

### Past Reflections and Future Hopes.

Welcome, at this most festive time of year, to the third and last of this year's GCUK newsletters. My thanks, as always, to everyone who submitted articles and also to those who forwarded me their group's newsletters (and are hopefully happy with any edited incorporations herein!) and programme information. I also reiterate the usual plea for items for the coming year's GEONEWS issues.

The year's end is traditionally when we look back and reflect upon achievements and and look forward in anticipation of new opportunities. So, it was with mixed feelings I did just that when compiling this issue. Looking back, it's truly impressive how much has been undertaken by member groups given the dwindling finances and support from external sources; the challenge of swelling our ranks, especially in group committee roles, with younger members continues - but with some hopeful signs. Looking forward, it's remarkable how much has been planned, and undoubtedly will be delivered, by member groups in 2024 - I look forward to getting those illustrated reports!

The coming cool months provide an excuse and opportunity to work indoors (although it's probably the best time of the year, with the wild floral die-back, to visually record sites) on all that geoconservation documentation, outreach event planning and making those time-consuming grant applications in the hope that . . .

I hope the New Year brings you success. Before then, do share this newsletter with friends and colleagues – light reading before that huge luncheon? With my best seasonal wishes. *Tom Hose*



### Earth Science Week October 13<sup>th</sup> – The Urban Geology of Warwick.

Despite a very gloomy weather forecast, a full party (right) of 16 turned up at the museum for this public engagement event led by Jon Radley; 11 of the group were non-members, plus three were new members.



All participants were fully engaged throughout with lots of stimulating discussions evolving as we toured this historic city. This trip



took a different and shorter tour than the tour we did in June; it finished with a guided tour of the museum (previous column, bottom) geology exhibits. We were very fortunate that the weather stayed dry for our building stones trip.

### October 14<sup>th</sup> – Geo-conservation at Kenilworth Cutting.

From 10:00 to 13:00 six-and-a-half volunteers set about clearing the Kenilworth Cutting exposure (right) of encroaching floral growth. This is a very popular route for walkers and cyclists, many of whom on the day stopped to engage in friendly conversation, interested in our activity with some even expressing a desire to get involved.



The transformation of the exposures was remarkable once the fast-growing ivy and bramble was removed. The overlying mudstones provide a ready soil source for the vegetation which inevitably means that this site will require frequent monitoring and periodic tidy ups - as the view (above right) before its clearance shows!

Now, those interested easily will be able to read the information panel and also be able to view the section previously covered by vegetation. This exposure is now ready for planned activities in 2024, which will include a members' evening tour and a GeoWeek event.

Many thanks to Rose and Gareth Jenkins, Gill Chant, Kathrin Schütrumpf (who also helped me with photographing the day), Ian Fenwick, Ray Pratt and Christine Hodgson (right) for giving up their Saturday morning to undertake this task. Especial thanks to Kenilworth resident, Christine, for looking after the information panel and removing the occasional moronic graffiti.



*Ray Pratt*





## Saturday 16<sup>th</sup> June: Field Visit to the North Malverns.

The weather was fine and overcast during our visit to the northern tip of the Malvern Hills, including Tank and North Quarries.

We met the visit's leader, Peter Bridges from the Herefordshire and Worcestershire Earth Heritage Trust (H&WEHT), in the Tank Quarry car park, which is situated on the north-east flanks of North Hill. We spent the day walking between Tank and North Quarries with a brief detour up onto North Hill via Rocky Valley. We spent the day looking at the northern most exposures of the Malverns Complex and how these relate to the East Malvern Fault.

### The Malverns Complex

The Malverns Complex forms the full 12.5km (about 7 miles) length of the Malvern Hills. It is roughly 20m wide at the narrowest point and 500-750m across at the widest. The Complex generally comprises sheared and altered acid and intermediate igneous rocks (diorite, granite, pegmatites and basalt dykes), which were intruded deep in the Earth's crust. Subsequent tectonic movements have intensely sheared and faulted these rocks giving them, in places, a gneiss or schist-like appearance. Its rocks date to the Late Neoproterozoic (Precambrian), around 677 million years ago.

### The Malvern Hills Quarries

Along their length, the Malvern Hills are peppered with historically worked quarries that include Gullet Quarry, Hollybush Quarry and Dingle Quarry, to name a few. Each quarry has revealed the various rock types, faulting and associated features that make up the Malverns Complex. Between quarries, linear depressions form shallow valleys that help trace fault alignments at ground surface today.

Dating back to prehistoric times, the quarries were originally worked for building stone and later for roadstone and railway ballast up until the 1970s. Our excursion focussed on Tank and North Quarries located on the northern flanks of North Hill towards the northern end of the Malverns Complex. The exposures within are likely to belong to the same intrusion but display markedly different lithologies.

From Tank Quarry car park, we walked south to North Quarry, which was worked up until the early/mid 20th Century when it became disused following a substantial collapse. Here, Peter first explained the fractional crystallisation process that the melt within the intrusion had undergone as it cooled. The North Quarry rocks contain the earliest and densest minerals to form, and these settled to the intrusion base. The melt being silica poor meant that no olivine is to be found in these diorite

rocks.

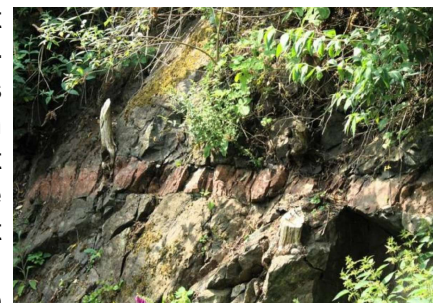
At this location, the diorite is very dense and mainly comprises hornblende, so giving it the name 'Hornblendite'. Later fracturing and hydrothermal deposition has resulted in lighter coloured quartz and feldspar-rich veins running through the rock.

Towards the quarry entrance, breccia-filled crevasses and slickensided surfaces on the dolerite exposures are evidence for sub-vertical reverse faulting, which is common in all of the quarries. The fault trends north-west to south-east, potentially representing the EMF or a separate fault altogether that cuts off the EMF to the north.

Small and overgrown exposures visible in Tank Quarry typically comprise more acidic granite and granodiorite, (*right*) representative of the upper parts of the intrusion.

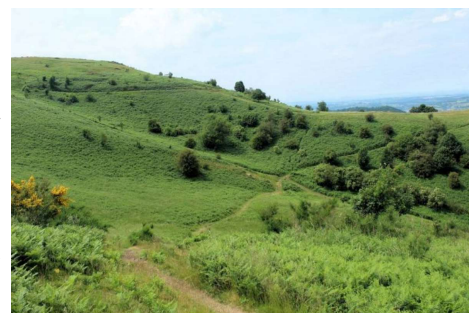
Today these rocks sit at the same topographic elevation as those found in North Quarry, indicating that the older diorites have been thrust up against younger acidic ones.

Whilst north-west to south-east trending Precambrian thrusts are common throughout the Malvern Complex, at Tank Quarry much younger faulting has impacted the more acidic layers.



### Rocky Valley and North Hill

Between Tank and North quarries lies a fault-controlled linear scour, called Rocky Valley (*right*), which continues southwards over North Hill before being cut off by an east to west trending fault. The valley has been dammed



at its lower end to form an underground reservoir that helped prevent the quarries being flooded when they were operational.



The dam collapsed once during construction and after completion has served to prevent flooding further down-slope and also provides a water source for North Malvern residents.

Towards the rear of the reservoir, we saw a sub-vertical outcrop (*above left*) that shows breccia and slickensided surfaces associated with the same NW to SE thrust



fault we had seen at North Quarry; it clearly shows the earlier hornblende-rich diorite thrust up against the later, more acidic granite and granodiorite rocks.

From the reservoir, Rocky Valley ascends steeply southwards following the fault line that water has exploited over time whilst being funnelled as it drains off North Hill. On the valley sides, we saw patches of scree formed from variably sized, angular blocks; these represent broken fragments formed from freeze-thaw activity during the last Ice Age when a periglacial environment dominated the local landscape.

Continuing southwards up North Hill, we eventually reached the head of Rocky Valley, a bow-shaped depression where water and debris accumulate before being funnelled down the V-shaped valley towards the location of the reservoir. From the highest point on our route, we caught views northwards towards the Clee, Clent and Lickey Hills and Birmingham and the Black Country where the glaciers from the last Ice Age were stopped in their tracks, and hence the more periglacial conditions further south around Malvern. To the east is the Worcester Graben, with Bredon Hill and the Cotswolds forming the eastern edge. Another major fault-line, trending roughly north to south, separates these Jurassic hills from the Triassic sediments that lie within the lower-lying graben. When the last Ice Age ended, a vast braided watercourse flowed southwards through the Worcester Graben to the Bristol Channel; that graben, once retreating glaciers forced it south, would eventually accommodate the River Severn.

Leaving North Hill, we headed down the slope back to Tank Quarry. Along the way, we saw further examples of the faulting, in-filled extensional fractures and intruded dykes that define the Malverns Complex. The visit illustrated well, just how complicated is the Malvern Hills geology. Further information about Tank and North Quarry and the Malverns Complex can be found on the EHT and the Abberley & Malvern Hills Geopark websites: <https://earthheritagetrust.org/> and <http://geopark.org.uk/pub/> I would like to thank Peter for a very interesting day.

*Andy Harrison*

*[This is a reduced version of the geologically contextualised report published in the BCGS Newsletter - No.281]*

*"Ancient tool-makers roamed Britain long ago, chipping stones into useful implements. Their discarded handiwork lay sealed in gravels, sands, and cave earth for millennia. Though occasionally retrieved by later inhabitants, it was not until the middle of Queen Victorias's reign that the dwellers of southern England began to recover these prehistoric relics in large numbers from busy gravel pits and brickfields, their eyes sharpened by the recent acceptance of human antiquity. From the 1860s onward, the once-abandoned artefacts were seized again by . . . officers of the Geological Survey . . . and museum curators." (O'Connor 2007, p. xviii)*



## 2023 Talks Programme: September to December.

The Society, following several field meetings in the spring and summer, offered a range of evening talks in the autumn and winter. These meetings were at St Andrews Centre, School Hill, Histon, Cambridge CB24 9JE [[www.standrewscentre.org.uk](http://www.standrewscentre.org.uk)]. Talks started at 7.30pm and doors opened at 7.00pm. Visitors (£3 per person) and Members (free) were all welcome. The talks' quality can be gauged from:

**Monday, 11<sup>th</sup> September:- "Shap Granite: geology, origin and celebrity".** By Dr. Nigel Woodcock, Department of Earth Sciences, University of Cambridge. The Shap intrusion is one of a suite of related granites either side of the mid-Silurian Iapetus Suture. Shap rock (*right*) was prized as a monumental stone since Victorian times. Early biotite radiometric dating suggested a solidification age of c. 400 mya but later feldspar and zircon have found ages as old as 415 mya. Could the intrusions really have an intrusion history spanning at least 15 million years? The distinctive Shap granite boulders have been identified as far away from east Cumbria as the Vale of York and Yorkshire coast. Victorian geologists wrestled with the question of whether this was due to Noah's flood or by the newly proposed glacial action.



**Monday, 9<sup>th</sup> October:- "Describing rock samples".** By Dr. Mike Tuke. Following on from our evening in June when he introduced us to various rock samples, this session gave more information and experiences on rock identification. For 'beginners' this was a good introduction to the various types of rocks they might find (and some of the fossils they might contain), whilst for those more familiar with geology, it was a chance to gain more in-depth experience. 12 large rock samples (*right*) were on display and participants were asked to write a description of each sample; the descriptions could use non-geological terms to cover, for instance, the colour, size, shape, texture and any visible features OR the descriptions could use appropriate geology terminology. During the last part of the evening, Mike gave a geological description and interpretation of each sample.



**Monday, 13<sup>th</sup> November:- "Paramoudra: the origins of flint at West Runton".** By Russell

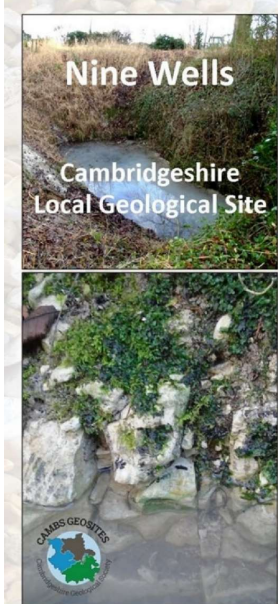
Yeomans. Paramoudras (*below*) are large barrel or pear-shaped flints in Late Cretaceous age Chalk. Rusesell's spent much of his life walking the beaches at West Runton; these just so happens to be at the level of a huge flint raft in the Chalk that obviously extends for many miles. Thorough detailed analysis of these flints has led him to the realisation of what they have been formed from, and this he explained in his talk.



**Monday 11<sup>th</sup> December:- "Introduction to the Geology of the Chalk Springs and Chalk Streams of Cambridgeshire".**

By Dr Steve Boreham. The Chalk Springs of Cambridgeshire provide a unique aquatic habitat and have a vital role in feeding the Chalk Streams that flow through the southern part of the county. These springs arise in a variety of styles and geological settings, and there is considerable debate about what constitutes a 'chalk stream'. Spring types appear to be linked to the lithology and stratigraphy of the Cenomanian Chalk and their distribution may also be influenced by past glacial and periglacial activity. Understanding these variations is essential if the geodiversity of these landforms is to be preserved.

So far, CGS has obtained LGS designation for 3 Chalk Springs: Nine Wells, Burwell and Fowlmere and produced leaflets (right) about them. We are now researching others to propose them for future LGS status. These include those at Orwell, Fulbourn and Giant's Grave (Cambridge).



comes progressively younger towards the central and southern parts of Bedfordshire due to a southerly dip of the beds of only a few degrees. In the Bedford area, the Middle Jurassic limestones are overlain by Upper Jurassic marine mudstones which were extracted for brick making. Overlying this, the Early Cretaceous sandstones of the Woburn Sandstone Formation form the prominent Greensand Ridge.

The Chilterns in the southern part of the county are formed by the Cretaceous Chalk, a very pure form of limestone deposited in deep marine conditions. Following on from this introduction, the party walked across Harrold Bridge spanning the river Great Ouse and walked eastwards onto a ridge overlooking the Great Ouse floodplain. Derek explained how the river would have been much more extensive and of considerably higher energy following the end of the last glacial period when water from melting glaciers led to the deposition of fluvial-influenced glacial deposits, which are widely developed in this area. Evidence for the wider extent of the river is indicated by the presence of a preserved river terrace along the margins of the current floodplain.

**Bedfordshire GEOLOGY GROUP** bringing landscape to life  
**Geology Walk at Harrold Country Park.**

On 9<sup>th</sup> August, Derek Turner of the Bedfordshire Geology Group led a geology walk for the Bedfordshire Natural History Society (BNHS). The trip was well attended with 11 members of the BNHS present. Unusually for this year, the weather was also glorious!

The party (below) met at Harrold Country Park, where Derek initially outlined a geological summary of the



area. In this northern part of Bedfordshire, he explained how the bedrock geology is limestones deposited in a near-shore/shallow marine environment during the Middle Jurassic, approximately 170 million years ago. These limestones were originally quarried and provide the characteristic building stone for Harrold church and many of the older houses in Harrold and the surrounding north Bedfordshire villages.

Derek explained how the bedrock geology be-

The party walked towards the village of Harrold, where it was seen how its church was built predominantly from Middle Jurassic limestones. It was explained that these limestones were often highly fossiliferous, comprising shell and coral fragments. Commonly, these limestones show an oolitic texture, indicative of calcite secretion from sea-water around a sand grain or fossil fragment.

Further examples of these limestones for building purposes were illustrated at the mill house along the banks of the Great Ouse, and in the centre of Harrold at the village lock-up (right), historically used for the temporary detention of drunks and villains awaiting trial in front of local magistrates.

The walk was concluded back in Harrold Country Park, where Derek explained how the lakes in the park were originally quarries, where gravel extraction took place from the end of the Second World War, up until 1980. Many thanks to Derek for providing such an insightful trip – it was very well-received by all the participants – particularly from the members of the Bedfordshire Natural History Society.



*Paul Hawkes*

“*Although he was not a radical thinker, Reverend William Buckland's career influenced many of the important developments in geology, palaeontology and archaeology of the 19th century. He was also the first person to publish a scientific description of a dinosaur.*” (Cook In Huxley 2007, p. 241)





## Ferry Cliff SSSI.

This summer GeoSuffolk assessed this SSSI on the Deben estuary, for Natural England. The 400m stretch of cliff and foreshore is designated for its Palaeocene deposits which yield mammalian fossils, including the oldest British rodents and hoofed mammals.

The Palaeocene sands are only exposed on the shore, below high water. They sit underneath the London Clay and Red Crag which form unstable cliffs bordering the river. The SSSI is in the ownership of the Natural Trust; it is accessed by public footpath from Sutton Hoo.

The path along the foot of the cliff is well maintained, with wooden bridges crossing the springs and seepages that issue from the Red Crag/London Clay junction. It crosses hummocky ground denoting old landslides and passes by a very recent cliff fall (almost certainly last winter – see GeoSuffolk Times 57 for a photo) with the Red Crag exposed in the back wall. The foreshore is best seen from the old disused ferry jetty (*below*) at the end of the footpath; the Palaeocene deposits area can



be viewed from there.

*Caroline Markham*



## A Summary Update and Some News.

We didn't organize a Group network meeting this autumn, but Garry and I have arranged with the Somerset Earth Science Centre that we'll both attend the Mendip Rocks Festival lecture day on Saturday 14<sup>th</sup> October – so that there is a chance to meet and chat with people informally. Plus, we hope, as well to encourage people to attend the Festival; its programme, as given in its booklet (*next column*), may help with inspiration for geo-activities and events elsewhere in Somerset in the future. News is also just in that the Ussher Society is planning its next conference for 11<sup>th</sup>-13<sup>th</sup> January, 2024 based at Minehead, so we'll check its website for details in due course.

Garry has recently held a meeting with Somerset Highways Authority to ensure it has the information, from our joint review with Somerset Environmental Record



## MENDIP ROCKS! 2023

A festival of events running 1<sup>st</sup> - 22<sup>nd</sup> October 2023 to celebrate the awe-inspiring 450-million-year geology of the Mendip Hills!

### PEN HILL GEO WALK

Sunday 1<sup>st</sup> October, 10:30am - 1pm. Meet at junction between Little Entry and North Road, Wells, BA5 2TJ.

[what3words](#) /// [represent.surveyors.skunks](#).



Take a 200 million year journey across the planet through the Carboniferous, Triassic and Jurassic Periods with geologist Dr Doug Robinson. Observe and learn about the rocks that built the beautiful city of Wells. Involves a 4.5km walk along public footpaths and some busy roads. Please wear sensible footwear and weather appropriate clothing. Booking Required. £5 per person. Places are limited.

### BUILDING STONES OF WELLS GEO WALK

Tuesday 3<sup>rd</sup> October at 10am to 12:30pm. Meet in front of Wells and Mendip Museum, 8 Cathedral Green, BA5 2UE ST 5509 4593

[what3words](#) /// [crunched.funky.scored](#).

Join geologist Dr Doug Robinson for an exciting insight into the stones that built the historic city of Wells. Some challenging areas for those with mobility issues. Please wear sensible footwear and weather appropriate clothing. Booking required. £5 per person. Places are limited.

### BUILDING STONES OF FROME GEO WALK

Thursday 5<sup>th</sup> October 2pm-4pm. Meet at the front of the Cheese & Grain, Market Yard, Justice Lane, Frome, BA11 1BE.

[what3words](#) /// [doctor.petal.forum](#).



Join local geologist Simon Carpenter as he takes you on a fascinating journey to discover the different stones that built the picturesque town of Frome and about the fossils and environments that formed them millions of years ago. This circular walk will involve some steep slopes and steps. Please wear sensible footwear and weather appropriate clothing. Booking Required. £5 per person. Places are limited.

LOADS MORE INSIDE! 

Centre (SERC), for the Local Geological Sites (LGS) it manages. This includes checking it has reached all the appropriate management levels – and follows on from Wendy's liaison with the National Trust (reported in the last Update). Staff changes, reorganization and/or difficulty for SERC in obtaining appropriate contacts originally had meant that there were gaps in both cases. We hope this will pave the way too, to future contact on any potential conservation management needed. Andy Gordon has also been making great progress in updating Hugh Prudden's bibliography on Somerset's geology - an interim version has just been added to our webpage on SERC's website – see [www.somerc.com/specialist-groups/somerset-geology-group/](http://www.somerc.com/specialist-groups/somerset-geology-group/) under Somerset's geology towards the page's bottom.

Plus we have noticed, from an article by Jamie Foster in the latest Earth Heritage magazine (No 59, page 19 – available at [www.earthheritage.org.uk](http://www.earthheritage.org.uk)), that Somerset-based consultancy Geckoella is involved in monitoring the condition of geological SSSI's by drone. We're also aware that many of you are involved in a wide range of other geo-conservation and related educational activities. A fuller update of the Group's activities will be prepared for our AGM in April 2024. *Wendy Lutley & Garry Dawson* (SGG Co-coordinators)





## Geosites Maintenance within the Malvern Hills National Landscape.

For well over a decade, a successful partnership has existed between the Herefordshire & Worcestershire Earth Heritage Trust (H&WEHT), the Malvern Hills AONB and the Malvern Hills Trust (MHT), to carry out a programme of geosite maintenance. This work is focussed largely on designated Local Geological Sites (LGS). The principal aim has been to keep important earth science locations in a condition suitable for demonstration to the public, students and enthusiasts as well as for possible research by academics.

Although the programme is organised and managed by H&WEHT – and for many years most ably led by John Payne – it is sustained by annual grants from both the newly renamed Malvern Hills Natural Landscape (NL, but formerly the AONB) and MHT, amounting in all to about £2,000 per year. This money is used primarily for the support of volunteers, the purchase and maintenance of field equipment, and a contribution to the organisation and oversight of the project. Financial support for work of this nature is, like all funding, hard to obtain but at least in this case a little money does go a long way. Material support from the AONB/NL and the MHT acts as a considerable incentive to volunteers to participate regularly in the programme. They know that their hard labours are ‘officially’ recognised and valued.

Since 2014, successive annual seasons of fieldwork have resulted in positive intervention on about 50 sites, of which over half are within the Malvern Hills SSSI (largely confined to the rocks of the Precambrian Malverns Complex) and the rest are Local Geological Sites (LGS) elsewhere within the AONB/NL. The volunteer team working on the project is drawn from H&WEHT and other local geological groups – particularly the Malvern U3A Geology section, the Woolhope Naturalists’ Field Club, and the Teme Valley Geological Society. A typical working party for any one site normally consists of 10-12 people, drawn from the larger team. Two regular volunteers come from about 25 miles away. In addition, the group is joined for some sensitive biodiversity sites by volunteers from the Worcestershire Wildlife Trust.

The main threat to many of the exposures in the Malverns area (and undoubtedly elsewhere) is rapid vegetation encroachment, particularly on the softer strata. In order to address this, one key element of the project has been to establish in conjunction with the now NL and the MHT, a regular schedule of supported maintenance, especially for key sites which are visited on an annual or biennial basis. Too often in the past, geological maintenance of sites has taken place at long

and irregular intervals, and the continued ambition in the Malverns programme is that this current partnership will enable sustained management of priority local sites well into the future. However, such is the richness of the local geodiversity, the number of LGS means some are rarely subject to clearance. An additional challenge for H&WEHT is maintaining those sites in Herefordshire and Worcestershire which lie outside the National Landscape. Currently there is no national funding through DEFRA for geosite maintenance of designated Local Geological Sites, and any intervention by H&WEHT elsewhere in the two counties, tends to rely on intermittent local initiatives or specific requests for help.

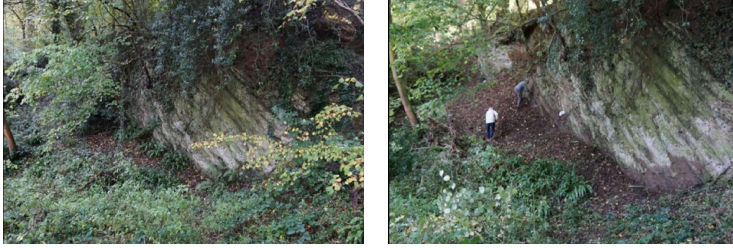
Gaining permission for access to work on geosites within the Malvern Hills SSSI footprint is usually not a problem, although all of the work here is undertaken between October and March to minimise interference on wildlife. Not all is necessarily plain sailing outside this area. Some private landowners are reluctant to grant access mainly because of fears, largely unfounded, of future public encroachment, and on the same basis one parish council has steadfastly refused access for geosite maintenance work on their land. However, the good offices of the NL have been crucial in a number of other instances in negotiating access and for this H&WEHT is grateful.

Sites are chosen primarily, but not always, for their geological interest but other interests can prevail. In the southern Malvern Hills, there are some sites with outstanding examples of submarine volcanism but these are left untouched as they also sites of biological and botanical importance which could be damaged. Notable sites tackled during the past ten years have included Dingle Quarry at West Malvern; Gullet Top Quarry with its famous unconformity between the rocks of the Precambrian complex and the shoreline deposits of the Silurian sea; Quaternary scree sites; and the large exposure of the major East Malvern Fault next to North Quarry. Within this particular quarry, the exposure by industrious volunteers of much bare rock met with great approval from local butterfly conservationists. It appears that the rare Grayling butterfly likes this type of surface, and the hope is that the fresh exposures will encourage it to colonise new ground.

During 2023-2024 geosite clearance and maintenance has been completed at three sites: Gardiners Quarry off Jubilee Drive, Brockhill Quarry (right) next to the B4232, the road from Colwall to Mathon and



Little Malvern Quarry (aka Berington's Quarry) on the eastern slopes of Black Hill. The recent work (*below of before, left, and after, right*) at Brockhill Quarry is a typical



and excellent example of our current geosite maintenance in practice. Understanding of the local rocks, flora and fauna at this site has helped the group target their work and ensure that all clearance completed is sensitive to both geodiversity and biodiversity. It was cleared by H&WEHT volunteers on the 30<sup>th</sup> October.

Similar clearance exercises in the 2023/24 programme are planned for Middle Hollybush Quarry or Westminster Bank Quarry, North & Tank Quarries and an area south of County Quarry. New volunteers are always welcome; please contact Peter Bridges at [ptrbrdgs@gmail.com](mailto:ptrbrdgs@gmail.com)

*Dick Bryant & Peter Bridges*

*[This is a slightly edited version of the online report on the H&WEHT website and its 'newsletter']*



## Local Geology Sites: An Update.

By mid-September, the following sites had been monitored over the last couple of years: Barton Hills, Ken-sworth Nature Reserve, Landpark Wood Quarry and Potton Scout Hut Quarry. We are in the process of completing the paperwork of four other sites that have been monitored recently. These are Ouzel Valley; River Ivel, Biggleswade; Sandy Warren Lodge Quarry and Potton Scout Hut Quarry. Over the next year we need to monitor and complete paperwork for the following sites: Old St Mary's Clophill, Deepdale Quarry, The Pinnacle Sandyand Stockgrove Country Park.

Over the next year, the four sites that still require monitoring will be visited and assessed. Do watch out for events related to these visits and come along to find out how and what we do on a monitoring visit. Meanwhile, thinking of Deepdale Quarry, situated near Potton, it was first designated in January 2007. It was first visited by the Group in December 2007. Since then it has been reassessed a couple of times. Unfortunately it is one of our sites that has declined over the years and is now being considered for de-designation.

The reasons for its initial designation on the original designation form were: *"The site provides a good exposure of the Lower Cretaceous Woburn Sands Formation in a near-continuous low cliff face that is partially obscured by recent slumping.*

*Vivid orange-brown sands and sandstones arranged in multi-*

*storey, tabular cross-bedding predominate. A wide variety of other features are present, such as ripples, clay drapes, channels, slumps, pale leached horizons, pebble beds and 'boxstone' concretions. Spectacular trace fossils are well preserved, as are complex patterns of iron staining caused by the mobilisation of iron-rich fluids. An ecological succession can be demonstrated in various parts of the quarry as the bare rock becomes progressively colonized by plants."*

This site was originally a quarry for sandstone and loose sands but has long been unused for this purpose. In more recent years, it was used as the local tidy tip before being partially infilled. The site had provisional planning to be turned into a camping ground, but this was rejected in 2010-11. Since then, the site has been used for different purposes by private owners – including a shooting range and a BMX and mountain bike venue. Currently it is unknown who owns the site and what are their plans for it.

The most recent visit that the Group undertook was several years ago, when the site had been partially landscaped and many of the interesting features covered up – as seen, in December 2007 (*right*), by Group members. Features that were still visible were in very poor condition, and so less suitable for students, such as those from Bedford College in 2008 (*right*); it is for this reason that this site, sadly, might no longer be suitable for LGS status.



*Ber Fowlston*



Congratulations to HOGG members Ralph O'Connor and Mike Taylor for winning the 'Scottish Research Book of the Year 2023' with their edited version of Hugh Miller's classic book – see: Miller, H. (author), Taylor, M.A. and O'Connor, R. (eds) 2023 *The Old Red Sandstone, or, New Walks in an Old Field* . 2 Volumes. Edinburgh: National Museums Scotland Publishing. ISBN: 9781910682258

*"The north-places western fringe of Leicestershire, the territory of one of Britain's smallest coalfields, has always stood aloof from the rest of the county. The separateness of the coalfield is exaggerated by the barrier of hills that Charnwood Forest places between it and the heart of Leicestershire in the Soar Valley." (Millard 1985, p. 81)*





## Spring and Summer Programme for 2024.

Below is a list of the events planned by the Society for the end of this and the forthcoming year. There might also be other “pop-up” virtual meetings or field trips scheduled at short notice; these will be announced by e-mail and on the website. Unless otherwise stated meetings are held in the Cohen Building, University of Hull, starting at 6.30 pm prompt; should you arrive late you could try phoning Mike Horne on 07 805 717 321. Parking on the campus after 6pm is not restricted.

Club Nights at Hull University are for members of the Society, University staff and students, and interested members of the public. Please bring some specimens, photographs or books about the evening's topic. If you wish to give a presentation using PowerPoint or html please bring a laptop to connect to the projector, or arrange for another member to bring one you can plug a USB stick into. Parking on the campus after 6.00pm is not restricted.

Club Nights on the Facebook Members' Page are for sharing images; within our Facebook Club Page, click on “media”, then “albums” and then open the appropriate album. They officially start at 7.30pm but members can upload images before then and view them afterwards. If you'd like to join the Facebook Group please contact the Secretary. You're invited to post pictures of rocks, minerals, fossils, locations or other items of geological interest to the album. If they aren't your original images please acknowledge the source. You're also welcome to “like” and comment on other members' pictures. The images will remain on the page after that date, so you can visit later if you prefer

Please remember that the field trip leaders are volunteers and it would help them plan their event if you let the Society know if you plan to attend. Whilst every effort is made by leaders to assess the safety of field meetings, members and guests attend meetings and accept lifts at their own risk. Generic risk assessments for our meetings are available on the Society's web-pages; we urge you to read them before attending meetings.

## 2023

**Saturday, 30<sup>th</sup> December:-** *"New Year walk and picnic at Withernsea"*. Led by Jack and Brenda Almond. Meet at the end of South Promenade at 11am; the meeting will last about 3 hours. It will be cancelled if it's snowing or the roads are icy/frosty. You must wear a hard hat if you go near the cliffs and wear protective eye-wear if you use a hammer. Bring a packed lunch and something to drink. Wear warm clothing suitable for the weather conditions.

## 2024

**Thursday, 4<sup>th</sup> January:-** Club Night, on the topic of *"Something Geological Beginning with W"*, on Facebook.

**Thursday, 11<sup>th</sup> January:-** Club Night, on the topic of *"Patterns in the Rocks"*, at Hull University. Starts at 6.30pm,

**Thursday, 1<sup>st</sup> February:-** Zoom talk *"The Geology of the Italian Part of Lake Maggiore"*. By Tony Felski. Starts at 7.30pm. The Zoom log-in code will be emailed to members about a week before the meeting (booking is required for non-members).

**Thursday, 15<sup>th</sup> February:-** Club Night, on the topic of *"Minerals"*, at Hull University. Starts at 6.30pm.

**Thursday, 29<sup>th</sup> February:-** talk by Dr. Anna Bird of the University of Hull at the University. Starts at 7.00pm.

**Thursday, 14<sup>th</sup> March:-** Annual General Meeting at Hull University, followed by a talk by Prof. Mark Bateman of Sheffield University. The agenda will be sent out before the meeting. Starts at 6-.0pm.

**Thursday, 4<sup>th</sup> April:-** Club Night, on the topic of *"Something Geological Beginning with X"*, on Face Book. Look for the album called *"4 April 2024 Geology beginning with X"* on our Facebook Club Page.

**Thursday, 11<sup>th</sup> April:-** Informal Society Evening Meal. At the Goodfellowship, on Cottingham Road. Starts at 6-30pm. Booking is required before the end of March.

**Thursday, 25<sup>th</sup> April:-** Club Night, on the topic of *"Corals"*, at Hull University. Starts at 6'30pm.

**Friday, 26<sup>th</sup> April:-** *"Field Meeting at Flamborough"*. Led by Mike Horne and advance booking required.

**All of May:-** *"East Yorkshire Rocks"* as part of Yorkshire Geology Month. Photographic exhibition on our Facebook Page, Please send images to the Secretary for inclusion in the exhibition.

**Sunday, 5<sup>th</sup> May:-** *"Rocks in the City"* as part of Yorkshire Geology Month. A morning walk in Hull city centre, led by Mike Horne. Starts at 11.00am and lasts about an hour. Meet outside City Hall on Queen Victoria Square. Booking is required for non-members. Bring a magnifying glass.

**Saturday, 11<sup>th</sup> May:-** *"Yorkshire Geology Day"*. At the English National Coal Mining Museum at Caphouse Colliery near Wakefield. Organised by Paul Hildreth. There will be guided tours underground (booking required in advance), tours of the site, displays and talks. If you would like to help with a display at this event on behalf of the Society please contact the Secretary.

**Wednesday, 22<sup>nd</sup> May:-** *"Rocks under the City"* as part of Yorkshire Geology Month. Zoom talk (afternoon or evening) by Mike Horne about the geology under Hull. The Zoom log-in code will be emailed to HGS members (booking required for non-members).about a week before the meeting.

**Friday, 24<sup>th</sup> May:-** *"Rocks in the Cemetery"* as part of Yorkshire Geology Month. A walk in Western Cemetery on Spring Bank in Hull. Meet at the cemetery gates on Chanterlands Avenue at 2.00 pm. Walk lasts about an hour and there may be some uneven ground. Booking is required for non-members. Bring a magnifying glass

**Saturday, 25<sup>th</sup> May:-** *"Field Meeting at Speeton"*. Led by David Hill. Meet at Sands Road car park, Reighton Gap, Filey, YO14 9SR, [TA 140 763], at 10:00am for 4 hours. This





meeting is to study the type section of the lower Cretaceous Speeton Clay Formation and the overlying chalks. The maximum walking distance is about 5km, mainly over sand and shingle. There are some steep slopes and the rocks may be slippery. Booking is required by telephoning David Hill on 07879432149. Bring a packed lunch and a drink.

**Sunday, 9<sup>th</sup> June:- "Field Meeting at Skipsea Withow"**. Led by Mike Horne. Meet at 11.00am, parking at Mr Moos at Skipsea (Southfield Farm, YO25 8SY). The gate to the car park may be closed, if so please close it again behind you. There is a 1km (approximate) walk to the beach. There may be a low cliff to climb down on to the beach, which may be slippery. If you arrive late just follow the path to the coast – the site is just on the beach at the end of the path. Mr Moos dairy ice cream is very nice and if you take a cool box you can buy some tubs to take home. Please bring a packed lunch and drink. Hard hats and non-slip footwear are recommended.

**Sunday, 23<sup>rd</sup> June:- "Barton Upon Humber private Geology Museum"**. Hosted by Mick Oates, at 2.00pm. Further details and directions to follow. Booking is not essential but would be appreciated.

**Thursday, 27<sup>th</sup> June 2024:- "Wealden RIGS and the history of geoconservation"**. Talk at Hull University. By Dr. Tom Hose of Bristol University and editor of GEONEWS. Starts at 6.30pm.

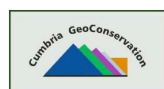
**Sunday, 7<sup>th</sup> July 2024:- "Field trip to Filey"**. Led by Terry Rockett. Starting at 10-30am. Further details to follow.

**Sunday 8<sup>th</sup> August:- "Field Meeting at a Scunthorpe Ironstone Quarry"**. Led by Paul Hildreth starting at 11.00am and lasting about up to 4 hours. Further details to follow.

**Thursday 22<sup>nd</sup> August 2024:- Club Night, on the topic of "Metamorphic"**, at Hull University. Starts at 6.30pm.

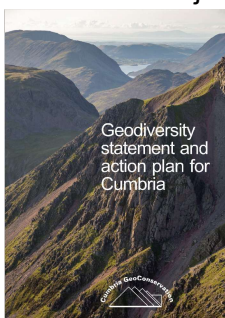
**Saturday 24<sup>th</sup> August 2024:- "Rock and Fossil Roadshow"**. At Hornsea Museum. (to be confirmed)

*Mike Horne (Hon. General Secretary)*



## A New Action Plan for Cumbria.

The Cumbria GeoConservation Group released a major new document (*right*) in mid September; an informative and exceptionally well-illustrated guide to Cumbria's geodiversity. It's intended to raise the awareness of planners, conservation policy makers and other nature conservation stakeholders of the area's rich geoheritage – as summarised within it in a text box (*below*) that draws



The purpose of this document is:

- to raise awareness of Cumbria's geodiversity amongst planners, and the many bodies involved with nature conservation in Cumbria;
- to explain why geological conservation matters, and why conserved and well-managed geoheritage provides a wide range of social and economic benefits, as well as being a valuable resource for education and scientific research.

In addition to these general themes, the document will briefly outline the work of the CGC, will consider future challenges and threats to the county's geoheritage, particularly in the light of climate change, will summarise our current geodiversity Action Plan, and give case studies from Cumbria showing successful examples of geoconservation in practice,

attention to the Group's major work.

TAH



## Designation Celebration in Ipswich.

On September 21<sup>st</sup>, Ipswich Museum celebrated the designation of its post-Cretaceous geology collection by the Arts Council. The event at Christchurch Mansion (part of the Museum service) highlighted the palaeontology in the museum collection – now given national/international status. Displays of large Pleistocene/Pliocene mammal remains and Pliocene fossil molluscs were created in the entrance hall of the Tudor mansion, including a woolly rhino skull from Weybread and bones of the Maidenhall mammoth from Ipswich.

Guests included representatives from Derby, Cambridge and Royal Holloway Universities, Ipswich local government officials, museum staff and community group members (including GeoSuffolk). Professor Adrian Lister of the Natural History Museum, London gave a presentation outlining the importance of the collection; he highlighted the quality and quantity of elephant fossils and the part they play in the history of evolution and ecologies. These along with the Pliocene molluscs are informing climate change research today. Fossils from the Pliocene crags represent warmer times before the Pleistocene and Suffolk is unique because it is the place where the fullest sequence of the crag deposits is exposed.

Ipswich Museum was created in the mid-19th century as a natural history museum and has a large collection of Victorian and early 20th century Pleistocene and Pliocene fossils from our local deposits. They tell Suffolk's unique geological story over the last few million years of earth history, the best British record covering this time. GeoSuffolk Chairman Bob Markham (*on the right*

*in the photo*) added to this collection during his time as geologist at the Museum, enhancing its quality and interpretation. Dr Simon Jackson (*on the left in the photo, and holding a woolly mammoth tooth*), Collections & Learning



Curator (Natural Sciences) at the Museum (and a GeoSuffolk member!) is to be congratulated on facilitating the designation which brings the collection the recognition it deserves. The Museum building in Ipswich's High Street is presently closed for renovations; it is scheduled to reopen in 2025. *Caroline Markham*





Bedfordshire  
GEOLOGY GROUP  
bringing landscape to life

## The Group's 19th AGM & Microscopy Evening.

Our AGM took place in September in what must be Bedfordshire's most historic village hall in the village of Chalton. Occupying what was a once a tithe barn built in 1561, the hall has a structure of fine oak beams that are visible on the inside. The venue was suggested and booked for us by Tom Hose who lives nearby and attended by 9 members and 2 non-members.

After a short resume of activities from the last twelve months and reports by officers, the meeting elected a committee for the year ahead that is comprised of previously-serving officers Glynda Easterbrook, Paul Hughes, Diane Sutherland, Bev Fowlston and Derek Turner. Also elected was Em Fowlston, who will take over from Bev Fowlston as Digital and Communications Officer. The agenda included an item that modified the constitution to ensure that the Group could continue to function with a smaller committee than was envisaged when the group was formed when it had a larger and more active membership. In future, the committee will be able to meet if it has as few as three members rather than the seven specified previously.

The AGM was followed by a most interesting introduction, with a presentation and workshop by Richard Hogg, to microscopy. Richard (*below, and seen on the left*), our speaker, and demonstrator for the evening, is a self-taught micropalaeontologist who specialises in microfossils. He first discovered and collected microfossils in the



1970s from a local quarry near to where he lived. Richard gave us a fabulous presentation on how he extracts the microfossils from the Chalk and other sedimentary formations across Bedfordshire. He has examples of microfossils from Shenley Limestone, a rare outcrop near Heath and Reach that represents a condensed ferruginous phosphatic deposit rich in brachiopod fauna, as well as some Gault Clay and Chalk specimens.

Looking ahead, we have events organised until the end of the year and Tom suggested a joint event with the Geologists' Association and helping with a Student Conference taking place in May. Bev pointed out that this will be the Group's twentieth year and we should consider doing something special. *Derek Turner*

**If you think your group's endeavours have been neglected in this issue, you know what you have to do - get writing and submitting!**



Celebrating Geoheritage • Promoting Geoconservation

## Some Personal Reflections.



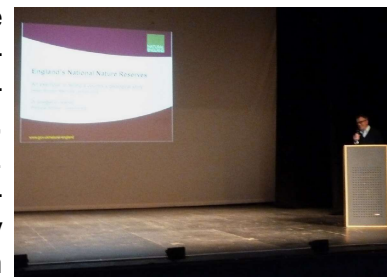
Celebrating Geoheritage • Promoting Geoconservation

The Symposium was hosted by the proposed Charnwood Forest Geopark. This is being developed as part of the Charnwood Forest Landscape Partnership Scheme, a five-year scheme to promote awareness and understanding of Charnwood Forest through 18 projects, developed and implemented by 18 partner organisations. It was awarded a National Lottery Heritage Fund grant to support this work in 2020. The host venue was the Grade II listed Loughborough Town Hall. This was originally opened as a corn exchange and ballroom in 1855. It now houses municipal offices for Charnwood Borough and a theatre - the latter (*right*) used for the Symposium presentations.



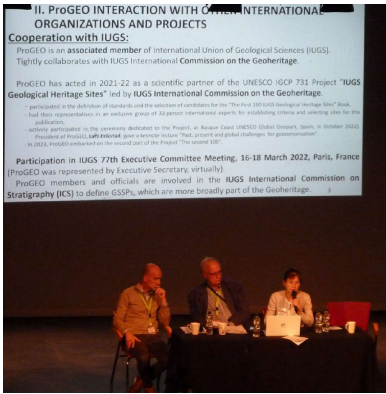
It was a truly international event open to scientists, students, educators, professionals, decision-makers, and anyone involved in geoheritage and geoconservation. It was intended to develop communication and collaboration amongst attendees and provide the opportunity to discuss new geoconservation challenges and threats. Its three days, starting at 9.00am and finishing at around 5.30–6.30pm, packed in a lot – it was really exhausting!

The Symposium keynote presentation (*right*), delivered as the Helen Boynton Memorial Lecture, was given given by Dr. Jonathan Larwood, Principal Adviser - Geodiversity at Natural England. Helen



Boynton, who passed away in 2020, was a Charnwood resident and geologist now remembered for her significant work in celebrating and conserving the area's Precambrian fossils; her careful work led to the discovery of new fossil sites and promoted research and geoconservation of the area's internationally significant geosites. Helen sadly died in 2020. Jonathan's 45-minute presentation, "England's National Nature Reserves: An Exemplar in Telling a Country's Geological History"?, was an excellent summary of geoconservation progress in England since the mid-1940s. Its delivery at the end of the first day did seem odd timing; but then, there's always the need for an opening ceremony/address on the first day and the (less than enthralling) General Assembly (*see next page, first column top*) and closing ceremony on the last day, with the afternoon of the middle day being given over to a field trip.





The presentations, were perhaps too short, at 15 minutes including questions from the floor, to fully develop many of the more interesting themes. Whilst the various parts of the day weren't formally themed, it was possible in some sessions to see links between the presentations.

For example, Session 1 focussed on geoparks, monitoring and evaluation with examples drawn from France and Italy to eastern Europe; Session 5 focussed on geosite recognition, protection and geoconservation at the mainly European scale. Whilst many presentations were excellent (despite glitches with the presentation technology and the undersized projection screen) and of truly international significance, others were really only of local and at best regional interest.

The time given to examine the posters in the three poster sessions, albeit with each given a three-minute oral introduction

(right), was really insufficient to generate much discussion. This was especially so as there were three such sessions in the same room (where



the morning/afternoon refreshments and luncheon were taken), generally hanging for a single refreshment and luncheon period. There were some excellent posters in terms of content and typography; it was clear from perusing these and chatting to authors that several had been offered as presentations, but accepted, relatively late in the day, as poster presentations – a format that clearly wasn't easily adaptable for all of them.

However, it's not easy to get the balance right at such international events with potential speakers and presenters from a wide range of academic, professional and stake-holder backgrounds. It was good to see a large number of younger and developing researchers presenting; many of these did – to their credit having done decent literature reviews – cite several of the experienced and well-published ProGEO members in the audience who were not presenting in the lecture theatre. Now, call me old-fashioned, but I did miss the availability of a printed and bound copy of the abstracts; I still find it helpful to write pencilled notes into such a volume when I'm listening to a presentation and viewing a poster whilst chatting to its creator.

The half-day field trip (below) only covered parts of Bradgate Park. Perhaps surprisingly, as 'The Old Man'



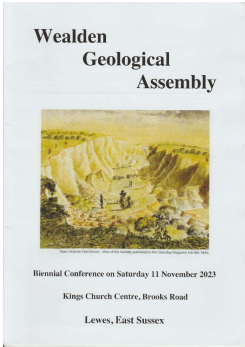
rock feature is on the geopark leaflet [see back page], the trip ignored Beacon Hill with its magnificent eastern views and the excellent BGS interpretive panel.

A pre-Symposium field trip (priced at £79) was to the Black Country; it was led by Colin Prosser and Graham Worton. A three-day post-Symposium field trip (priced at £289) around the Charnwood Forest region was led by Jack Matthews; this took in the BGS Keywotth HQ, Bardon Hill (and its quarry), Beacon Hill, Morley Quarry LNR, Forest Rock, Hill Hole LNR, Charnwood Lodge and Outhouse SSSIs, and the Rothley Wine Estate. The fees for both field trips included transport, entrance fees and luncheons but not accommodation. I suspect those who'd attended the GA Field Meeting to Charnwood three weeks of so before would have considered their (£5 or £10) fee comparatively excellent value!

Meanwhile, an excellent example of encouraging fuller participation at the Symposium was the 'The Travel Support Fund'; this was open to early career workers and attendees from low and middle income countries. Applicants had to submit a presentation abstract, with the decision to award a support grant then solely based on the quality of the proposed presentation and the need for financial assistance; although such monies were unlikely to cover the full costs of transport and accommodation. The Organising Committee also had some welcome leeway to offer registration fee waivers. This overall approach is something, as well as looking at the income levels of participants as a whole irrespective of their country, that other major conferences might like to take on board; so, well done ProGEO!

Having not attended one since that in 2005 at Braga, Portugal it was pleasing to see that such an event can still be offered in the resource-constrained present-day. It was really good to renew some old conference acquaintances and to meet with keen young researchers. The organising committee is to be congratulated for putting together such an enjoyable opportunity for so many colleagues from across Europe. *Tom Hose*





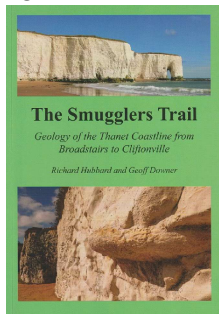
## WEALDEN GEOLOGICAL ASSEMBLY Saturday, 11<sup>th</sup> November in Lewes.

This planned biannual event was held in the Kings Church on the edge of Lewes; the acoustics, AV equipment, catering and cheerful staff were well up to the task of supporting the 60+ attendees drawn

from both local and farther afield parts of south-east England. It was organised by Anthony Brook, who's previously been involved with developing HOGG and GA events, as the second such event – it having been put back due to the pandemic and personal illness. The modest attendance fee of £30 probably could barely have covered costs and expenses.

It's one of those events that it would be good to see offered more widely – an opportunity for the public to hear about varied geological topics from a range of experts seemingly, from the day's deliveries, well skilled in communicating complex material to an audience broadly-based in terms of geological expertise.

The abstract booklet (*top left*) was well-produced and a great post-meeting souvenir. Having quickly scanned it, there wasn't a presentation, from the somewhat eclectic mix, I would have chosen to miss in order to better appreciate the architectural and retail delights of Lewes; indeed, after one presentation I bought (*right*) the book!



The morning session was opened by David Nash (University of Brighton) with his keynote presentation (*below*) on *"?The Sarsen Stones of Stonehenge: Where from?"*.



After coffee, it was followed by two presentations themed around 'Coastal Phenomena': *'Bumps in the Bay: Geology of Offshore Dorset'?* by Dan Bosence (Royal Holloway, University of London) and *'The Shifting Shorelines of the Thanet Anticline'?* by Richard Hubbard (Kent Geologists Group), which introduced *'The Smugglers Trail'* guide-book.



The first afternoon session was themed around 'Earth Movements': *"The Great Bindon Landslip of 1839"* by Richard Edmonds (*right*) and *"Why are the Andes so High?"* by Laura Evenstar (University of Brighton). Following the coffee break the final presentations were *'Tyrannosaurus Rex: Top Predator of the Late Cretaceous'* by Dr. Chris Duffin (Natural History Museum) (*right*) and *"Wealden R.I.G.s RIP?!"* by Dr. Thomas Hose (University of Bristol).



Most unfortunately, the weeks of preparation by the last speaker were nearly well and truly scuppered by a literal progressive loss of his voice during the day – thankfully, part rectified by a quick trip to the nearby Tesco's to purchase some lozenges that did ('Ronseal'-style) almost exactly what they said on the packet! However, it meant that his intended asides on what was meant by RIP ('raised in profile', 'recognised in public', 'really important place', 'raised in importance', 'regionally important . . .'), as a pun on it being delivered in the 'coffin slot' at the end of a packed day, were mainly ditched.

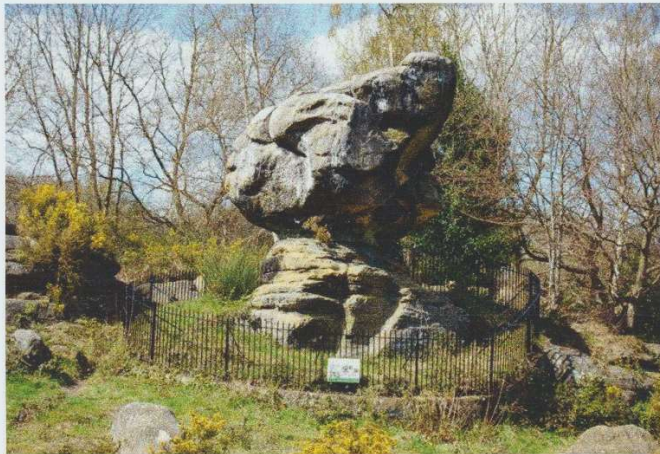


Anyway, when I was able, I much enjoyed the opportunity to chat with colleagues from GeoConservation Kent and the West Sussex Geological Society, as well as a chap from the now seemingly defunct Surrey RIGS Group; he gave me some useful information on a significant site. Sadly, the full day meant I missed out on photographing Gideon Mantell's house, the castle, the . . . but I got some good night-time shots of the railway station! So, it's to be hoped that Tony will successfully carry on with the challenge of organising the third such event in 2025, on 29<sup>th</sup> November - a date for mine and your diaries.

*Tom Hose*

*" . . . it would appear highly unlikely that Britain was occupied continuously throughout the last glaciation. During much of this period large areas of Britain would have been covered by ice sheets, and conditions in the rest of the country must have been far too barren and inhospitable to permit any kind of permanent settlement. Traces of occupation are therefore to be expected only during the milder stages of the last glaciation - that is, at the very beginning and very end of the glaciations . . ." (Mellars In Renfrew 1974, p. 62)*





**TOAD ROCK** Natural Sandstone Formation on Rushall Common, 1 Mile West of TunbridgeWells

## GeoConservation Kent Preserving Kent's Geological Heritage

Local groups, acting under the central guidance of GeoConservationUK, have been formed to identify, research, protect and maintain Regionally Important Geological Sites (RIGS) for further research and educational purposes. RIGS are geological sites that are important for historical, scientific research or educational reasons. GeoConservation Kent, Natural England and local authorities work together to protect and maintain them for these purposes.

GeoConservationKent is a loose association of people who care about geological sites and wish to identify, conserve, enhance and research those of particular importance to Kent. GeoConservationKent has identified rock exposures in the natural and man-made landscape of Kent which deserve greater protection. There are 38 RIGS in Kent.

For further information about important geological sites in Kent, visit the GeoConservationKent website at [kentrigs.org](http://kentrigs.org)

**Kent Geologists Group (KGG)** warmly welcomes all those with an interest in Rocks and Fossils. The KGG are a group of friendly people who meet the third Tuesday of every month to enjoy geology talks, activities and displays. Meetings start at 7pm at the United Reformed Church Hall in the town centre of Maidstone, Kent.

Talks cover a wide variety of subjects related to Geology, ranging from Volcanoes to Fossils, or famous geological heroes, such as Charles Lyell. Speakers range from professionals to enthusiastic and knowledgeable amateur geologists. They are all friendly, informative and helpful, and give interesting and entertaining presentations.

In addition, KGG also holds Field Meetings and Geological Walks, on a regular basis. Many Field Trips last half a day or a whole day, and we usually arrange at least one Residential Field Visit every year, to places such as Snowdonia or the Pembrokeshire Coast.

A very enjoyable pastime, in the company of like-minded people.

For more information, please visit our website—[kgg.org.uk](http://kgg.org.uk).

Feel free to come along to one of our Meetings, to see what we are all about: I look forward to seeing you there.  
Dr Anne Padfield Chairman, KGG

## History of Geology Group



For HOGG members, admission to all online meetings is free and to other events and activities at a discounted registration fee via an exclusive HOGG member admission code emailed to members. Associates and guests are welcome to attend meetings for a small admission charge. An outline of the 2024 meetings/events and registration is at:

<https://www.tickettailor.com/events/historyofgeologygrou>

**Tuesday, 20<sup>th</sup> February:-** Bicentenary re-enactment of the historic meeting announcing the *Megalosaurus* by William Buckland and the *Plesiosaurus* by William Conybeare at the Geological Society. The event will take place at 20 Bedford Street, London (the location of the Geological Society at the time); with appearances from 'William Buckland' and 'W.D. Conybeare'.

**Wednesday, 21<sup>st</sup> February:-** Symposium: "*Enormous Fossil Animal and Almost Perfect Skeleton*" to mark the Bicentenary of the reading of the historic papers on the *Megalosaurus* (William Buckland) and *Plesiosaurus* (William Conybeare). 14 speakers plus viewing of specimens.

Convened in partnership with the Oxford Museum of



West Sussex  
Geological Society

Interested in the landscape, rocks, and fossils?

Why not come along to a meeting or event at 7.30pm on the third Friday in the month (excluding July and August).

St Stephen's Church,  
Angola Road,  
Worthing BN14 8DU



Field trips  
Biannual magazine - Outcrop  
Social events  
Friendly group  
Lectures from experts  
All ages and knowledge levels welcome



[www.wsgs.org.uk](http://www.wsgs.org.uk)  
[wsgeosoc@gmail.com](mailto:wsgeosoc@gmail.com)



Natural History, where the symposium will be held.

**Tuesday 19<sup>th</sup> March:-** Online talk (at 7.00pm) "*A history of geosynclines in geological work*" with Prof. Steve Rowland, University of Las Vegas.

**Tues 15<sup>th</sup>-16<sup>th</sup> July:-** Conference: "*The history of geological discovery in polar regions*". Joint HOGG/GCG meeting. Venue: Cambridge; British Antarctic Survey (conference on the 16<sup>th</sup>), Scott Polar Research Institute & Sedgwick Museum (archive visits on the 17<sup>th</sup>). Details TBA.



*"Sediments form a relatively thin surface layer of the earth's crust, covering the underlying igneous and metamorphic rocks. This sedimentary cover is discontinuous and of varying thickness; it averages about 0.8 km in thickness but locally reaches over 12 km in long narrow belts, the sites of former geosynclines [!!!!]. It has been estimated that sediments constitute only about 5 per cent of the crustal rocks (to a depth of 16 km), in which the proportions of the three main types are approximately: shales and clays, 4 per cent; sandstones, 0.75 per cent; limestones, 0.25 per cent."* (Blyth & de Freitas 1973, p. 173)



**GEOLOGISTS' ASSOCIATION:**

**RECRUITMENT TO NON-COUNCIL POSITION**

**VOLUNTARY ROLE**

**JOB TITLE: GA WEBSITE LIAISON**

**ROLE AND RESPONSIBILITIES**

The GA Website Liaison is a voluntary non-Council role, they are responsible for ensuring the website is current and functional. They act as a single point of contact for overseeing updates and changes to the GA website. The actual updating (coding and software) of the website is done by GA Webmaster, the role of Liaison is to advise and act as quality control, such that the changes happen and fulfil the purpose required by the GA. The GA Website Liaison position has a seat on the GA's External Relations Committee.

Tasks include, but are not limited to:

- Ensuring home page information e.g. dates and upcoming events are current
- Surfing the GA website, at least once a month to check for typos and to ensure links all work.
- Website design: Ensure menu navigation makes sense, suggest longer term changes if needed.
- Website design: Seeking ways to simplify content/linking to external source content if possible
- Quarterly GA Magazine updates - once published the new edition is added to the members area in full & edited highlights added to Publications > GA Magazine (following GA Magazine Publishing Guidelines)
- Continuing to develop the Publications > GA Guides (Shop Front) to promote new content.
- Attendance and contribution to the GA External Relations Committee which meets every six months.

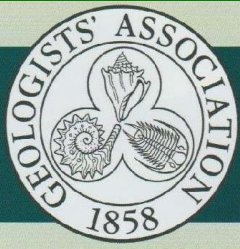
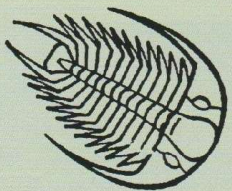
**PREFERRED SKILLS**

- The role requires good communication and written skills
- An understanding of website design
- The ability to work independently and in small groups
- Supportive / management skills

**ADDITIONAL NOTES**

- Awareness of key events within the GA Calendar
- Liaise with GA Office Staff and with the GA Webmaster

To apply for this position, please contact the GA President: [president@geologistsassociation.org.uk](mailto:president@geologistsassociation.org.uk)

42<sup>nd</sup> Annual  
**ESSEX GEM & MINERAL SHOW**

**Saturday 17th February 2024**  
10am to 4pm  
**North Romford Community Centre**  
Clockhouse Lane, Collier Row, Romford RM5 3QJ  
*Within the ULEZ*

**TWO HALLS of: Minerals, Fossils, Gemstones, Jewellery, Books, Rock & Fossil ID**

Septean Nodule, Uzb, USA - [www.therockgallery.co.uk](http://www.therockgallery.co.uk)

Free Parking  
Refreshments Available  
Adults: £2  
Accompanied Children: Free

For more information about the show please email: [show@erms.org](mailto:show@erms.org)

Organised by:  
**THE ESSEX ROCK & MINERAL SOCIETY**  
WWW.ERMS.ORG




**600 MILLION YEARS IN THE MAKING...**

Charnwood Forest is Britain's unexpected upland. Having begun its journey nearly 600 million years ago in the seas of the southern hemisphere, this very special region has continued to develop rich layers of heritage. We are home to some of the oldest animal fossils ever described, and have quarries whose stone has shaped not only our quiet villages, but also many English cities. Our landscape is defined by crag-topped hills, wooded valleys, heathlands, and grasslands. Shaded lanes reveal Arts and Craft cottages, ancient monasteries, and drystone walls.

The Charnwood Forest Geopark is being developed as part of the Charnwood Forest Landscape Partnership Scheme. In 2020 we were awarded a National Lottery Heritage Fund grant. It is the aspiration of Charnwood Forest to become a UNESCO Global Geopark so we can celebrate our story not only with Leicestershire, but also with the world.

**CHARNWOOD FOREST PARK**  
in's Upland

Made possible with **Heritage Fund**

**Charnwood Forest Geopark**  
@CharnwoodGeo  
@CharnwoodForestGeopark  
fb.com/CharnwoodForestGeopark

The Geopark team are working hard to put in place new interpretation, telling the amazing stories that can be found across Charnwood Forest. While we develop the Geopark, there's still plenty to explore.





**GEONEWS**

**NEEDS Your COPY for the next issue!**

**Copy for the next GEONEWS issue, for spring 2024, must be with the Editor by 22<sup>nd</sup> March, 2024 at the very latest!**




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**GeoConservationUK**




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