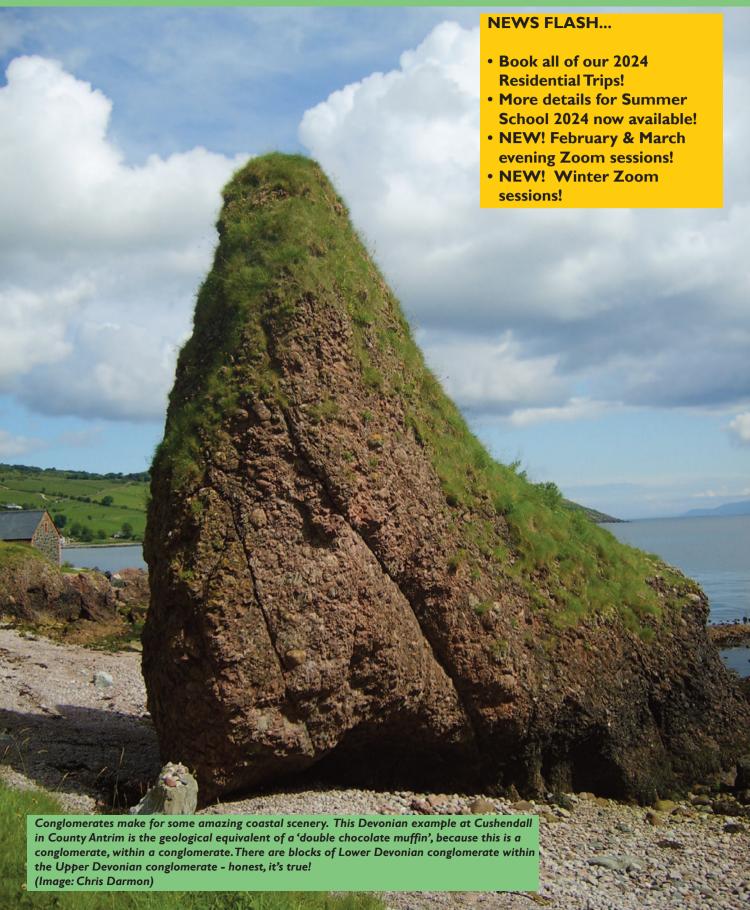


# Down to Earth exera

Issue 134 February 2024



#### From the Editorial team...

Have you heard of the phrase 'hidden in plain sight?' In a time when we have access to a plethora of material it's amazing how some things that can prove to be invaluable were there all along and, for some reason, you failed to spot them.

That happened to your Editor, just a few days ago when he was researching a topic for one our increasingly popular Wednesday evening Zoom sessions. The subject was 'The geology of the Settle-Carlisle railway'. This iconic railway route, once traversed by the Thames-Clyde express between London St Pancras and Glasgow Central, was very nearly closed as late as 1980, but is now back as a firm favourite by regular passengers and day trippers alike. It's also a diversionary route when the West Coast line is closed for engineering work.

Trains on the current timetable all start at Leeds and so, for many, the journey begins with a trip up the Aire Valley through the Carboniferous rocks of West Yorkshire. You really get the impression that it was these sandstones that put the true grit into many a Yorkshire man (and woman). In the Skipton area we drop down the geological succession and into the limestones of the Lower Carboniferous. But it's only beyond Settle that we get into the real geological story of the Settle-Carlisle line, a line that was only built because of the intense rivalry between two nineteenth century railway companies, the Midland and the LNWR.

It's also beyond Settle where a publication, that was indeed hidden in plain sight on the internet, comes into its own. Written by geologists from the University of Leeds "Geology of the Settle-Carlisle Railway" tells the story of what can be seen from your seat on the train. And what an amazing story it is. It's enough to get you out travelling - hang on though, isn't there a strike today! See elsewhere in this issue for details of this publication - and it's free.

Chris Darmon & Colin Schofield
The Down to Earth editorial team

## See pages 6-10 for details of our exciting 2024 programme of residential field trips!



## Scottish Island of Mull hit by a magnitude 3.3 earthquake, as the residents of Balamory are shaken...

The Mull village of Tobermory is also home to the fictional Balamory, the classic children's TV series of the 2000s. On Monday, January 29th a magnitude 3.3 earthquake was felt in the village and elsewhere across the Scottish island. The depth of 7km implies movement on a fault in the local basement.

It's extremely rare for this area to experience any sort of tectonic activity, indeed I cannot recall anything happening in my lifetime, across 40+ years of visiting.

#### British Geological Survey said:

(The earthquake was) felt on the Isle of Mull and surrounding Islands and on the mainland, mainly from within around 50 km from the epicentre (at Dervaig). Reports described, "the whole house creaked", "all the windows and doors rattled", "the sofa seemed to vibrate", "thought someone had crashed into the house" and "it was like a large explosion nearby".

One person on Mull posted on X, formerly Twitter: "Anyone else here on the Isle of Mull think we've had a couple of earth tremors this evening? Like a rumbling train in a tunnel and lasting for a good number of seconds." Another person wrote: "We heard a weird bang and the glasses and plates in the dresser started rattling."

BGS reported the Mull earthquake as being part of a trio of such events, earlier on Monday, a 2.3 magnitude earthquake was recorded at Moidart in the Highlands at around 14.24, while a 1.1 magnitude quake hit Morvern, also in the Highlands, at 13.10. All occurred at a



Dervaig in the Northwest of Mull, epicentre of the earthquake (Image: Dervaig village community)

depth of around 7km. Clearly this was a linked event, affecting quite a large area.

The story was covered in many of the national newspapers and also on

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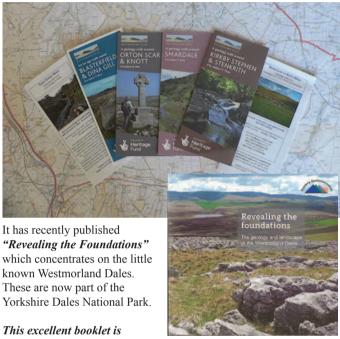
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the BBC. Sadly, on occasions such as these, everyone reaches for the stock images, which did mean that there were some pretty random views either of generic Scottish countryside, or the seafront at Tobermory! Only one media outlet managed to find an image of Dervaig, the epicentre of the event.

## New leaflets and a booklet from Cumbria GeoConservation...

Regular readers of *Down to Earth*, will have come across the name of Sylvia Woodhead and her association with Cumbria GeoConservation a very active voluntary group operating across Cumbria.



available from Geo Supplies for £10.00.

Cumbria GeoConservation also has a number of leaflets covering a range of geotrails across Cumbria.

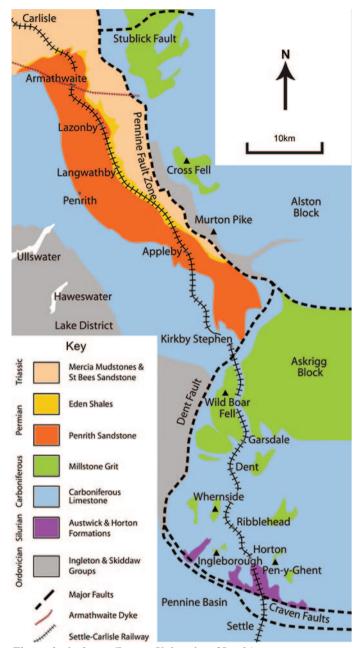
To see the full range go to: https://www.cbdc.org.uk/cumbria\_geoconservation/geotrails/

#### Geology of the Settle-Carlisle railway

Don't you just love it when you're doing some online research and up pops a publication that you had no idea existed? Your Editor was doing just that recently for an evening talk when he discovered this publication, that had been produced by the University of Leeds for the Friends of the Settle-Carlisle Line.

It's a 20-page A5 booklet in full colour that can be printed out for you to use. If you are planning to travel on this historic line it's your perfect geological companion.

It covers the section from Settle to Carlisle, so if you're travelling from Leeds or Skipton, you'll have to fill in that part for yourself. Onwards from Settle it covers each of the sections; Settle to Ribblehead, Ribblehead to Garsdale, Garsdale to Appleby, Appleby to Lazonby and Lazonby to Carlisle. There are also a section covering the economic geology and for those new to geology an outline of the geological history and an excellent map.



The geological map (Image: University of Leeds)

The way it's set out it would not be so easy to use the guide for a journey from Carlisle down to Settle. Perhaps one day they will do one for the reverse journey. That said, you can use it to look out for the things you missed on the way up. Just a word by way of a suggestion, use this guide in conjunction with a decent topographic map, it will help you to pick out the hills and other physical features along the way.

A guide such as this would be great for a number of other routes, such as the East Coast mainline between Newcastle, Edinburgh and Aberdeen, not to mention the lines from Fort William to Mallaig or Inverness to Kyle of Lochalsh.

#### Download your guide here:

https://www.foscl.org.uk/sites/1/files/drupal/doc/attachments/ GEOLOGY%209388-Settle-Carlisle%20Booklet3.pdf

#### Plymouth tungsten mine, on the verge of closure?

Local media reported in December that the tungsten mine at Drakelands near Plymouth could close, after the operators, Tungsten West reported a half year loss of £9.1 million. It was reported to be looking for additional finance to service its debt.



The former Hemerdon mine site near Plymouth which Tungsten West is working to reopen. (Image: Tungsten West)

Tungsten West have been working to reopen the former Hemerdon mine, but warn that the company could close by March unless new funds are secured.

## Castle Bank, Llandrindod Wells, an amazing new Ordovician fossils site...

We are grateful to the South Wales Geologist's Association group for sending us a link to an academic paper, giving details of an exciting new Burgess Shale type, Middle Ordovician fossil site at Castle Bank, near Llandrindod Wells in Mid-Wales. We'd known for some months of its existence, but now the full extent of the fauna has been revealed. There will be more in the May issue of *Down to Earth*.

Here's the link:

https://drive.google.com/file/d/1Z-nvEHNpxPT\_GdW4zqLyrI-IJeEClWNfC/view

#### **GEOLOGY - ISLE OF ARRAN**

**Understanding The Earth** 



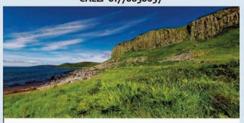
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Geology that does not cost the earth £549.00 per person

An unusual present idea...

## 'The Cream of the Crop 2023'

As part of their work for Geo Supplies, your editorial team, Chris Darmon and Colin Schofield go to some very interesting places around the British Isles. Whilst they are in these places they often pick up rock specimens, most of which go to students and institutions both here and even around the world.

However there are also some rare or unusual rocks that don't form part of our regular stock and it is these that we've gathered together into a limited edition collection that we are offering as our 'Cream of the Crop 2023'.

The set comprises I2 carefully chosen igneous rocks from around the British Isles. They include The Foxdale granite from the Isle of Man, the Lundy Granite, Diorite from Guernsey, the Ailsa Craig Riebekite and Cumbraeite from Great Cumbrae. Each set comes boxed with notes and costs £49.95 including postage.

Purchase online at: www.geosupplies.co.uk or ring us on: 0114 245 5746.

## Mining and processing of Fluorite ends in the Peak District...

It has happened before, but this time it looks much more permanent, with the closure of the last remaining Fluorite mine in the Derbyshire Peak District. This time, the processing plant at Cavendish Mill, south of the village of Stoney Middleton is also in the process of being dismantled, according to local reports.

The previous operations were run by Laporte Industries and involved several mines around Eyam and Stoney Mddleton which closed one by one, until there was just one remaining mine, Milldam near to Great Hucklow.

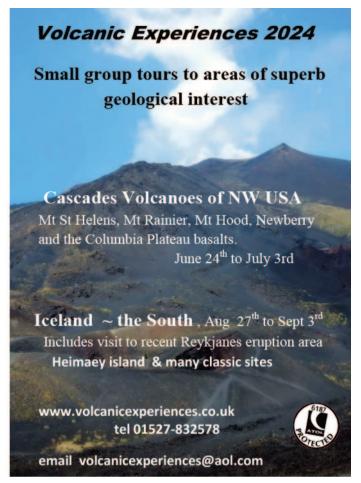
Within 12 months of Laporte being taken over by a Mexican company, and in 2010, all mining and processing of Fluorite had ceased. However the Milldam Mine was acquired by Fluorsid British Fluorspar in 2011 and subsequently reopened in 2013, and once again the processing plant at Cavendish Mill was back in business as well.

Prices and demand for Fluorite have fluctuated in recent times and Milldam Mine has had to deal with this along with the fact that the plant and machinery both down the mine and at the processing plant were in need of updating and heavy investment.



Inside Milldam Mine in happier times. (Image British Fluorspar)

In September the decision was made to close down the entire operation both at the mine and at Cavendish Mill. This has been reported by Great Hucklow Parish Council who say:



"So, in summary, the message is that (1) the mine has not been abandoned, it has just stopped production in order to minimise financial losses, and will re-open in due course; (2) work to remediate the ground collapses is continuing; and (3) members of the Parish Council and the SHS Management Committee are in daily contact with Flourisid British Fluorspar Ltd., Peak District National Park Authority and others to ensure that the interests of the village are taken into account."

*The Editor comments:* What a sad ending for mineral mining in the Peak Dstrict after such a long time. Whilst it's currently only a pause I'd reckon mining is unlikely in the near future.



## Down to Earth - in print...

If you've enjoyed reading this Down to Earth extra, you'll love our quarterly Down to Earth! It's a 32-page quality magazine in full colour that's packed with up to the minute geological news and articles. You can get your hands on this either in print or electronic formats. Why not request a FREE sample electronic copy of the current issue?

For 2024 why not treat yourself or a loved one to a gift subscription? Go to: www.geosupplies.co.uk and enter the online shop or ring us on 0114 245 5746.

**Down to Earth** is published quarterly. Subscribe now for 2024 for just £16.00 in the UK. We'll send you the next 4 issues, to the end of 2024 and 7 back issues from 2022/3. For an additional £25.00 (UK only) we'll send you a parcel of back issues around 50! Alternatively, take a 2023/4 e-subscription for £10.00. Additionally, all subscribers will get DtoE extra FREE each month.

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## Scottish geology at its very best!

- 6 full days of field work with a choice on most days
- Edinburgh's Arthur's Seat volcano
- A visit to the Hunterian Museum in Glasgow
- Geology of Loch Lomond by boat
- Coach/minibus transport to field locations
- Full board accommodation in single ensuite rooms (can also be double rooms)
- A couple of evening talks from visiting speakers
- Social events and opportunities for down time

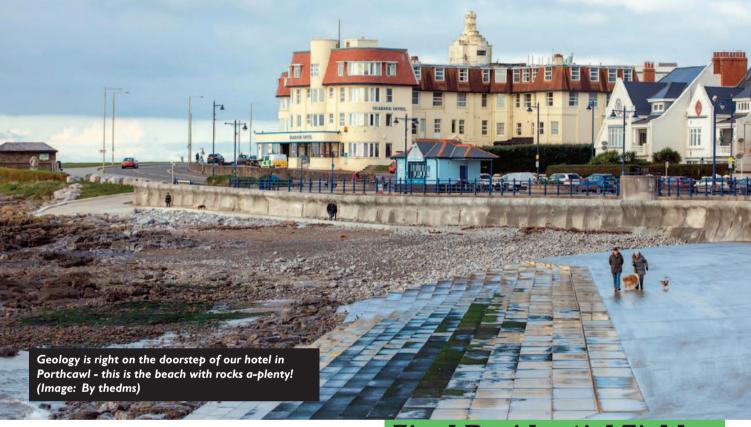
Everyone is invited to join us for our annual Summer School. The cost is £1295.00 per person sharing or £1450.00 single (no twin rooms). THIS TRIP CAN BE BOOKED ONLINE!

See the brochure, or book online at www.geosupplies.co.uk Email downtoearth@geosupplies.co.uk or ring us on 0114 245 5746 Geo Supplies Ltd 49 Station Road, Chapeltown, Sheffield S35 2XE



### The learning zone

# Great geo-adventures in 2024 begin here...



We are looking to fill the final vacancies on trips for the first half of the year, with more places available for the Summer and Autumn.

We do have availability on our trips to Northwest Scotland, Wales and to Fort William. Also on our Stirling Summer School. BOOK NOW!

To view a brochure, go to our to website at: www.geosupplies.co.uk or Tel: 0114 245 5746

But remember that booking forms are only available direct from us:

Email: downtoearth@geosupplies.co.uk

**CONTACT US NOW!** 

## Final Residential Field trip programme 2024...

- Scotland Northwest Highlands, April 10-18
- Southern Norway, April 24-May 3
- Edinburgh & Scottish Borders June 10-17
- Geology of South Wales, June 23-30
- The Welsh Borderland, July 7-12
- Summer School Stirling, August 10-17
- Llyn Peninsula, Wales, August 31-Sept 5
- Jersey, Channel Isles, September 21-28
- Highlands Fort William, October 4-14
- The Yorkshire Dales, October 21-26

Early booking is advised, especially if you are looking for a single room.

Search online at www.geosupplies.co.uk or ring us on 0114 245 5746 Geo Supplies Ltd 49 Station Road, Chapeltown, Sheffield S35 2XE

### The learning zone

## If you haven't joined one of our residential field trips before, what can you expect?

- Our residential field trips are suitable for adults of all levels of interest and geological knowledge.
- Our trips are friendly and informal and usually comprise 15-20 people. Overseas trips are usually larger.
- We usually make use of comfortable small hotels and guest houses and all meals are included.
- You have the services of Chris Darmon and Colin Schofield as field leaders. Both are highly experienced and knowledgeable field geologists.
- For some trips we have a hired minibus but on other trips we will use shared cars.
- Dates shown in this listing are the start and finish dates.
- Where prices are quoted, they are per person in a shared twin/double room.

If you still have any questions or queries, don't hesitate to email us at: downtoearth@geosupplies.co.uk or tel: 0114 245 5746

#### Our 2024 programme...

With 2024 now upon us, we are still taking bookings so you will not be surprised to hear that a number of trips are filling up fast - with several almost full. Take our advice and make your bookings NOW! Remember that, for most trips, you can only get a booking form direct from us, they are not available on our website.

Email: downtoearth@geosupplies.co.uk or ring: 0114 245 5746

On a negative note, following the recent news of more fires on the Canarian island of Tenerife booking for our trip in February have dried up and we have taken the difficult decision to cancel our planned trip.

#### Northwest Highlands of Scotland (8-nights) - April 10-18 £1495

We spend the whole of the trip based at the iconic Inchnadamph Hotel in Assynt. This is where the pioneers Peach and Horne were based when they surveyed the rocks and structures of the area. There's no better place from which to explore this great area. We take in the ancient Lewisian Gneisses, the Torridonian Sandstones, the sediments of the Cambrian and Ordovician and the Moine Schists. There are so many classic localities on our extensive itinerary that takes in sites right across the Geopark.

View the brochure at our website - get the booking form from us! This trip is close to being full.



This is the magnificent Quinag in Winter

#### Norway, land of fjords (9-nights) - April 24-May 3 £1995

At long last we are set to return to southern Norway following our last visit in 2019. This trip begins with the fjords of the Bergen area and then moves to the tiny resort of Flam, set at the bottom of a fjord and reached by a world famous railway. We take a fabulous train trip to Oslo and then spend 5-nights as guest of the Geo Norvegica Geopark to the south of Oslo. There we see a huge range of different rocks from Proterozoic gneisses to fossiliferous Palaeozoic sediments to the home of Larvikite the famous decorative facia stone.

View the brochure at our website - get the booking form from us! Final vacancies now available.



We'll be seeing lots of fabulous coastal rocks and scenery in the South of Norway.

(Image: Visit Norway)

#### Edinburgh and the Borders (7-nights) - June 10-17 £1095

The historic capital city of Edinburgh and its environs represent one of the cradles of geology. Back in the 1780s, James Hutton and other members of Scottish Enlightenment, toured the area on Horseback and by boat making amazing geological discoveries.

From our comfortable hotel base in Dunbar we'll take in Hutton's Section, Hutton's Rock, Arthur's Seat volcano and the amazing Siccar Point - and they are just for starters! We'll also take in sites on the Firth of Forth and over in Fife as well as the Southern Uplands.

View the brochure at our website - get the booking form from us!



The famous Siccar Point, where James Hutton discovered deep geological time.

(Image: Colin MacFadyen)

#### The Gower area of South Wales (7-nights) - June 23-30 £1195

This is an exciting new area for us with excellent geology covering mainly the Devonian and Carboniferous with amazing structures and fossils. We'll be going down the Big Pit coalmine and hopefully seeing some reptilian footprints! This is a great area that we will be covering for the first time.

Brochure available online - booking form from us. We can accommodate more people in twin and double rooms.



The Seabank Hotel - our comfortable base in Porthcawl, from where we can access all our field localities.

#### The Welsh Borderland (5-nights) - July 7-12 £895

The English county of Shropshire and the adjacent parts of Wales provide us with some of the most varied geology in the entire UK. We will be sampling rocks from the Precambrian right through to the Triassic with just about everything in between! There will be igneous plutonic and volcanic rocks, sediments galore and maybe even the odd metamorphic rock! There are fossils and minerals too - indeed something for everybody.

If you've never been on a geological field trip before then this is definitely one for you, as well as for the seasoned attender! Based at a comfortable guesthouse in the historic town of Bridgnorth, we'll be travelling around the area, including a trip on the Severn Valley railway.

#### Brochure online - get the booking form from us. This trip is now nearly full.



Permian rocks at Bridgnorth (Image: Wikipedia)

#### Summer School, Stirling (7-nights) - August 10-17

This will be the first time that we have taken our famous Summer School north of the border to Scotland. What better place could we have chosen than Stirling with its highly rated university set in a historic town with an ancient castle sat on top of a massive sill?

£1295

With all the usual elements that go together to make a great Summer School experience we'll bring you great geology with trips and study sessions combined with an enjoyable social experience.

Accommodation is in en-suite single and shared rooms in modern student flats.

Brochure available online. You can now book for this trip via our website, www.geosupplies.co.uk or get a booking form from us!



Onion skin weathering of dolerite in Stirling (Image: Open University Geological Society)

#### The Llyn Peninsula (5-nights) - August 31-September 5 £995

The Llyn Peninsula of North Wales is a very special place, where Welsh is the first language of most of its inhabitants and we enjoy local hospitality at its very best at the Nanhoran Hotel in Nefyn. Some of the geology is similar to that seen on Anglesey, but with lots of added extras! We see elements of an ophiolite complex, some excellent Cambrian sediments along with rare intrusives such as diorites. A highlight of this trip is a steam train ride on the Welsh Highland railway that takes in some of the magnificent scenery of Snowdonia, viewed at a slow pace from the comfort of your train seat. See the scenery of North Wales from a wholly different perspective

See the brochure online - get the booking form from us. This trip is already filling up.



The Welsh Highland Railway (Image: TripAdvisor)

#### The Channel Island of Jersey (7-nights) - September 21-28 £1250

With Guernsey visited in October of this year, it seems only logical to follow it up with Jersey in 2024. Jersey is the more popular of the two large Channel Isles and although close to Guernsey on the map, its geology is quite different. There are lots of late Precambrian volcanic rocks from the Brioverian, as well as later intrusive rocks. These combine to give us lots of interesting coastal sections.

To complete the geology, there are some excellent Quaternary sediments that give us an insight into the more recent history of the island.

Take a look at the brochure online and get the booking form from us. This trip is filling up fast!

#### The Fort William area (10-nights) - October 4-14 £1595

This is one of the undoubted highlights of the entire year. We've gone to the max to bring you a comprehensive 10-night itinerary based in this iconic Highland locality, at the comfortable Croit Anna Hotel.

We'll be taking in the local geology of Glen Nevis, the volcanics of Glencoe the slates of Ballachulish and also more distant places such as Mallaig and Ardnamurchan. The trip will also include an excursion by boat on Loch Linnhe and a steam train trip to Mallaig aboard the famous Jacobite train which crosses Glenfinnan viaduct. Don't let the Autumn date of this trip put you off!

#### See the brochure online - get the booking form from us.



Fabulous geology of the Lochaber Geopark.

#### The Yorkshire Dales (5-nights) - October 21-26 £895

Amazingly, we've never managed to base one of our trips in the Yorkshire Dales National Park. We had planned this trip for 2020, but it never happened due to Covid. Our base for the week is the small village of Gargrave, just to the west of Skipton. From here we'll take in some of the highlights of the National Park, including the ancient rocks of Ingleton and Horton in Ribblesdale, the magnificent Carboniferous limestone with its show caves and the younger rocks of the Yoredales and the Coal Measures. It's the perfect way to end our field season.

The brochure for this trip is now available, booking forms from us!

If you would like some help or advice before making a booking, we'd be delighted to talk with you - either pick up the phone or email us. All prices quoted above are per person in a shared room.

To get a booking form, email us at: downtoearth@geosupplies.co.uk or ring us on: 0114 245 5746

#### Zoom courses for this Winter...

All of our Winter courses are up and running, but you can still join us as they all operate with different subjects each week, so you can join in with individual sessions. Just pay for the sessions you want, when you want! All of the Zoom sessions last for an hour, at a cost of £10.00 each (£15.00 for 2 people sharing a computer screen) including background materials and online Moodle support.

#### Geology and landscapes of the Geoparks of the UK

This course covers all the areas of the UK that are currently designated as UNESCO Geoparks, plus two other Geoparks that are outside that network. In short, some of the finest geology and landscapes of the British Isles. *Live Zoom sessions are at 14.00 and 19.00 on Mondays.* 

February 12	English Riviera (Devon)
February 19	Abberley & Malvern Hills
February 26	Cuilcagh Lakelands (Northern Ireland)
March 4	North Pennines
March 11	Shetland Isles
March 18	Black Country (West Midlands)
March 25	Mourne Gullion Strangford (Northern Ireland)

#### World geological adventures!

This course examines the geology of a number of places around the world. Some will be places that you are familiar with, whilst others will probably not be so familiar. All have a fascinating story to tell! *Live Zoom sessions are at 14.00 on Tuesdays.* 

February 13	Canary Islands
February 20	Cyprus
February 27	The Rockies
March 5	New Zealand
March 12	Grand Canyon
March 19	Montserrat & the Caribbean
March 26	Antarctica. (New!)

#### Evening talks at 7.00...

A series of evening talks with background notes. Live Zoom sessions accompanied by emailed background notes.

Live Zoom sessions are at 19.00 on Wedsnesdays. Cost: £10.00 each, or £15.00 for 2 people sharing a computer screen, and are suitable for anyone with an interest in geology.

winter Series	
January 31	"Geology along the Settle-Carlisle railway"
February 14	"Icelandic volcanoes - the latest news"
February 21	"Gideon Mantell - the UK's dinosaur man"
February 28	"The South Pennine Mineral Field"
March 6	"The geology of Charnwood Forest"
March 13	"The rise and fall of a Lake District mine"
March 20	"The geology of the Isle of Rum"
March 27	"Mapping England & Wales with William Smith"

You can enrol via our online shop at: www.genospecies.co.uk or ring us on: 0114 245 5746

For further information, email: downtoearth@geosupplies.co.uk

What are you waiting for? Come and join us!



# Featured books for February 2024

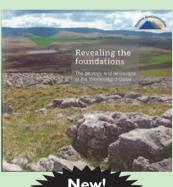
In each issue we are pleased to be able to introduce you to a range of featured books. Where they are being offered at reduced prices, these will be current to the end of February 2024 provided that stocks are available. Please note, all prices include UK postage.













Original!

