

Newsletter

Higgins Rock & Fossil Day

Saturday July 23rd

By Henrietta Flynn

The BGG held a 'hands on' Rock and Fossil day at The Higgins this summer. For those not familiar with the name, 'The Higgins' is the new name for Bedford Museum. It had a name change when it re-opened in 2013 after refurbishment and rebranding. The new upgraded facilities at the museum now include a workshop room which proved to be a great venue for our event.

The BGG set up various tables displaying a wide range of geological exhibits. **Table 1** showed an impressive fossil display which included an enormous mammoth jaw bone and tooth, provoking much discussion amongst visitors as to what it was. We also exhibited part of a thigh bone from an unknown vertebrate. **Table 2** was dedicated to rocks, not just local Bedfordshire ones but a global variety including granites, pumice, sandstones, limestones, schists, slate and marble. Minerals were displayed on **Table 3** and included colourful examples of malachite, chalcopyrite, gypsum, haematite, marcasite and many more showing excellent varieties of form and crystallography.



We brought along a selection of rock and fossil identification books for reference along with maps and exhibition boards illustrating local Bedfordshire geology. We were joined by 2 museum volunteers; Jean Griffith and Matthew Edgeworth who had set up a video loop showing Quest pit in its operational days with fabulous examples of the brick making process through the years. Refreshments were provided by the museum.

Although attendance could have been better (if the Museum had remembered to advertise our event and put up better signage!), it proved to be an excellent venue for future workshops.

See Page 3 for an update on geological work being undertaken at The Higgins.

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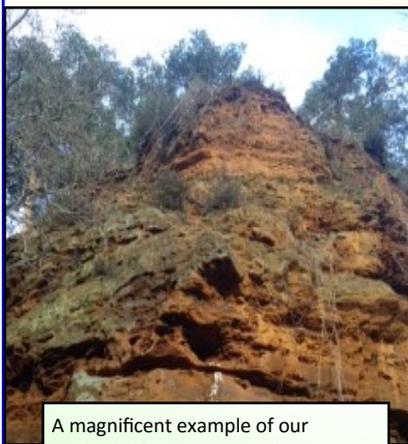
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**Don't forget the
AGM on Sunday
October 9th**

The Greensand Country Landscape Partnership (GCLP)

Here's the latest update on this important project.....

We have approval for our part of the project from the HLF. Once we have sufficient match-funding then we can start the hard work, planned for 2017.



A magnificent example of our Bedfordshire Greensand from the RSPB's Sandy Warren Lodge Quarry

The first area to tackle is the main Greensand Country Earth Heritage leaflet which will inform the general public about the whole of the Greensand Country and its importance to local communities and the continuing heritage of the area.

Also, in 2017, we will pull together a new Eastern Geotrail taking in the Local Geological Site (LGS) at the RSPB's Sandy Warren Lodge Quarry. This LGS will be given better access via steps and a walkway.

The Geotrail will also skirt Sandy Heath Quarry, that is currently undergoing partial restoration, and enter Potton village before visiting the Scout Hut Quarry and eventually returning to The Lodge.

In addition, BGG will be running an educational workshop aimed at members and the general public. The workshop will focus on rock identification with a view to people becoming more aware of the rocks around them in Bedfordshire. The committee will be planning, in detail, the next year's events following the AGM so look out for GCLP events and please offer to help where and when you can.

Bev Fowlston

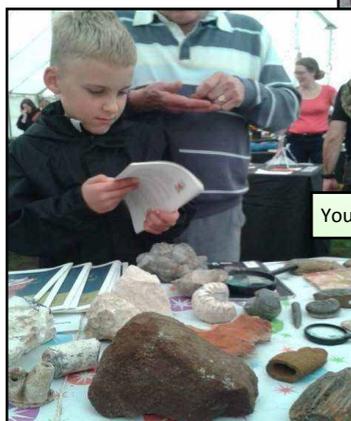
Bedfordshire Geology Group at Potton Show

Bev and Anne, with a lot of rocks and fossils to publicise the BGG, took a stall at the Potton Show on that very wet Saturday September 10th. Fortunately they gave us a place in the show tent, which meant that we had a lot of interest from people sheltering from the rain. There were hot dogs, tea and cake and the Bedford Morris to keep us going and many children, who were most interested in what we had to show them.

BGG table full of Bedfordshire geology



Youthful interest



The Bedfordshire Walking Festival

BGG lead a walk along the
Clophill Geotrail

By Anne Williams

On the first morning of the Bedfordshire Walking Festival (September 11th), Derek Turner led a walk along the Clophill Geotrail put together by Bev. He did it in reverse which gave it a new and interesting slant and had researched many interesting facts about the village.

We started at the wonderfully restored St. Mary's Old Church and Ecolodges of the Clophill Heritage Trust and followed a route which showed off many of the Greensand (now Woburn Sands) buildings and structures, including the amazing Stone Jug public house and the beautiful cross-bedding in the old quarry off Back lane. The route took us down to the misfit River Flit to try to see the lakes in the old Fullers Earth workings on the other side, unfortunately too well hidden by the trees at this time of year.

Possibly because it was the first walk of the festival, we only had another six walkers, and the wonderful Murphy the collie, but they were very good company. We shortened the route as set out in the BGG leaflet to allow for descriptions of the geology and geomorphology but if you want to try the full route, including the section through Maulden Wood, see our excellent guide: Geotrails in Bedfordshire, Clophill. (Shortly available to download from our website)

Thank you Derek for an excellent walk.



Some of the walkers take a brief rest outside the Stone Jug pub, the only house in Clophill built of Greensand.



News from The Higgins Museum

By Anne Williams

With the help of our recent recruit Jean Griffith, I am currently creating a handling collection of minerals, rocks and fossils, and a local collection, in a form that will allow it to be used in schools and educational workshops at the Higgins by their Learning and Outreach officer Clare Rogers. This follows on from the sorting of the large amount of material not included in the accessioned collection and the creation of a database.

We are now selecting the best specimens and boxing them with descriptive labels. They are being photographed for the database by Charles Bailey. The remaining specimens are being put into store so can still be used if required.

I am most grateful to Jean for organising me – I only have to pick a specimen and tell her what it is (possibly correctly) and she does the rest. I will now have to write a short 'story' for each specimen so that Clare can use them.

Good news that the museum has an active volunteer and that the handling collection is being used in education.

Great work Anne

Saudi Arabian geological collection donated to BGG

An excellent geological donation has been made to the BGG courtesy of Mike Fisher who has retired from working in Saudi Arabia. His specimens come from various trips made out into the desert. He said that they were often found just lying on the surface having been weathered out of the rocks as there is no vegetation to hide them.

He initially offered them to the Higgins museum who referred him to the BGG as they do not take overseas specimens.

Here is just a small selection of what he found. There are many more, mainly fossils, which Anne Williams is looking after. Please get in touch with Anne if you would like to see the whole collection.



The above photo shows a piece of silicified fossil wood and some aragonite evaporite nodules formed by the evaporation of water in the hot desert sun.



The above delicate crystals are of desert rose, formed by the recrystallisation of (probably) gypsum in bladed form.



This single fossil above is a ceratite ammonoid, showing typical internal ceratite suture lines, probably Triassic in age.



A mixed selection of some of the other fossils including solitary corals, bivalves and gastropods.

Leighton Buzzard Guided Building Stones Walk

By Bev Fowlston

Back in June, I lead a number of members and visitors around Leighton Buzzard describing some of the fascinating buildings and their history.

Here are the key points of interest along the route:

- ◆ **War memorial** with its beautiful Shap granite. Reported to be the largest single block of granite ever quarried in the British Isles in 1870. The memorial was unveiled and dedicated on the second anniversary of the Armistice on 11th November 1920.
- ◆ **All Saint's Church** built in the early 13th Century dominates the town with its 190ft spire. It is almost entirely made of locally quarried sandstone. Although, since its most recent renovation which began after a fire in the 1980s, new blocks are not always sourced locally.
- ◆ **Pulford's School**, one of the best sandstone buildings in Leighton Buzzard and the oldest school in the town.
- ◆ **Old Wesleyan Church**, arguably the ugliest of the sandstone buildings in the town! The building shows interesting changes of use depicted in its alterations and the mismatch of walls, stone and various other building materials.
- ◆ **The White House** and its links to the economic growth of the town, particularly George Garside whose companies ran the sand quarries throughout the town. Now it is the centre of local town council.
- ◆ **The Almshouses** in the town, including Pages Close and Wilkes Almshouses. These are beautifully formed small dwellings that show how the local sandstone was used both practically and decoratively.

Finally, the famous **Market Cross**. Made from Totternhoe Stone and extensively repaired over the years with other limestones from around the country. It is still the iconic building in the town. Everyone was fascinated by the many tales related over the walk and the luckily the weather held as at that time we were having some pretty awful weather for June!

Thank you to everyone who came along and if this is the kind of event you would like to see more of then please let the committee know.



War Memorial



All Saint's Church



Market Cross

Forthcoming Events

Event	Date & time	Where
<p>Rushmere Country Park geomorphology walk exploring woodland and heathland of the Greensand Ridge</p> <p>Talk by Clare Poulton on our new GCLP project (Greensand Countryside Landscape Project, formerly Secrets of the Sands)</p> <p>Annual General Meeting</p> <p>Your chance to talk to committee members and get an update on the year's activities and progress.</p>	<p>Sunday 9th October at 2pm</p> <p>Sunday 9th October at 3.30pm</p> <p>Sunday 9th October at 4pm</p>	<p>Meet at Heron's View Visitors Centre, Rushmere Park, Heath & Reach, LU7 0EB</p> <p>Heron's View Visitors Centre</p> <p>Heron's View Visitors Centre.</p> <p><i>Please note there is a £2 charge to use the carpark</i></p>
<p>Capability Brown walk of Ampthill Park. The park sits on the Greensand ridge where the landscape is largely down to Lancelot 'Capability' Brown who strategically planted trees to create special vistas from the ridge.</p>	<p>November</p> <p>Date to be confirmed</p>	<p>Ampthill Park. Details in email to follow</p>
<p>Willington Dovecote archaeological site. A look at recent test pits opened near the Tudor dovecote which revealed interesting stonework. Combined with a floodplain and river terraces walk.</p>	<p>December 4th at 10.30am</p>	<p>Willington Dovecote</p>
<p>Xmas Social, buffet & quiz. A chance to meet other members and have a bit of seasonal fun.</p>	<p>Thurs 8th December</p>	<p><i>Venue to be confirmed</i></p>
<p>Talk by Bev Fowlston - 'Introduction to the Geology of Bedfordshire'</p>	<p>January</p> <p>Date to be decided</p>	<p>Venue either at Clophill Ecolodge or The Higgins Museum</p>
<p>Kensworth Quarry clearance</p>	<p>April</p>	<p>Kensworth</p>

Please note these events are subject to change so watch out for more details on each event nearer the day. Details can be found at: www.bedfordshiregeologygroup.org.uk on our Facebook page <https://www.facebook.com/BedfordshireGeologyGroup/> or on Twitter <https://twitter.com/BedfordshireG>

Earthquakes! Why Italy?

By Henrietta Flynn

The recent major earthquake to hit Italy 65 miles north-east of Rome in Amatrice, Accumoli and Pescara del Tronto on Wednesday August 24th was a reminder that this mountainous area is a seismically active region. The 6.2-magnitude quake that killed 296 people and injured hundreds more seems to have been unexpected, however earthquakes are an ever-present danger for those who live along the Apennine mountain range in Italy.

Amatrice before & after the earthquake

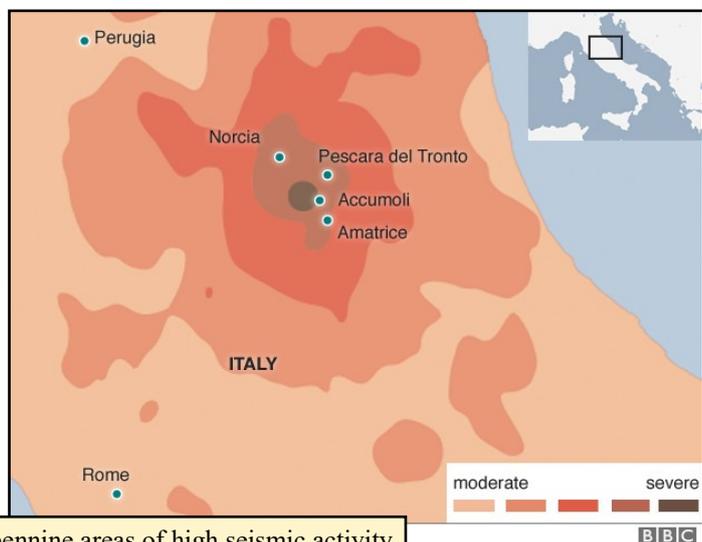


Italian and much of Mediterranean seismicity is driven by the great collision between the African and Eurasian tectonic plates; but when it comes down to the specifics of this latest quake, the details are far more complicated. The Tyrrhenian Basin which lies to the west of Italy, between the mainland and Sardinia/Corsica, is slowly opening up. Scientists say this is contributing to extension, or "pull-apart", along the Apennines. This stress is compounded by movement in the east, in the Adriatic.

The result is a major fault system that runs the length of the mountain range with a series of smaller faults that fan off to the sides. The foundations of cities like Perugia and L'Aquila stand on top of it all.

The Open University's Professor Dave Rothery (Dept of Physical sciences) said that the 6.2 earthquake that struck Amatrice was similar to the 6.3 quake that hit L'Aquila in April 2009. Both occurred at a shallow depth (which exacerbates the shaking at the surface) and resulted from local extensional faulting in this tectonically complicated region.

However, unlike the L'Aquila quake, which was preceded by swarms of smaller quakes and led to claims that the eventual big quake should have been predicted, this one appears to have struck out of the blue. Clearly there is a need for further research into earthquake prediction in this Apennine area.



Apennine areas of high seismic activity

Is Istanbul next?

Read the next BGG newsletter for a review of Turkish tectonics and the probability of severe seismic activity in this area.

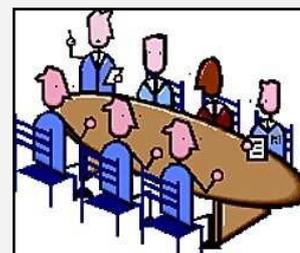
Could you be the new BGG Chairman?

With the recent resignation of Peter Lally as BGG Chairman we are actively seeking his replacement. Peter has been Chairman since September 2008 and has helped the Group gain essential funds for activities and projects, raised our profile within the community and helped the Group successfully achieve its objectives.

Thank you Peter for your valuable contributions and guidance.

So we are looking for someone new who:

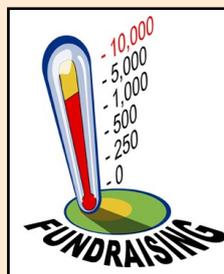
- Has an interest in Bedfordshire's geology, geomorphology, landscape and history
- Can facilitate and negotiate within the BGG and with external bodies
- Will chair the quarterly meetings and complete the actions required
- Is committed to delivering BGG projects and promotions
- Has an understanding of the voluntary and community sector
- Is able to delegate and be a good networker
- Will help the BGG plan for the future and ensure that the group functions within the parameters of the constitution



Is this you?

If so, please contact a committee member or talk to us at the AGM.

Please help us with our Fundraising Vote here for £500



Bev Fowlston has been busy fundraising for the Group. One possible source of funds comes from Skipton Building Society's Grassroots Giving Initiative. The Initiative has received over 700 applications from community groups, clubs and organisations across the UK. Bev was clearly able to demonstrate the BGG's positive impact in the community as we have been shortlisted for the allocation of funds.

Our profile has now been uploaded to the www.skiptongrg.co.uk website. This is where we all come in to help. We need to get as many votes on this website that we can—it's quick, you simply click in our geographical region 'East of England' and click another button to vote for Bedfordshire Geology Group. We need to get the most votes in our region by October 14th to get a grant of £500. Tell all your friends to vote for us.

The winners will be announced in November so fingers crossed!

Committee Member profile

Derek Turner, BGG Group Secretary



Derek Turner has lived and worked in the countryside of Hertfordshire and Bedfordshire for most of his life and has long appreciated the numerous ways in which the underlying rocks affect the environment and economic activity.

He often visits the spectacular Pegsdon Hills and is frequently found engaged in a variety of conservation tasks. He lives nearby in Shillington where the coprolite boom of the late 1800s had a major impact on the area. He is on the Parish Council, runs the local history society and does his best to keep the local pubs in business!

Derek stepped up to join the BGG committee as Group Secretary at the AGM in 2015 and has established excellent co-ordination, administration and communication within the group and beyond.

Thank you Derek for keeping the committee and members in check!

Here's the BGG Committee

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Newsletter compiled and edited by
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If you wish to include an article, photo or share your geological interest in the next issue, then please contact me by email at henriettaflynn@btinternet.com

Hope you enjoy the read!

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