

Newsletter

BGG visits Sedgwick museum of Earth Science, Cambridge

We had a great turnout on November 26th for the BGG visit to The Sedgwick Museum of Earth Sciences in Cambridge. Fifteen of our members were met at the steps of this magnificent building by Dan Pemberton, the Collections Manager. Dan told us that the original collection was amassed by John Woodward in the 17th century, but it was Adam Sedgwick who subsequently built a major geological school at Cambridge which today houses more than 2 million fossils, rocks and minerals and one of the finest research museums in the world.



By special request we were given access to the Watson Building Stone Collection. Dan showed us the comprehensive collection of slates, granites, marbles and sandstones from quarries all over the world. There was an impressive collection of Ordovician and Silurian slates covering the walls; granite samples in the display cabinets – all cut into 4 inch cubes, and huge blocks of marbles on the opposite wall. Each face of the cubes shows how the rock appears in a different cut. One face was left rough, one straight cut, one polished and one dressed as it would be used in a building. (See photo left).

Upstairs inside the main entrance was a huge Victorian cast of an extinct Cretaceous Iguanodon. Dan let us wander through the main galleries which were arranged by geological age. Fossil specimens ranged in time from those found in the Burgess Shale, from the Cambrian



Dan talking to members in the Stone Collection gallery

INSIDE THIS ISSUE:

Page

- 2 *Secrets of the Sands update*
- 3 *Visit to Meppershall Chapel & AGM*
- 4 *The big swallow up—sinkholes in the news*
- 5 *Birthplace of modern geology, Don't miss the Xmas Social*
- 6 *Forthcoming Events*
- 7 *Members Page, Waitrose, Books, Bog Butter?*
- 8 *Member Profile Bev Fowlston*
- 9 *Here's the BGG Committee*

explosion to specimens of bones from local Fenland deposits, only a few thousand years old. A wealth of vertebrate and invertebrate fossils filled the galleries and illustrated major changes in life through geologic time. Representative faunas and floras for all the main British rock formations were displayed.

Of particular interest was the Darwin collection. Many of his field notebooks and letters from his days on HMS Beagle were on display together with analysing instruments like his goniometer and leather pouch.

At the southern end of the museum we found the Whewell Gallery displaying a fine collection of minerals according to their chemical groups. A major addition to the museum this year was William Smith's geological map of England. This was one of several signed original maps made by Smith. We wondered how he managed to colour it all in as it was so big. We reckoned he must have either knelt over it or even walked on it!



It was a fascinating visit. If you couldn't make this trip, why not visit another time. The museum is open throughout the year and it's free. Better still, you can bring along any rock, mineral or fossil for a free identification.

Secrets of the Sands Update

By Bev Fowlston

The latest news on this exciting project is that we are entering the final part of Phase 1. However, this means that I need to be working out the budget! Easier said than done methinks!

Anne Williams and I have been to several meetings since the last update and this has helped us to consolidate our ideas and to work with other partners. These include The Wildlife Trust at Flitwick Moor, Clophill Heritage Trust and The Greensand Trust.

It would be great to have more members involved in Phase 2, the delivery stage, of this project but this is unlikely to be for another year as we will not be entering Phase 2 until approval has been given by the great and good of the Heritage Lottery Fund sometime next Spring. However, in the meantime, if you have any great local tales about the geology or the geological industries through the Greensand ridge area then do let me know and I can pass them on to the relevant geotrail leads. The geotrail leads are Tony Baker for the eastern geotrail, myself for the central trail and Henrietta Flynn for the western trail. Our small team of volunteers are working through the 3 geotrails and have preliminary routes worked up and at the Xmas Social in December I hope to update members further on these routes.

I will give an update in each newsletter and ask for help as and when needed but, if you want to help out from the beginning on this venture, please contact me at bev.fowlston@gmail.com

To find out more follow the link <http://bedsrcc.org.uk/rural/secrets-of-the-sands/>

Bedfordshire Geology Group's AGM and visit to Meppershall chapel by Frances Maynard

On a sunny October 4th we met up at St Thomas Chapel, Chapel Farm in Meppershall prior to our AGM. This 12th century chapel is now used as a barn on the farm. It was built around 1150 as a chapel for the farm workers of the nearby Chicksands Priory.



The building features many different building styles and had been modified both during its ecclesiastical use and during its farming use (it was deconsecrated during the dissolution of the monasteries in the reign of Henry VIII). Built mainly of Totternhoe stone ('clunch') it has inclusions of other building material including greensand and flint.

The bricks which in-fill the windows range from small 16th century to 'Arelsey Yellows' showing a long time span over which maintenance and alterations had taken place.



On the north side of the nave is the ancient Norman doorway.

The arch mouldings, enriched with chevrons and "round billets" are as clear-cut as the day when they were first chiselled; while in the jambs are four capitals, minus their shafts, ornamented by a graceful design resembling point-lace. This Norman doorway is said to be as fine as any to be found in Bedfordshire.



The window shown to the left of the arch is one of two inserted in 1360. On the south side of the chapel are some Tudor windows, with their square "heads," inserted in 1500, so that no less than three periods of architecture are represented in this building. Inside the chapel some of the timbers also date back to the 1500s.

Annual General Meeting

Following the visit to the old Chapel we moved on to Meppershall Village Hall for the AGM. As well as electing new committee members (secretary, treasurer, membership secretary and a 'Secrets of the Sands' representative) we were given a presentation on the **Secrets of the Sands** Project from Bev Fowlston and Anne Williams.

They are both spending considerable time on this project, along with Tony Baker and it is expected to produce one further 'geotrail' to complement the Stockgrove (now Rushmere) and Clophill ones. This will incorporate the Two Moors Heritage Trail which goes from Flitwick to Flitton across the only remnants of peat in the county of Bedfordshire. This will also incorporate the new RIG in the Silsoe Quarry.

The big swallow up

Love a good sinkhole story?.....

So this is not in Bedfordshire but its not too far away. A massive sinkhole opened up in October in St Albans, Hertfordshire on a residential estate. It was already on an 'at risk' register but one night in October it grew to around 10 metres deep and some 25 metres wide.

Thankfully no houses have been swallowed up yet but around 50 homes were without mains services.

The BGS has suggested that there may be a link to an old brickworks that used to be on the site and a soft layer of clay which was extracted in the brick-making process. This clay extraction created voids and together with a layer of dissolved chalk contributed to the hole.



And if you think that was a big hole.....

Just last week in Western Australia, swimmers were warned to stay away from Jumpinpin Beach on North Stradbroke Island off Queensland after a sinkhole the size of a football pitch opened up. It is believed to be about 100 metres wide! It is in an area where sands are constantly moving and subject to significant coastal erosion from very strong tidal changes.

Can they get any bigger?.....

Well, from Russia a giant sinkhole at the Solikamsk-2 potash mine in Russia's Perm region has recently widened into a crater measuring 125 metres.

A report from the Meduza news agency says that the hole is linked to brine inflow. Mine owner Uralkali, the world's largest potash producer, has suspended operations while it tries to contain the inflow and pump out the brine.



Birthplace of modern geology-

..... By Malcolm Oliver who visited the west coast of Scotland

Malcolm shows us pictures of a recent trip to Scotland and gives us just a flavour of a 'slightly damp (so no midges)' wander south down the west coast of Scotland from its northernmost tip of Cape Wrath.

A geologists paradise which in many ways was a birthplace of modern geology. Geologists Peach and Horne, who worked together for forty years and first went to the Northwest Highlands in 1883, finally proved that the Moine Thrust caused the repetition of layers of rock that could only have come from movement of the crust.

The basement of Lewisian rock eroded into landscape before the deposition of the Torridonian Sandstone which forms many of the mountains. This has then all been subjected to glacial action to produce the 'Knock and Lochan' landscape so typical of this part of the world.

Interested?—look up the BGS note on Peach and Horne's work at <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/archives/peach/NWHighlands.html>



Torridonian cliff buttress



'Knock and Lochan' landscape with the cliff behind showing the effect of the Moine thrust fault pushing Lewisian rocks up over Torridonian rocks.



Don't miss the BGG Xmas social

Tuesday December 8th, 7.30pm

*Come and join us for fun and games at our annual Christmas Social. This year we will be at **Flitton Church Hall**, next to the White Hart pub in Flitton. The event will be a chance to meet the committee and to catch up with friends. There will be quizzes and games plus a raffle. Please bring your good humour and a contribution to the refreshments and or raffle. If you intend to come along please contact Frances Maynard tel. 01234 740894 or fmaynard@btinternet.com*

We look forward to seeing many of you there.

Forthcoming Events

- ◆ **Christmas Social at Flitton Church Hall** (*Note, not at Husbourne Crawley as in previous years*) – Tuesday 8th December, 7.30 start – featuring a quiz, raffle and catch up on the year. Please bring a raffle prize and contribution to the refreshments.
- ◆ **Sandy Heath Quarry** – a visit to the restored Woburn Sands quarry next to the Sandy Lodge site. – Saturday 23rd January. Time TBA
- ◆ **Potton Scout Hut**. Joint meeting with Oxford University Geology Society – Sunday 21st February, meet at the Scout Hut at 11.00 am
- ◆ **Two Moors Heritage Trail** - A gentle walk to explore the Flit Valley; its history and geology including some small remnant peat deposits. Saturday March 19th. Meet at Flitwick Mill. Time TBA
- ◆ **Kensworth Quarry working party**. Help clean up the quarry faces. Saturday April 16th. Meet at Kensworth Nature Reserve at 10am
- ◆ **Silsoe Quarry**. A visit to a privately owned quarry. A new site where Woburn Sands are still quarried. Saturday May 21st. Meet 10am
- ◆ **Burlington House visit**. Join us for a tour of The Geological Society, London. Date and time to be arranged. Proposed for mid June.
- ◆ **The Higgins Museum Fossil & Rock day**, Bedford. A hands-on workshop to look at rocks, fossils and minerals including some thin sections. Saturday July 23rd from 10am.

We look forward to seeing you at one or more of these events.

(Please note that the dates of these events are subject to change so please watch out for more info on each event from Frances nearer the time.)

Details can also be found on the website: www.bedfordshiregeologygroup.org.uk; on our Facebook page <https://www.facebook.com/BedfordshireGeologyGroup/>; or on Twitter <https://twitter.com/>



Members Page

**Got something of interest to show us? Snippet of news?
Please share with us.**

Waitrose token scheme

BGG have taken part in the Waitrose green token scheme. The Leighton Buzzard store chose the BGG along with two other local community causes to receive a proportion of their profits. By shoppers putting their token in the BGG box we have been notified to receive £220 in due course, probably before Christmas!

Why not talk to your local Waitrose store and see if we can repeat this fundraising success elsewhere.

Ever heard of Bog Butter ?

On our recent visit to the Sedgwick Earth Sciences Museum in Cambridge, we came across a white lump of 'Bog Butter' amongst ice age peat deposits in one of the cabinets. It looked like a lump of soft chalk. With no annotation or labelling its origin was a mystery. Was it a rock or mineral deposit? A fossil perhaps?

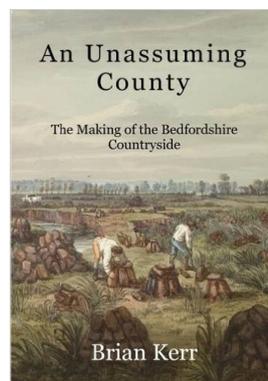
Amongst our group we had no idea! Wikipedia to the rescue.....

It is the name used for a waxy substance found buried in peat bogs, particularly in Ireland. It is most likely to be an old method of preserving butter as it is of animal diary origin. It is also known as butyrellite.

Well that was a surprise!

Stocking filler book

**The Unassuming County:
The making of the Bedfordshire Countryside**
By Brian Kerr



A thoroughly good read.

Brian uses the geology of Bedfordshire to describe a number of natural landscapes and then charts how these have been utilised in the past, giving us the countryside which we see today. The book touches on agriculture; the extraction industries which have so heavily marked the landscape; the expansion of nature reserves; recent building on floodplains, and other threats to the green belt. There is also an introduction to walking opportunities in the county. Brian is a soil scientist who lives in Bedfordshire and is a Visiting Fellow at Cranfield University.

The BGG Library

Did you know that the BGG has a comprehensive library of geological books, maps, BGS surveys, walks and other natural history publications.

Glynda Easterbrook who is retiring from the Open University is also kindly donating more educational material to our rich library. If you would like further details or are looking for a particular book/map, please contact Anne Williams, our librarian.

In this edition we are profiling one of our committee members. We hope that other members (not just those on the committee) will also contribute a personal profile for inclusion in future newsletter editions so that we can get to know each other better and discover our shared interest in geology.

*Committee member
profile
by Bev Fowlston MSc*

Bev Fowlston – Greensand Representative and Projects Officer

I've been a member of BGG since 2004. Previously, I have been on the committee in several roles, including Membership secretary, Secretary, PR and Fundraising Officer and Acting Chair, sometimes doing all those roles at once! After having taken a couple of years away from the committee, I feel now is the time to become more involved especially with the new Secrets of the Sands project taking off.

My personal interest in geology began with my Grandad when I was a child. He had three interesting rocks on his display cabinet in his flat when I was growing up and he used to tell the most amazing stories of where they came from. I always wanted to find out more.

So, having started to learn about geology more formally through the Open University in 1998 I decided it would take too long so changed my life and went full time at Durham University where I graduated with a 2:1 BSc at the ripe old age of 35, and 10 years later went on to achieve my Masters with the Open University in 2013.

I have passion for Bedfordshire's geology which I used to think was just boring flat sediments but they're not!

(Looks like Bev has a passion for wine too! Thanks Bev this interesting profile)



Here's the BGG Committee



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***A** special thanks goes to Lindsay Hiles for her commitment to the BGG over the years. She was previously Treasurer and Membership Secretary on the committee and covered as Chairperson, Secretary, Events organiser and just about everything else. As a continuing active member of our group we will be calling upon her expertise!*

As always please look at our website for the latest news, details of events, lectures etc. It is also a great source of educational information and so easy to download our wide range of brochures, flyers and geotrails.

www.bedfordshiregeologygroup.org.uk

Newsletter compiled and edited by
Henrietta Flynn
If you wish to include an article, photo or share your geological interest in the next issue, then please contact me by email at
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Hope you enjoy the read!