



10<sup>th</sup> February 2023

## LGS Newsletter 164.9

### Down to Earth Magazine (DTE)

Electronic copies of this publication are available, which we have permission to email to LGS members. If you would like pdf copies of DTE issue February 2023 and DTE Extra issue number121 (January 2023) and DTE Extra issue number123 (February 2023), please email Maggie Williams (Secretary) at [lgssecretary19@gmail.com](mailto:lgssecretary19@gmail.com) and they will be sent to you.

### Liverpool Geological Society events

Tuesday 21<sup>st</sup> February 2023

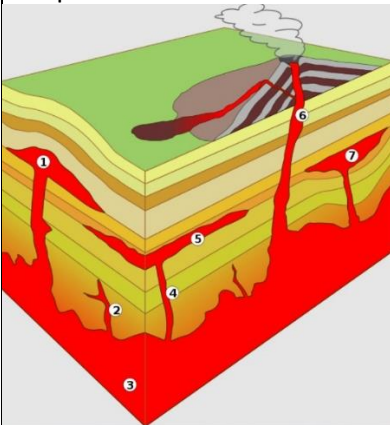
At 7.30 p.m. in Lecture Theatre D, Central Teaching Hub.

Lecture by Dr. Janine Kavanagh, University of Liverpool.

Title: 'Mechanisms of Igneous Intrusion (Mk11)'

#### Summary:

Rapid and reliable information is needed in the lead up to and during volcanic crises, but existing models of magma sub-surface flow are insufficient to allow this. The limitations of our understanding of how magma moves through the crust to feed volcanic eruptions weighs heavily on volcanologists as we see and experience the impact of volcanism on people around the world. The MAGMA Lab at the University of Liverpool uses a multidisciplinary approach and state-of-the-art techniques to tackle some of the key questions in volcanology with a focus on volcanic plumbing system dynamics. We are working with volcano observatories around the world to enable these combined models to be deployed to improve the accuracy and reliability of volcanic eruption forecasts.



Credit: Motilla - Own work, CC BY-SA 3.0



Dyke near Shiprock, New Mexico (CC BY 2.0)

#### Information about Janine:



Janine is Reader in Volcanology and UKRI Future Leaders Fellow at the University of Liverpool. She founded the University of Liverpool's MAGMA Lab for the study of volcanic plumbing systems in 2014.

Tuesday 28<sup>th</sup> February 2023

At 7.30 p.m. in Lecture Theatre D, Central Teaching Hub.

Lecture by Dr. Chris Stephenson, University of Liverpool.

Title: 'Meteorites and Mass extinctions: size doesn't matter!'

**Summary:**

Meteorite impacts are an established killer for the biosphere. They are thought to cause severe impact winters and trigger mass extinction events: the most famous being the end of the dinosaurs. The bigger the impact, the worse the extinction. In this talk I'll show why this is nonsense and explain the real reason why some meteorites are benign, whilst others are lethal.



Meteor Crater, Arizona

Credit: USGS

**Information about Chris:**



Chris is a lecturer in quantitative sedimentology at the University of Liverpool. His research focuses on understanding the processes that underpin the dynamics of submarine gravity flows, and how these processes dictate the extent and style of deposits left behind in the geological record. He uses a range of approaches and data types.

## Liverpool Geological Society Field Excursions

The following excursions are planned for late Spring and early Summer 2023. Please put these dates in your diaries. Full details of these events and booking details will be posted in later newsletters.

**28<sup>th</sup> May:** Field excursion to Great Orme, Llandudno with Pete Burgess.

**3<sup>rd</sup> June:** Urban Geology Trail to celebrate GeoWeek: 'Rock around the University (part 2)' with Maggie Williams, Peter Williams, and Hazel Clark.

**1<sup>st</sup> - 2<sup>nd</sup> July:** Field weekend on Anglesey with Maggie Williams, Peter Williams, and Hazel Clark.

**8<sup>th</sup> July:** Field excursion to the Ogwen Cottage area, Snowdonia with Mike Stoddart

## Dinosaur footprint expert to feature in Channel 5 series

Peter Falkingham spoke to the LGS a couple of years ago.



**Dinosaurs with Stephen Fry**, airing from Sunday 12<sup>th</sup> February on Channel 5, will feature expert analysis from LJMU's Dr Peter Falkingham. He will explain how birds are modern descendants of dinosaurs by looking at the motion of ostriches compared to the T. rex. Dr Falkingham, a reader in vertebrate biology in the School of Biological and Environmental Sciences, will feature in episode three of the series to be broadcast on Sunday 26<sup>th</sup> February at 7pm.

Details below:

<https://www.ljmu.ac.uk/about-us/news/articles/2023/2/7/dinosaur-footprint-expert-to-feature-in-channel-5-series-fronted-by-stephen-fry>

## Geologists' Association (Geology From Your Sofa)

The February issue of GFYS has been adopted this month by the Hertfordshire Geological Society. The theme is 'Hertfordshire Past and Present'. This edition of GFYS features:

- a YouTube lecture from the Chilterns Society on HS2 progress through the Chilterns,
- an Online course from OpenLearn on Groundwater,
- a Virtual Field Trip to Little Heath Pit SSSI with the HGS.

For further details go to <https://geologistsassociation.org.uk/sofageology/>

Next month, GFYS is being adopted by Bath Geological Society.

## Geological Society of London Event

**Monday 20<sup>th</sup> February 2023 17:00 -18:30**

**Venue:** The Geological Society, Burlington House, Piccadilly, London W1J 0BD

**Event:** Public Lecture by Professor Jenni Barclay, Professor of Volcanology in the School of Environmental Sciences at the University of East Anglia.

**Title:** 'The stories we tell about volcanoes, and why it matters when they erupt'

### **Abstract:**

Volcanic eruptions are often adventures into the unexpected. For the 800 million or so people who live within 100km of an active volcanic centre this can mean protracted periods of uncertainty, the potential destruction of infrastructure and the loss of lives. In the modern era, disruption is inevitable, but disasters are not. When disasters occur, they are often the outcome of insufficient preparedness or awareness or even heed of warnings.

This, however, is easier said than done. Many of the warning 'messages' from volcanoes lurk in the subsurface and they are capable of threatening eruption without delivering. When they do erupt, volcanoes are capable of a dizzying array of eruptive phenomena that challenge even the best laid plans. So, how do we deal with that? This talk explores the role that narratives - or the stories that we tell of the causes and consequences of volcanic disasters – play in how scientists, decision-makers and communities make sense of these uncertain situations, and even how they influence actions. We've been describing eruptions for centuries, so how do common or well-known storylines play into expectations for 'what next' during an eruption? Is it the same everywhere?

Jenni will use some well-known (and less well-known!) examples to demonstrate common expectations about volcanic behaviour – and their plotlines. We will explore why it gets dangerous when volcanoes defy these expectations and the explanations for this defiance. Finally, the lecture will conclude with ways we could work together to 'change the story'.

### **Further details:**

<https://www.geolsoc.org.uk/11-stories-we-tell-about-volcanoes>