



26th February 2023

LGS Newsletter 164.10

Sad News

It is with great sadness that we wish to report that Mike Collins passed away recently.

Mike had been a long-standing member of the Society. He was LGS President of the Society from 2009 to 2011 and, for many years, served as Honorary Librarian of the Society. Without Mike's dedication, professionalism, and enthusiasm, the LGS library would not have been as successful and useful to members.

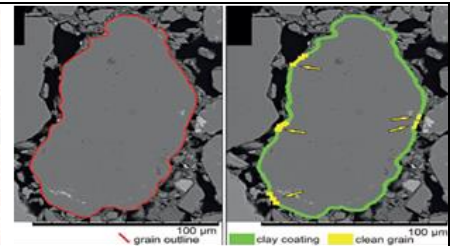
Liverpool Geological Society events

Tuesday 7th March 2023

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

Lecture by Prof Richard Worden, University of Liverpool.

Title: 'Ravenglass: Roman port, a miniature railway, and a geological testbed'



Summary:

The Ravenglass Estuary in west Cumbria covers an area of about 6 square kilometres and has a mighty tidal range of nearly 8 metres. Sediment in the Ravenglass Estuary is sand-rich but has areas of distinct mud enrichment and localized pebble beds. The estuary is fed by three tidal rivers, the Esk, Mite, and Irt, all meeting in a central estuarine basin directly to the west of the village of Ravenglass. The estuary is connected to the Irish Sea through a single, 500 metre-wide tidal inlet that flows between two dune-topped barrier systems. The estuary empties slightly more slowly than it fills due to its overall shape and the presence of two enclosing coastal spits. The high tidal range has allowed Ravenglass to be used a port since the Roman occupation of northern England about 2000 years ago. The estuary was used for transporting ore materials from the central Lake District via a narrow-gauge railway, that has now become a major tourist attraction taking people from Ravenglass to Boot village in upper Eskdale.

About 20 years ago, my team at Liverpool started experimenting with animal-sediment interactions, testing the effects of burrowing animals on sediment mineralogy and texture. We showed that the common lugworm results in changes in the fabric of previously discretely layered sand and mud, by creating clay-coated sand-grains via bio-glue. We decided to investigate this further by working in modern sedimentary systems because clay coats on sand grain can lead to anomalously high porosity deep in sedimentary basins, but only if the clay coat is chlorite-rich. After interesting research excursions to western Iceland, NW Spain and Mauritius, we decided to focus on Ravenglass as the three arms of the estuary drain different types of bedrock (testing the possible role of provenance), accessibility does not present a problem, the river basin is largely not developed by housing or other buildings, and the high tidal range leaves 90% of the sediment exposed at low tide.

In this talk, you will be told about the various sampling campaigns and the efforts required to drill geotechnical cores in estuaries and nearby farmers' fields. You will see lots of images of different parts of estuaries, with a variety of sedimentary structures. You will also see images of what sediment in estuaries looks like down a high-powered microscope. Finally, you will hear about the applications of this sustained research initiative and where it is going next.

It is recommended that you read Richard's more detailed and fascinating account of this lecture available here:

<https://liverpoolgeologicalsociety.org/wp-content/uploads/2023/02/Ravenglass-Worden-7-3-23.pdf>



Information about Professor Richard Worden:

Richard is an experienced Professor with a demonstrated history of research in higher education and industry. Skilled in Carbon Capture and Storage with more than 20-years' experience in R&D, training, and consultancy in this area, building on experience from research, training provision and applied studies in Petroleum Geology and Geochemistry. Strong education, with a 1st Class Honours (1984) Bachelor of Science (BSc) and PhD (1988) focused on Geology and Geochemistry from Manchester University.

Tuesday 14th March 2023

Extraordinary Meeting

This meeting will begin at 7.30 p.m. and will precede the lecture by Dr Stephen Cribb.

Agenda for the Extraordinary Meeting

1. Nominations for Council 2023 – 2024.

The following are proposed by Council to be elected for the 2023/2024 Session:

Officers of Council:

President M Amlôt, Vice-President, P. Burgess, Hon Secretary ME Williams, Hon Assistant Secretary HE Clark, Hon Programme Secretary NC Hunt, Hon Treasurer GT Billington, Hon Assistant Treasurer NC Hunt, Hon Editor (NW Geologist) G Sherwood, Hon Librarian WJ Iley, Hon Archivist A Morgan, Hon Publicity Officer S Hurrell, Hon Excursions Secretary G Gilchrist, Hon Website Manager TJP Williams, Hon Publications Sales Manager GT Billington.

Ordinary Members of Council:

A Clague, E Message, M Stoddart, E Thompson.

Co-opted Members of Council:

R Leong.

2. Rates of Subscription for 2023/2024

The following annual subscription rates are proposed by Council for the 2022/2023 Session:

Full members £15

Student members £5

Tuesday 14th March 2023

Joint Meeting with the Herdman Society

This meeting will be held after the Extraordinary Meeting at 7.30 p.m. in **The Athenaeum**, 12-18 Church Alley, Liverpool L1 3DD.

Please note that The Athenaeum will be open to Society members from 6.30 to 9.30 p.m. for this meeting.

Lecture by Dr Stephen Cribb.

Title: 'Geology of Whisky'

Note: Entry for this event is by ticket only.



Website: <https://theathenaeum.org.uk/>



Tickets for this event cost £4.50 and will be for sale at the LGS meetings on 28th February and 7th March.

Members unable to attend these meeting may reserve a ticket by contacting Maggie Williams: lgssecretary19@gmail.com

The gaelic translation of aquavita – the water of life – is uisge beatha, from which we get the word ‘whisky’. Water is added to the mix after the barley has been malted and ground down into a ‘grist’. It’s needed again to prepare the spirit for sale, and often gets added to the finished product for taste.

Because so much water is needed, the presence of a large supply constrains where a distillery is located. Most malt whisky distilleries are located by streams or rivers, and often deep boreholes or public water supplies are used. It’s the chemistry of the water which has such an effect on the final product, so the geological setting is important.

Stephen will outline the geology of Scotland in relation to the important malt whisky producing districts and offer new insights into the influences on the taste of a good single malt. During this evening you will have the opportunity to sample various malts and discover that the geology of the local area really does influence taste!

Tuesday 21st March 2023

Liverpool Geological Society Annual Dinner

A gentle reminder that this will be held at Villa Romana, 6 Wood Street, Liverpool, L1 4AQ at 7.30 p.m.

There are a few places available. Bookings and payments for this event must reach the Treasurer (Gary. T. Billington) **by 14th March**. Details are shown below:

First Course: Choice of

- Soup of the day
- Insalata Caprese: Salad of mozzarella cheese, tomato and fresh basil
- Funghi Trifolati: Sauteed mushrooms served with crusty bread
- Chicken liver pate with toast and caramelised onions

Main Course: Choice of

- Pollo Valdastana: Breaded chicken breast topped with parma ham and mozzarella cheese, served with a madeira sauce
- Grilled fillet of salmon steak with lobster bisque sauce and vine cherry tomatoes
- Spaghetti carbonara with bacon, egg, cream & parmesan cheese
- Pizza Margherita with mozzarella cheese, tomato, and oregano

Desserts from the trolley

Tea/Coffee

Cost: £29.00 per head.

Please indicate your choice of food on a printout of this page and add your name.

Either hand your menu choice sheet and cash payment (or a cheque* made payable to Liverpool Geological Society) to The Treasurer at an LGS meeting **by 14th March**.

Or post this menu choice sheet with a cheque* made payable to Liverpool Geological Society to the Treasurer **by 9th March**. Gary’s address is shown below:

Gary T Billington, Honorary Treasurer, Liverpool Geological Society, 4, Lewisham Road, Liverpool, L11 1EF

*If you would prefer to make a direct payment to the Society, please email Gary for details of the account.

Gary's email address is: g.t.b_lgs@hotmail.co.uk (Please note that Gary's email address has an underscore between b and lgs)

Please note: On the evening of the annual dinner, all orders for drinks are given to customers as one bill per table and not as individual bills.

Wirral Heritage and History Association (WHHA)

WHHA Fair

Saturday 25th March 2023

This fair, organised by Wirral History and Heritage Association, will take place at Hulme Hall, Bolton Street, Port Sunlight. The public will have access from 10 a.m. to 4 p.m.

At the fair, Jim Marshall will have a table advertising the Wirral Geology and Landscape Project and asks, if any LGS members would like to join him at the event, to contact him. Jim may be contacted via: WirralGeology@gmail.com

For further details about the WHHA Fair visit: <https://sites.google.com/site/wirralhha/next-whha-event>



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Wirral Heritage Open Days 2023

The dates for the next Wirral Heritage Open Days event are 8th to 17th September 2023.

Details will be announced on the website above.

