

Buckinghamshire Geology Group

Newsletter No. 29 August 2017

'Geological Collections work at the Museum' –Dr. Jill Eyers

Ian Hudson and Jill Eyers have been volunteering their time to work through the the backlog of geological offers to the Bucks County Museum. The collections are stored at the Museum's Resource Centre at Halton, near Wendover.

Mike Palmer (Keeper of Natural History and Geology) is very keen to get all items registered in the collection's computerised catalogue. There is a long backlog of items needing to be unwrapped, identified and made ready for recording



Photo above shows Ian Hudson working through one of the specimen trays.

A surprising find for was a 1992 box from Pitstone Quarry. This was a rescue mission to the final faces of this quarry prior to filling – The surprise was to recognise my own handwriting as I was involved in this rescue mission, which I had totally forgotten about.

Jill Eyers

Geology of the Jurassic Coast. Talk by Simon Penn - 9th March 2017

Members were treated to a very interesting talk on the geology of the Jurassic coast by Simon Penn. He also described in detail how he painstakingly re-assembled part of a *Metriorhynchus* skull, a marine crocodile, from fragments found in the Oxford Clay in North Bucks (see previous newsletter).

Simon grew up in Bucks where he gained an enthusiasm for collecting fossils. Encouraged by Mick Oates he went on to study Palaeobiology and Evolution at Portsmouth University and now works with New Horizons, an adventure learning charity, as a Palaeontology Tutor based in Swanage.

We look forward to seeing Simon when he is visiting Buckinghamshire again.



Photo above: Simon shows off a cast of an ichthyosaur during one of his school outreach sessions.

Rock and Fossil Day – Aylesbury, Saturday 25th March 2017

This year's Rock and Fossil day at the Bucks County Museum, Church Street, Aylesbury was a great success with numerous items of geological interest being brought in by the public for identification. Many thanks to Mike Palmer for putting together the displays and the following members for volunteering their time; Jill Eyers, Phil Clapham, Rachel Eastes, Graham & David Hickman.

We are always looking for ways to improve the event. Please send any feedback to Mike Palmer.



Fossil highlights – items brought in for identification- 25th March 2017



Five very well preserved fossil echinoids were among the many items brought into the Museum by members of the public to the 'rock and fossil day' for identification.

They were collected near Karachi on the Indus delta but unfortunately no further location

information was available.

Mick Oates was able to offer some comments and possible identification, he writes:

"three of them are identical Spatangoids and look like they could be the same species, the larger of the other two belong to the Order Clypeasteridae (Sand Dollars). As for identification to a generic level - more difficult, but the bigger flat one might be Clypeaster. The three Spatangoids might be Eupatagus.

If I had to guess an age, I'd go for somewhere around the Eocene, only because I have seen similar from that Period from elsewhere (including India). It would be much easier to come up with an opinion if there was a bit more information about the precise locality and even the rock formation(s). Nice specimens, though.

Mick Oates

College Lake BBOWT, Geology weekend. – April 1st and 2nd 2017

The Bucks County Museum and Bucks Geology Group manned a stand at the Berks Bucks and Oxon Wildlife Trust's (BBOWT) Geology Rocks! Weekend at College Lake.

Mike Palmer brought along a number of Ice Age fossil mammal bones, including a large limb bone (humerus) from a Woolly Mammoth and the lower jaw of a 'Cave' Lion, part of the County Museum's collection of over 1,500 fossils excavated from the College Lake site in the 1980s during the period it was being worked as the Pitstone Cement Works. (College Lake is now protected as a nature reserve)

Many thanks Mike Palmer, Jill Eyers and Ian Hudson who volunteered to man the BGG stand and who made this event a success.



Charnwood Forest field trip - A great volcanic day - 30th April 2017

Roy Cole led this field trip to Charnwood Forest in Leicestershire to look at some of the oldest rocks in England. Similar rocks are believed to lie in the basement, at depth, below Buckinghamshire.

Bradgate Park within Charnwood Forest is a protected area and no hammering is allowed on the outcrops. Weathering and algal growths result in the rock surface looking very similar and makes it very difficult to identify different lithologies. However, despite this the group was able to identify a range of Precambrian and Cambrian rocks.

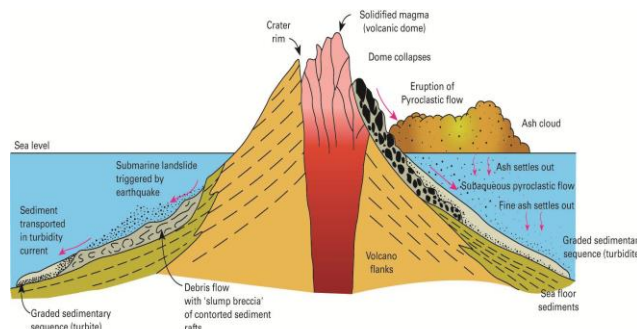


The oldest rocks exposed (estimated age of 560-566 Ma, Late Pre-Cambrian - thanks Bryan for the chart) belong to the Beacon Hill Formation. These crop out near the tower and are stratified and predominantly medium-grained tuffaceous rock, sedimentary in nature but with shards of volcanic ash, with fine graded siltstones and mudstones.

The Beacon Hill Formation changes laterally into very coarse volcanic breccias which are given the name 'Charnwood Lodge Volcanic Formation'. They have been interpreted as pyroclastic flow deposits and indicate that the volcanoes were located in the north-west of Charnwood Forest.

The plate-tectonic environment in which the Charnian rocks were formed can be partly

deduced from rock chemistry indicating that the magmas have compositions appropriate to their generation above a subduction zone. The palaeo-environment envisaged for the rocks of the Charnian Group is that of an island arc, the analog being the island of Montserrat in the Caribbean.



Cross-section through a Charnian volcano, based on the 'Montserrat' model (diagram from GA guide by Keith Ambrose 2014).

These rocks are also famous for the first fossils in the Charnian strata found by schoolboy, Roger Mason, when out climbing near Woodhouse Eaves in 1957. Since then, several more fossiliferous localities have been found in Charnwood Forest. But my favorite rocks are the igneous diorites - Oh, these lovely "equigranular" diorites, with a highly distinctive mottled pink plagioclase feldspars.

Everyone enjoyed themselves and wanted to come back and look at the unconformity down the road next time!



Roy Cole

Minutes of Annual General Meeting

held on Saturday May 27th 2017 at the Olney Centre, High Street, Olney

Present

Julia Carey, Carol Clapham, Phil Clapham, Jill Eyers, Michael Howgate, Ian Hudson, Michael Moore, Bryan Moseley, Mike Palmer (minutes)

1 Apologies

Trish Carter, Roy Cole, Mike Farley, Graham Hickman, Jill Loose, Mick Oates, Rodney Sims.

2 Minutes of previous AGM, 26th May 2016

Published in BGG Newsletter No 27 (December 2015) and available at

http://www.bucksgeology.org.uk/pdf_files/BEHG_Newsletter_July_2016.pdf

Agreed as a correct record. Mike noted that following the suggestion at last year's AGM, the Group had officially changed its name from the Bucks Earth Heritage Group to the Buckinghamshire Geology Group at a Special General Meeting on 28th June 2016.

3 Membership report

Julia reported that membership currently stood at 25 and comprised both current members renewing along with some new members. Mike noted that this was an improvement on the 16 members recorded at the AGM in 2016.

4. Review of the previous 12 months

4.1 Conservation

Jill noted that conservation work had been low key this year due to a number of key sites transferring to new management organisations with work mainly comprising initial discussions. Jill met Mark Purmann-Charles, MK Parks Trust, at Linford Quarry for an advisory meeting, ran two geology training days for 40 volunteers at BBOWTs College Lake nature reserve, undertook a reconnaissance to Stone Gravel Pit and met with the Thornborough and Coombs Woodland Enterprise Trust.

Jill noted that the SSSI periglacial features at College Lake were in need of clearing overhanging debris. Concern was expressed over vegetation causing possible root damage. Jill to look into this.

Julia noted that Taplow Pit was now very overgrown. It was suggested that a number of conservation days be scheduled for later this year and next year. To be discussed at the next committee meeting, prioritise and then to approach site owners for permission.

Thanks were given to Roy Cole for providing access to Buckingham Sand Pit for Simon Price as part of his PhD work at Cambridge University. Simon recorded a number of sections and wrote an article for the Group's newsletter as a result. It was noted that the Sand Pit is a site that the Group would like to work more closely with the owners, AVDC, to make more accessible

4.2 Field Meetings and Talks

Meetings held since the last AGM include:

2016

- Ivinghoe Beacon geological and archaeological walk, Jill Eyers, 28th May
- East Burnham Quarry visit (a recently opened gravel quarry north of Slough), Graham Hickman, 30th July
- Rock Picnic at Coombs Quarry held jointly with the Thornborough and Coombs Woodland Trust and Julia Carey and Roy Cole, 7th August
- Geologists' Association's Festival of Geology. Several members helped man a BGG stand, 5th November

2017

- Hands-on Fossils workshop, Bucks County Museum Resource Centre, Jill Eyers. 11th February. The plan is to make February workshops exploring different aspects of geology an annual event.

- The Geology of the Jurassic Coast talk by Simon Penn, of Wide Horizons Adventure Learning Charity, 9th March. Simon, who grew up in Bucks, previously helped out with a number of Rock & Fossil Days at the Museum
- The Annual Rock & Fossil Day at Bucks County Museum, Aylesbury, organised by Mike Palmer with a number of BGG members kindly helping out on the day
- BBOWTs Geology Weekend at College Lake, 2nd April. Mike Palmer took specimens and displays relating to the Ice Age finds from the former Pitstone Cement Works (now College Lake nature reserve) while Jill Eyers and Ian Hudson manned a BGG stand
- Dinosaur Egg Hunt event at Coombs Quarry, 15th April run by Jill Eyers in conjunction with the Thornborough and Coombs Community Woodland Enterprise Trust
- Charnwood Forest out-of-county field trip led by Roy Cole, 30th April to see our closest outcrops of Cambrian and Precambrian outcrops. The plan is to include at least one out-of-county trip each year in future programmes

Jill also noted that she and Ian had been carrying out a number of id sessions with Mike at the County Museum Resource Centre working on a large backlog of geological offers to the Museum's collection. If anyone else would like to join in contact Mike Palmer at the County Museum

4.3 Newsletter and Website

Mike reported that newsletter editor, Graham Hickman has now moved out of the County and is standing down from newsletter duties after the issue in which these minutes will be published. Mike noted that Graham has been producing excellent newsletters for the Group for the last nine years. All present expressed their thanks for Graham's efforts, both with the newsletter and also his positive input to other areas of the Group's activities. Julia, Mike and Phil plan jointly take up the role of newsletter production beyond this issue.

Mike noted that despite leaving Buckinghamshire, Graham has kindly agreed to continue managing the website. Members may well be aware that our website was hijacked by a Christian Louboutin replicas outlet. This has now been removed, however, our front page hasn't, as yet, returned. The website can still be accessed by typing in 'bucksgeology', clicking on any page that is listed as www.bucksgeology.org.uk and then using the tab options at the top of the resulting page to navigate around the site. Normal service will, hopefully be resumed shortly.

Mike also noted that Jill had set up a Bucks Geology Group Facebook page which all present considered a positive move.

5 Treasurer's Report

Jill circulated a combined Income and Expenditure Accounts (attached) for the year ending 31st April 2017 (see attached)

6 Election of Officers

Mike noted that Roy Cole had stood down from his position on the committee due to ongoing work commitments but that he still planned to play an active role with the Group.

The following members were elected/re-elected en bloc, as detailed below

Officers re-elected

- Chairman – *Mike Palmer*
- Secretary (acting) – *Mike Palmer*
- Vice Chair and Membership Secretary – *Julia Carey*
- Treasurer (acting) – *Jill Eyers*

Other Committee members re-elected

- Webmaster (out-of-county) – *Graham Hickman*
- Newsletter Editors – *Julia Carey, Phil Clapham and Mike Palmer*
- Committee members - *Philip Clapham, Jill Eyers, Ian Hudson, Mick Oates (out-of-county), Judith Stanton*

7. Any other business

Julia expressed concerns over the increasingly lower priority given to geology by Natural England. This, in part, was due to the organisations funding and staffing reductions. In particular Julia noted the poor representation of and input to SSSIs. The poor condition of the faces at College Lake as a good example of this. Julia encouraged members to mention these concerns with Natural England as and when opportunities arise.

Mike Howgate suggested circulating BGG leaflets to local WEA classes and U3A groups. To be discussed further at the next committee meeting

8. Date of next Meeting

May 2018 – date and venue to be decided nearer the time.

Buckinghamshire Geology Group		
Income and Expenditure Account for year ending 31st April 2017		
Income:	£	£
Book Sales	30.00	
Membership	260.50	
Donations	10.20	
		<hr/>
		300.70
Expenditure:		
UK RIGS subscription	10.00	
Insurance	109.30	
Materials & equipment	22.00	
Exhibit	17.50	
Web Domain and Hosting	129.17	
AGM 2016	42.20	
AGM 2017 (hire)	18.50	
Talks	90.00	
Site travel	27.00	
Events (materials)	21.90	
		<hr/>
		487.57
Excess of Expenditure over Income		<hr/>
		186.87
		=====
Opening Bank Balance (31 st March 2016)		<hr/>
		£5479.08
Less Excess of Expenditure over Income		186.87
		<hr/>
Balance accounted for:		£5292.93
Gain on account not accounted for:		£15.28
		<hr/>
Balance as per Bank Statement (31st April 2017)		<u>£5308.21</u>
Prepared by J. Evers 24.05.2017		

End of minutes

Conservation work at Great Linford - Saturday June 3rd 2017– Jill Eyers

Jill reports back on a conservation work done by volunteers and Milton Keynes Parks Trust.

Several parts of Great Linford have been designated as a Local Geology Site. The designation includes the Arts Centre, the church, the Old Quarry and Great Linford Stone Circle.



The Stone Circle (photo above) has an amusing origin. When drains alongside the canal were dug, hard layers of Blisworth Limestone were struck. Large blocks were removed to allow the work to go ahead, but as their removal was costly and not part of the original plan, they were simply left in a large pile at the side of the canal. The solution was imaginatively undertaken to construct a feature with the stones – hence the stone circle which is now a well-known and loved local feature.

Behind the stone circle is the site of the Old Quarry. Blisworth Limestone was extracted here and used as a building stone.

The Old Quarry had become very overgrown and the Parks Trust thought that more should be made of this amenity for leisure, education and wildlife. Local volunteers were enticed in for the hard graft and Bucks Geology Group invited to assist. Jill went in as our representative helping clear the mass of vegetation, felling young trees and gradually uncovering the rock sequence.



The photo above shows one of the faces cleared in the Old Quarry, the next task is to measure and record it. It was a great pleasure to be invited back to Great Linford by the Milton Keynes Parks Trust.

Jill Eyers

Fossil workshop at Halton - February 2017 led by Mike Palmer & Jill Eyers

The morning was very successful with 16 people enjoying a hands-on session with one of the best loved topics in geology – fossils.

The session started by thinking about the answer to an important question 'What is a fossil?' We then looked at a variety of fossils to see how they were preserved. Going through everything from original bodies, to imprints, to moulds, to replacements in various materials including quartz, calcite and pyrite.

From there it is really interesting to look at some groups in particular and decide how they lived. The question 'what is the body designed to do?'

To whet your appetite – just take a look at this lovely ammonite. Cut open it reveals much about the animal, including how it lived and what happened to it after death. What story do you see?



Saturday June 3rd 2017– Burnham Beeches geology and hydrology

Graham Hickman and Helen Read led this joint event for the Reading Geological Society.

There is a very strong interplay between the geology, the hydrology and the subsequent natural habitats in Burnham Beeches and the trip explored these themes.

A full write up will be available in the Reading Geological Society [Newsletter](#), in the mean time highlights from the trip are captured here.



The group examined the gravels from the Winter Hill terrace in the small quarry and found a number of interesting derived fossils preserved in flint.



The face of the quarry has been cut back about 1m over the last 5 years and the group interpreted a possible ice wedge feature that had not been seen before (photo above – hammer for scale in centre)

The small streams seen within Burnham Beeches are typical of a number of streams along the southern edge of the Chilterns / northern edge of the Thames Valley. The streams are fed from surface run off and ground water stored in the terrace gravels and then run as ephemeral streams across the Lambeth Group clays before disappearing into the sinkholes which feed the Chalk aquifer.



The group was able to access and measure the water table in one of the observation bore holes which have been drilled at the site to understand hydrology and to monitor any impact from nearby gravel workings. Another threat to Burnham Beeches is the almost invisible small scale development, which cumulatively pile increasing pressure on the site. An example discussed was the laying on a sewer line which intersected and diverted shallow aquifers.

David Ward from Reading Geological Society summed up the trip well, “we have regular field meetings in all sorts of places with many aspects of geology but the range of subjects we covered at Burnham was far wider than most. I suspect that many members will be returning in the depths of winter to enjoy both the scene without tree foliage, but with increased flows in the streams...”

Graham Hickman

GA historic photographs of Buckinghamshire – by Mick Oates

The Geologists' Association, of which BGG is an affiliated society, has been famed for its field trips, run more or less since the association was founded over 150 years ago. Members used to travel by train, bicycle or charabanc to lots of the exposures and quarries in southern England, as well as more intrepid tours of European geology.

Keen photographers on these excursions made a pictorial record of the geology they saw, much as we do today. Luckily, some members were interested and diligent enough to keep their photographs, labelled, in albums which for many years were looked after by keen GA members, the Carreck family. When they felt unable to continue to care for this heritage, the whole collection was offered to the British Geological Survey, where it now forms a part of an even more comprehensive old geology photographic archive.

Being within easy reach of London, Buckingham

-shire and surrounding counties were a favourite destination, for example one of Bucks' SSSIs (possibly the smallest anywhere in the country) featured and is pictured below.



Photo of the Soulbury erratic boulder by E.R.Martin, a Leighton Buzzard resident. .

The so-called Geologists' Association Carreck Archive of photographs can now be viewed online here: <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/archives/GeologistsAssociation/home.html>

Membership Update

Just a quick reminder that BGG subscriptions are due for renewal at the end of December. Annual membership runs from 1st January. Individual membership is £7.50 and Family membership is £12 per annum. Membership is open to beginners and experts alike. With funding becoming harder to secure, we are ever more reliant on membership subscriptions to cover our basic costs such as Public Liability Insurance and website hosting costs. **We wanted to thank everybody who has supported us through 2017 by becoming paid up members.**

2017 Future Programme

Saturday October 7th 2017, 10:30am- – Walking in the Ivinghoe Hills, geology and landscape at a gentle pace suitable for all.

For Details contact Jill Evers: at (j.eyers@btopenworld.com) or call 01494 881325.

Saturday October 28th 2017, 10:30am- – Great Linford Geological Walk, guided walk 2km long focusing on the Jurassic Blisworth Limestone and fossils.

For Details contact Jill Evers: at (j.eyers@btopenworld.com) or call 01494 881325

Saturday November 4th 2017, 10:30am-4:30pm – GA Festival of Geology. University College London, Gower Street, London. WC1E 6BT. Free public event. Family friendly. The Bucks Geology Group is hoping to have an exhibit. www.geologistsassociation.org.uk/festival.html

Saturday November 11th 2017 2:30-3:30pm - The Geology of the Chilterns and the Possible Impact of HS2. Talk by Dr Haydon Bailey, Geological Advisor to the Chiltern Society and vice president of the Geologists' Association. Bucks County Museum. This is a joint meeting with the Buckinghamshire Archaeological Society.

Membership

Membership is due on January 1st 2017 please forward on membership fee to Julia.

Annual membership runs from 1st January. Individual membership for the 2017 calendar year is **£7.50** and family membership is **£12**.

A copy of the membership form is available on our website:
www.bucksgeology.org.uk/pdf_files/BGGMembershipForm2017.pdf

If you would like to join please complete and send the application form together with payment to:

Membership Secretary, Julia Carey, c/o BMERC. Place Service 9th Floor, County Hall,
Aylesbury. Bucks. HP20 1UY

email: jcarey@buckscc.gov.uk

Alternatively, you can pay your subscription direct to the **Buckinghamshire
Geology Group** account at: Lloyds TSB (White
Hart Street, High Wycombe) **Sort code: 30-94-
28 Account no. 00744003**

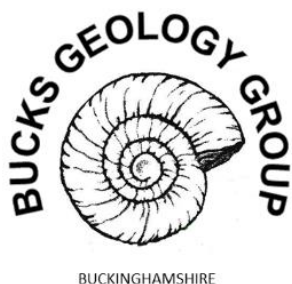
Confirmation of receipt will either be by email or by post. The BGG welcomes all new members.

*The Buckinghamshire Geology Group aims to record, conserve and
promote the geology of Buckinghamshire and Milton Keynes.*

Website: www.bucksgeology.org.uk

For general enquiries please contact:

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Affiliated to the Geologists' Association

