



Deerness — in Saint Margarets Hope,
Orkney

In this issue.....

Forthcoming Friends' Events Pg.1-5

William Smith Museum mapping project Pg. 6-7

Forthcoming Cambridgeshire

Geology Club Events Pg.8

The Chalk of the Eastern Counties. Pg 9

Student placements Pg. 10

Booking Form Pg. 11

Friends' Application form Pg. 12

FORTHCOMING FRIENDS' EVENTS

Unless otherwise clear, Friends Talk events will be held in the Department of Earth Sciences, Downing Site, Cambridge, CB2 3EQ. Doors will be opened at 6.15 pm for tea etc., with the talk starting promptly at 7 pm. Because of the danger of Cambridge traffic congestion, please try not to be late, because all the external doors normally have to be locked at 7 pm.

Cars may be parked on the Site during the events. The Downing Site entrance for cars from Tennis Court Road is opposite the back of Pembroke College, through the "Visitor's" barrier gate and taking a paper ticket. After the talk, cars can leave the Site using the Exit barrier Gate at the other (Downing College) end of the Site and offering the paper ticket, or pressing the exit button.

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

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** www.friendsofsedgwickmuseum.com

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



UNIVERSITY OF
CAMBRIDGE

Registered Charity (No. 1091393)



CAMBRIDGE
CITY COUNCIL
Science
Services



Designated as an Outstanding
Collection

Editor: Peter Friend



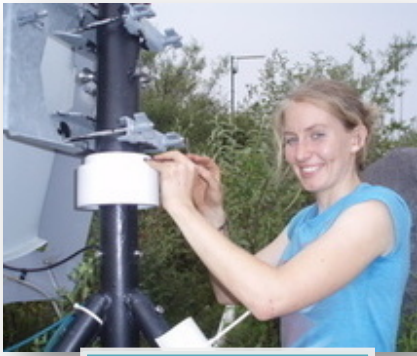
Arts & Humanities
Research Council



Heritage
Lottery Fund

Sub Editor: Alison O'Reilly

October – December 2015



Alex Maskell

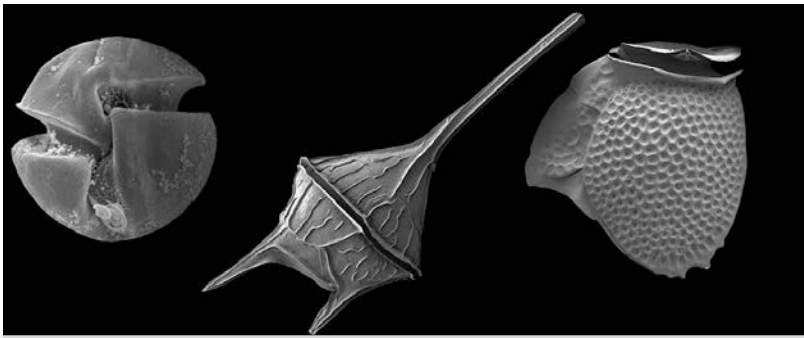
Tuesday 20th October 2015. Talk, doors open 6.15 for 7.00 pm in the Dept. of Earth Sciences by Alex Maskell, graduate student. *"Can we usefully and safely store carbon dioxide underground?"*

Tuesday, 3rd November 2015. Sedgwick Museum's Geological Mapping Display. From 5pm to 6pm, the Museum will stay open specially for Members of the Friends for a Demonstration of some of the Department's Geological Maps. Brief talks will

be offered by Dr Douglas Palmer and two of the professional conservationists who worked on the rescue conservation of the William Smith 1815 map which is now on permanent display in the Museum, with acknowledgement of the support the Friends is providing for this. (Some refreshment to be provided by the Museum)

Tuesday 17th November 2015. Talk doors open 6.15 for 7.00 pm in the Dept. of Earth Sciences by Peter Woods, who has been a leading figure in developing the deep mining of Potash Salts north of Whitby in North Yorkshire over many years. He is now a key advisor on a new Potash extraction project involving tunnelling some 25 km horizontally. He will discuss the geology, economics and engineering challenges of his geological career: *"The life of one geologist, in Diamonds and Potash amongst other things"*

Tuesday 24th November 2015. Talk, doors open 6.15 pm for 7.00 pm start, in the Department of Earth Sciences, by Nick Wiggan, graduate student.



Dinoflagellates (Class Dinophyceae) are microscopic and predominantly unicellular organisms

" My work to develop the use of microscopic fossils (Dinoflagellates) and their evolution, as a key to the understanding of the Jurassic."



Nick Wiggan

*** Tuesday 1st December 2015,**

6-8 pm, Department of Earth Sciences Friends' Christmas Party. This is always a popular occasion in our programme, thanks to the varied talks by students, describing their adventures during the year. Refreshments are also an important feature of the Party. Please consider bringing a prize for our fund-raising raffle.

Please register for the Party, using a copy of our booking form and enclosing a cheque for £7/head to cover the refreshments, or let us have £9 per head at the door, if you cannot register by Friday 27th. The Registrar for the event is Carol Franklin, 273 Wellbrook Way, Girton, Cambridge CB3 0GL, email <s_carol_f@yahoo.co.uk> (Note underscores email address)

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

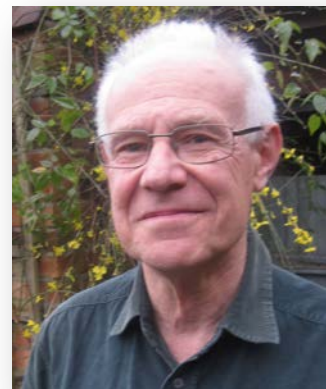
FRIENDS' FORTHCOMING EVENTS January to March 2016



Geology Professor David Hodell demonstrates how overlapping core samples are used to gather a complete history of the lake going back thousands of years.

Tuesday 19th January 2016. Talk, doors open 6.15 for 7.00 pm in the Dept. of Earth Sciences by Professor David Hodell, Woodwardian Professor of Geology. *"Ancient Civilisations and Climate Change"*

Tuesday 9th February 2016. Talk, doors open 6.15 for 7.00 pm in the Dept. of Earth Sciences by Dr. Mike Tuke is offering another of his remarkable and popular lab classes, this time, under the title of *"Acid, candlewax and matchsticks: a series of activities to illustrate the rock cycle"*



Dr Mike Tuke

Lab space is limited so please book at least a week ahead by telephoning Mike on 01480-457063. Please note that Mike has created a website full of information on his collection of educational activities (www.Earth-science activities.co.uk).

Tuesday 23rd February 2016. Talk, doors open 6.15 for 7.00 pm in the Dept. of Earth Sciences by Professor Eric Wolff, Royal Society Professor in the Department of Earth Sciences, University of Cambridge. UK Leader in writing the recent international report on *"Climate Change, Evidence and Causes"*. He will speak on *"Using ancient climates as perspectives on modern climate change"*.

*** Thursday, 24th March 2016.**

Annual Dinner: Celebrating the Birthday of Adam Sedgwick.

The 2015 Dinner was held in Downing College, with the support of Dr. Ken McNamara, Director of the Sedgwick Museum. People attending last year particularly commented on the quality of the food and drink, along with the pleasant and warm setting and the availability of car parking. So we plan to return again to Downing, where the Catering Manager has offered us that the ticket prices will be only a few percent higher than last year, which was lower than the year before! Members have asked that the Parlour meeting time before the Dinner is brought forward, so that there is more time for members to meet up and talk. We shall suggest to the College that people should be able to foregather at 6.30 pm, in very good time for Dinner at 7.30 pm.



Our Registrar for the event will again be Marjorie Veale: (176 Green Drift, Royston, Herts, SGB 5BL) (chrisandmarje@btinternet.com).

Please book with her by 14th March, sending a booking form (see page 15 of this Newsletter) containing details of any special dietary requirements, along with your cheque made out to the "Friends of the Sedgwick Museum" for £35/head (with Soft Drinks only), and £48 per head (with College Wines).

FRIENDS' FORTHCOMING EVENTS May to July 2015

* Saturday 14 May 2016.

"Finding out about Clunch, Cambridge's Chalk building stone".

The afternoon will start with a visit to buildings containing Clunch, within easy walking distance of the Department on Downing Site, Cambridge. We will then plan to visit Burwell on the Fen Edge, by bus, as we did in 2015. We will again visit the Burwell Museum and Castle, but focus this time on finding out more about the variations in the make-up of the local Burwell Rock (Clunch) and its quarrying in the village of Burwell.

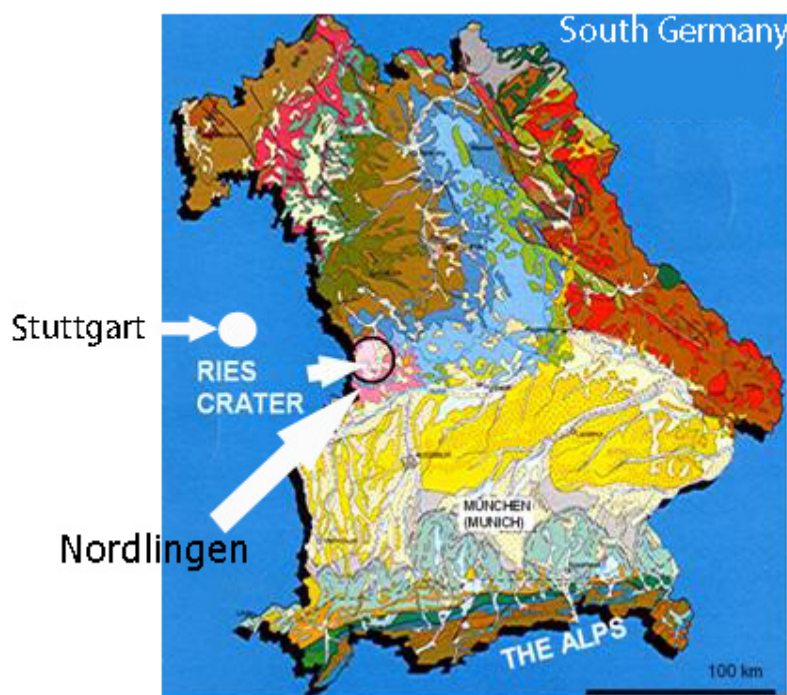
The Registrar for this will again be David Peel,

Holly Tree House, 21 Bell Road, Bottisham, Cambridge, CB25 9DF, dapeel@btinternet.com



* Monday 13-17 June 2016, Visit to South Germany

On the suggestion of our Joint- Presidents, Gidon Bahiri and Freya Normington, we are proposing to arrange five-days of activities in South Germany, between Stuttgart and Munich (Baden-Württemberg and Bavaria), The programme will be planned for 13-17 June, based in Nordlingen. Travel to and from the town will need to take place before and after these dates.



Special interests of the area are the Ries Meteorite Impact Crater with its diamond impact mineralogy and caldera structure, the fossiliferous Jurassic country rock (including the famous Solenhofen quarries and remarkable fossil collections along with sections of the Roman Empire Border Buildings (Limes), medieval castles, fortified towns, and very attractive botany and natural history.

The simplest travel plan appears to be to fly from Stansted to Stuttgart) and then make a roughly two hour train journey to the small and very attractive walled town of Nordlingen, where we hope to offer members varied accommodation possibilities.

The fares are likely to be of the order of £150 per head, return. We expect to offer members advice on travel and accommodation, as was done so successfully for the recent Visit to the Orkney Islands. To establish the amount of interest we ask people to send a Deposit cheque by the 31 December, for £50 per head made out to the "Friends of the Sedgwick Museum".

Please use the standard booking form (see page 15 of this Newsletter) to our Registrar for this trip who is, as so often before, Margaret Sanderson, 157 High St., Chesterton, Cambridge CB4 1NL, or e-mail margaretsanderson285@outlook.com

FRIENDS' FORTHCOMING EVENTS June to July 2015

* **Thurs to Sunday, 30th June-3rd July, 2016**

Long Weekend Visit to Bath.

Although we will follow our usual pattern of meeting on the Friday evening (1/7/2015) we have added an extra day at the beginning of the weekend to enable members to explore the rich diversity of the city. We will organise accommodation for two or three nights (Thursday/Friday & Saturday) and the programme will be as follows: Thursday or Friday arrive in Bath; Friday independent visits to the city; Saturday and Sunday covering the geology of the area. We aim to finish at 4pm on Sunday. Bath can easily be reached by train or car.



Joseph Mallord William Turner
The Avon Gorge: View towards the Bristol Channel, with Cook's Folly 1795-6

Geological topics that will be covered will be the use of building stones, including the famous Jurassic Bath Stone, its petrology, and the history of its quarrying and mining. We will also look at the way the geology has influenced the famous (Roman etc.) springs and ground-water systems, not to mention the landscape of the Cotswolds, the Avon Gorge, and the railway and canal. We shall also discover how William Smith, the "Father of English Geology", made fundamental contributions to our science in the area.

We are researching possibilities for group accommodation and will send the result of this to people who have registered. People will; of course be free to make their own arrangements. People who can arrive early enough will be encouraged to explore and use the attractions of Bath independently before our Friday evening meeting.

Margaret Sanderson has again kindly offered to act as Registrar (157 High St., Chesterton, Cambridge, CB4 1NL, or e-mail margaretsanderson285@outlook.com

Please register with Margaret, using the standard booking form (see page 15 of this Newsletter) and enclosing a deposit cheque for £25, made out to "The Friends of the Sedgwick Museum".

Please send this to Margaret by 31 December 2015.

WILLIAM SMITH MUSEUM MAPPING PROJECT



Geological Mapping: Stripping the Land Bare – an exhibition in the Sedgwick Museum to celebrate the bicentenary of the publication of William Smith’s 1815 geological map.

Today the Battle of Waterloo might be the best-known event of 1815 but geologically there were two highly significant events that year. The April eruption of Tambora in Indonesia was one of the most powerful volcanic eruptions known and produced worldwide climate aberrations, harvest failures and famine.

Much less dramatic but with great significance in the history and development of modern geology was the August 1st 1815 publication of William Smith’s magnificent map entitled *DELINEATION of the STRATA of ENGLAND and WALES with part of SCOTLAND; exhibiting the COLLIERIES and MINES; the MARSHES and FEN LANDS ORIGINALLY OVERFLOWED BY THE SEA; and the VARIETIES of Soil according to the Variations in the Sub Strata; ILLUSTRATED by the MOST DESCRIPTIVE NAMES.*

WILLIAM SMITH MUSEUM MAPPING PROJECT

At 8ft 6ins by 6ft, the map is even more impressive than its title, especially as it was produced almost singlehandedly by William Smith, a largely self-taught surveyor from a humble background in rural Oxfordshire. This was the first geological map of an entire country, which indicated the succession and relationship of rock strata below the ground surface.



The story of Smith's struggle to produce the map is a very 19th century one of personal endeavour with times of considerable hardship, including imprisonment for debt and plagiarism of his work by others but also one of belated recognition by his peers.

The copy of the map, number 'a91', finally signed off by Smith on January 23rd, 1816 is to be seen in the Sedgwick Museum and has been carefully conserved so that it can be on permanent display. It is probably the only copy on public display in the world (for further information see www.sedgwickmuseum.org and a leaflet available from the Museum Shop)

The accompanying exhibit of selected historical geological maps from the Museum's collection shows how this very technical kind of mapping developed from Smith's pioneering work through the 19th century. For instance, a field map from the 1820s of the complex geology of the Lake District, drawn up by Adam Sedgwick, Woodwardian Professor of Geology (1818 until 1873), shows his pioneering work in comparison with Smith's earlier work. For comparison with these historic maps, the exhibit also shows how geological mapping is still practised and taught to geology students in the Department of Earth Sciences in the University of Cambridge.

The Museum shop has a number of William Smith related items for sale ranging from copies of the map and its original accompanying memoir to tea towels.

Douglas Palmer

STUDENT PLACEMENT 2015

This summer the Friends have again provided the Museum with funds to employ three students to work for a month each on a Museum project. Two of the projects are still underway, as we write. Here we report briefly on the one project so far completed.

SUMMER PROJECT - RICHARD STOCKEY

My name is Richard Stockey and I'm a fourth year Geological Sciences student here at the University of Cambridge. This summer I have been lucky enough to spend four weeks working in the Sedgwick Museum of Earth Sciences, thanks to funding from the Friends of the Sedgwick Museum. I came to Cambridge as a biologist with a particular interest in evolution and am now specialising in palaeontology and climate science in the Department of Earth Sciences, with a master's research project focusing on the palaeoecology of the Burgess Shale.



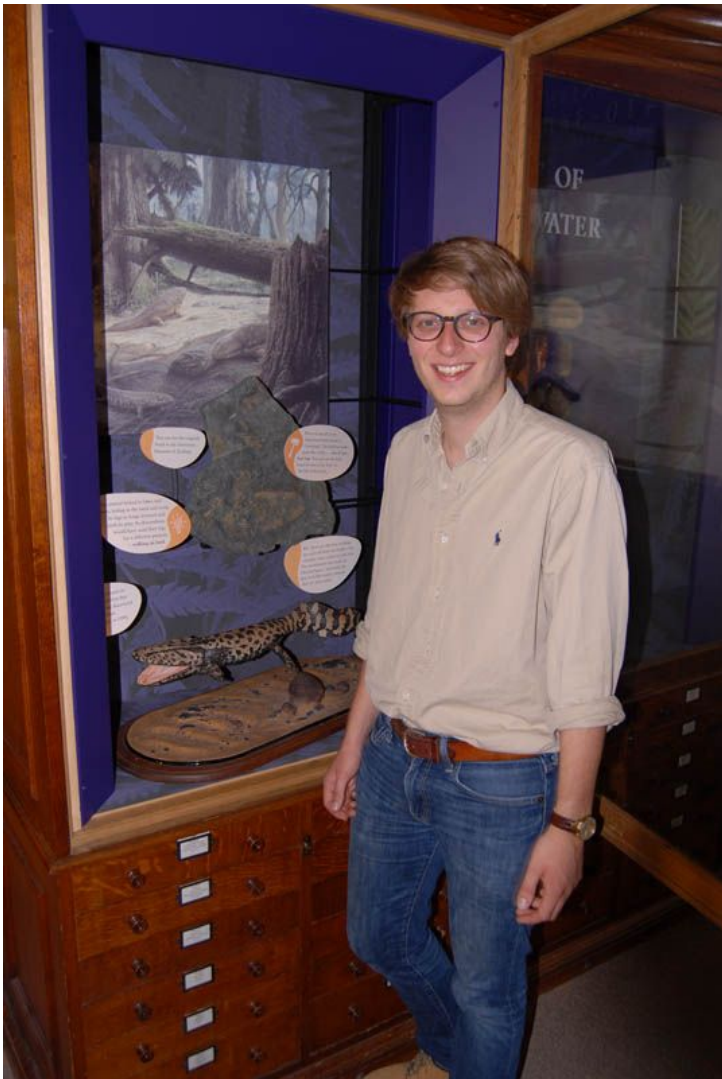
At the Sedgwick Museum my task has been to create a full inventory of the Oak Wing display cases. Following the redisplay and reopening of this part of the museum in 2002, there are over two thousand objects on display in the Oak Wing, all of which need correct labels and database records. I spent the first two weeks of my placement creating a spreadsheet survey of every object on display, beginning with extensive pre-existing work on this project by Matt Riley.

I spent my days going through the cabinets, confirming that the previous inventory work was still correct, searching for specimen labels and adding information for unrecorded specimens. I also worked on previously catalogued displays, such as historically important collections previously owned by Adam Sedgwick, William MacFadyen and Philip Cambridge.

SUMMER PROJECT - RICHARD STOCKEY

My second two weeks have given me the opportunity to experience other types of collections management work. The previously unnumbered specimens in the post-2002 Oak Wing display all needed to be numbered and recorded on the museum database in order to keep museum movement records up-to-date and make specimens available for visiting researchers. Each specimen has required labelling with the new number I have assigned it and has then been entered onto the database, along with any geographic, geological or historical information available to accompany it.

This has often meant transcribing the original field or collection numbers written by the objects' previous owners.



I have really enjoyed having the chance to experience some of the work that goes into managing museum collections. Working on the Oak Wing inventory has provided me with a great learning opportunity and I feel that I've gained a lot from my time here, both in terms of developing new skills and increasing my understanding of the collections.

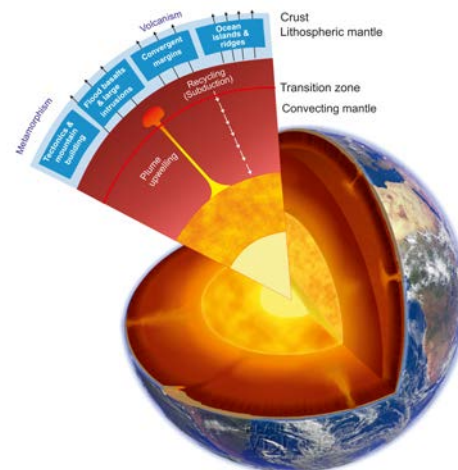
Thank you to the Friends of the Sedgwick Museum for making this project possible and to the museum staff for such an enjoyable few weeks.

Richard Stockey



CAMBRIDGESHIRE GEOLOGY CLUB EVENTS PROGRAMME

The Club meets at the Friends Meeting House, 91-93 Hartington Grove, Cambridge CB1 7UB. Lectures start at 19:30 and doors open at 19:00. Visitors and Members are welcome.



Monday 12th October 2015.
Earth's deep interior.

Dr Sally Gibson,
Department of Earth Sciences,
University of Cambridge.

Dr Sally Gibson



Monday 9th November 2015.
The geology of Greenland.
Dr Simon Kelly, CASP.

OTHER EVENTS OF GENERAL GEOLOGICAL INTEREST IN THE CAMBRIDGE AREA

Dr Simon Kelly

Saturday October 17th, 2015, 10am-4 pm
CAMBRIDGE MINERAL AND GEM SHOW.

Arbury Community Centre, Campkin Road, Cambridge CB4 2LD, Admission £1, under 8's free! Fossils, Gems, Jewellery, Meteorites, Minerals, Polished beads (www.eastanglian-mineral-show.com)

Saturday- Sunday, 23-25 October, 2015

Dr Mike Tuke will be running a Course. At Madingley Hall (please phone for details) from 23 to 25 October 2015. There is a fee for this Course.

The title is "Geological disasters: earthquakes, volcanic eruptions, landslides and megafloods"

THE CHALK OF THE EASTERN COUNTIES. GEOLOGY, LANDSCAPE AND MAN

This one-day meeting (Saturday, 28th November 2015) arranged by Geo-East and Natural England, with the support of other local bodies, is aimed at people with general geological interests. The programme involves ten speakers, covering a wide range of topics, and will last from 9 am (registration) until 4 pm.



A fee of £25 will cover some refreshments, and written summaries of the talks. The Meeting will take place in Hills Road 6th Form College, Cambridge CB2 8PE.

Please book by sending a cheque (made out to Geo-East) for £25, to: Naomi Stevenson, West Anglia Team, Natural England, Suite D, Unex House, Bourges Boulevard, Peterborough PE1 1NG, and enclosing details of your name, E-mail address, postal address, and telephone (landline and mobile). **Places are limited in number.**

BY TRAIN AND BOAT AND PLANE TO THE ORKNEYS



Group taken at the Standing Stone of Stenness

This year the Friends travelled by train, boat and plane to the beautiful Orkney Islands. We were led by John Flett Brown a local geologist whose knowledge of the area was evident in the enthusiasm with which he led the group. We were advised that the local weather was changeable and that all four seasons could be experienced in one day – well, we managed Summer, Spring and Autumn within a few hours and layers of clothing were taken off, put on, then off again.

The Orkneys are wonderfully atmospheric with mists rolling in over the sea, adding a special kind of magic to the truly amazing Archaeology. We visited a range of sites – from the majestic Ring of Brodgar to the more homely Skara Brae and many more.

But, of course we had gone to see the geology, and the area has that in abundance.



BY TRAIN AND BOAT AND PLANE TO THE ORKNEYS

The Islands have a complex geological structure, but the majority of the rocks that we saw were Devonian sand and flagstones, formed in the Orcadian basin. The Sandwich Fish beds were a particular impressive feature that we identified in coastal outcrops and an inland quarry - where the sounds of ringing geology hammers were intermingled with cries of the disappointment when no large fish fossils emerged! The walk along the spectacular cliffs of Yesnaby provided the opportunity to examine the sandstones as well as climbs for the more adventurous!



Many more sites were visited, geology examined and explained – but the most unusual and dramatic was The Gloup – a collapsed sea cave leaving a narrow deep cleft separated from the sea by a land bridge. No trip to The Orkneys would be complete without a trip to a distillery. We were given a guided tour of the complex and sampled a wee dram ... and very good it was too. I will gloss over the evening of Scottish Dancing, although it is something that won't be easily forgotten!

Margaret Sanderson

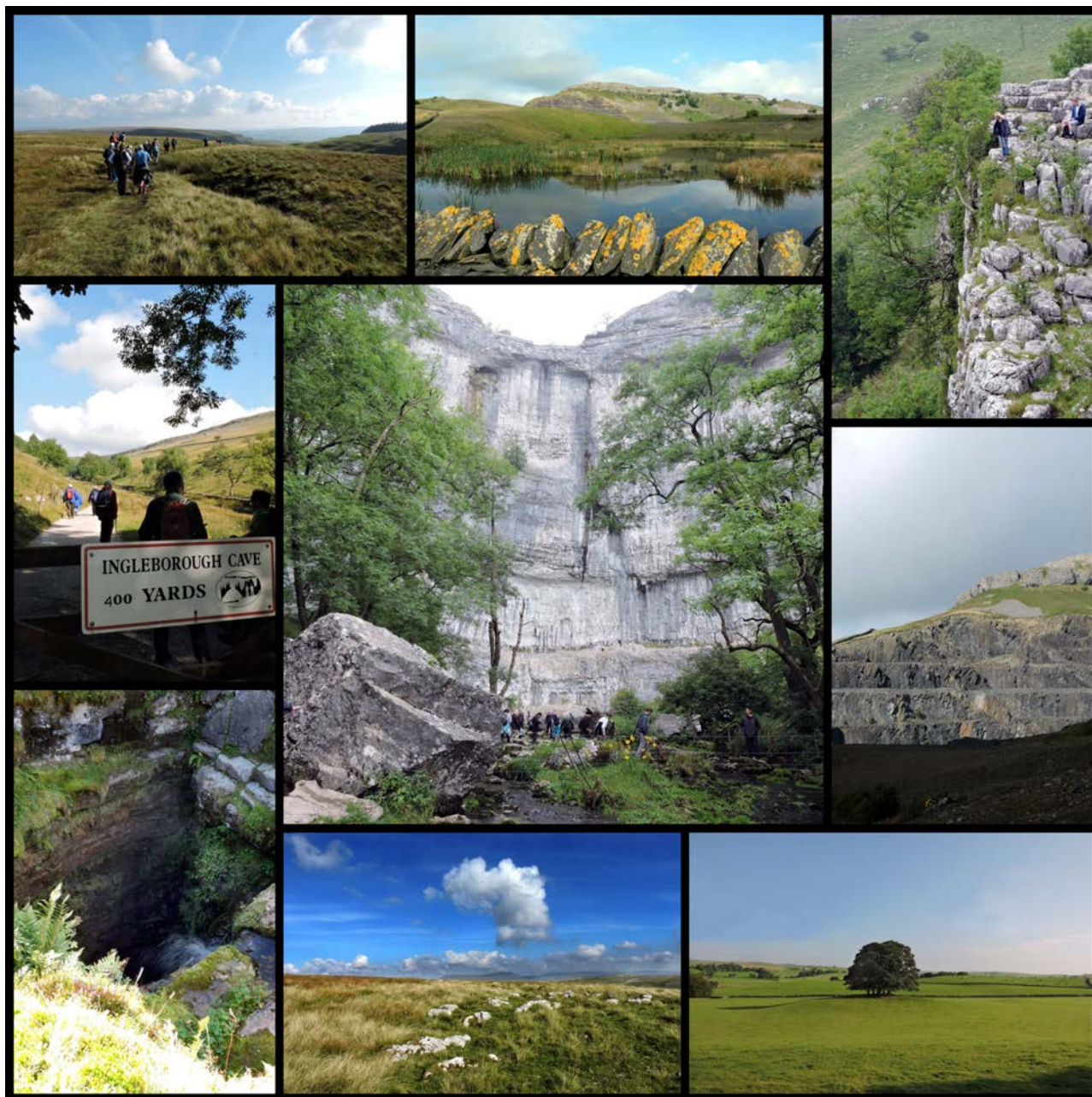
EXPLORATION OF THE SOUTHERN YORKSHIRE DALES

Thirty-seven members of the Friends forgathered for supper on the evening of Friday 18th September 2015 at Newfield Hall, Malhamdale, in the southern edge of the Yorkshire Dales. The Hall owned by the Holiday Fellowship Holliday Ltd. turned out to be an excellent place for our weekend – providing comfortable accommodation and excellent meals for our group. After supper on the first evening, our leader Dr. Douglas Holliday gave us a lively illustrated talk about the landscape and scenery we were to see.

Group taken at the Newfield Hall, Malhamdale



On the Saturday morning, we set off in a hired bus, via Settle to Dry Rigg Quarry where, under glorious sunny conditions we started our programme brilliantly by viewing the magnificently large quarry exposure of the unconformity between the Silurian graywacke and slates, and the near-horizontal Carboniferous limestones that cap the Askrigg Block.



The rest of the Saturday, in continuing sunshine, we explored the Ingleborough Estate Nature Trail near Clapham, via the Trow Gill, as far as the large pothole and cave entrance at Gaping Gill.

On Sunday 20th September, our members begged car lifts from each other, to explore the famous Limestone Cove above Malham, and completed the walk by descending towards Goredale Bridge and then walking up the Goredale Scar Valley and down the Goredale Beck into Malham.

We are truly fortunate to have excellent weather for our weekend. The leadership and management of Dr. Dough Holliday and Pam were just what we needed, as were the hospitality of the Holiday Fellowship Holliday Ltd. Staff at Newfield Hall, and the arrangements made by Margaret Sanderson, our Registrar.

It was a delight to discover such fascinating landscape and geology within relatively easy travel time from Cambridge e.g. 4 hours by train and approximately the same by car!

Peter Friend



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



CONTACT DETAILS

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

Department Reception:
01223 – 333400

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

Event leaders may be contacted before and during events on the events mobile:
07754 592439

KEY WEBSITES:

FRIENDS OF THE SEDGWICK MUSEUM
www.friendsofsegdwickmuseum.com

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

SEDGWICK MUSEUM BLOG
<http://sedgwickmuseum.org.uk/blog/>

CAMBRIDGESHIRE GEOLOGY CLUB
<http://www.cambridgeshiregeologyclub.org.uk/>

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

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

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

JOIN THE FRIENDS...

Membership is open to anyone!

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 person: £6 per annum (Members under the 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.....