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|  | **1st November 2021****LGS Newsletter 163.3** |

**Programme of Liverpool Geological Society Meetings 2021-2022**

**For the 163rd Session, lectures will be live lectures or Zoom meetings.**

**Live meetings will be held at The Athenaeum and not at Liverpool John Moores University.**

**Liverpool Geological Society events**

**Tuesday 9th November**

**Lecture by Professor Doug Mair,** **Dean of the School of Environmental Sciences, University of Liverpool**

**Title: How resilient will the Greenland ice sheet be in the face of Climate Change?**

**Summary**: The Greenland Ice Sheet is the largest single source of global sea level rise. Warming air and ocean temperatures are increasing melting and iceberg calving. But how well can we quantify these changes and just how resilient might the ice sheet be in the face of climate change? Doug Mair presents an overview of 20 years of research into ice sheeting melting, ice velocities and iceberg calving to help understand this important scientific challenge.

**Biography:** Doug is Professor of Glaciology and Dean of the School of Environmental Sciences at the University of Liverpool Head of School of Environmental Sciences at the University of Liverpool. He is a glaciologist whose interests include the influences of hydrology on glacier dynamics and controls on ice sheet mass balance and volume change. He has investigated these using field-based measurements and the development of glacial process models. He has over twenty years of research experience in the Swiss Alps, the Canadian High Arctic and on the Greenland Ice Sheet. This research has been supported by grants from Natural Environment Research Council (NERC), The Leverhulme Trust, The Carnegie Trust and the Scottish Alliance for Geosciences, Environment and Society (SAGES).

Doug Mair will deliver the Liverpool Geological Society Lecture at The Athenaeum on Tuesday 9th November at 7.30 p.m. Bar facilities and coffee will be available.
**Members wishing to visit The Athenaeum for this lecture will be able to do so from 6.30 p.m.**

**Please note:** For members reluctant to attend this live meeting, a Zoom transmission of the lecture will be arranged. Details about how to access the Zoom meeting are available from Maggie Williams (LGS Secretary):

lgssecretary19@gmail.com

**Tuesday 16th November**

**Lecture by Anthony Clarke, Consultant Engineer**

**Title: Ground Engineering of the Liverpool Docks**

**Summary:** The presentation will cover the history and method of construction of the Albert Dock and its river wall in 1840 when mechanisation was scarce. This will include why the dock was sited in this position of Liverpool together with the difficulties encountered with the ground and foundations.

**Biography:** Anthony is a Chartered Structural Engineer and a Conservation Accredited Engineer (one of 80 in the UK). He worked for 39 years at Curtins in their Liverpool office until March 2018 and is now an independent consultant mainly working on repair of Historic Buildings. His involvement at the Albert Docks started in 1982 when he was part of a team undertaking a detailed assessment of the derelict warehouses and continued through the development period and beyond. In total 30+ years’ experience working on these fabulous buildings. Other notable Liverpool projects have included both Cathedrals and most of the Museum listed properties together with John Rylands in Manchester. Since going into semi-retirement, he continues his private research on Victorian dock construction methods.

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**Message from the LGS Treasurer**

Subscriptions for the 2021 – 2022 session are due on the 1st October 2021 and should be sent to: Mr Gary T Billington, Honorary Treasurer, Liverpool Geological Society, 4 Lewisham Road, Liverpool L11 1EF

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

All enquiries regarding membership of the Society or subscription to the Geological Journal should be sent to the Honorary Treasurer at 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 supply our bank details. The Standing Order Mandate can be completed online or by going to your bank in person.

**Geological Society of London (GSL)**

**Wednesday 17th November**

**Virtual lecture by Professor Jane Greaves, Cardiff University**

**Title: Mysteries in the clouds of Venus**

**Summary:** Although Venus is Earth-like in mass and size, a runaway greenhouse effect has rendered the surface so hot it can melt metals. Back in the 1960's, Carl Sagan was one of the first to suggest that the high-altitude clouds might have offered a refuge for microbial life that fled the surface catastrophes. However, the clouds offer challenges in dryness and acidity beyond anything seen on Earth. Last year, our team discovered a 'biosignature' molecule - phosphine (PH3) - in Venus' high atmosphere. Although phosphine is a biosignature from harsh habitats on Earth, it is still unknown whether this is the case for Venus. I will discuss two rival models - floating organisms adapted to an incredible habitat, and super-volcanoes erupting unseen below the obscuring clouds. Either explanation will provide vital insights to interpreting remote observations of distant worlds, beyond our own solar system.

Register for this virtual lecture via:

<https://www.eventbrite.co.uk/e/public-lecture-mysteries-in-the-clouds-of-venus-tickets-169859609665>

**GSL Public Lectures**

Details of the GSL’s past Public Lecture series from 2008 to 2020 are available via the link below (video presentations of talks are also available):

<https://www.geolsoc.org.uk/Events/Past-Meeting-Resources/London-Lectures>

**Manchester Geological Association (MGA)**

**Saturday 13th November, starting at 9.30am**

**Broadhurst Lectures: Memorial Event in Honour of Dr Tony Adams**

Places are still available for these lectures in the Renold Building, University of Manchester (close to Manchester Piccadilly Station). This building can hold over 200, but numbers are limited to 80 so there will be space to spread out. Please note that the University will be providing masks and sanitizer. There will be free tea and coffee available, but lunch will need to be either brought with delegates or obtained locally. Lectures are free, but prior registration is required using the following link: <https://forms.gle/RLun8vzuJJm5GKpr8>

**Westmorland Geological Society**

**Lecture by Ernie Rutter: Southern Spain Geodynamics and comparable areas of the western Mediterranean**

**Summary:** Southern Spain, southern Italy and the Aegean region are places familiar to many through holiday visits, but few realise how dynamic these places are at the present day and in the not so distant geological past (Miocene through Recent). Southern Spain (Andalucia) consists of uplifted mountain chains (sierras) where metamorphic rocks are exposed, separated by intramontane sedimentary basins. These have resulted from west-directed lithospheric stretching by about 120 km and lie in a wedge-shaped region bounded by continental transform faults. These are unlike ‘conventional’ transform faults because the lithosphere on one side is being stretched at a rate different from the other side (stretching transforms). This talk will explain the field investigations that lead to these conclusions and draw attention to the same processes taking place in southern Italy and the Aegean region and accounting for seismicity and volcanism.

Ernie Rutter delivered his lecture on 20th October, but here is the YouTube link to this lecture:

<https://www.youtube.com/watch?v=_2NPAphdmSQ&t=66s>

**Yorkshire Geological Society (YGS)**

**Saturday, 6th November 2021 1:00 pm - 4:30pm.**

**Webinar with invited talks showcasing ground-breaking geoscience research from across the region. This event will be chaired by Dr. Natasha Dowey of Sheffield Hallam University**

**Title: Sustainable Geoscience in Northern England**

More information about this webinar and to register for this event go to:

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

If you miss out on a place, you can still watch a live stream of the event on the [Yorkshire Geological Society YouTube Channel](https://www.youtube.com/channel/UCzBPkcmYZbbLnaez7_tuohg), at the same date and time (NB this option does not allow participation in Q&A).

**Thursday 18th November 2021 7:00 pm - 8:00 pm**

**Lecture by Richard Maddra**

**Title: The Mystery of the Ammonoid Aptychus**

**Summary:** When first discovered, aptchyi were thought to be a form of bivalve. Subsequent work showed that they are part of an ammonite's body although their function has been a matter of debate. Were they jaws, opercula, ballast or used for propulsion? Aptychi show different morphologies which can be linked to different ammonite families. They are often found as isolated specimens but have been found in-situ in the body chamber. It has been debated whether this represents the remains of the ammonite's body or whether the aptychus has been washed in post-mortem. Aptychi can be found on the Yorkshire Coast: although rarer than ammonite shells, they are relatively common.

**Biography:** Richard Maddra is a primary school teacher whose love of palaeontology could be described as an obsession. In his daughter’s words, “Is there anywhere we can take you where you won’t look at rocks and find something?” Over the past decade, Richard has focused on ammonites. He has found specimens that became the subject of scientific papers: the first on fatally bitten ammonites from the Upper Lias of Saltwick Bay (2015) and the second on an in-situ aptychus in Cleviceras (in press).

More information about this lecture and to find out how to register for this event go to:

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

If you miss out on a place, you can still watch a live stream of the event on the [Yorkshire Geological Society YouTube Channel](https://www.youtube.com/channel/UCzBPkcmYZbbLnaez7_tuohg), at the same date and time (NB this option does not allow participation in Q&A).

**Digitised versions of two useful field guides**

Two field guides have been made available on the BGS site. They are 'Northumbria Rocks and Landscape' and 'Yorkshire Rocks and Landscape' (originally published by the Yorkshire Geological Society. Access these books via: [http://earthwise.bgs.ac.uk/index.php/Northumbrian\_rocks\_and\_landscape:\_a\_field\_guide](http://earthwise.bgs.ac.uk/index.php/Northumbrian_rocks_and_landscape%3A_a_field_guide)

and [http://earthwise.bgs.ac.uk/index.php/Yorkshire\_rocks\_and\_landscape:\_a\_field\_guide](http://earthwise.bgs.ac.uk/index.php/Yorkshire_rocks_and_landscape%3A_a_field_guide)