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The Friends group gathered on the beach at Dawlish Warren, with the New Red Sandstone cliffs behind, during the Torbay Excursion in September 2017 (photo: Robert Anderson).

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Here we remind ourselves with great pleasure of the excursion we arranged to the Torbay area between 21st and 25th

September 2017. This was based on much local planning by our member, Peter Cox, who has now moved to the Torbay area. Margaret Sanderson, our Secretary, acted as Registrar for the trip, and local geological and cultural leadership was provided by Jenny Bennett and her husband, John. The party was based in the comforts of the Cavendish Hotel, Torquay. Local features visited included Kent's Cavern, Dawlish and Shaldon, Hopes Nose, Triangle Point, Goodrington Sands (Paignton), Berry Head, Shoalstone Point, and a geological boat cruise was also taken. In addition to covering their own costs of travel and accommodation, members also made voluntary subscriptions to Friends support of the work of the Sedgwick Museum.

The Sedgwick Museum of Earth Sciences, Downing Street, Cambridge CB2 3EQ

Opening hours: Monday – Friday 10 am – 1 pm and 2 pm – 5 pm Saturday 10 am – 4 pm

☎ (01223) 333456 ✉ sedgwickmuseum@esc.cam.ac.uk 🏠 www.sedgwickmuseum.org

✉ Friends of the Sedgwick Museum friendsofsedgwickmuseum@esc.cam.ac.uk

📘 <https://www.facebook.com/Friends-of-the-Sedgwick-Museum-508873495923670/>



Registered Charity (No. 1091393)



Editor: Peter Friend



Sub Editor: Vivien Brown

FRIENDS FORTHCOMING EVENTS

Unless otherwise clear, Friends Talk events will be held in the Department of Earth Sciences, Downing Site, Cambridge CB2 3EQ. The Doors to the Department will be opened at 6.15 pm for tea/coffee etc, and the Talk will start promptly at 7 pm. Please try not to be late, in spite of Cambridge traffic congestion, because our doors have to be locked at 7 pm.

Cars may be parked on the Site during these events. The Downing Site entrance for cars is from Tennis Court Road, opposite the back entrance to Pembroke College, through the "Visitor's barrier Gate taking a paper ticket. Identify yourself as attending a "Friends of the Sedgwick Museum" event, if requested by Security. After the talk, cars can leave the Site using the Exit barrier Gate at the other (Downing College) end of the Site, or pressing the exit button, as needed.

Members attending a Friends talk are asked for a donation of £2 each (or £3 for non-members).

Please note that events with a star * need to be pre-booked. Please use the standard booking form which is found on Pg.19 of this Newsletter and is also on our website

March – May 2018

Tuesday, 13th March

Talk by Dr Peter R. Sheldon. The talk will be held in the Department of Earth Sciences, Cambridge. Doors open at 6.15 pm, for 7.00 pm. *"Exceptional fossils - the surprising, significant and the strange"*.

Wednesday, 21st March*

Annual Celebration Dinner of the Birthday of Professor Adam Sedgwick (March 1785).



Dr Peter Sheldon

This will again be held in Downing College, Cambridge, where the friendly and comfortable surroundings, the available car-parking, excellent food and choice of soft drinks or good quality wines have been much enjoyed.



Our after-Dinner speaker this year will be Dr Douglas Palmer, who will be using slides to bring to life the great achievements of Professor Thomas McKenny Hughes who succeeded Adam Sedgwick in the Chair of Geology, and did much to arrange the building of the present Sedgwick Museum on the Downing Site. Along with his wife Carrie, they did much to develop the teaching of geology to women students, as well as to men. They also supported the foundation of the Sedgwick Club, which organised many field excursions and is probably the oldest student-run University geological club anywhere in the world.

Our Registrar for this event is Mrs Marjorie Veale. Her e-mail address is chrisandmarje@btinternet.com and postal address is: Mrs Marjorie Veale, 176 Green Drift, Royston, Herts, SG8 5BL. Please book with her for the Dinner by completing a copy of the attached Booking Form. The cost of the Dinner, per head, will be as follows: with Soft Drinks only, £39.00; with Fine Wines, £49.00. Please make out your cheque to "Friends of the Sedgwick Museum" and send it by post to Marje Veale.



The steady increase in price of our Sedgwick Dinners is of concern to the Committee, and we will be circulating a Questionnaire at the Dinner to find out whether Friends would like us to alternate a University College venue one year with a cheaper annual meal every second year in a different sort of venue. So please, help us by suggesting different venues, if you can, on the questionnaire

Tuesday, 24th April 6 pm Committee Meeting of Friends of the Sedgwick Museum.



Greensand Ridge Walk

Saturday, 26th May*

Excursion led by Peter Friend, will review the landscape and formation of Cambridge's distinctive Western Plateau. The Plateau has been formed by erosion of the deposits of the Anglian ice-sheet. The views from its erosional margins, and its incised internal valleys are special features of its landscape and the soils and settlements reflect this geological history.

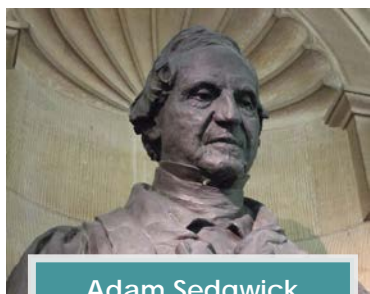
The party will meet up at the Madingley Road Park and Ride site, and will be picked up at 12 noon by a 29-seater bus (Carriageways Company).

Registered members should please bring sandwiches and drink for lunch. We will visit the American Cemetery and the Greensand Ridge near Sandy. Tea will be available at the Waresley Garden Centre. We will then return via the Chalk Edge at Orwell planning to be at the Madingley Park and Ride site by 6 pm.



The Registrar for this event will be Dr. David Peel, Holly Tree House, 21 Bell Road, Bottisham, CB25 9DF. People registering should do so by post using a Friends Event Booking Form where possible, and enclosing a cheque for £20 to cover the bus and other costs.

June – September 2018



Adam Sedgwick

Tuesday, 5th June*

Special Friends Concert to celebrate 200 years since Adam Sedgwick became Professor.

We have arranged a special Concert starting at 7.30 pm in the Emmanuel United Reform Church, Trumpington Street, opposite Pembroke College, Cambridge. Music will be provided by the Galliard Trio, who have suggested three musical episodes by Handel, Bizet and Saint-Saens, alternating with readings by Dr Douglas Palmer on three phases in the life of Adam Sedgwick. This evening of entertainment is being planned to celebrate the remarkable contributions of Sedgwick, and also to draw attention locally to the work of the Department of Earth Sciences in the University, along with raising support and interest in the Museum and its Charity, our Friends of the Museum.

We are planning to make tickets for our Concert available through an Agency in Cambridge, at a price of £16.00 which will include a glass of wine and light nibbles at the conclusion of



the evening. This will be an important event for the Friends as well as the Department and its Museum. We ask Friends to help by telling people about the event, and bringing people along to enjoy the Concert. Details of the method of buying tickets will be circulated when these have been finalised.

Wednesday, 13th June to Tuesday, 19th June*

Visit to the North-West Highlands of Scotland Geopark - including 5 days (14th-18th June) of varied geology.

This is one of most famous areas in Britain for the development of ideas on the formation of the Pre-Cambrian crust of Greenland and Scotland, the opening, closing and reopening of the Atlantic Ocean, and also the growth of the Caledonian Mountains. Dr Mike Tuke has been registering people as members of the group and his list is now closed with the party at optimal size. Individuals have made bookings in the Caledonian Hotel, Ullapool, and the local Geopark leader, Pete Harrison, will be leading the party. Any queries, please, to Dr. Mike Tuke (01480 457068 or miketuke@btinternet.com).



Tuesday, 26th June

Friends of the Sedgwick Museum, Ice-Age Exhibition 5 pm;
Annual General Meeting 6 pm.

Friends who live within convenient distance of Cambridge do kindly try to attend this meeting when the activities and finances of the Charity are discussed, and the new Committee will be up for election. We also plan to arrange a special opening of the Sedgwick Museum to see the new Ice Age presentation which has been strongly supported by a major

donation from the Friends.

Monday, 17th September to Friday, 21st September*

Excursion to the North Yorkshire Moors

Based in Whitby, and led by Peter Woods, a long-term member, who has led previous Friends visits to the area. He has been a major figure in the development of the Boulby Potash Mine and the new plans to develop the associated Polyhalite deposits, now known as the Woodsmith Mine. In addition to his work on the Permian evaporites at depth, Peter is planning a programme to cover aspects of the geology and cultural history of this classic area of Jurassic coastal scenery.



Please register your intention of joining this visit with Margaret Sanderson, sending her an initial deposit of £25, using a cheque made out to the "Friends of the Sedgwick Museum", along with a copy of the Booking Form included with this Newsletter. Margaret's E-mail address is Margaretsanderson285@outlook.com and her postal address is 157 High Street, Chesterton, Cambridge, CB4 1NL.

October 2018 - February 2019



Tuesday, 9th October

6 pm, Committee Meeting of the Friends of the Sedgwick Museum.

Tuesday, 23rd October

7 pm, Talk by Luke Grinham (Graduate Student, University of Cambridge) in the Department of Earth Sciences. *"Two legs or four? How did reptiles evolve into dinosaurs?"*

Tuesday, 13th November

7 pm, Talk by Callum D.J. Reekie (Graduate Student, University of Cambridge). *"Could the future of green, low carbon technologies, be based on 1 billion year old intrusive rocks in southernmost Greenland?"*

Tuesday, 27th November

7 pm, Talk by Dr Emma J. Liu (post-doc, and Director of Studies, University of Cambridge). *"Monitoring volcanoes, using unmanned aerial vehicles (UAVs)".*

Tuesday, 4th December* Christmas Party.

With entertaining talks by our undergraduate students from the Sedgwick Club, and a light supper arranged by the Friends' Committee, the party will be held in the Department from 6 pm to 8 pm. Please use our event booking form and send it with a cheque for £8.00 (for supper) made out to the Friends of the Sedgwick Museum, to our Registrar, Carol Franklin, 273 Wellbrook Way, Girton, Cambridge, CB3 0GL. Please try to bring one or two prizes for our raffle. Any surplus on donations received will add to our Museum support funds, and the more Friends who come, the more enjoyable this party will be.



Tuesday, 22nd January 2019 7 pm, Experimental geology by Dr Mike Tuke. *"Diagnostic properties of Common Minerals".*

Tuesday, 12th February 2019 7 pm, Talk by Frances Butcher (graduate student, Open University). *"Glacial Mars: Ice and Water on the Red Planet".*



WE NEED YOUR VOLUNTEER HELP!

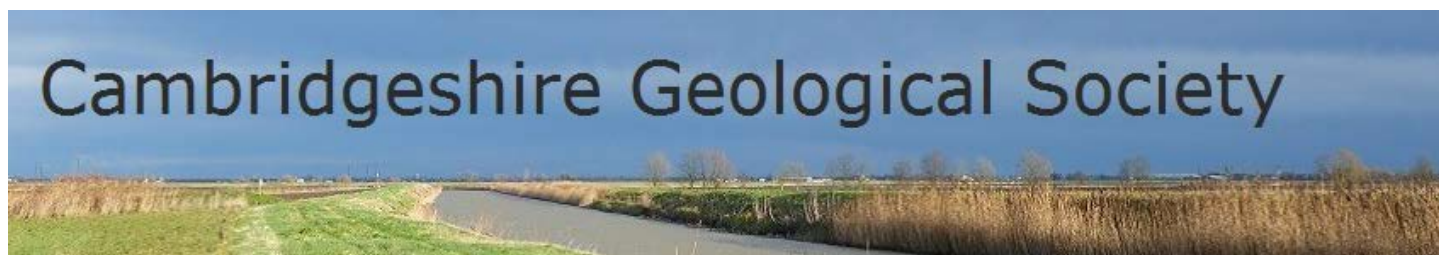
Our Volunteer Committee is in need of help from our Members. Our Treasurer, Dr David Peel, is planning to retire from his position in just over a year's time, when he will have carried out a very thorough job, re-arranging tasks over a period of five years. This is causing the Committee to consider better ways of arranging the running of the Friends in the future.

Please consider whether you think you can help us, by undertaking any of the tasks involved in keeping the Friends ticking over. As time passes, we need new blood and help in all sorts of different ways!

Please make contact with me if you can offer help.

Peter Friend
(e-mail: pff1000@cam.ac.uk)





CAMBRIDGESHIRE GEOLOGICAL SOCIETY FORTHCOMING EVENTS

The Club meets at the Friends Meeting House, 91-93 Hartington Grove, Cambridge CB1 7UB.

Lectures start at 19:30 (doors open at 19:00).

Visitors and Members are welcome.
Free to CGS Members, small charge for non-members.

Refreshments available.

There is a small car-park and some street parking after 19:00.
Please park with consideration for residents.

Monday 12th March, 2018 - "Isostasy: the ups and downs of the crust"

Dr Mike Tuke

This talk will include practical demonstrations and will cover the structure of the crust and upper mantle, the principles of isostasy, the isostatic effects of ice, sedimentation and volcanic activity.

Saturday 17th March, 2018, 09.30–12 noon – Ely Local History Fayre

The Society will have a presence at the Local History Fayre. Members will be on hand to introduce and explain how the underlying geology of the area can explain its geomorphological features.

Friday & Saturday, 6th and 7th April, 2018 – NatHistFest, Department of Zoology (next to the Zoology Museum, Cambridge). More information can be obtained at www.cnhs.org.uk

Monday 9th April, 2018 – "The geology of Madeira"

Dr Sergion Marques Teixeira, Madeira Fauna and Flora. This talk follows on from the excellent trip our Members took to Madeira in 2017 which was led by Sergio. We are pleased that he can visit us to describe the very interesting geology of this spectacular volcanic island, also known for its sub-tropical gardens and exciting walks.

Monday 14th May, 2018 – "The latest theories on dinosaur evolution"

Dr David Norman. To be confirmed.

**Cambridgeshire Geological Society
Local Group of the Geologists' Association**

Email: info@cambridgegeology.org

Fen Edge Trail: www.fenedgetrail.org

ICE AGE CAMBRIDGE – LATEST PROGRESS

Our sister organisation, the Cambridge Natural History Society, hosted an evening meeting on 8th February where a member of our Sedgwick Museum staff, Dr Douglas Palmer, gave a talk called Ice Age Cambridge. This took place in the new David Attenborough Building, off Pembroke Street, Cambridge. Our Friends Treasurer (Dr David Peel) has sent me (Peter Friend) some notes that he took during the meeting, and with thanks to him, I have edited these into a brief summary. Peter Friend, David Peel.

“Douglas started with particularly fulsome thanks to the Friends of the Sedgwick Museum for their highly valued support, especially vital now because of the financial strictures faced by the Sedgwick and most other museums in Cambridge.

Around half of his talk was concerned with setting the scene for our ice age exhibit – covering the historical development of ideas on a glacial theory to explain some of the features and fossil remains discovered in superficial deposits in Britain from the early 19th century onwards. Palmer summarised contributions made by key players from Agassiz, Buckland and Lyell and the importance of large fossil collections built up from the period by Sedgwick and the Sedgwick-Agassiz connection.

Moving to more recent time he set these discoveries, mainly relating to the last Ice Age in the context of a series of 52 large scale ‘glacial’ cycles in the past 2.6 million years as revealed in ocean sediments by oxygen isotope analysis. Much of the evidence on land of plant and animal remains prior to the past glacial cycle was disturbed by subsequent ice age events. The big question for the Museum in setting up a new exhibition has been how to make a coherent story from the mass of material held by the Museum. The decision was made to restrict the new exhibition to the last Ice Age.

The final part of the talk focused on describing some of the key exhibits around which the display is being built – the ‘Giant’s tooth’ from Coggeshall (1227AD), some of the findings on diggings around Barnwell Priory in the 18th Century, the Barrington Hippo tooth from excavations in the 19th century in coprolite pits underlying the Quaternary deposits, and the cold adapted plants and animals from Barnwell. This provided quite a tantalising glimpse of what promises to be an exciting story in the new display.

The audience were clearly enthused by the prospect of the new exhibit and were keen to discover when it would be opened. Douglas Palmer said the opening would be advertised widely. The opening date was still a little uncertain although all the material and text was already assembled. He suggested that the timescale for opening would likely be of the order of weeks not months from now, although the current delay, which concerned the lighting of the exhibit, was outside the control of the Sedgwick Museum”.

SOME AMAZING DETECTIVE WORK USING THE BUILDING AND ORNAMENTAL STONES (WATSON) COLLECTION

Dr Judith Bunbury, St. Edmunds College, Cambridge



Many people walk daily past the Watson Collection without giving the rocks a second glance. Others ponder which Italian Marble would look best in their bathroom! Here we pick out a few projects which have required closer examination of the range of British and Overseas building and decorative stones. Even the little notes in the comprehensive annotated catalogue, “available for delivery by train at 3 ½ d”, can be useful clues for tracking down the stone used in an old building or antique sculpture.

The earliest item we’ve examined is a carved Roman fragment, much plough damaged, that was found at Thwing in Yorkshire by Martin Millet of the Classical Archaeology Department and his team. The Watson’s marble samples from the British Isles quickly ruled out a local source for the material, and our interest became focussed on the Aegean region, where a number of white marbles of the right texture had been curated.

Armed with this insight, we took a sample of the statuary to the isotope lab of Earth Sciences where Hazel Chapman analysed the strontium for comparison with published values from the island of Paros in the Aegean. Eventually we concluded that the sample is most likely to have come from Paros, and been imported to Thwing as a fragment of the trade to Roman Britain of luxury goods from the Mediterranean.

Next, our Watson odyssey leads to Rome, and work with Jo Story of Leicester University on the Epitaph of Pope Hadrian. The large black inscription, installed in the Vatican at Christmas time in 799 AD by Charlemagne, was said to be carved into basalt. Jo arranged for a five-storey scaffold to be built in the portico of the Vatican so that we could ascend to take a closer look. At eye-level, the letters were clearly seen to be intertwined with distinctive Carboniferous coral fossils and ooids. Abandoning the basalt hypothesis, and back at the Watson Collection, we could see that the black limestone was typical of material found in Wales and Belgium, the latter being Charlemagne’s homeland.

So we took a trip to Namur, Belgium, and its quarries where we found a perfect petrological match. The Vatican even posted us a sample of the original stone, complete with an Angel Gabriel postage sample, for thin section comparison. Our hypothesis was verified by *in situ* X-ray Diffraction (XRD) performed by Professor Piacentini and his team from La Sapienza University in Rome. In essence, Charlamagne, enthroned emperor in 800AD, had prepared the magnificent epitaph, nearly 2 m tall, as part of his public-relations campaign. His supporters used the best that his Belgian homeland had to offer, and coupled it with the status of the black bronze used in Roman legal proclamations to cement his position as the ideal candidate. Next, Susie Nash of the Courtauld Institute took me to some discreet art warehouses in London, where a beautiful, life-sized, medieval Madonna statue was recumbent under fluorescent lights, for restoration. The puzzle was that the carving seemed excellent but the stone was of variable quality. Our investigations showed that the master sculptor, Andre Beauneveu had selected a sample of Jurassic building stone that contained one distinctively fine-grained band. He appears to have conceived the sculpture so that the Madonna's face and the Christ Child could be carved in exquisite detail from the fine-grained band, leaving the rougher stone of the rest of the sculpture in impressionistic detail.

Friends of the Sedgwick Museum

BOOKING FORM

Date/Event
Contact details – please print
Name(s)
Email
Telephone
Address
Additional Information Parking required? Special diet?

**Please enclose cheque for the appropriate amount made payable to
'The Friends of the Sedgwick Museum'
and send to the person indicated on the programme**

Enclosed cheque for _____

Signed _____

Details will be emailed to you unless you indicate otherwise

Please rest assured that your data will be used solely by the Committee and its Officers for the management of the Friends' activities and will not be passed to any third parties unless you have given permission for this to happen. Your consent to receive matter by email can be withdrawn at any time.



JOIN THE FRIENDS...

Membership is open to anyone!

Friends of the



Sedgwick Museum
of Earth Sciences

CONTACT DETAILS

The Friends of the Sedgwick Museum
Downing Street
Cambridge, CB2 3EQ

Department Reception:
01223 – 333400

Chairman e-mail: pff1000@cam.ac.uk

KEY WEBSITES:

FRIENDS OF THE SEDGWICK MUSEUM
www.friendsofsedgwickmuseum.com

SEDGWICK MUSEUM
<http://www.sedgwickmuseum.org/>

DEPARTMENT OF EARTH SCIENCES BLOG
<https://blog.esc.cam.ac.uk>

FACEBOOK - SEDGWICK MUSEUM
<https://www.facebook.com/sedgwickmuseum>

FACEBOOK – FRIENDS OF THE SEDGWICK MUSEUM
<https://www.facebook.com/pages/Friends-of-the-Sedgwick-Museum/508873495923670>

BOOKING FORM (ON-LINE)
<http://www.sedgwickmuseum.org/uploads/images/Whats%20On/Booking%20Form.pdf>

APPLICATION FORM

Please use block capitals and return the form, with your cheque, to the membership secretary.

Name (Dr, Mr, Mrs, Miss, Ms) *(delete as applicable)*

.....

Address.....

.....Postcode.....

Telephone.....

Email.....

Age (if under 18).....

Subscriptions (please tick)

- Individual: £12 per annum (Over 18 years)
- Family: £18 per annum (Two or more members living at the same address)
- Young £6 per annum (Members under the person: age of 18)
- Concession: £8 per annum (Full time students, unemployed or over 60s)

Membership is for one year and expires on 31st March. Members joining after 31st December will have the last quarter's membership included in the following year.

- I attach a cheque for £..... made payable to The Friends of the Sedgwick Museum.

Signed.....Date.....

Gift Aid Scheme. Because the Friends is a registered Charity (No. 1091393) we can claim an additional amount on any subscription or donation, provided that you are a UK tax payer. Your signature below will allow us to increase the value of each payment you make for the benefit of the Friends.

Gift Aid Declaration. I am a UK tax payer. I would like the Friends of the Sedgwick Museum to treat all membership fees and donations as Gift aid donations from the date of this declaration until I notify otherwise.

Signed.....Date.....

New strengthened Data Protection Regulations come into effect in May 2018, after which we will need your explicit consent to communicate with you by e-mail.

- Tick if you consent to the Friends contacting you by email to send you their Newsletter and keep you informed about their activities.

If you cease to be a member, in accordance with the Data Protection Act you may request us to erase all your contact information from our database by contacting friendsofsedgwickmuseum@esc.cam.ac.uk

Please rest assured that your data will be used solely by the Committee and its Officers for the management of the Friends' activities and will not be passed to any third parties unless you have given permission for this to happen. Your consent to receive matter by email can be withdrawn at any time.