



28<sup>th</sup> October 2022

LGS Newsletter 164.4

## Liverpool Geological Society events

**NOTE:** LGS lectures start at 7.30 pm and will take place at the Central Teaching Hub of the University of Liverpool, Lecture Theatre D. Entrance will be via the main door.

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**Tuesday 8<sup>th</sup> November**  
**Lecture by Prof Ben Edwards (University of Liverpool)**

**Title:** Induced Seismicity and Associated Risks due to Hydraulic Fracturing (Fracking) at Preston New Road, Lancashire

**Summary:**

In this talk, I will provide an overview of two sequences of induced seismicity at Preston new Road, Lancashire, which directly resulted from hydraulic fracturing (fracking) by Cuadrilla Resources in 2018 and 2019. I will then detail the subsequent risk study that was undertaken, on behalf of the Oil and Gas Authority, which led, in part, to a UK-wide moratorium being established between late 2019 and 2022.

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**Tuesday 15<sup>th</sup> November**  
**Lecture by Dr Sarah Lynch, the Coal Authority**

**Title:** Cleaning up legacy coal and metal mine pollution – working at The Coal Authority a Geochemist’s perspective

**Summary:**

The Coal Authority manages the effects of past coal and metal mining, mine water pollution and other mining legacy issues. This talk will provide a high-level introduction to the Coal Authority and then give a geochemist’s perspective on the collaborative work that we do to remediate legacy coal and metal mine pollution.



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## Down to Earth Magazine (DTE)

Hard copies of this publication are not being produced, but electronic copies are available, which we have permission to email to LGS members. If you would like a pdf copy of the most recent publications (DTE number 120 and DTE Extra numbers 116, 117 & 118), please email Maggie Williams (Secretary) at [lgsecretary19@gmail.com](mailto:lgsecretary19@gmail.com) and they will be sent to you.

## LGS Annual Report, & Annual Accounts & Statement for 2021/2022

These items were approved by Council at a meeting held on 13th September 2022 and presented to Members at the Annual General Meeting on 18th October 2022.

If you would like a copy of the LGS Annual Report & Accounts 2021/2022 emailed to you before the meeting, please contact Mr Gary T. Billington (Hon. Treasurer) via: [g.t.b\\_lgs@hotmail.co.uk](mailto:g.t.b_lgs@hotmail.co.uk)  
(Please note that Gary's email address has an underscore between b and lgs)

## Another gentle reminder from the Treasurer

### Subscriptions for the 2022 - 2023 session

Subscriptions are due on the 1st of October 2022.

Subscription rates are: £15 for full members and £5 for student members (full time students).

All enquiries about membership of the Society should be sent to the Honorary Treasurer at [g.t.b\\_lgs@hotmail.co.uk](mailto:g.t.b_lgs@hotmail.co.uk)

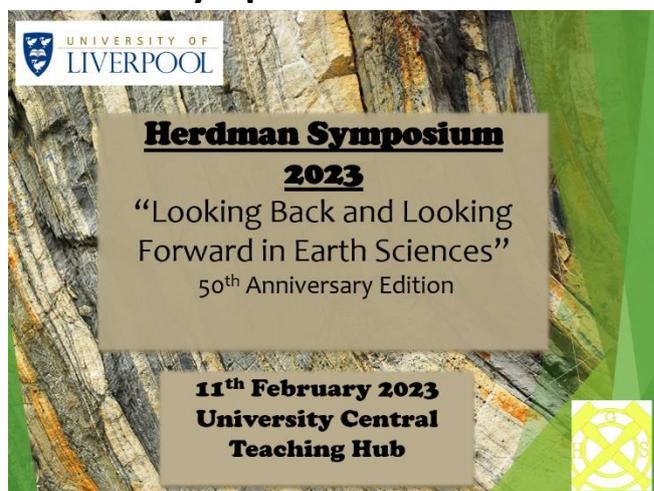
Those wishing to take advantage of a Standing Order Mandate to pay their subscriptions and save worrying each year about paying their subscriptions should also contact the Honorary Treasurer, who will provide you with our bank details. You can complete the Standing Order Mandate online or by visiting your bank.

### Contact details for The Honorary Treasurer:

Mr Gary T Billington, Honorary Treasurer, Liverpool Geological Society, 4 Lewisham Road, Liverpool L11 1EF Email: [g.t.b\\_lgs@hotmail.co.uk](mailto:g.t.b_lgs@hotmail.co.uk)

(Please note that Gary's email address has an underscore between b and lgs)

## Herdman Symposium 2023: a date for your diary



**Saturday 11 February 2023 09:00 – 17:00**

2023 will be the 50th anniversary of the Herdman Symposium and the Herdman Society plans for this to be held in-person in the Central Teaching Hub at the University of Liverpool.

In recent years this symposium has become a significant event in Northwest England attracting over 250 participants each year.

*Further details will be sent out in 2023.*

## Yorkshire Geological Society (YGS) events

**Thursday, 10 November 2022 16:00 -17:00**

**Webinar by Professor Jonathan Redfern, University of Manchester.**

**Title: Geology of the Moroccan High Atlas and Atlantic Margin**

**Abstract:** Morocco is a spectacular country to visit, not only to experience the culture and landscape, but the geology. The climate in many areas is arid, with resulting limited vegetation cover, which together with some major mountain ranges like the High Atlas, offers great access to exposures. The North Africa Research Group has been undertaking research in Morocco for over 20 years.

On this short virtual tour, we will take a brief look at some of the key outcrops studied, and how the onshore geology informs our understanding of the subsurface, for energy and future carbon

sequestration We begin by leave the bustling markets of Marrakech and head up into the High Atlas, at an altitude of over 2000m. Here we can look at evidence for the major mountain building episode in the Carboniferous, marked by the Hercynian orogeny, followed unconformably by deposition of the Permian and Triassic red beds. We will take a close look at thick deposits of fluvial sandstones, conglomerates and mudstones that record major rivers flowing through interior rift basins. Research has improved characterisation of the reservoir properties and understanding of the depositional environment and source of the sediments. Then we will move some 100 miles to the west into the Argana Basin, where we can traverse from the Triassic rift deposits into the Early Jurassic basalts (Central Atlantic Magmatic Province - CAMP) that mark the final continental breakup of Pangea and opening of the Atlantic. The Jurassic consist of a thick section of carbonates, mudstone with minor sandstones, with development of extensive carbonate platforms and reefal build-ups, rich in fauna. These units offshore have been targets for oil and gas exploration. Finally, we will head to the modern coast near Agadir, to look at the Cretaceous sediments and discuss new work we have just completed using ammonites and other fauna to better define the stratigraphy and understand the depositional evolution.

More information about this free event and details about how to register is available at:

<https://www.yorksgeolsoc.org.uk/registration-redfern>