

GeoConservationUK Newsletter

Volume 4, Number 3

26th September 2013



In this year we commemorate . . . the

With 2013 commemorating major, but not necessarily geological, inventions and events of fifty years ago there are many from which to pick and just a few have some (admittedly vague) geological interest. For rock historians, the 'Beatles' and The 'Rolling Stones' performed in the same show for the first and only time, appearing at a concert at London's Royal Albert Hall on 15th September 1963; four days later Jarvis Cocker was born in Sheffield! At the end of the same month the Pantone Colour Matching System was introduced - the *de facto* worldwide international colour standard for colour printing. Rock and colour brings us to the Munsell Colour Charts, although these were originally created somewhat earlier, by Albert H. Munsell in the first decade of the last century, and adopted in the 1930s by the USDA as the official colour system for soil research; they're also used in the description of rocks. Turning to strictly geological matters, on 17th March, the Mount Agung volcano on Bali erupted, killing 11,000 people.

Now, if you're wondering where all this is rock, colour and volcano stuff is leading . . . it's just over fifty years to the day (actually 4th September) of the publication of the Fred Vine and Drummond Matthews paper (*see above right*) in *Nature*. Perhaps less well known is that Lawrence Morley's letters to *Nature* (in February) and *Journal of Geophysical Research* (in April) had both been rejected in that year. The three authors gave us the first key test for the seafloor spreading theories of Continental Drift and, later, Plate tectonics. They truly are real rock stars!



EDITORIAL

Welcome to the year's third, and I hope much awaited, *Newsletter* issue. Now it's possible that someone outside the GCUK community reading this issue will think we don't do that much in some parts of the UK, whereas we all know only too well how much expertise, effort and time goes into UK-wide voluntary sector geoconservation provision. This issue reflects a few of the activities of the GCUK membership; the bias of articles reflects the information that is passed (a big "thank you" as always to those contributors) to the Editor, some of his gleanings from the www and conversations with colleagues in the geoconservation and geoeducation circles. Let's together make the last issue of the year a really bumper one by catching up on all those little snippets, and really big stories, you were going to send in if only you could find the time and energy after long days in the field and dealing with seemingly endless administration!

TOM HOSE

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ENGLAND — *GeoSuffolk*

Suffolk Earns its Stripes

The enclosure at the western end of Suffolk Wildlife Trust's Knettishall Heath Nature Reserve displays classic vegetation stripes developed upon periglacial patterned ground. These are relic landforms from the Devensian (about 14-18,000 years ago), the last cold phase of the Ice Age. They are 2 to 4 metre wide and run sub-parallel for about 500 metres in a north-easterly direction down the slope of the Little Ouse valley side.

GeoSuffolk was invited to join in with a Suffolk Naturalists' Society 'Taster Day' event there on 29th June. A variety of activities were on offer to the public including: a wildflower trail on the heath; aquatic invertebrates in the Little Ouse; bird watching in the wide Suffolk skies; and, best of all, geology. The BGS map (Sheet 174 Thetford) shows Chalk at the surface here, but it is clear that it alternates with a non-calcareous deposit in the area of the vegetation stripes. GeoSuffolk, with permission from Natural England and the SWT, decided to investigate the sub-strata beneath the vegetation stripes.

An early morning visit from the wildflower group helped us to identify the 'acid' stripes (dominated by Silver Hair Grass and Heath Bedstraw) and the 'calcareous' stripes (a much greater variety of species, including a wide range of grasses but also with Ladies Bedstraw and Dropwort). We then spent the rest of the morning digging a 2.7 metre long trench (definitely not up to 'Time Team' dimensions and all by hand!), extending from the centre of a 'calcareous' stripe to the centre of an 'acid' stripe. It was hand dug; the turf stripped off first and left on site and the spoil removed by wheelbarrow.

The wildflower group returned at lunch time (enhanced in numbers – word had clearly spread round the site!) by which time we had an excellent exposure to show everyone. Across the entire section, the top 45 centimetres of material was fine-grained, wind blown 'cover sand', and hard brecciated chalk was encountered immediately beneath this under the 'calcareous' stripe. The brecciated surface (indicating intense frost action) sloped steeply under the 'acid' stripe, forming a channel 50+ centimetres deep (we did not reach the base of this) filled with coarser grained orange sand. This sand contained small rounded pebbles of white vein quartz, and also larger brown quartzite pebbles. Both are characteristic of the 'Ingham' sand and gravel deposits, which are shown on the BGS map, a few hundred metres away up the valley side to the south.

The origin of these shallow, sub-parallel channels led to much discussion - the nature of the frost-shattered chalk needs further investigation, possibly requiring a deeper excavation. However, the presence of reworked material from the Ingham deposits further up the valley side would suggest solifluxion as one of the periglacial processes acting here in the Devensian.

We spent the afternoon taking photos and samples. It had been a good day, especially as we: initiated several people into the joys of geological investigation; demonstrated links between geology and botany; and made some progress towards understanding the origin of these very special periglacial features.



GeoSuffolk members Howard Mottram and Barry Hall prepare to dig the trench. Patterns in the vegetation can be seen behind them.

Caroline Markham



GeoConservationUK Newsletter

ENGLAND — *Bedfordshire Geology Group*

New Museum Displays and a New Leaflet

Bedford's museum has recently re-opened, after a long closure, as a bigger venue with a new name - 'The Higgins'. For the last two years or so BGG volunteers have been working with the museum to identify and catalogue its geological specimens while it was being refurbished. Most of the text panels accompanying the displays were also written by BGG members. BGG members and the volunteers who had helped with the museum project were given a special conducted tour of the refurbished building on 27th July. Tom Perrett, Head of Collections, gave BGG a personalised tour in which he outlined the future plans for 'The Higgins' as well as some of the old stories they were now keen to tell such as Bedford's past potential as an international travel hub (in the days of the airship industries). Bedford has been a town of collectors for two centuries and the exhibits reflect this with Arctic and Amazonian items on display. There is also much about Bedford as a town of industrial educators and reformers highlighting the impact of the town's Harpur Trust schools.

The tour demonstrated that the museum and its displays are very much a 'work in progress'. After the tour the Group enjoyed a sociable picnic on the Castle Mound – a good viewpoint from which to assess Bedford's history as a river crossing place and a social confluence! The BGG continues to help the museum with cataloguing, accessioning, photographing and entering data into their database. This seems to be an on-going process. Several boxes of rocks and fossils still need identifying and sorting. We hope that in future our BGG members will be able to choose their favourite specimens for display in the museum.



BGG members gathered for coffee in the Pantry courtyard of The Higgins.



The new geology displays.



A new leaflet (see left) has been produced about the Local Geological Site (LGS) of Stockgrove Park, part of the Greensand Ridge, with the help of a grant from The Wixamtree Trust. This is the second BGG Geotrail leaflets and is hoped to create more when further funding can be sourced. The walk explores the impact of the underlying sandstone rock, the Woburn Sands, and the influence of the ice age on the landscape and plants. The walk includes eighteen observation points where the relationship between soil type, vegetation and bedrock is best shown. There are good examples of how the underlying sandstone produces infertile sandy soils with little ground vegetation beneath the abundant trees. There is evidence of a cap of glacial material from Scandinavian ice sheets and evidence of periglacial conditions when the ground was frozen resulting in a number of dry valleys that can be seen today. The leaflet has an easy to follow schematic map with the key reference points marked and includes photos of the relevant views. Copies of the leaflet are available to the public from Stockgrove Park and Leighton Buzzard Library.

Frances Maynard & Tom Hose

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ENGLAND — Buckinghamshire Earth Heritage Group

Coombs Quarry Clean Up

Five Group members (*see right*) turned out, on 2nd May, for a much needed clean-up of faces and access areas within the Buckingham Sand Pit. It was considered a really good day and a grand way to (but gently!) get fit even if they did resort to a motorised strimmer for some of the work.

The former sand pit has an unusual, for the area, exposure of Quaternary sands and gravels, including an inferred esker, interbedded with classic till deposits. Such substrates readily facilitate the rapid and profuse growth of scrub vegetation. In fact, most conserved quarries are in need of a 'spring clean'. Afterwards the sand pit looked really good with the brambles and hawthorn cleared back, and the ivy which had formed a trip hazard on the walkways, cut right back to where it should be!

Tom Hose



ENGLAND — Dorset's Important (and interesting!) Geology Sites Group

Visit to Purbeck by South West England Soils Discussion Group



Soil auguring to ascertain the physical characteristics of the soil underlying the heathland at Agglestone.

A group of fifteen soil scientists from South West of England Soils Discussion Group (part of the British Society for Soil Science) visited Purbeck on 20th May for a field day. The aim of the group is to improve knowledge of soils amongst the general public. Following on from a meeting last year, which involved liaising with RIGS groups, this visit was organised to show the potential of using Local Geological Sites (RIGS) to draw attention to the associated soils. Three Dorset RIGS sites, selected to give a snapshot of the variety of geology and soils in the Purbeck area, were visited.

After meeting up at Corfe the group drove towards Studland and stopped at the viewpoint overlooking Godlingston Heath. Comment was made about the variety of vegetation that was apparent on both the Tertiary sands and clays to the north and the Chalk ridge to the south. We then moved on to Studland and walked to the Agglestone looking at the variety of soil development associated with the acid heathland and bog areas. The Agglestone which is a DIGS site provided a good viewing point and lunch stop.

After lunch we moved on to Swanworth Quarry (Suttle Stone Quarries) where the group was shown around by the Director of Quarrying, Simon Clabburn. This stop provided an opportunity to see the Portland and Lower Purbeck beds as well as the soil and vegetation development in the reclaimed area where backfilling has taken place.

The group was impressed with the variety of plants that had become established as a result of the on-going restoration scheme. The final stop of the day was StonehillDown on the Chalk ridge with stunning views over the Wealden to the south and the Tertiary to the north as well as the structurally controlled Cocknowle valley. Following the visit it is hoped to add soils information to DIGS sites data helping to further their potential for educational purposes.

Alan Holiday



GeoConservationUK Newsletter

NEWS ITEM — *Support the latest English Geopark applicant!*

A Black Country Geopark

In the Black Country our landscapes, nature reserves, open air visitor attractions, historic buildings, museum collections, history of development and settlement and even the characters of many local communities are a direct consequence of the geology beneath our feet. Highly abundant easily accessible mineral wealth provided abundant raw materials for a flourishing of experimental science and **technology that founded many aspects of the 'industrial revolution' that transformed the world during the eighteenth and nineteenth centuries.** Much of the innovation and enterprise that has its origins in the Black Country spread outwards across the whole planet. This diverse geology, ease of extracting **the shallow minerals and innovative hard working people here established the world's first heavy industrial conurbation from that natural legacy. This part of the planet has often been referred to as 'The Workshop of The World'**

Yet the Black Country is not so often perceived in the same warm or welcoming way, or given the equivalence of cultural or scientific respect of similar heritage areas. Areas that have seen a shift in focus and investment towards their unique heritage assets, such as Ironbridge Gorge (industrial heritage), or Stratford and Warwick (cultural heritage) now enjoy a positive image that attracts greater numbers of visitors and considerable inward investment on the back of image. The Black Country and its immediate surroundings has no less importance in terms of heritage but it has lacked a clear and recognisable underpinning Unique Selling Point (USP) that makes it distinctive from and complimentary to nearby destinations such as IronBridge Gorge. That USP is the exceptional geology including the wealth of mineral seams that fired the curiosity and drove forward the industrialisation and experimentation like nowhere else and of course the wonders of geology that were unearthed here in the process.

Many aspects of our geological and mining heritage are world class and it is the strand of our heritage that links all the other assets together. In order to qualify to be a Global Geopark, a territory must demonstrate that it has exceptional geological heritage and cultural links to it. In the Black Country this could be a very long list indeed! The Black Country has an opportunity to acquire global recognition through the process of application to become a European and Global Geopark which would allow us to share this legacy with the global community in a much more prolific way than ever before possible for the benefit of all. We will be submitting an application to the European Geopark Network between October and December of this year.

We hope that having read this note, and more information is available, and particularly from any direct experiences that you may have had with the heritage of the Black Country, that you will feel that you would like to help us in this venture by simply providing a letter or an email in support of this initiative. If you do, then if you could please send something to me at the contact details below we would be most grateful.

Graham Worton, Keeper of Geology, Borough Geologist and manager Dudley Museum and Art Gallery, 1 St James Road, Dudley, DY1 1HU. Email: Graham.worton@dudley.gov.uk Telephone: 01384 815575

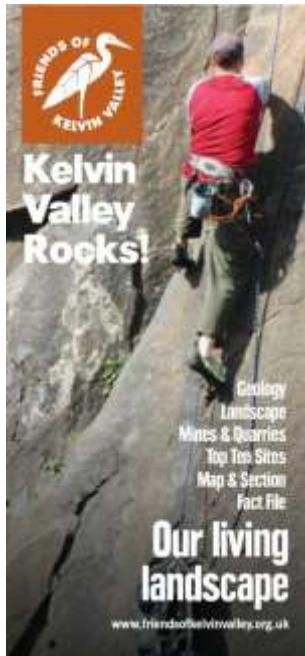


An artist's impression of the Fiery Holes area of Bilton and Darlaston, in the Black Country, in 1816.

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SCOTLAND — Strathclyde GeoConservation

Local Geodiversity Sites in North Lanarkshire



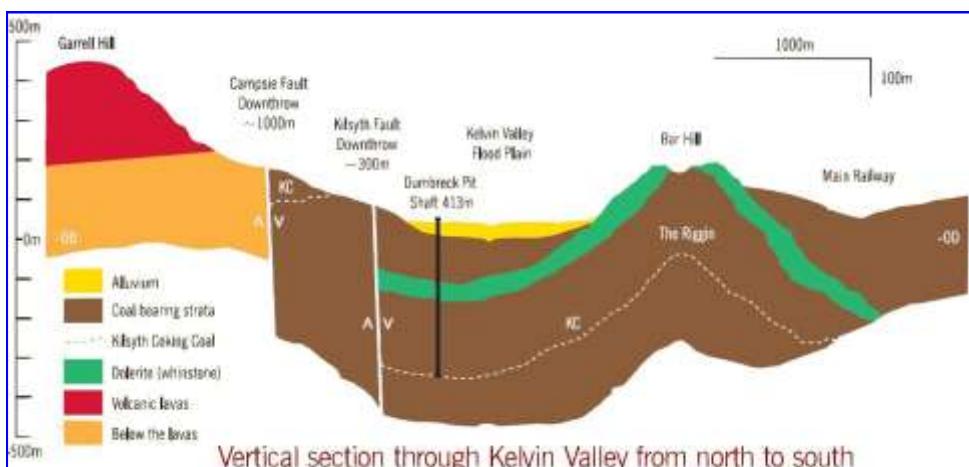
The Friends of Kelvin Valley (Chair, Paul Carter) with the help of Strathclyde GeoConservation, are attempting to engage with the North Lanarkshire Council in setting up some Local Geodiversity Sites. The Friends have produced an attractive leaflet (see left) about the local rocks with the assistance of Strathclyde GeoConservation. As the leaflet notes (reproduced below) explain, the area is of quite some geological interest and undoubtedly geoconservation value:

"The upper Kelvin valley has a good path system from which views may be seen of the attractive and special landscapes provided by the broad valley, its misfit small river and the Campsie Fells and the Cumbernauld 'ridge' on either side.

The course of the Antonine Wall on Bar Hill and Croy Hill is strongly controlled by geology, and the rock consists of hard intrusive igneous rock (dolerite). This thick sheet is well seen in Croy Quarry and in the former aggregate quarries at North Barrwood and Auchinstarry. However the dolerite is the youngest local rock at only 300 million years old. Virtually the oldest are the Campsie Fells' lavas and volcanic ashes (about 335 million years). The remaining rocks are sedimentary. Their presence is hinted at by coal and ironstone mine tips around Banton, and by the old sandstone quarries for building stone around Dullatur and the Garrel Burn. The sedimentary rocks in-situ are not that easy to see but in the Garrel you can see coal seams, ironstones, mudstones and sandstones.



Slot Gorge in Garrel Burn Kil-sy whole cut in sandstone of Carboniferous age.



The ice ages of the last 2 million years have also fashioned the landscape. Ice has eroded rocks, and deposited and shaped ground moraine (boulder clay) into drumlin hills. Glacial meltwaters deposited sand and gravel, historically quarried at Kelvinhead, and also cut meltwater channels, as seen around Cowden Hill. The Kelvin now flows to the Clyde rather than the Forth because of river capture.

There are therefore local geological highlights and processes that justify recognition as Local Geodiversity Sites in the planning system and therefore need surveying and recording. More to the point, by recognising they exist, we can enjoy learning more deeply about our local natural heritage and help conserve these sites."

It is hoped that this joint effort eventually will be rewarded by the proposed designations. Mike Browne



GeoConservationUK Newsletter

NEWS ITEM — *English Geodiversity Forum developments*

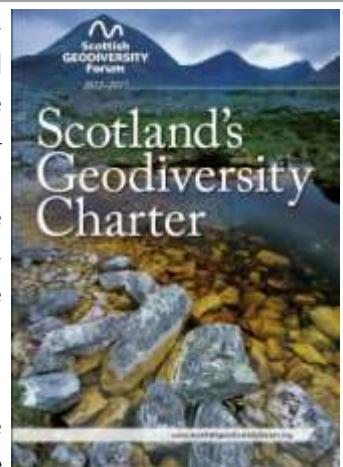
A meeting was held of the Forum on 16th July at which the latest version of the draft charter was discussed. Several shortcomings of the much improved charter were noted; for example: it lacked mention of museums and soils; the geotourism section needed development to note its economic significance; and the case studies also needed development and a broader geographical coverage. Following these discussions and feedback from the geoconservation community a revised version will be prepared for the end of October. The next meeting will be on 5th November at which Senior managers from Natural England will be attending to outline how geodiversity lies within their strategy.

Tom Hose

NEWS ITEM — *Scottish Geodiversity Forum nominated for UNESCO prize*

Members were delighted to here about the nomination of the Scottish Geodiversity Forum for the UNESCO Sultan Qaboos Prize for Environmental Preservation 2013; the nomination, is in recognition of the work that the Forum has done to prepare Scotland's Geodiversity Charter (*see right*), is currently under review by an international jury. The application was well supported by the UK National Commission for UNESCO. The prize itself will be awarded during the World Science Forum in Rio de Janeiro, Brazil in late November 2013 and we wait with interest to hear the result! Copies of the Charter can be downloaded from:

<http://scottishgeodiversityforum.org/charter/>



In the meantime, the Forum continues to work to promote and implement the Charter, with the forty-seven organisations who have now signed up. We have put a five year lifespan on the Charter and within that timescale will be seeking to work with these organisations, and encouraging them to work with each other, to take forward the vision of the Charter. As part of this we are planning a major conference in December, "Scotland's Geodiversity Charter – realising opportunities for communities, the economy, conservation and tourism", in Scottish Natural Heritage's Sharing Good Practice programme. Details of the conference can be found at:

<http://www.snh.gov.uk/news-and-events/events/event-details/?id=2254>

The conference will highlight the benefits that awareness and management of geodiversity offers to areas and communities, and help participants explore how the Charter can be taken forward. It will take place at the Battleby Conference Centre near Perth on Tuesday 17th December. Angus Miller

NEWS ITEM — *National Planning Policy Framework Consultation*

The government recently published planning policy guidance as supporting material for the National Planning Policy Framework; that is, it gives background to the issues in the NPPF and explains how national planning policy should be implemented and planning decisions made. So it's an important document for the planning system in England. While the NPPF does include policies related to geodiversity, as far as I can see this new guidance does not mention anything related to geoconservation other than soils. Under the 'Natural Environment' heading it includes three topics: 1. Landscape; 2. Biodiversity, ecosystems and green infrastructure; and 3. Brownfield land, soils and agriculture. Given that the guidance related to PPS9 on Biodiversity and Geological Conservation will be cancelled when this new guidance is adopted guidance on geoconservation must be included. The deadline for comments is 9th October. The draft guidance can be found at: <http://planningguidance.planningportal.gov.uk>

Murray Gray

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Scotland — Lothian and Borders GeoConservation

In late September, Mike Browne (of Lothian and Borders GeoConservation) attended the launch meeting for this year's cohort of Edinburgh University Geoscience Outreach (and Engagement) fourth year BSc/MA students and Fifth year undergrad Masters students (twenty-two present) wishing to carry out 100/200 hours projects in geoscience involving them with unfamiliar audiences, environments and contexts out of their academic comfort zones. They are expected to develop good working relations with their clients and client organisations. This involves learning and understanding their needs, ethos and timetables (good for interpersonal skills). For the student listening and communication skills are vital. They will also develop project and time management skills and will need to work on their project causing minimum disruption to the client. Imagination, enthusiasm, motivation, commitment, determination, flexibility are essential and the Outreach Option is not to be taken lightly and not for the faint-hearted. The student has to produce a Reflective diary detailing all meetings and developments in the project. They will have a Final Product together with an explanatory technical report. The Student signs off by producing a conference poster presentation or demonstration and abstract. Crucially there is also Client feedback.

Lothian and Borders GeoConservation have been on the Organizing Team for some years and we have several published leaflets to show for the efforts of the students like North Berwick, Joppa Shore and Water of Leith and four more in draft for Siccar Point, River Esk, Roslin Glen and Cramond. In some cases we were the sole clients but we also worked jointly with The Water of Leith Heritage Trust and the Esk Valley Trust. Other students we have helped with producing teaching materials projects in which others like SESEF were the lead clients. The close working relationships have meant we have had a steady supply of young enthusiastic geologists at public events like the Volcano Fun Day in Edinburgh's Holyrood Park and the East Lothian Science Festival. And the students? Employers seem to think the Outreach Option tells them they are desirable recruits. Do we need to say more?

Mike Browne

NEWS ITEM — GCUK AGM and GA Festival of Geology: 2nd November 2013

FESTIVAL OF GEOLOGY
SATURDAY 2 NOVEMBER 2013
ENTRANCE FREE !
10.30 am — 4.30 pm
University College London, Gower Street, London WC1E 6BT

Exhibitors ... from the World of Geology. Fossil and mineral displays, stonemasonry, books, maps and geological equipment, jewellery, beads and more...

Discovery Room Rockwatch with activities for children of all ages. With fossils, racing trilobites, Jurassic dioramas and more....

Geological Talks
Prof Iain Stewart - University of Plymouth
Prof Jane Francis - Director of British Antarctic Survey (from Oct 2013)
Dr Susanne Schweizer - Open University
Dr Maria McNamara - University of Bristol

Walks and Field Trips
Saturday 2nd November
Dr Ruth Siddall - Local building stone walks

Sunday 3 November
Field Trip to Finsbury Chalk Pit near Croydon: Prof Rory Mortimore
Building Stone Walk in the City: Diana Smith
Walk down the lost river Tyburn: Diana Clements

Amateur Photographic Competition
Any geological topic
1st Prize £100 2nd Prize £50 3rd Prize £25

Further Festival details: <http://geologistsassociation.org.uk/festival.html>

www.geologistsassociation.org.uk
www.rockwatch.org.uk
020 7434 4296
e: festival@geologistsassociation.org.uk

UCL

The AGM this year is again being held in conjunction with the Geologists' Association 'Festival of Geology'. The AGM will be held on the Saturday at 1 pm in the Natural Sciences Common Room, Room 10, First Floor, South Wing [opposite the Garwood Lecture Theatre], of University College London. There are vacancies for the Executive Committee and these will be elected into post at the AGM. Members serve for three years.

The 'Festival of Geology' promises to be the usual interesting mix of talks, stalls, activities and meeting up with friends and colleagues. Highlights include the talk by Prof. Iain Stewart and the field trips. For young people (by age and inclination!) the Rockwatch area will be of especial interest. Details of the event can be found on the GA website at

<http://geologistsassociation.org.uk/festival.html>

As usual several GCUK member groups will be there promoting geoconservation to fellow geologists and the general public. So you can attend the AGM and have a jolly enjoyable time as well - not that the AGM won't have of course some moments of light relief!

Tom Hose

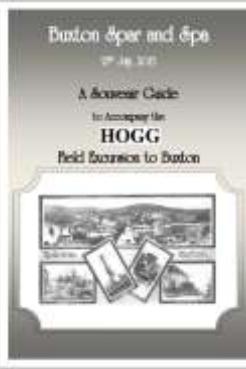


GeoConservationUK Newsletter

M E E T I N G S and C O N F E R E N C E S

24th International Congress on the History of Science, Technology & Medicine

Packed presentation sessions and fully subscribed field excursions speak to the interest in and success of this international gathering of historians and scientists at which the geological aspects were adeptly developed and managed by the International Commission on the History of Geology and the Geological Society affiliated **History of Geology Group**. Having myself organised the Buxton 'Spar and Spa' field excursion I had something of an insight into the hard work and long hours it takes to put together such a brilliant programme in terms of topics and the speakers; it was good to see and hear from a mix of experienced and fresh presenters providing their insights into a broad programme which included major sessions on '**Geology in art and literature**' and '**Geologists in the field**'. Even the weather was kind for the Buxton and, even more surprisingly, the Lake District excursions!



The former had seen myself and my good lady spending something of a very cold and rather wet April tramping the routes of the original 1904 Geologists' Association long field excursion looking for an interesting and safe route for modern excursionists. As the thirty-six page Excursion and Souvenir Guide (*see above right*) indicated (and don't ask how long that took to prepare!) the area's rich geological heritage is not as accessible as it was in 1904; equally, field parties members a century ago walked farther and for a longer time than most would wish to do today.

The gas works is now a 'Morrisons' supermarket, an industrial estate straddles a partly infilled old quarry, and a massive road haulage depot has closed off another; meanwhile, an explosives test site has made yet another quarry inaccessible and the reservoir under construction in 1904 has now been breached and drained. Then there is the abandoned and torn up railway route . . . On a positive note, the old lime workings are preserved in a country park and another quarry has become a well tended Caravan Club site; many thanks to the latter for their willing permission to let thirty geologists loose in their grounds. Further, the major spa site of the Buxton Crescent complex is being restored and the Buxton Museum and Art Gallery geology displays are excellent. The Pavilion Café (more than its name implies) provided a superb luncheon at a fair price and right on time for the hungry excursionists (*see above*), Poole's Cavern was an enjoyable last venue, and the train journey to and from Manchester was okay! Would I do it again, well, err . . .?!

Tom Hose



NEWS ITEM — GCUK Website hits the 1/4 and 1/2 million

Since the launch of the new GCUK web site in 2009 it has now received 1/4 million visits and over 1/2 million pages have been viewed, whilst the Education section 'ESOS' has received 100,000 visits and again over 1/2 million pages have been viewed. By far the majority of visitors are from the UK, but the USA and Europe also figure prominently. The most popular page is the 'Contacts' page listing all the details of the UK Geoconservation Groups, whilst within ESOS, the most popular site over the 4 years has been the Black Rock, Derbyshire. The web sites can be accessed at:

www.GeoconservationUK.org.uk and ESOS.GeoconservationUK.org.uk

Craig Slawson



GeoConservationUK Newsletter



MEETINGS and CONFERENCES

GeoConservationUK acknowledges the support of *Rockhounds Welcome!* in the production of this *Newsletter*

ESTA at Plymouth 27th-29th September 2013 - Geoscience Communication

Over 70 delegates attended the 2013 Earth Science Teachers' Association Conference at Plymouth University. The GCUK stand was in a prominent position, close to the buffet and coffee point! It was good to meet up with chums who helped with the Earth Science On-Site teaching materials, including Maggie and Peter Williams and Elizabeth Devon. There were several others from GeoConservation Groups, including Emeritus Professor Malcolm Hart (*see right*), Chair of Devon RIGS & former Council Member of English Nature.

ESTA Conferences offer a mix of lectures, hands-on activities and fieldwork. Teachers had the opportunity to try sessions on virtual fieldwork, using microfossils, modelling seismic activity, giving career advice and using the BGS website. Iain Stewart (Plymouth) chaired the session on Public Communicating, with Dave Rothery (Open University) showing clips of his performances on TV news explaining the science of Earthquakes, Volcanoes and Tsunamis.

The National Marine Aquarium was the venue for the Conference Dinner. Eating crab pate in the gloom, surrounded by fish and an inquisitive (and very large) crayfish was quite an experience!

Sunday field excursions were a choice of classic locations - The Jurassic Coast and the English Riviera Global Geopark, with inputs from Malcolm Hart. The alternative was into Cornwall for the more unusual experience of using Personal Digital Assistants at Sandway Cellar, near Kingsand. Meriel Fitzpatrick (Plymouth) showed how students use the hand-held device to locate features on the beach. Questions lead the user to investigate, bedding, rock type, nature of an intrusion, etc. This DIY fieldwork is to have a major re-vamp, likely as a mobile phone application. Earth Science On-Site for the future - **now there's a thought?**

Next year's conference will be held, on 27th-29th September, at the Open University in Milton Keynes. Its theme will be 'Earth Science and Planetary Science'. Details of that event, when they are posted, and other ESTA matters can be found on the website www.estauk.net. I look forward to seeing you in Milton Keynes in 2014.

John Reynolds



Malcolm Hart and John Reynolds at the GCUK stand at the ESTA conference [photo courtesy of Peter Kennett]

GeoConservationUK Executive Committee

Chair: Mike Browne - Lothian and Borders

GeoConservation Group

Secretary: Lesley Dunlop - Berkshire Geoconservation Group

Treasurer: Alan Cutler - Black Country Geological Society

Committee Members:

Dr. Ken Addison - Gwynedd and Mon RIGS

Keith Ambrose - Leicestershire and Rutland RIGS

Prof. Cynthia Burek - NEWRIGS

Dr. Kevin Crawford - Cheshire RIGS

Dr. Thomas A. Hose - Bedfordshire Geology Group

Angus Miller - Scottish Geodiversity Forum

Keith Nicholls - NEWRIGS

Rick Ramsdale - Sheffield Area Geology Trust

Sam Scriven - Dorset's Important Geological Sites Group

Dr. Ian Stimpson - GeoConservation Staffordshire

Webmaster: Craig Slawson

Editor GCUK Newsletter:

Dr. Thomas A. Hose [correspondence to: 14 Forge Close,

Chalton, Luton, Bedfordshire, LU4 9UT]

email: t.hose123@btinternet.com