



Bulletin of the North Staffordshire Group of the Geologists' Association Number 121 : February 2018

NSGGA Dates for Your Diary

Wednesday 21 February @ 19:30

Thursday 8 March @ 19:00

Saturday 14 April @ 10:30

Thursday 19 April @ 18:30

Weekend 12 & 13 May

Weekend 2 & 3 June

Wednesday June 13 @ 18:00

Saturday 7 July

Saturday 8 September

Lecture - 'The origins and evolution of the River Trent during the Quaternary: new insights' by Professor David Bridgland, University of Durham.

AGM and Chairman's Address 'How do sedimentary basins form? Insights from computer modelling' by Dr Stuart Egan, University of Keele.

Visit to Lapworth Museum, Birmingham

GSL NW Regional Group Lecture at Keele:

Hydrogeology of Beer by Rick Brassington

Weekend Field Trip to Lake District led by Dr Stuart Egan

Trevor Ford Memorial Meeting, Buxton (with YGS)

Evening walk: Alderley Edge led by Eileen Fraser

Field trip: Wren's Nest led by Graham Worton (BCGS)

Field Trip: Churnet Valley (with EMGS) led by Dr Ian Stimpson

Winter Lecture Programme 2017/18

Lectures are held in room WS0.06 in the William Smith Building, Keele University

Wednesday 21 February 2018 @ 19:30 : NOTE CHANGE OF DATE!

'The origins and evolution of the River Trent during the Quaternary: new insights'
Prof David Bridgland (University of Durham)



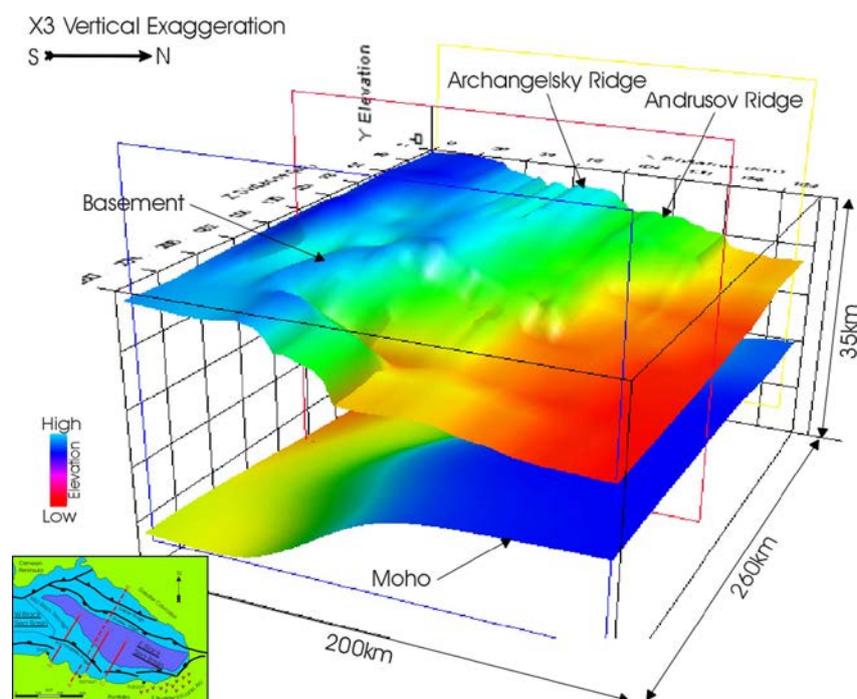
Image: David Bridgland

Born out of the Bytham River, but a very different and much smaller system, the Trent has existed in its present form only since the very end of the last glacial, before which it flowed (via the route of the Lower Witham) to the Fen Basin. That course probably originated following the Anglian glaciation, the first of three ice advances to affect the Trent: in fact, the Anglian obliterated the Bytham and essentially created the Trent. It would seem, however, that there was no Trent in the modern trunk valley above Nottingham prior to a second glaciation, during Marine Isotope Stage 8, when ice covered much of Lincolnshire and invaded the area now drained by the Middle Trent. That second glaciation created upper and middle Trent drainage in much the same form as they exist at present, although there was no connection to the Humber until the drainage of the glacial lake by that name, during Devensian deglaciation. The breach of the former Trent–Humber (Ouse) watershed might have been affected somewhat earlier, however, by lake overspill.

Thursday 8th March 2018. AGM @ 19:00; Chair's Address @ 19:30

How do sedimentary basins form? Insights from computer modelling.

Dr Stuart Egan (Keele University)



3D structural and geodynamic model of the eastern Black Sea sedimentary basin (adapted from Egan and Meredith, 2007)

Sedimentary basins represent major geological features on the surface of the planet. They are the opposite of mountain belts in that they form from subsidence of the crust rather than uplift. The formation of sedimentary basins is controlled by a variety of processes that occur at lithosphere scale, including crustal faulting, thermal effects and isostasy, as well as surface geological processes such as

sedimentary/stratigraphic infill and erosion. The main aim of this talk will be to explain how sedimentary basins form in a variety of tectonic settings and how numerical and computer models, combined with the acquisition of geological data, have enhanced our understanding of basin forming processes and how they interact over geological time. The talk will also touch upon the evolution of several basins in the UK region as well as examples further afield such as the Black Sea and South Caspian Sea basin, which are two of the deepest basins in the world that are still not completely understood in terms of their geological evolution.

Thursday 19th April 2018. 18:30 at Keele University WS0.06
Northwest Regional Group of the Geological Society of London
Hydrogeology of Beer
Prof Rick Brassington

NSGGA members are welcome to attend this meeting of the Northwest Regional Group of the Geological Society of London. Please note the earlier than usual (for the NSGGA) start time of 6:30pm

Summer Field Programme 2018

Each person attending field meetings does so at their own risk. The NSGGA has public liability insurance through a GA insurance policy that also carries limited personal accident cover for members attending meetings or field trips. Non-members pay £2 to cover temporary membership giving them insurance cover.

A field fee of £2 per head is normally charged for members and non-members to cover the leader's expenses.

Hard hats & hi-vis jackets should be taken on all fieldtrips.
 [Except the one to Lapworth Museum, obviously]

Saturday April 14 2018 @ 10:30
Lapworth Museum, Birmingham
Leader: Jon Clatworthy

A chance to visit the £2.7million revamp of the Lapworth Museum of Geology in Birmingham.

Meet at the Museum 10:30 for tea/coffee. There will be an introductory talk and tour of the galleries in the morning. After lunch (bring own or pop out to local Costa etc.). There will be a behind the scenes tour of collections & archive in the afternoon, finishing about 15.30 leaving additional time for anyone to have a further look around galleries, if they wish.

Meeting: The Lapworth Museum of Geology
 University of Birmingham
 Edgbaston, Birmingham, B15 2TT

Parking is free of charge to all visitors on Birmingham campus during the weekend and all visitors will be allowed access to the University campus in order to park – you can often park right outside the door!

Can you please return the booking form at the end of the bulletin to Steve Alcock at steves261@aol.com or send to Longfields, Park Lane, Cheddleton, Leek, Staffs. ST137JS. Any queries please e-mail or call on 07711501028 or 01538 360431.



Saturday May 12 to Sunday May 13 2018

NSGGA Field Excursion Weekend to the Lake District

Leader: Stuart Egan

This weekend field excursion will explore some of the spectacular geology exposed in the southern part of the Lake District around Coniston. Day 1 of the field course will involve an excursion to the 'Coppermines Valley' near Coniston, which will involve a study of rocks and structures within the upper part of the Borrowdale Volcanic Group. We will also see the remains of what was one of the UK's most important copper mining areas. On Day 2/Sunday we will look at the Windermere Group around Torver. Both days are standalone such that participants can choose to do one or both days of the trip.



View to the West with the town of Coniston in the foreground. The subdued topography in the lower part of the image is underlain by sediments of the Windermere Group, which contrasts with the more rugged terrain in the upper part of the image showing well exposed volcanic and igneous rocks of the Borrowdale Volcanic Group (image from Google Earth)

The trip will involve some walking, though nothing too strenuous! Boots, waterproofs and warm clothing will be essential as we all know that the weather in the Lake District can be very variable. More information on the trip, along with a detailed itinerary, will be provided nearer to the date.

Participants are responsible for arranging their own transport and food requirements as well as booking their own accommodation in order to allow flexibility on the type and cost as well as the length of stay. An informal group meal will be arranged on the Saturday night for those who are interested.

A payment of £10 (field fee) is required before 31st March 2018 to book a place.

Can you please return the booking form at the end of the bulletin to Steve Alcock at steves261@aol.com or send to Longfields, Park Lane, Cheddleton, Leek, Staffs. ST137JS. Any queries please e-mail or call on 07711501028 or 01538 360431.

Wednesday June 13 2018 @ 18:00

Alderley Edge: Evening Geological Walk

Leader: Eileen Fraser

Alderley Edge is has a wealth of interesting rocks and industrial heritage to explore.

Near the western edge of the Cheshire Plain it is an area of scarps and dip slopes and is heavily faulted as part of the Wem-Red Rock Fault system. The lithology was laid down in the early Triassic as part of the Sherwood Sandstone Group c. 248-243 Ma.



View from Alderley Edge, east towards the Pennines

These sandstones and the overlying mudstones show an upward transition from continental fluvial to deltaic systems originating from river systems as far away as Brittany.

Meeting: The Wizard National Trust car park, Alderley Edge at 6:00 pm GR: SJ859773. There are toilets in the car park. Car Park closes at 8 pm.

Can you please return the booking form at the end of the bulletin to Steve Alcock at steves261@aol.com or send to Longfields, Park Lane, Cheddleton, Leek, Staffs. ST137JS. Any queries please e-mail or call on 07711501028 or 01538 360431.

Important! The NSGGA Bulletin, communication with you and the GDPR

The new General Data Protection Regulation (GDPR) becomes law on the 25th May 2018. This is aimed at reducing the amount of unwanted mail that we all receive. Unfortunately, this also means that we will now need your express written consent to communicate with you by post, email, phone or text.

So, if you want to continue to receive the bulletin and e-mail notification of lectures etc. after May, unfortunately you will need to complete a form setting out how you would like the NSGGA to communicate with you. This can be done either by completing the form at the end of the Bulletin and sending it to David Osborn (NSGGA Membership Secretary) or in person at the February or March Lectures.

Our privacy policy is available on the next page.

NSGGA Privacy Policy

Your confidentiality is protected by the Data Protection Act and, from 25 May 2018, the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679) and the Privacy and Electronic Communications Regulations 2016 (PECR).

Any personal information supplied by you to the NSGGA will be kept on file. We will always store these personal details securely and delete them once they are no longer relevant with the exception of consent removals. A skeletonised record of members' name and addresses will be kept for historical purposes.

When you complete your Membership Application or Renewal you are asked to provide the NSGGA with some personal data and we will also ask you to consent to the ways in which you wish to be communicated with by the NSGGA.

You can opt in or out of any/all of our communications at any time by contacting the membership secretary.

We will use the data to provide the service that you expect as a result of your membership of the NSGGA and will communicate with you in the way(s) in which you have agreed. The data we hold will be used to send you notice of lectures, field trips, subscription information, geological news and geological events held by the NSGGA, the GA and other geological organizations, your copy of the NSGGA Bulletin and AGM information.

The NSGGA will only share your information if required to do so by law. We will never share your information with other companies or charities for marketing purposes.

We do not use cookies on our website. When you visit our website, we do collect certain information that does not identify you personally, but provides us with "usage data" such as the number of visitors we receive or what pages are visited most often. This data can help us to analyse and improve the usefulness of the information we provide on our website.

You have the right of access to a copy of the information the NSGGA holds about you (a subject access request). This can be obtained, subject to proof of identity, from the NSGGA Membership Secretary (contact details in the current NSGGA Bulletin, available on-line at www.esci.keele.ac.uk/nsgga)

Report from the GA Local Groups Meeting Friday 3 November 2017

Colin Prosser, President of the GA, opened proceedings by welcoming representatives of the Local Groups and Affiliated Societies to the meeting. He also introduced the new president from May 2018 - Nick Pierpoint.

In matters arising from last year's meeting, the proposed closure of Earth Lab at the Natural History Museum and moving it to a location outside the BGS office has been postponed. Cooperation between the GSL and the GA is ongoing.

Haydon Bailey reported that Geolab events took place at Martley (Teme Valley) in February 2017 with 25 attending and The Stone Centre (Wirksworth, EMGS & NSGGA) where 12 should have been attending but only 5 turning up on the day. Brighton's event was cancelled but they will try again.

The GA Annual conference at Cardiff went well. The 2018 GA Annual Conference: Geology and Geoconservation in Birmingham and the Black Country is on Saturday 20 - Sunday 21 October at the Lapworth Museum, Birmingham University.

It was requested that details of field meetings be sent to Sarah Stafford by the 20th of the month before the event.

Rockwatch ran again this year. There is a high standard of behaviour from participants so there are no health and safety problems. Three Rockwatch members have gone on to University to study Geology.



Rockwatch room

The GA live-stream lectures only available to GA members who can see them live.

It was requested that groups let Paul Olver know of any U3A geology groups (paulolver@hotmail.com). He is making adult education listings as up to date as possible. The BGS do have a list of things going on with U3A and WEA offering geology/earth sciences. He would like to get the website up and running during 2018.

GCSE. Rocks, minerals and memory sticks. Let Haydon Bailey know about schools that may be interested.

Publications of local societies are available on the GA website (www.geologistsassociation.org.uk)

School Rocks is going well with Rock Boxes available to Year 3 and

Geoconservation. The Government produces a 25 year plan for the national environment. Colin Prosser (Natural England & GA) has written to Michael Gove. Colin has talks around the country and will be speaking to the NSGGA at their November meeting. When Colin steps down as chairman there will be a need for someone in the GA to take on the role of Geoconservation Officer.

We also attended the Festival of Geology on Saturday 4 November at UCL. There were a number of Geological talks. We attended one of the talks given by Dr Iain Stewart on Hot Rocks: The Fall and Rise of Geothermal Energy. There were a large number of fossil and mineral displays, stone craft, books, maps, geological equipment and jewellery. We were able to meet up with other societies who had stands there. The GA runs an annual photographic competition and entries were on display and the winner announced.

Janet and David Osborn

Keith Elliott Harrison, 1938 – 2018

We are sad to inform you that long-time NSGGA member, Keith Harrison, died on 3rd February. He was 79 & had been a member since May 1960. From 1992 he was Conservation Secretary for many years and founder member of Staffs RIGS Group. Keith was born in Birches Head and studied Geology at Hanley High School. He continued the subject as a hobby, attending evening classes in palaeontology at Keele with Professor F Wolverson Cope as well as evening and field meetings with NSGGA. He trained as a primary school teacher at what was then Chester Training College, specialising in French, which in those days was an important subject in Stoke primary schools. He married June in 1973 and over the years they enjoyed much motoring around Britain & Europe.

As Conservation Secretary his reports to NSGGA and responses to local authority consultations were meticulous. In 1995 Keith was involved in the pioneering attempt at surveying RIGS Sites in the Staffordshire Peak for their educational value. This eventually led to the development of assessment criteria which were later published and widely used.

Ill health forced an early retirement from teaching, but for several years he was a volunteer adviser with the Citizens' Advice Bureau. As Keith's mobility deteriorated he was unable to attend meetings or drive. Eventually Parkinson's Disease was diagnosed and he spent the last four years in care homes. He was still able to enjoy talking about past field trips and current geological events until the last few weeks of his life. Keith was a committed Christian and well-respected member of the community at Christchurch, Fenton, where his funeral will take place on Friday 9th March at 11 am. We have passed on our condolences to June.

Keith was a true gentleman and will be sadly missed.

John Reynolds

Other Societies

Geologists' Association

Lectures are held at Geological Society of London, in Burlington House, Piccadilly but the lectures are available to view by members of the GA online via their website.

Friday 2 March @ 18:00

Redrawing the geological map of South Wales - Prof John Cope

Friday 6 April @ 18:00

How It's Made: Volcanoes - Dr Craig MaGee

Friday 4 May @ 18:00

AGM and Presidential Address: Geoconservation for science and society - Dr Colin Prosser

More details at www.geologistsassociation.org.uk

Black Country Geological Society

Indoor meetings are held at Abbey Room at the Dudley Archives, Tipton Road, Dudley, DY1 4SQ

Saturday 3 March @ 10:30

Geoconservation Day – Portway Hill

Monday 19 March @ 19:00

AGM and 'Archival Research'- Roy Starkey

Saturday 7 April @ 10:30

Field Meeting: Forest of Dean - John Moseley

Monday 16 April @ 19:30

James Parkinson's Organic Remains of a Former World' - Cherry Lewis

More details at www.bcgs.info

East Midlands Geological Society

Indoor meetings are held at the Geography Department (Sir Clive Granger Building) at the University of Nottingham

Saturday 10 March @ 18:00

The real value of microfossils – Haydon Bailey

Saturday 14 April @ 18:00

A Day in AD 79 – Paul Olver

More details at www.emgs.org.uk

East Midlands Regional Group of the Geological Society

De La Beche Conference Suite, British Geological Survey, Keyworth, Nottingham

More details at [www.geolsoc.org.uk/en/Groups and Networks/Regional Groups/East Midlands](http://www.geolsoc.org.uk/en/Groups%20and%20Networks/Regional%20Groups/East%20Midlands)

Liverpool Geological Society

Indoor meetings are held at Lecture Theatre 137, James Parsons Building, Liverpool JMU, Byrom Street, Liverpool, L3 3AF

Tuesday 6 March @ 19:30

Exceptional Cambrian fossils, the flowering of early animal life, and world heritage in Yunnan – David Siveter

Tuesday 20 March @ 19:30

Hematite mineralization of the East Irish Sea Basin – Steve Crowley

More details at liverpoolgeologicalsociety.org

Manchester Geological Association

Indoor meetings are held at the Williamson Building, University of Manchester

Wednesday 21 March @19:00 Carboniferous carbonate platforms: limestone deposition in a changing climate - Lucy Manifold

More Details at www.mangeolassoc.org.uk

North West Regional Group of the Geological Society

Indoor meetings at Manchester University unless otherwise specified

Thursday 19 April @ 18:30 Hydrogeology of Beer By Professor Rick Brassington at Keele University

More details at [www.geolsoc.org.uk/en/Groups and Networks/Regional Groups/North West](http://www.geolsoc.org.uk/en/Groups%20and%20Networks/Regional%20Groups/North%20West)

Shropshire Geological Society

Indoor meetings are held at The Shire Hall, Shrewsbury at 19:30

Wednesday 14 March @ 19:30 Insight to the Black Country UNESCO Geopark project – Graham Worton

More details at www.shropshiregeology.org.uk/SGS/SGSintro.html

Teme Valley Geological Society

Indoor meetings are held at Martley Memorial Hall B4197 by Sports Ground

More details at www.geo-village.eu

Warwickshire Geological Conservation Group

Indoor meetings are held at St Francis Church Hall, Warwick Road, Kenilworth CV8 1HL

Wednesday 21 March @ 19:00 Highlights of the the collection of the Geologists' Association – Jonathan Larwood

Wednesday 18 April @ 19:00 Waking the giant – how a changing climate triggers earthquakes, tsunamis and volcanoes – Bill McGuire

More details at www.wgcg.co.uk

West Midlands Regional Group of the Geological Society

Indoor Meetings at Lapworth Museum of Geology, Birmingham University

More details at [www.geolsoc.org.uk/en/Groups and Networks/Regional Groups/West Midlands](http://www.geolsoc.org.uk/en/Groups%20and%20Networks/Regional%20Groups/West%20Midlands)

Western Institute of Mining and Minerals

Indoor meetings are held at the William Smith Building, Keele University

Monday 5 March @ 19:00 Engineering Design of the Geotechnical Disposal Facility for the UK – Steve Majhu & Neil Carr

Monday 16 April @ 19:00 Construction Phase Supervision for Geotechnical Works – Athena Livesey

More details at www.iom3.org/wimm

NSGGA - Next Committee Meeting:

Thursday March 15, 2018 @ 19:00

In room WS1.44, the William Smith Building, Keele University

Contacts List: NSGGA Committee 2017-18

Chair: Dr Stuart Egan

Geography, Geology & the Environment, Keele University Tel. 01782 733174

e-mail: s.s.egan@keele.ac.uk

Vice-Chair: Dr Ian Stimpson

Geography, Geology & the Environment, Keele University Tel. 01782 733182

e-mail: i.g.stimpson@keele.ac.uk

General Secretary: Barbara Kleiser

email: barbara.kleiser@gmail.com

Treasurer: Tony Marks

4 Scarratt Drive, Forsbrook, Stoke-on-Trent, ST11 9AN

email: welsh_tony@tiscali.co.uk

Membership Secretary: David Osborn

Stretton, 2 Croyde Place, Meir Park, Stoke-on-Trent, ST3 7XD. Tel 01782 396692

email: david.d.osborn25@gmail.com

Speakers Secretary: Peter Jones

e-mail: p.f.jones@derby.ac.uk

Field Secretary: Steve Alcock

Longfields, Park Lane, Cheddleton, near Leek ST13 7J

Tel. 01538 360431 or mobile 07711 501028

e-mail: steves261@aol.com

GeoConservation Staffordshire Liaison Officer: Dr Ian Stimpson,

e-mail: i.g.stimpson@keele.ac.uk

Bulletin Secretary: Dr Ian Stimpson,

e-mail: i.g.stimpson@keele.ac.uk

Honorary Life Member: Ann Myatt

Executive Committee (honorary):

Peter Floyd, Don Steward

Executive Committee (elected):

Dr Lloyd Boardman; Dr Patrick Cossey; Janet Osborn (Minutes Secretary); John Reynolds, Richard Campbell.

Executive Committee (co-opted):

Eileen Fraser (John Myers Awards); Keele GeoSoc Rep.

NSGGA web pages: www.esci.keele.ac.uk/nsgga

NSGGA Field Excursions Booking Form 2018

Saturday / Sunday 12/13th May: Lake District.

£10 / per person field fee required

Deadline: March 31, 2018

Saturday 14 April @ 10:30: Lapworth Museum.

Deadline: March 31, 2018

Wednesday June 13 @ 18:00: Alderley Edge.

Deadline: May 31, 2018



Please tick those you will be attending.

Please return the booking form to:

Steve Alcock (Field Secretary)

by either e-mail(steves261@aol.com)

or by post to Steve Alcock, Longfields, Park Lane, Cheddleton, Leek, ST137JS

Any enquires please contact Steve on 07711501028 or 01538360431.

Name/s

Address

Telephone

Name and address of person to be contacted in case of emergency during the trip

Name

Address

Contact Number

I am enclosing a cheque payable to NSGGA for £10 per person field fee for Lake District field weekend

NSGGA GDPR Compliance Form 2018



In order to continue to receive e-mails (including copies of the NSGGA bulletin), notification of lectures, field trips, membership renewable, your consent is needed under the General Data Protection Regulation (GDPR)

Thank you in advance

Name

Address

Telephone (Home) (Mobile)

E-mail address

Date:

I consent to you contacting me (please tick appropriate boxes)

Name	Email	Post	Phone	Text

Family members should complete one entry for each family member

Completed forms should be sent to:

David Osborn (NSGGA Membership Secretary),

By post: Stretton, 2 Croyde Place, Meir Park, Stoke-on-Trent, ST3 7XD.

or by e-mail: david.d.osborn25@gmail.com

or in person at lecture meetings