



Buckinghamshire Earth Heritage Group Newsletter No. 14 June 2011

Event: Aylesbury Town Building Stone Walk. Saturday 16th April 2011

One fine Saturday morning in April, with Graham Hickman as our guide, we spent a leisurely couple of hours strolling around Aylesbury Town Centre examining the building stones.

During the walk we looked at the fabric of the buildings, the statues, the town memorials, both old and new, plus the very pavement we walked on. We observed the different types of stone, local or otherwise, the quality of the material and the state of repair. All of which told a different story, not just of the individual building, but of the wealth of the town or of individual owners from times gone by.



Photo above: sarsen stone setts known locally as Denner Stone in abundance in old Aylesbury.

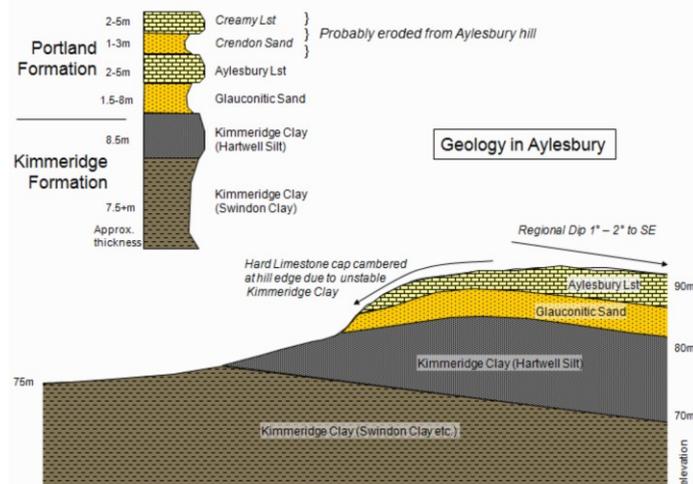


Photo above: far travelled Italian Carrara marble as a shop front facing.



Photo Above: local fossil gastropod (*Aptyxiella portlandica*) commonly known as the Portland Screw in the walls of the church.

Stopping on route at the break in the slope at Rickford's Hill, we considered the topography of the town and the fact Aylesbury sits on the younger, and harder, Portland limestone underlain by Kimmeridge Clays as illustrated below.



Aided with good weather, the two hours were spent in good company topped off with a slab of cake and a cup of tea upon our return at the Museum. My thanks go to Graham Hickman and Mick Oates for compiling the walk and on the day we were fortunate to have Mike Farley amongst us. Thank you to Mike too for additional information on the archeology of Aylesbury – it made the walk complete.

Lindsay Hiles

Talk following the AGM: 'The Geology of Wine' by Dr. Simon Grant
Saturday 21st May 2011

Following the AGM an intriguing talk entitled 'The Geology of Wine' certainly classes as creative thinking! In this case it brought smiles to peoples' faces as the AGM ended and the wine glasses were drawn nearer to one's seat. Dr Simon Grant, a geologist with BP, was clearly passionate about both geology and wine. He explained in detail how the terroir defined as the characteristic taste and flavour imparted to a wine by the environment in which it is produced, was responsible for the quality of the wine-citing chalk's excellent drainage qualities as an example. We were treated to a thorough geological summary of the main wine producing areas in France and parts of Germany and how the geology might inform the flavour.



Dr Simon Grant (photo on the left) described one experiment that a Californian vineyard owner, Randall Grahm, performed by added rocks directly to wine. He found that there was a big leap in pH which caused major changes in the

taste and texture of the wine. Unfortunately increased levels of heavy metals were also found in these rock-infused wines so they weren't drinkable but they do prove a point; that geology does affect the wine.

Of course Dr Grant had an experiment of his own...a comparison between Evian and Volvic water. To most of our astonishment it was not difficult to taste the difference between these two waters as one was far more metallic than the other. I won't divulge which one; I'll let you perform your own experiment. However, we then moved onto the over 18 tasting with 2 wines from France produced from vineyards a matter of



Photo above: members enjoying the tasting.



above) needed a second taste just to clarify.

(Photo below: Comparisons 1. Expression de Granite (left) and Expression de Gneiss (right).



We then moved up market and across country to Germany. Tasting a Riesling recommended by a discerning palate was eye opening! There was a delicate difference in these 2 wines and it was obvious that the geology was a mitigating factor here too as both wines were from vineyards that were in very close proximity, yet had differing underlying geology.

(Photo Below: Comparison 2). Donnhoff Schlossbockelheimer Felsenberg Riesling 2006 (Left) Donnhoff Oberhauser Brucke Riesling Spätlese 2006 (right)



Drawing the afternoon to a close was a slow process as many people really needed to taste the wines for a second time- just to be sure! Having given us a very informative talk and plenty of food for thought, Dr Grant left us with some light reading references, including my favourite www.wineanorak.com. **Kerry Hickman**

BEHG Minutes of AGM –Bucks County Museum, Aylesbury.

Saturday 21st May 2011.

1. Apologies: Tom Hose, Mick Oates, Mike Farley, Julia Carey, Linda Holmes, Trish Carter and Bryan Moseley.

2. Minutes of 2010 AGM: Mike Palmer presented the Minutes from the last AGM which were approved by members present. The matter arising from the last AGM was a question as to why the BEHG was not a member of the GA (Geologists' Association). The BEHG has since joined.

3. Membership: Lindsay Hiles gave an update on the membership which now stands at 47. Income from memberships during the accounting period (March 2010 to March 2011) was £177. Lindsay, as Membership Secretary, is the point of contact for communicating to the membership.

4. Report on Previous 12 months

4.1 Conservation and field meetings: Jill Eyers described the activities the group has been involved in; 4 geological walks, 2 quarry visits, 3 outreach events - including hosting our own Rock and Fossil day. The group has also been involved in two conservation projects at Froghall SSSI and Northmoor Hill Nature Reserve.

4.2 Talks: Mike Palmer described the talks which the BEHG hosted during the last year and a number of others which members of the group have given. In his role as Keeper of Natural History Mike is scheduled to give lunch-time talks and these will be advertised to members.

4.3 Newsletters and Website: Graham Hickman updated the group on the 5 newsletters that were issued. He then described the improvements made to the website made during the last 12 months. The Buckinghamshire geology pages have been updated with the help of Mick Oates (geological information) and Clive Rodgers (photographs). Further progress towards W3C compliance has been made. Future plans are to enhance it with a 'clickable' geological map. Members are encouraged to send in geological questions or photos they think the group will find interesting.

5. Treasurers Report: Jill Eyers presented a summary of the Group's financial accounts for the period 31st March 2010 to 31st March 2011. Shown below:

	Receipts	Payments
Income:	£	£
Book sales	246.00	
Natural England	1150.00	
UK RIGS	340.00	
Oxford Geology Trust	350.00	
Membership	177.00	
Donations	2.88	
Expenditure:		
Materials and equipment		0.00
Fees and consultancy:		
Northmoor Hill site work		2850.00
Froghall site work		822.50
RIGS survey work (Natural England)		300.00
Geodiversity training event		410.00
Design, print photography, other sundries:		0.00
Insurance		106.78
Website		0.00
Membership Geologists' Association		33.00
	<u>£2265.88</u>	<u>£4522.28</u>

The group started with an opening balance of £2830.20 and ended the period with a closing balance of £573.80. The largest expenditure was for work on Northmoor Hill LGS and Froghall SSSI, 3rd party contractors were hired for much of the work requiring heavy machinery. The website hosting was also renewed for 3 years but will appear in next year's accounts. Joe Ibbett agreed to meet with Jill following the AGM to verify the accounts for the BEHG.

6. Review and approve changes to the BEHG Constitution: Mike Palmer summarised the two small changes which have been proposed to the Constitution which are required as part of the application to the Heritage Lottery Fund (HLF).

Item 10 sentence added: The income of the Group will be applied solely towards the organisation's objects and for no other purpose.

Item 14: 'suitable organisations' changed to read 'suitable non-profit organisations'.

Members voted unanimously to adopt these changes.

7. Proposed subscription fee rise (in 2012). £7.50 individual, £12 family request feedback:

Graham Hickman led the discussion regarding raising the subscription fee to cover Group costs such as insurance, website, GA membership. The members present voted unanimously in support of this proposal. Several members asked what was being done to increase membership; Jill replied that there would be an increased effort in the media if the HLF was successful.

8. Elect and re-elect officers: The current committee was elected for a term of two years in 2010, so there was no need for elections this year. Mike Palmer invited members who would be interested in joining the committee to consider attending the upcoming committee meeting.

9. AOB –

Funding: Jill Eyers described the HLF bid 'Rock and you' and how this project could bring significant funding to the group and that more volunteers will be needed to implement the ideas and elements of the bid. As the other future project 'Livelihoods in Chalk', with the Oxford Geology Trust (OGT), received an offer of lower funding from the Chilterns Conservation Board (CCB), the OGT withdrew. The BEHG, with partners; The Bedfordshire Geology Group and Hertfordshire Geological Society, have requested to the CCB that the BEHG take over leadership of this project. This would be integrated with 'Rocks and you' and involves looking at livelihoods linked with geology.

10. Date of next AGM - Saturday April 21st 2012.

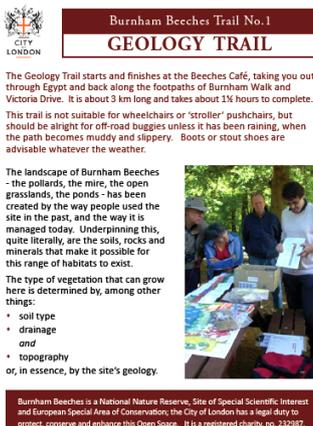
End of Minutes.

Event: Bucks Fly-Drive

Monday May 30th 2011

Unfortunately this event was cancelled as the leaders felt they had insufficient time to perform the reconnaissance trip. The intention is to reschedule later in the year or as part of the 2012 programme. Members with local knowledge who feel they could help with the running of this event are encouraged to contact Jill Eyers or Graham Hickman. The Bucks Fly-Drive was a favourite of the late Mike Henty who often led the geological drive across the county stopping to look at the rocks, buildings and scenery along the route.

The Burnham Beeches geology trail - New Leaflet available



The leaflet cover features the City of London logo and the title 'Burnham Beeches Trail No.1 GEOLOGY TRAIL'. It includes several paragraphs of text and a photograph of people at a table.

The Geology Trail starts and finishes at the Beeches Café, taking you out through Egypt and back along the footpaths of Burnham Walk and Victoria Drive. It is about 3 km long and takes about 1½ hours to complete.

This trail is not suitable for wheelchairs or 'stroller' pushchairs, but should be alright for off-road buggies unless it has been raining, when the path becomes muddy and slippery. Boots or stout shoes are advisable whatever the weather.

The landscape of Burnham Beeches - the pollards, the mire, the open grasslands, the ponds - has been created by the way people used the site in the past, and the way it is managed today. Underpinning this, quite literally, are the soils, rocks and minerals that make it possible for this range of habitats to exist.

The type of vegetation that can grow here is determined by, among other things:

- soil type
- drainage

and

- topography

or, in essence, by the site's geology.

Burnham Beeches is a National Nature Reserve, Site of Special Scientific Interest and European Special Area of Conservation; the City of London has a legal duty to protect, conserve and enhance this Open Space. It is a registered charity, no. 232987.

Members may be interested to learn that a new geological leaflet is now available to pick up at the Burnham Beeches Nature Reserve. The leaflet describes the geological trail and helps identify the different types of pebbles which can be found within the Winter Hill Gravels.

The BEHG logo and website appear on the back of the leaflet and advertise our activities. Members of the public who want more information are encouraged to contact us. The leaflet will soon be available to download from the Burnham Beeches website

Graham Hickman

Member's Letters

"Moving for a couple of years from the Chalk of the Chilterns to the volcanic rock hills of Western India brings me to ponder on the geological links between the two places I now call home. Both landscapes are built of Late Cretaceous rocks, yet they seem completely opposite in their appearance and formation. One is a pure white micro-detrital limestone, and the other is black basalt lava. But how could these be connected?"



Photo Above: black basalt lava hills, of Late Cretaceous age near Mumbai India.

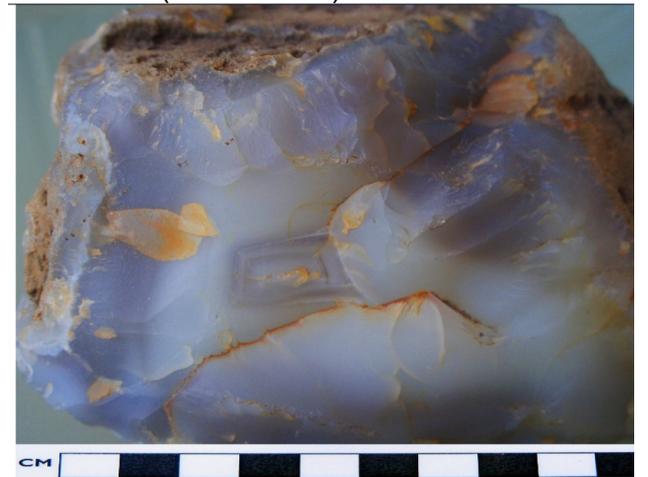
The answer may lie in the following theory of cause and effect. The eruption of the Deccan Traps, the basaltic volcanic formations of India, represents one of a few huge volcanic episodes recorded in the earth's geological history. During this period, a huge quantity of carbon dioxide was pumped out into the Late Cretaceous atmosphere, creating a degree of global warming far in excess of that we are currently anticipating. The atmosphere warmed up, all polar ice melted and the earth became far more tropical than before. Melted ice caused sea levels to rise, flooding large parts of the continental shelves of the globe. The areas of upland diminished with rising sea level, reducing both the land under active erosion and the potential for river-borne sediment to be washed out to sea. With vast areas of continental shelf now beneath a shallow, tropical sea, life flourished and blooms of algae were commonplace, dropping their skeletal plates to the seafloor as the essential component of the Chalk.

Mick Oates writes from India

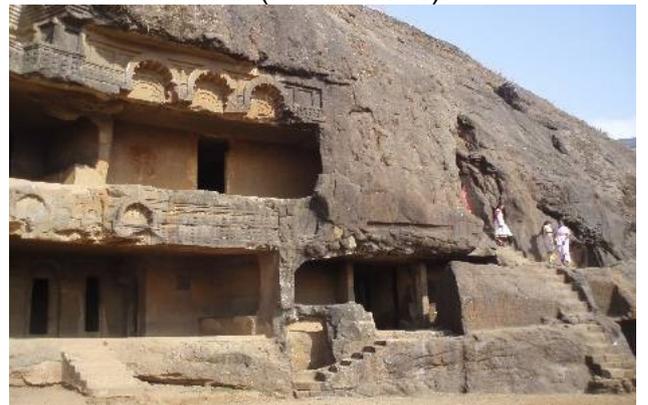
Ultimately, these eruptions spewed out enough lava over the earth's crust to fill the Black Sea twice. They have even been blamed by some for the mass-extinction at the Cretaceous /Tertiary boundary, by blackening the sky with clouds of ash and triggering acid rain on a global scale, making life in both the sea and on land perilous for many of the creatures of the time as illustrated below.



Out here in SW India, fossils are of course rare, confined to rarely-preserved fauna and flora from continental beds occasionally found between lava flows. But from the basalt itself, what were once gas bubbles have filled with minerals from silica-rich fluids in the lava, creating attractive agates, like this one which I discovered (Photo below) SE of Mumbai."



The Indian equivalent of West Wycombe Caves - a 2000 year old Buddhist temple carved from basalt (Photo below).



Mick Oates

Membership

Membership of the BEHG is open to anyone with an interest in geology. Membership subscription runs annually from January 1st. Individual membership for 2011 is £5 and family membership is £8.

A copy of the membership form is available on our website: www.bucksgeology.org.uk
If you would like to join please complete and send the application form together with payment to:
Membership Secretary, Lindsay Hiles 4 Phoenix Close, Leighton Buzzard Beds LU7 3YW email:
behg.membership@btinternet.com

2011 Future Programme

Saturday June 18th 2011, 11am - 4pm. Ice age to the tropics in Buckingham (Coombs Quarry and Buck Sand Pit). A joint meeting with the Open University Geological society. further details to follow. To book contact Jill Eyers at j.eyers@btopenworld.com or call 01494 881325 (mornings only).

Saturday July 2nd 2011, 1:00pm - 4:00pm. Burnham Beeches – Geology and Hydrology. Led by Graham Hickman. To Book contact Burnham Beeches management team on 01753 647358.

Saturday August 13th 2011, 10:00-3:00pm. Sand and fossils at Munday's Hill Quarry, Leighton Buzzard. A joint meeting with the Open University. Children 8 years or older welcome under parental guidance. To Book contact Sue Brown sue.brown@environment-agency.gov.uk

Saturday August 27th 2011, – All day. Recording the sequence at Home Farm Gravel Pit, Stowe. This intriguing glacial gravel locality needs interpreting. Jill and the other geologists will show how to do this and, hopefully, by the end we will have more to say about how these gravels formed. To book contact Jill Eyers at j.eyers@btopenworld.com or call 01494 881325 (mornings only).

Saturday Sept 11th 10am – 4pm. Milton Keynes Area walk – geological walk & Olney church yard building stones. To book contact Graham Hickman at hickmang@bp.com or 07763363266

Wednesday Sept 14th 12:30am – 1pm. Lunch time talk – 'Treasures from the Geology Collections' Mike Palmer, Bucks County Museum, Aylesbury. Email mpalmer@buckscc.gov.uk for more information.

Saturday November 5th 10am – 4pm. Festival of Geology at University College London, Gower Street, London WC1E 6BT. This free event held by the Geologists' Association is hugely popular. Geological talks, exhibits and vendors. The BEHG are planning to have a presence.

November, Indoor lecture. Joint meeting with Bucks Archaeology Society. Bucks County Museum, Aylesbury. Contact Mike Palmer at mpalmer@buckscc.gov.uk or call 01296 624519 for more information.

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

For general enquiries please contact:

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