layer of this stratum is formed of dark bluish-grey and orange-red-brown thinly laminated lime-rich mudstone with abundant pyrite and white speckling where the pyrite has degraded. The upper layer also contains nodules of lignite and siderite.



The Aston Limestone Formation sits unconformably over the Birdlip Limestone Formation since the lowest unit, the Lower Trigonina Grit, is missing, suggesting a period of erosion. Only the Gryphite Grit and the Notgrove Freestone are represented, which generally consist of massive blocky thickly bedded yellow and orange-brown, and light grey fossiliferous limestone. Fossils include bivalves, brachiopods, algal mats, corals, bioherms, ammonites and belemnites.

Of the Salperton Limestone Formation only the Clypeus Grit Member is present as the lowest unit. The Upper Trigonina Grit is missing, suggesting a second period of erosion. The Clypeus Grit forms the uppermost and youngest layer of the sequences exposed and is best presented within the Old Quarry. The stratum is named after the Clypeus species of echinoid they contain and typically comprises a series of orange and yellow-brown oolitic limestones with cross bedding, brown calcareous sandstones and grey pyritic mudstones, which are very fossiliferous.



This sequence of exposed rock strata has been interpreted as a series of marine transgressions and regressions associated with the margins of a shallow, warm calcareous-rich sea and estuarine/swamp environments. The deposits are representative of fluctuating high/low energy and oxygenated/anoxic conditions and switch from salt to freshwater, with occasional exposure when periods of erosion occurred.

I would like to thank Steve for organising an extremely interesting visit to Broadway Quarry. More information on the site can be found in:

'Broadway Quarry, Worcestershire: An Enlarged Section in the Inferior Oolite Group'. A. J. Mark Barron, Proceedings of the Cotteswold Naturalists' Field Club. ■

Andy Harrison

Please send material for the next Newsletter to:

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New Islands - and the Tale of Graham Island

Recent talks at the Society have included insights into the volcanism of the Azores and Hawaii. In particular there were mentions of new land being constructed from such activity, which brought to my mind articles I had come across about one such celebrated occurrence dating from the 1830's.

But before that, a brief enquiry on the Internet makes it clear that such activity is a continual part of our planet's experience. One site lists 14 volcanic islands that have appeared since 1900. Most of these were rapidly consumed by the waves and remain only as seamounts, albeit creating risks to navigation. In a few instances they have produced new islands that survive to the present day. In this category, the best known may be Surtsey, which emerged above the waves off the southern coast of Iceland in 1963. Less well known are Syrtlingur and Jólnir, both of which popped their heads above water close by in 1965, were rapidly washed away, and now exist as shallow banks east and west of the surviving 'parent island'.

Another well known survivor is Anak Krakatau. This substantial island was born through a series of eruptions commencing in 1927 in the caldera of its rather more famous 'parent', Krakatoa, itself the residue of the famous 1883 eruption. Anak Krakatau ('child of Krakatoa') became a celebrated focus of ecological study, documenting the return of life to a site of natural devastation. There has been more recent activity at this site, in 1997, sadly including loss of life, which serves to remind us of the obvious: that volcanism is a dangerous process!

Less well known are the other 12 islands listed: four along the Japanese Izu-Bonin island arc, three in the Tonga group, three more in the western Pacific, one in the Red Sea (Yemen) and the one in the Azores (Portugal) mentioned by Alan Clewlow in his recent talk. The eruption of the Ilha Nova, in 1957, fortunately didn't involve any loss of life, but did give rise to a substantial evacuation of the area, in many cases with permanent resettlement in the USA.

All these instances have one thing in common. Where new 'permanent' land was created, there was (apparently, or as far as I can establish) no challenge to nationalist claims over ownership. The case of Graham Island in June 1831, however, became charged with political and nationalist overtones. The fact that at least seven other names for this short lived volcanic island were used underlines the degree of contention! The island broke above the waves of the Mediterranean, off the southern coast of Sicily, approximately half way between the coastal town of Sciacca and the island of Pantelleria. Activity in the area had previously been recorded as far back as 10 BC, when a broad, shallow seamount, later named the Nerita Bank, had been established (or at least re-shaped).



Perhaps this location commands more obvious potential for strategic advantage, lying as it does at the 'gateway to the eastern Mediterranean'. This potential was clearly high in the minds of several powers at the time, as, no sooner had a patch of 'real estate' in the form of bare cinder, ash, lapilli and scoriae (but little, if any, solid lava) built up above the steaming and restless waters all around, than three or four nations laid claim to the new landmass. Quickest off the mark appear to have been the British. Two of Her Majesty's ships had first witnessed developments in the form of shocks associated with subsurface volcanic activity on 28 June (1831), followed by actual signs of an eruption on 10 July reported by one Captain Corrao of an 'Italian' schooner (at the time Italy didn't have its present-day identity; rather, the scene of action lay closest to territory belonging to the Kingdom of the Two Sicilies). By 17 July an island, the rim of a crater some 75m in diameter and rising to a height of about 6m, had appeared. This grew to a height of some 25m by 22 July, and on 2 (or 3) August an enterprising British officer physically secured British claims by effecting a landing on the island and planting the British ensign, naming the island 'Graham' after the First Lord of the Admiralty. Charles Lyell, perhaps being more diplomatically inclined, had suggested it be named 'Sciacca' after the nearby town. ►

The eruption reached its peak on 5 and 6 August, by which time the island was some 60m high and 500m (or 700m) in diameter. Also by that time there were several observers monitoring and recording the activity, so there is a substantial body of eyewitness description and illustration on which to frame scientific conclusions in modern terms. Meanwhile the island had been christened 'Ferdinanda', after King Ferdinand II, and claimed for the Kingdom of the Two Sicilies (in a decree of 17 August). A French expedition, led by the geologist Prévost, waded in a month later on 29 September and claimed it for the French under the name of 'Giulia' ('Julia' - the island having been 'born' in July). Another version calls the island 'Ephoestia'. Some accounts also suggest the Spanish were not to be outdone and also made claim to the island among the diplomatic wrangling that ensued. Curiously, the last recorded visitor to the island, on 20 November, was a certain Walter Scott - yes, Sir Walter Scott of literary fame, who, due to ailing health (he died only 10 months later) had to be carried ashore. He penned and despatched a report which was duly read before the Royal Society of Edinburgh.

One of the further names proposed for the island, 'Nerita', seems to have resulted from a misunderstanding that the volcano was sited on the Nerita bank south-west of Sicily. Other names that have been used include 'Corrao' (after the Sicilian captain referred to above), 'Hotham' (another British suggestion, in honour of the Vice-Admiral in command of the British Mediterranean fleet) and 'Proserpina', presumably after the Roman goddess associated with the underworld.

One newspaper report claims that the three main antagonists (Britain, France and 'Italy') almost came to blows over this tiny geological speck, so it is perhaps fortunate that Nature herself took things in hand by ensuring there was nothing left to argue about by the end of December 1831, the natural attrition from the waves having razed the island completely to dust. All that remains is a shoal some 8 metres beneath the waves (nevertheless a hazard to shipping), although occasional seismic rumblings in the area, and indeed reports of brief re-emergences in 1863, 1951 and 2002, suggest the possibility of rebirth in the future. If that were indeed to come to pass, there remains a possibility that arguments could flare up once again as feelings still appear to run high in some quarters. The current Prince of Bourbon authorised a tablet to be put in place in September 2001, stating that 'the original claim of ownership made by the House of Bourbon in 1831 had passed to the State of Italy'. Furthermore, a plaque declaring the place as 'forever belonging to the Sicilian people', was affixed to the volcanic edifice at a depth of some 20m by an Italian diver and patriot in March 2001. (From a geological perspective, I'm always struck by the layman's short-term concept of time and duration, with the use of such expressions as 'forever' - quite clearly a meaningless extravagance in the grand scheme of things!) When the Italian diver returned in August he found it had been vandalised, smashed into twelve pieces with a blunt instrument by person or persons unknown. Emotions, it seems, can still run high when it comes to primeval processes surging up from deep within the interior of our planet! ■

Mike Allen

Geobabble

Many people use social media; many geologists use it and it is a great aid for keeping in touch with colleagues who are working in the same area. Twitter and Facebook are both well used examples of this form of communication, but many of us will have deliberately avoided using them as they have a reputation as being time wasting chatter, largely used by the young. However, they are very useful for research workers at the highest level. What many critics tend to forget is that the user decides how these accounts are used, and who you 'follow' and who is allowed to see your account.

My experience is with Twitter. I have a twitter account and I 'follow' a small number of people including some geologists and many of them choose to look at my site and the things that I put on it; my posts. The research workers and academics will tell their colleagues and acquaintances who are working in a related area about their latest work, with photographs and observations. They will also sometimes put out a plea for a paper that they need to look at, and cannot afford to buy; in this materialistic world, even knowledge has a price.

There is an illustration of a rock with this article, and it deliberately has no labelling or explanation attached. ►



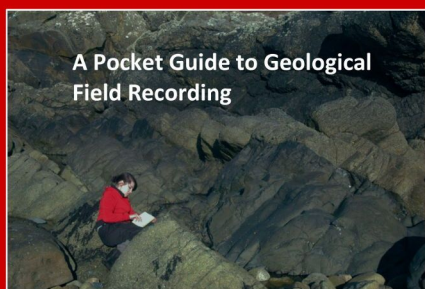
This was put on Twitter by someone very keen on geology who wanted it identified. There is a saying that the best geologists are those who have seen most rocks and I know some of our members will immediately recognise, and name it. On Twitter the young enthusiasts and Advanced Level students made logical observations; 'the grains are well rounded and sorted in a fine grained matrix', but of course it is an igneous rock called Orbicular Granite. The round structures are called 'orbicules'; they are concentrically layered, spheroidal structures, probably formed by nucleation around a grain in a cooling magma. However, they can be formed in various ways and you can find more comprehensive analysis of their origin via a search engine on your computer. Strangely enough the orbicules are early formed crystals in a cooling magma chamber which sink to the bottom of the chamber where they are entrained in the convective flow; they are rolled which gives a spherical shape. So the young students were not completely off beam; they had identified the correct process. ■

Bill Groves

Members' Forum

Trilobitter please...

I'm sure that some of our readers will remember that there were 1000 bottles of Trilobitter brewed for the Rock and Fossil Festival in Dudley back in 2006. We have had a request from a retired geology teacher who is hoping to get a label or photo of the bottle. If anyone can oblige please send it to the Editor who will forward it. ■



alan richardson

A Pocket guide to Geological Field Recording

by Alan Richardson

This 38 page book (by BCGS member Alan Richardson) provides the geology student and keen amateur with a handy pocket-sized guide for use in the field. The content has been stripped back to the bare essentials in the hope that valuable field time can be devoted to data recording rather than reading. The information provided will allow the reader to collect meaningful data at outcrop, and make provisional identifications of many common lithologies.

The book includes a field work code of conduct and equipment checklists, and covers outcrop procedure and the nature of field notes. Illustrated instructions describe the use of the compass-clinometer for measuring strike and dip of surfaces, plunge of linear structures, and trends. Three sections give step-by-step guidelines for the description and identification of igneous, sedimentary and metamorphic rocks, and includes a page of map and sedimentary log symbols. The descriptors to be applied to folds and faults are extensively illustrated. **Priced at £3.50** it is available from Lulu.com or from the author at BCGS meetings. ■

Warning!

Paid up members have been sent invitations to our 40th Anniversary Celebration on Saturday 4 July. It is not too late to pay your subscription if you have overlooked it. This is the last Newsletter that we will send to you if you do not renew. Please send your subscription to the Treasurer:

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