

Down to Earth exera

Issue I 19 November 2022



From the Editorial team...

Wow, what a lot has happened in the space of a month! When I wrote the last editorial, Liz Truss was still PM and we'd just had the announcement of major tax cuts in a mini-budget. Many people were shocked, even amazed by the massive give away that seemed to be largely unfunded. More importantly it spooked the financial markets and we were plunged into what looked like a major economic crisis.

Now, in early November we have a new Chancellor in Jeremy Hunt and a new Prime Minister in the form of former Chancellor Rishi Sunak. We have been promised 'transparency' and it seems that comes with a fair dollop of doom and gloom. The Bank of England Governor has just hiked interest rates to 3% and now it seems we're at the start of the longest recession in British history. It is expected to last through into the first half of 2024.

What are we all to do? With the cost of living soaring, millions of people are feeling the stresses and strains of everyday life, as they balance the relentless rise of everyday food prices with the costs of gas and electricity. For some it is going to be a choice between heating or eating this winter

But for many more people, this winter is going to be about tightening our belts and reigning in our spending plans. There are now signs that people are putting off those 'big ticket' items like expensive holidays or major home improvement projects. It is going to look, and possibly feel different this winter.

So whatever you choose to do over the coming months, stay well and stay warm - and yes, enjoy some geology online!

Chris Darmon & Colin Schofield
The Down to Earth editorial team

See pages 6-9 for the full spectrum of our popular field trips and visits



Rutland Water yields a Jurassic crocodile jaw...

Back in February we brought you news of the recovery of an almost complete Ichthyosaur that has been recovered from the shore of Rutland Water in the East Midlands. It was the subject of a TV programme which showed the complex recovery operation.



The latest fossil find from Rutland Water, the snout of a Jurassic crocodile. (Image: Leicestershire & Rutland Wildlife Trust)

The latest find, is that of a massive jaw from a Jurassic crocodile. It was made almost exactly a year on from the previous Ichthyosaur, and in the same locality. They took advantage of low water levels and returned to what they have termed 'lagoon 4'.

Leicestershire & Rutland Wildlife Trust tweeted: "(The scientists) carefully surveyed across the lagoon and found further ichthyosaur vertebrae and a phalanx (part of a limb) from the initial find. A fascinating discovery was the part of a snout from a Jurassic crocodile. If you look closely you can see where the teeth would have been!"

Clearly the conditions that allowed the original Ichthyosaur to get buried and preserved also trapped other creatures, so this may well not be the end of excavations at the site, assuming water levels are low enough.

You may like to read more about the recent finds at Rutland Water on the internet. What's interesting is how the landowners Severn Trent Water and the local authority have been keen to support the Wildlife Trust and get some publicity!

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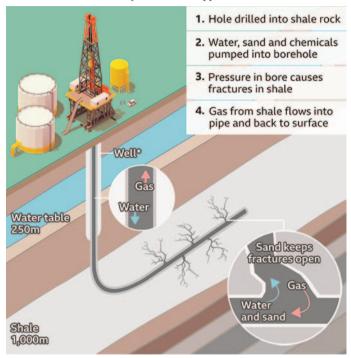
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The on/off tale of fracking - now it's 'off' again says new PM Rishi Sunak...

There's been a moratorium on fracking in England since 2019 following minor Earth tremors at a site near Blackpool in Lancashire. The 2019 Conservative election manifesto committed the party to continue that stance.

Then along came Liz Truss as Prime Minister with some very different ideas. With war raging in Ukraine and extremely high and volatile world gas prices, she argued that fracking should be allowed, where the local community concerned supported the idea.



A reminder of the basics of fracking, with a steel and cement lined well, coupled with high pressure water and chemicals. (Image: BGS)

There followed a particularly angry debate in the House of Commons, followed by a division in which it is alleged Conservative MPs were practically forced into the division lobby to support the by then ailing Truss administration.

In the febrile atmosphere prevailing at the time, the motion lifting the moratorium was passed with a majority of more than a hundred voting in favour. a few Tories voted against with a larger number abstaining. Government managers had said that this was a vote of confidence (only to change their minds minutes later). In the event, the Prime Minister Liz Truss resigned within less than 24 hours of the vote.

New Prime Minister Rishi Sunak was asked about the lifting of the moratorium at his first session of PMQs on October 26th by Green Party MP Caroline Lucas. In reply, Sunak stated that he stood by the manifesto commitment made in 2019, meaning that the ban has now been reimposed.

For the opposition Labour Party, Ed Milliband the party's Shadow Secretary for Climate Change said: "The truth is that the Tories cannot be trusted on the issue. The only way to ban fracking for good is to elect a Labour government."

Whilst this might look like the end of the matter, at least for now, we will have to wait and see if any proposals come forward which might see fracking anywhere in England. As it stands, there has been a positive vote in Parliament, which presumably means that it could take place.

You can read the BGS report here: https://www.bgs.ac.uk/news/update-on-scientific-shale-gas-report/

Four UK geosites make it onto the UNESCO world top 100...

We know that the UK has some great geological sites, but now four have made it onto the top 100 sites as decided by the International Union of Geological Sciences (IUGS) working with UNESCO. This the first list that's ever been produced, names key geological sites of international scientific relevance which have made a substantial contribution to the development of geological sciences through history. The identification of the top 100 sites was part of a project that involved more than 200 specialists from almost 40 nations and ten international organisations.



Wow! - what a mess of strata, this is the Mélange on the coast of Anglesey. (Image: Kirstin Lemon GSNI)

The selections have been made from right across the world and include other well-known sites such as the Grand Canyon (USA), Sugar Loaf Mountain (Brazil) and Mount Everest (Nepal). Whilst many have helped to develop the science of geology, others are the world's best examples of geological features and processes.

There were a number of sites from across the UK put forward as part of the The First 100 IUGS Geological Heritage Sites list, with nominations coordinated by representatives from the British Geological Survey (BGS) and the environment agencies from the four countries of the UK.

Dr Kirstin Lemon of the Geological Survey Northern Ireland (GSNI), was among the panel of international experts to evaluate more than 181 nominated sites. She said: "It's fantastic that the international geoscience community has given visibility to these sites, which recognises their importance for the development of geological science.

These sites are some of the world's best demonstration of geological features and processes and contribute to our understanding of the Earth's formation through time. Now they are officially recognised as holding the highest scientific value."

The four sites, one in Wales, two in Scotland and one in Northern

Ireland are:

Siccar Point Giant's Causeway & Causeway Coast The Moine Thrust Ynys Llanddwyn Mélange (Anglesey)

You can get a fuller account of the sites and the background in DtoE121.

We are grateful to BGS for material used in this item.

How's this for piece of jet...

Almost the last thing that you think about when walking the beach in Scarborough's South Bay is the prospect of picking up a substantial piece of Whitby jet.

But that's exactly what *Down to Earth* reader and US citizen *Maggie Toscarno* did. Initial examination suggested that was a piece of genuine jet (as opposed to coal).



Maggie Toscarno proudly holds her prize piece of Whitby jet.)Image: Chris Darmon)

It was later positively identified in Whitby by a jet dealer, who suggested that it was worth 'less than £100'. As they say in the trade, this could well have been an 'opening bid', with any seller expected to haggle for a higher price. However this piece has gone back to the US and is definitely not for sale!

What's interesting is how it got to Scarborough's South Bay in the first place. It comes from the Lower Jurassic and the local geology is much higher in the Jurassic succession. Perhaps it's come from an offshore source. Alternatively has it been lost from a ship that was carrying it? It doesn't seem likely that it has been carried from Whitby by longshore drift, as it would be relatively fragile.

Christie's auction house puts an estimate of £500k on a pair of Ichthyosaurs...

According to reports in the media, this pair of Ichthyosaurs could fetch up to half a million pounds when they were auctioned by Christies in London recently. We've been unable to get the actual price, but can assure you that we haven't bought them!



If anybody finds out the auction realisation do let us know.

Contact us by phone on: 0114 245 5746 or email us at: downtoearth@geosupplies.co.uk

A Zoom course for everybody...

'Simply Rocks!'

Can you identify these two rocks in a hand specimen?





In fact, one is a granite and the other a gabbro - but which is which?

'Simply Rocks!' will help you identify your finds and learn so much more about rocks

Starting in February 2023, we'll be presenting a 6-week Zoom based course that looks at all kings of rocks - pure & simple! It starts with the mineral that make rocks and then goes on to look at Sedimentary, Igneous and Metamorphic rocks.

The course costs £50.00 and that includes a set of rock specimens and a handy identification guide!

Watch out for further details or Email: downtoearth@geosupplies.co.uk or ring us on: 0114 245 5746.



Focus on geological specimens...

Elsewhere in. this issue of *Down to Earth* you will see that we are looking to run a new Zoom course early next year entitled Simply Rocks!

This is aimed at anyone wanting to learn more about rocks. As part of that course we're offering people the opportunity to get their hands on our Core Rock Set. It got us to thinking about our Rock sets in general, and also our Fossil and Mineral sets, as you may not be aware of the range we offer.

All of our sets are aimed at people wanting to use the specimens in an educational setting, to learn what they are and to distinguish one from another. They aren't fine quality 'collectors' specimens. They come bagged and with an identification label. We don't attempt to provide a list of where they are from.

They are all described as hand specimens. Large enough to study, but they don't take up a lot of space. Most, though not all, are collected by us from around the UK

Core, rock mineral & fossil set comes complete with a x10 magnifier, a scratching needle and a streak plate £32.95

Igneous Rocks - 22 specimens with short notes £32.95 Sedimentary Rocks - 19 specimens with short notes £32.95 Metamorphic Rocks - 21 specimens with short notes £32.95

The Ultimate Rock Collection, one of each of the above 3 sets £84.95

Non-silicate Minerals - a variety including ore minerals £32.50 Silicate Minerals - the main rock forming minerals £32.50

The Ultimate Mineral Collection, one of each of the above 2 sets $\pounds 61.50$

All of the prices quoted above include postage to anywhere in the UK. They are all available for immediate release.

As Christmas comes, the jigsaws are available again...



Prices shown include UK postage. Buy online at: www.geosupplies.co.uk or ring us on: 0114 245 5746

Down to Earth readers welcome! Just 5 minutes off M1 Jn 35 N. Sheffield



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get Down to Earth regularly...

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?

You can subscribe now for 2023 for just £15.00 for printed copies or £10.00 for it as pdf files, direct to your email. To subscribe, go to: www.geosupplies.co.uk or ring us on 0114 245 5746.

Down to Earth is published quarterly. Subscribe now for 2023 for just £15.00 in the UK. We'll send you the next 4 issues, to the end of 2023 and 8 back issues from 2021/2. For an additional £25.00 (UK only) we'll send you a parcel of back issues around 50! Alternatively, take a 2023 e-subscription for £10.00. Additionally, all subscribers will get DtoE extra FREE each month.

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Extra November 2022



The learning zone



Please see opposite our programme of residential trips for 2023. We have had to pull the Winter trip to Fuerteventura due to low bookings. The Iceland trip is now fully booked.

We are still awaiting confirmation of our Summer School that has had to move to Yorkshire.

Brochures for most 2023 trips, are now on our website and you are advised to book soon as a number of trips are nearing capacity.

To view a 2023 brochure, go to our to website at: www.geosupplies.co.uk or Tel: 0114 245 5746

Booking forms are only available direct from us. Email: downtoearth@geosupplies.co.uk

- Iceland, March 27-April 6 (full)
- Islay, Gigha & Mull of Kintyre, May 2-11
- Ayrshire Coast & Islands, May 12-19
- Isle of Wight, May 31-June 7
- Anglesey, June 11-16
- Ilfracombe North Devon, June 23-30
- Summer School Yorkshire August 12-19
- Berwick & the Borders September 6-13
- Isle of Man, September 23-30
- Guernsey, Channel Isles, October 7-14
- North Norfolk Coast, October 18-23

Advance advice for 2024

• Southern Norway - March/April

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

Brouse 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 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 most trips we have our own minibus but you will always be able to use your own car if you wish.
- Dates shown in this listing are the start and finish dates.

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

The 2023 Residential Trip programme...

Bookings continue to come in apace for our programme of residential field trips for 2023. For a number of trips, there are now just a handful of places remaining especially single rooms.

The trip to Iceland, next March, is now fully booked with 35 people signed up. In contrast, the planned trip to Fuerteventura, next February has had to be cancelled. We hope to rearrange it for another occasion in the future. We are also having trouble with the proposed Summer School in the Northeast of England next August. This is because many universities are no longer able to offer accommodation during the summer period due chiefly to the fact that they do not control the letting any more. We are currently exploring options in Yorkshire.

Here's your guide to vacancies on our 2023 programme:

Islay, Gigha & Mull of Kintyre (9-nights) - May 2-11

This 3-centre trip takes in a group of islands and mainland Mull of Kintyre that are dominated by metamorphic rocks from the Dalradian. These varied rocks (along with others) are all set in some beautiful countryside. We'll also visit the island of Jura with its famous Paps made from quartzite. All this and even an unusual Carboniferous coalfield! A great trip for anyone looking for variety in landscape and geology

Just a couple of double/twin rooms available.



Ayrshire Coast & Islands (7-nights) - May 12-19

We break new ground on this trip as we take in the varied geology of the island of Great Cumbrae and the Ayrshire coast around Largs. The second centre is Girvan from where we can take in the amazing geology of the Ballantrae Igneous Complex and, weather permitting, take a trip to the granite island of Ailsa Craig.

We still have plenty of vacancies on this trip!



Pillow lavas at Downan Point, a key part of the evidence for an Ordovician ophiolite complex in Southwest Scotland

Anyone booking for both the above Scottish trips gets the intervening night's accommodation free of charge.

The Isle of Wight (7-nights) - May 31 - June 7

Often called 'the dinosaur isle' the Isle of Wight has some of the country's most recent geology. There are fine exposures of Cretaceous and Tertiary rocks, that give us some fine coastal scenery. Places like the Needles, Alum Bay, Shanklin and Ventnor will all be taken in. All this and some fine Alpine structures, including vertical beds! We'll be getting around using the island's intensive bus network, including open top double deckers!

We still have a few vacancies in twin/double rooms on this trip

Anglesey, North Wales (5-nights) - June 11-16

The island of Anglesey, or Ynys Mon in Welsh, is home to some of the finest geology in. the UK. Rocks range in age from the late Precambrian to the Carboniferous and include examples of sedimentary igneous and metamorphic types. The island's geology is celebrated as a geopark and comes with lots of explanatory boards. *This trip is filling up fast - BOOK NOW!*

Ilfracombe, North Devon (7-nights) - June 23-30

We last visited this area about 4 years ago and found it be quite amazing. We want to re-visit some of those places, but also take in so much more! The rocks come from the Devonian and Carboniferous, but they show some amazing structures. We'll visit places like Hartland Quay in the west along to the Valley of the Rocks at Lynton in the East. We'll also venture south onto Dartmoor to take a look at the granite and the varied minerals. seaside resort that give us access to a stretch of coastline that takes in some rich and varied geology. We still have a number of vacancies for twin/double rooms on this trip.



Folded rocks and fabulous coastal scenery at Hartland Quay

Berwick & the Borders September 6-13

This trip includes a visit to the 'holy grail of geological time' at Siccar Point and lots of other amazing places. From our base at the comfortable Castle Hotel, we'll be taking in both coastal and inland locations from Northumberland and Berwickshire. Marvel at folded Carboniferous sediments at Scremerston, the granite scenery of Cheviot and volcanics at St Abbs. This is an ideal place to come as a beginner, as the geology and landscape are 'in your face, and there's such a great variety!

Just a few vacancies for twin/double rooms left.

Isle of Man (7-nights) - September 23-30

If you've never been to the Isle of Man to study geology before, you have been missing a treat! There's igneous, metamorphic and sedimentary rocks in great variety, along with mineral and even a few fossils! Crucial evidence for the closure of Iapetus Ocean can be found here, along with pillow lavas and limestone from the Carboniferous. For those more interested in recent deposits, there's also some of the UK's finest Quaternary in the north of the island. All this great geology and one of our favourite hotels - what more could you ask for!

Just a few vacancies for twin/double rooms left - early bookings is strongly advised!



Folded rocks on the Isle of Man - nice cleavage as well! (Image: Courtesy of OUGS)

Guernsey (7-nights) - October 7-14

The Channel Islands have a rich and varied geology that bares little or no relation to the geology of England. In the case of Guernsey there are ancient metamorphic and igneous rocks, some of which go back more than 2 billion years. There's also evidence for an orogeny,



Guernsey has some of the finest coastal scenery and geology. (Image: Courtesy of TripAdvisor)

known as the Cadomian, that occurred in the late Precambrian. We have secured the excellent Peninsula Hotel that we've stayed in twice before. It's on the NW coast in a quiet bay.

Just a few vacancies for twin/double rooms left.

The North Norfolk Coast (7-nights) - October 18-23

There's not a finer place to round off our 2023 season than a visit to the North Norfolk resort town of Cromer. It gives us access to a unique coastline that takes in the Cretaceous rocks of Hunstanton, as well as some superb early Quaternary sediments that include a visit to West Runton that has yielded the most complete mammoth skeleton yet found anywhere in the UK.



Hotel de Paris, Cromer - our base for this trip

This is also the best area in the UK to see evidence of the 450,000 year old Anglian glaciation with features that include ice wedges and an excellent esker. Finally, any visit would not be complete without taking a look at the rapidly disappearing coastline and how we are seeking to manage coastal erosion. *Still plenty of spaces left for all!*

We're happy to discuss any trip with you and to guide you in your choice. Advice is just an email or a telephone call away!

To obtain a booking form for any of these trips, please, email us at: downtoearth@geosupplies.co.uk or ring us on: 0114 245 5746.

The South of Norway (8-nights) - March April 2024 Just to give you advance warning - more details later!

Autumn & Winter Zoom sessions...

We have already begun our Autumn season of Zoom sessions and courses, but it's not too late to join us! We can still accept extra people onto Yorkshire Geology and also Fossils for All. We record all sessions so you can access the audio and also see all the materials that were used. So you have hardly missed a thing - Enrol NOW, or contact us without delay!



Yorkshire Geology (11-weeks) commenced on October 24

This course examines the geology of Yorkshire from it's earliest rocks in the Ordovician through to the most recent glacial deposits of the Quaternary. It's an interesting journey through time that takes us from one bit of stunning scenery to another. There's the Carboniferous limestones of the Dales, the Millstone Grits of the Pennines and the Jurassic Coast of Whitby and Scarborough.

Cost: Eleven hour-long Zoom sessions with electronic background papers £50.00 for one person or £70.00 for 2-people studying together. Printed background papers cost an additional £20.00. Zoom sessions are on Mondays at 2.00pm or 7.00 pm (it's your choice).

Fossils for all (11-weeks) commenced on October 27

After an introduction to fossils and fossil preservation this course goes on to examine a wide range of fossil groups. We'll be covering trilobites, ammonites, graptolites, corals and many more, including dinosaurs. This course is aimed at a wide audience, so even if fossils aren't normally of great interest to you, why not give them a try?

*Cost: Eleven hour-long Zoom sessions with electronic background papers £50.00 for one person or £70.00 for 2-people studying together. Printed background papers cost an additional £20.00. Zoom sessions are on Thursdays at 2.00pm or 7.00 pm (it's your choice).

Steps Towards the Rock Face (12-units) commencing at any time to suit you.

This is our course that's designed as an introduction to all things geological! It provides you with a grounding in all the major branches of the subject including minerals, sedimentary, igneous and metamorphic rocks, fossils, plates tectonics, Earth chemistry and the history of the British Isles.

The course is run via a series of Units and associated Tasks (and answers) that you can access at your own pace. You have access to tutorial support online and via our learning site Moodle for a period of six months - all included in the price!

Cost: Electronic materials £50.00, printed papers £75.00

Autumn Virtual Day Schools...

Our virtual day schools take place on Wednesdays and commence at 10.30. They comprise three short Zoom sessions through the day, ending at no later than 4.30. They give you time to work on material at home and then to join in with your fellow learners on Zoom. Cost: £20.00 per person or £25.00 with printed papers.

November 16 "When deserts covered much of the British Isles"
Of all the ancient environments that have existed in Britain's past, it's the Permo-Triassic deserts that present us with so many mysteries.
Why are the rocks red? What are the trademarks of an ancient sand dune? What lived at the time?

November 30 "George Barrow and his metamorphic zones" George Barrow set about trying to understand metamorphic rocks across large swathes of Scotland. The zones he gave us still provide the basis on which we classify and recognise those rocks to this day.

December 14 "Mount Vesuvius"

Of all the volcanoes that have existed in the Mediterranean, none is more enigmatic than Vesuvius. It is a dramatic past, but perhaps its best 'fireworks' are still to come! We promise you a 'Christmas cracker' of a day as we explore Europe's most famous volcano.

An evening in...

A series of evening talks with background materials. Enrol for them all, or just the odd one or two, it's up to you! Wednesday evening at 7.00pm via live Zoom. Cost: £10.00 each or £32.00 for all 4.

November 9 "An evening in the Himalayas"

November 23 "An evening in the Rockies"

December 7 "An evening in the Bahamas"

Book online at: www.geosupplies.co.uk

To find out more email us at: downtoearth@geosupplies.co.uk or ring us on: 0114 245 5746

Advance information - 'Simply Rocks!'...

If you want to learn more about ROCKS and in particular how to identify them, then you need to enrol onto our brand new course - entitled 'Simply Rocks!'

This 6-week course, commencing in February, is designed to be suitable for all, but especially those who want to know more about the basics of rocks. With this in mind the course will cover:

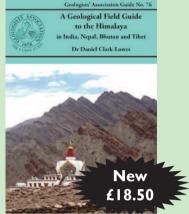
The minerals that form rocks, Igneous rocks both intrusive & extrusive, Sedimentary rocks both the clastic & the limestone, Metamorphic rocks - see elsewhere in this issue for more details!

We welcome everyone onto our Zoom courses whether you have studied with us before or not! If you'd like to chat with your tutor Chris Darmon before enrolling he'd be pleased to hear from you.

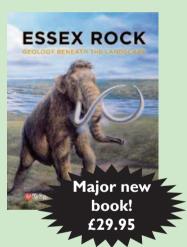
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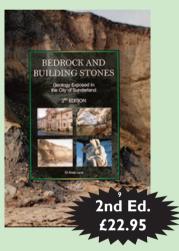
Featured books for November 2022

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 November 2022 provided that stocks are available. Please note, all prices include UK postage.

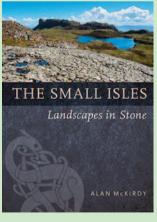




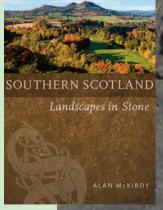














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