



Cambridgeshire Geological Society

Newsletter
April 2021

Cambridgeshire Geological Society



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Editorial : Reg Nicholls (Chairperson)

Hopefully when this newsletter reaches you, we will be beginning the slow tentative steps towards more “normal” socializing. The Society is hoping to take advantage of this by proposing a series of local field trips led by committee members (see later in this newsletter). We shall complete this season of talks still in virtual mode and will advise on our plans for the

21/22 season of activities during the summer when we see how things pan out. We have a responsibility to ensure your safety and well-being at all times.

Our cyber activities have spiralled with over 60 people regularly watching our talks—our membership has grown through the year to 41 (I think a record!). Hopefully we can provide access to geological

content and information to satisfy our more diverse membership.

By September, it is hoped that we can return to the “physical” meetings again each month, interspersed with a virtual talk or two.

If you have any thoughts on any activities that might interest other members, please contact us through the website.

Local Field Trip programme

Assuming that the Pandemic allows, we are hoping to run the following local area field visits. We are not venturing further afield this year, but perhaps next year.....

Unless otherwise stated, travel to and from the start point is the responsibility of the participant. There will be limits on numbers. There is no charge for members -£3 for non-members (numbers allowing)

Please contact us on info@cambsgeology.org to express an interest in any of these events

Burwell Local Geological Sites, Castle Spring and Carter’s Pit (Clunch Quarry)

10am, 5th June: ~2.5 hrs

East Pit Chalk quarry in Cherry Hinton. A Local Geological Site
18:30, 4th July : ~2 hrs

The Fen Edge: Walk from **Swaffham Bulbeck to Reach**
09:30 6th October ~3 –4 hrs
As this is a one-way walk, we will time the start to coincide with the bus from Reach to Swaffham (then walk back)

Building Stones of Cambridge A guided tour of stonework on some buildings in the centre of Cambridge .

10 -12:30 am ,11th September

Nine Wells LGS (South of Addenbrook’s campus)
Date TBA. Evening event
A look at one of the more famous Chalk springs around the City

Celebrate the Fens Day event - trip around **Great Fen** sites
TBA between 18 -20th June
Half day duration

Book your place on our range of field trips by contacting us on info@cambsgeology.org

You may be able to sign up for more than one, if numbers permit.



The Fen Edge Trail
Walk: Cambridge to Fen Ditton
4.1 miles (6.6 km)
starting at
The Sedgwick Museum of Earth Sciences

I love the mix on this walk... the history, the landscape, especially the river!
Penny, GSI Cambs Geology Team

The route: 'from revolutionary science to riverside meadows'

Download the walk guide from www.fenedgetrail.org/camb-ridge-to-isleham/cambridge-to-stow

New addition to Fen Edge Trail: Sedgwick Museum to Fen Ditton

Our latest published walk starts at the famous Sedgwick Museum of Earth Sciences in Cambridge city centre and finishes in the attractive riverside village of Fen Ditton a few miles away.

The route is titled 'from revolutionary science to riverside meadows' and is a fascinating mixture of history, culture, science and geology. It takes in the exotic building stones of monuments and historic buildings (including Crick and Watson's local pub!), fossil-rich floors of the shopping arcades and

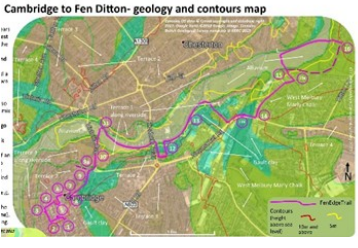
reclaimed waterside land whilst also passing sites where significant Quaternary research has revealed the complex geological history of the river valley.

Starting on the relatively high 2nd Terrace, the walk crosses the Gault and then the (lower) 1st Terrace, reaching the riverside band of alluvium. Back across the Gault, Barnwell Abbey lies 'up' on an area of 2nd/3rd Terraces whilst the Leper Chapel is back on the Gault. The rest of the walk is over the Marly Chalk, except

along the river, which is on Alluvium again (the lowest point on the walk at c.4 m, the river lying below 5m downstream from just above Jesus Lock).

Download the walk guide from www.fenedgetrail.org/camb-ridge-to-isleham/cambridge-to-stow

Many thanks to Penny Cogill for her great work in developing the walk. We hope to publish the walk from Castle Hill to the Sedgwick, taking in the west side of the city, later this year.

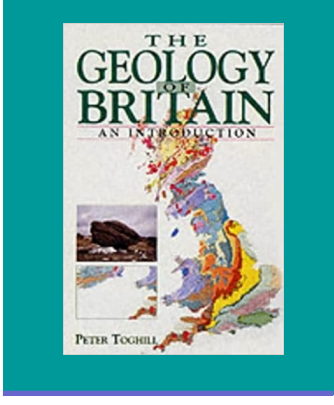


Book Review: The Geology of Britain by Peter Toghil

My general knowledge of the geology of Britain stems from the '70s, so in an effort to update I turned to Peter Toghil's introduction dating from 2000. This book covers all of the UK Cryptozoic and Phanerozoic eons in separate chapters. Each period is covered in detail

with excellent illustrations (many from Open University publications) with useful palaeo-geography coverage. Each chapter focused on the tectonic environment existing at the time showing what the world looked like then. The book is a little focussed on the Welsh

Borders (one of his research areas), but the geology and tectonics of every part of the UK is explained. No doubt in the 20 years since it was written, new interpretations of UK rocks have been published, but this is still a very useful guide to our geology.



Possible involution features typical of periglacial landscapes

Periglacial features exposed on Cambs building site

Visible from the cycle/footpath running behind the Marshall's car complex in the east of Cambridge, the building excavations associated with the Marleigh scheme exposed some features which have been interpreted as typical of a periglacial landscape—from

the late Devensian event. The whitish chalk (West Melbury Marly Chalk) has tunnels and channels infilled with gravels from the 4th



Cam river terrace. Some scraped glacial surfaces clearly show vertical plant rootlets running down from them. There also appear to be some channel infill cut into this horizon too. Unfortunately safety fencing and abundant mud prevented a closer look.

Monthly Society Meetings

All talks are virtual and start at 7.30 pm. All members will be sent Zoom links. Everyone welcome. We record these talks and they are available **TO MEMBERS** for a month afterwards.

Monday 12th April 2021 7.30pm

'The First Day of the Cenozoic: Insights from the Chicxulub Crater' Dr Auriol Rae, Dept of Earth Sciences, University of Cambridge

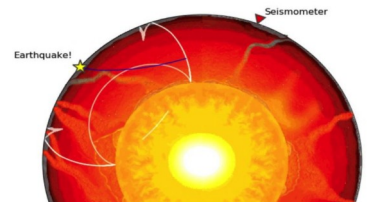
66 Million years ago, a 14 km-diameter meteoroid struck the Earth at approximately 20 km/s. This event had a profound influence on the history of life on Earth, and produced the 200 km-diameter Chicxulub Crater, located in present-day Mexico. This talk will look at the geological, climatological, and biological consequences of the K-Pg impact, with particular insight from IODP drilling of the crater in 2016. Furthermore, the wider significance of impact crater formation as a planetary geological process will be discussed.



Monday 10th May 2021 7.30pm

'The Mysteries of the Deep Earth' Dr Sanne Cottaar, Dept of Earth Sciences, University of Cambridge

This talk will outline the latest research on the structure and dynamics of the Earth's mantle and their role in Earth history.



Univ. Cambs: Earth Sci: Deep Earth Group

Monday 14th June 2021 7.30pm

'Île De La Réunion: Pitons, Cirques, Ramparts and Volcanoes' Steve Thompson

Île De La Réunion sits atop its very own, Indian Ocean, Hot Spot, being the top of two massive mid-ocean volcanoes, the dormant Piton des Neiges and the very active Piton de la Fournaise. Piton des Neiges has undergone caldera creation and subsequent collapse and, aided by the wet tropical climate, severe erosion, to produce a stunning topography of Pitons (Peaks), Cirques (steep basins), and Ramparts (near vertical crater walls). **Le Parc National de la Réunion**, which encompasses both volcanoes and covers 42% of the island, was elevated to World Heritage Status by UNESCO in 2010.



Photo: Source: Serge et Franc Gélabert. 'Terre D' Émotions'. ISBN: 978-2-918209-17-5

Building Stones of Cambridgeshire

Our local built environment can show us a wealth of local geological information: historic central Cambridge and surrounding ecclesiastic buildings are very often built from local stone and a study of these can help educate into what can be very subtle distinguishing features between some of these limestones. Dr Nigel Woodcock has given recent insights into the range and timelines of use of many of the local stones—Barnack, (+ other Lincolnshire Limestones), clunch, field stones and more exotics in a series of recent virtual talks. He has kindly given a short article to us for our website (www.cambsgeology.org).

A very useful guide to our local stone was published by Historic England / BGS. <https://www2.bgs.ac.uk/mineralsuk/download/EHCountyAtlases/CambridgeshireBuildingStoneAtlas.pdf>. Using these resources, you can find your way around the geology of these old buildings. *Or even better, sign up for our field trip!* If you find any other interesting stone, please let us know through our website.

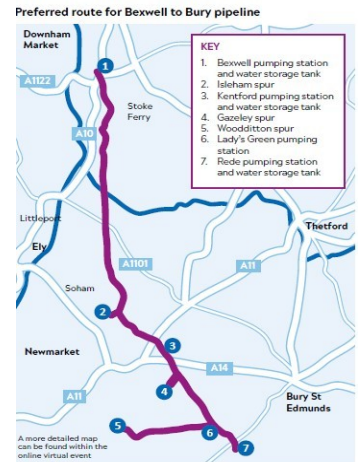


Ancaster Stone: a mid Jurassic limestone from Lincolnshire. Note "streaky bacon" appearance

Anglian Water Pipeline

We were invited recently to sit in on an information exchange by Anglian Water on the proposed major pipeline from Humberside to Essex that passes through eastern Cambridgeshire. The excavations will lay bare some interesting Pleistocene and Holocene sediments and may even touch bedrock in places.

AW have agreed to allow access to any sites of interest and to any cores or other ground testing results which occur along the route (shown to the right). The route passes within 250m of Shippea Hill geological SSSI - designated for its Holocene deposits, so those sections should be of great interest as the SSSI has been infilled now. Hopefully more information as the pipeline progresses.



Other Society Meetings

We have established a series of reciprocal arrangements with a number of other geology societies and we are able to join in to their **virtual events** (as can they to ours). We will send round the appropriate link for each talk from the following groups to our membership list .

The Geological Society of Glasgow

The Sedgwick Club (undergraduate society of Cambridge Earth Sciences)

The Friends of the Sedgwick

These invitations are for our **members only**—any links should not be shared outside of our membership list.

Friends of the Sedgwick

There are currently taking place as virtual events. See

<http://www.sedgwickmuseum.org/index.php?page=friends-of-sedgwick> for more information

Friends of the



Sedgwick Museum
of Earth Sciences

CNHS lecture meetings

The CNHS lectures are currently all virtual. Please see <http://www.cnhs.org.uk/> for more information



Local Fen Edge / Cambridgeshire museums (when opening permitted)

There are several museums with interesting fenland exhibits. Two that are now involved in the Fen Edge Trail are Burwell Museum www.burwellmuseum.ork.uk and Ramsey Rural Museum www.ramseyruralmuseum.co.uk. Out in the Fen Basin, are a number of other collections including those at Wisbech Museum www.wisbechmuseum.org.uk which has numerous natural history specimens including local fossils. Peterborough (see photo to right) and Ely museums also have local geology exhibits.

