2014

# Trilobite



## **FORTHCOMING**

FRIENDS' EVENTS

September 2014

\* 19-21 September 2014. Visit to the Vale of Glamorgan, led by Dr Steve Howe (National Museum of Wales). Our registrar for this event, Margaret Sanderson (new E-mail address margaretsanderson285@outlook.com)

reports that she has 27 registrations at the time of writing, so we shall now plan to close our registration on 11<sup>th</sup> August. In this issue.....

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Cardiff this We will be based around Cowbridge market town in the Vale of Glamorgan in Wales The Vale of Glamorgan

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

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

**Telephone:** (01223) 333456 **Fax:** (01223) 333450 **Email:** sedgwickmuseum@esc.cam.ac.uk

Website: www.sedgwickmuseum.org

Friends of the Sedgwick Museum Web: www.friendsofsedgwickmuseum.com Registered Charity (No. 1091393)

震觀 UNIVERSITY OF

**Editor: Peter Friend** 









Sub Editor: Alison O'Reilly

Prof Martin Jones

#### October - December 2014

#### Tuesday 28th October 2014, 7pm

Refreshments at 6.15pm Venue: Dept. Earth Sciences.

"Why do we eat what we eat? Professor Martin

Jones (Dept. of Archaeological Research)

#### Tuesday 11<sup>th</sup> November 2014, 7pm

Refreshments at 6.15pm Venue: Dept. Earth Sciences.

"River patterns at the Permian-Triassic boundary", recent detective work in Siberia and Australia. Neil Davies (Dept. of Earth Sciences)



**Dr Neil Davies** 



#### \* <u>Tuesday 2<sup>nd</sup> December 2014.</u> Friends Christmas Party.

Varied buffet supper with a background of lively student talks and a raffle (please bring contributions).

Please use a copy of our booking form, attached and on our website, to our registrar Carol Franklin, 273 Wellbrook Way, Girton, Cambridge CB3 OGL, email: s\_carol\_f@yahoo co uk to help us get our catering numbers right.

Please send a cheque for £7 per head when registering, to cover the cost of the refreshments, or let us have £9 per head at the door, if you cannot register ahead.

### FRIENDS' FORTHCOMING EVENTS January - March 2015

Tuesday 20<sup>th</sup> January 2015, 7pm Venue: Dept. Earth Sciences.

"Bird movement and evolution", Megan Williams (mew41@cam.ac.uk) Dept. of Earth Sciences.

\* <u>Tuesday 27<sup>th</sup> January 2015</u> Experimental Geology Lab Session ("Hands-on-Geology"), Dr. Mike Tuke, "*Extinction and Evolution"*. Please

book at least a week ahead by phoning Mike on 01480-457068



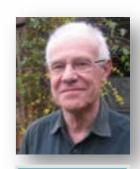
**Prof. Marian Holness** 

#### Tuesday 10th February 2015, 7 pm:

Venue: Dept. Earth Sciences.

Title: "Uses of Social Media (e.g. Facebook, Twitter etc.) In Museum education, and how safe are they for individuals?", Rob Theodore

(Sedgwick Museum) & Peter Cox



Dr Mike Tuke

<u>Tuesday 10 March 2015, 7pm</u> Venue: Dept. Earth Sciences. "*Under the volcano: geological fieldwork in East Greenland*", Prof. Marian Holness (University of Cambridge)

<u>Dinner. Thursday</u> 19<sup>th</sup> March 2015. Sedgwick Anniversary Dinner, Downing College, 7.00 for 7.30 pm.

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## FRIENDS' FORTHCOMING EVENTS May - July 2015

Uncertain dates will be provided, with other details in the next Newsletter (No 30)

<u>Saturday</u>, <u>17th May 2015</u>, "The Chalk Edge from Cambridge to Burwell" "Details to be announced"

### \* Wednesday 1<sup>st</sup> July to Tuesday 7<sup>th</sup> July 2015. Visit to the Orkney Islands





Under the leadership of Dr. John Flett Brown (Stromness) who has a detailed knowledge of the remarkable Devonian sediments and fossil fish that are such a special feature of the bedrock of Northeastern most Scotland.

It looks as though £800 per person will be a maximum cost of flights, accommodation, food, guide materials etc. However, we need an estimate of possible numbers, so ask you to indicate possible interest. Please send a note of this interest by 1 October, using a form or other note, to our Registrar, Peter Cox

(Peter@moonpython.com) or

4 Mangers Lane, Duxford, CB22 4 RN. This will not commit you, but you will be sent further details, and will be asked to commit, at that stage. We may have to limit the size of the party.

### **EXPLORING LANDSCAPES PROGRESS**Peter Friend

Peter Friend is still working on a project to help local landscape enthusiasts to spread the public enjoyment of understanding the scenery that surrounds us in every area where we live. The current focus is to develop a web-based package (Landscape Explorer) that will provide local enthusiasts with an easy-to-use package that will allow them to make booklets or web-sites, using PC's, tablets or smart-phones.

When the first version of the package is available the plan is to test and modify it in various local areas, starting initially with areas in or around Cambridgeshire, e.g.

- i) The Royston Chalk Edge
- ii) Cambridge's Western Plateau (centred on Great Gransden)
- iii) The NW Cambridge Development area.



**Dr Peter Friend** 

Peter Friend - 2014

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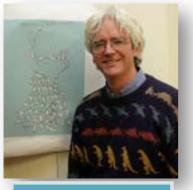
#### CAMBRIDGESHIRE GEOLOGY CLUB FORTHCOMING EVENTS

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

Lectures start at 7.30 pm and doors open at 7.00 pm. Visitors and Members are welcome.

**Monday 8<sup>th</sup> September 2014.** Dr Sambuddha Misra, Department of Earth Sciences, "Chemical evolution of Cenozoic seawater"

**Saturday 13<sup>th</sup> September 2014**. One-day seminar at the Department of Zoology, University of Cambridge: "the Geology and Landscape of the Fen Edge – Cambridgeshire". <a href="https://www.cambridgeshiregeologyclub.org">www.cambridgeshiregeologyclub.org</a> or ring Ken Rolfe 07777 678685



Simon Crowhurst

#### Monday 13<sup>th</sup> October 2014.

Simon Crowhurst, Godwin Laboratories, University of Cambridge. "The wonky wheel of eccentricity: how Earth's orbit shaped the Late Pleistocene glaciations".



Dr Katherine Daniels, Department of Earth Sciences, "Processes of injection and transportation of geological fluids within the crust".



Dr Liz Harper

Monday 8<sup>th</sup> December 2014.

Dr Liz Harper, Department of Earth Sciences,
"Evolutionary processes in bivalves and brachiopods"

Club Programme Secretary: Franziska Norman Tel 01223-479236 Mobile 0796 3039198

**Dr Katherine Daniels** 

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### NW CAMBRIDGE DEVELOPMENT Peter Friend



On 17<sup>th</sup> June, some forty members of the Friends gathered in North-West Cambridge to learn about aspects of the "largest single capital project that the University of Cambridge has undertaken in its 800 year history". Our members met at about 6 pm at the Museum's Brighton Building for tea and cake, and to examine the Museum's paper archive of notebooks and collections of rocks and fossils, relating to the exploration of the gravels that took place in the 19<sup>th</sup> and early 20<sup>th</sup> century. This work led to important advances in understanding the superficial geology and interpreting it in terms of changing patterns of ice sheets, river migrations and human settlement. Professors T. McKenny Hughes and John Marr were leaders in studying the deposits of the Travellers Rest Pit, and the Friends have supported current research on their archives by Lyall Anderson.



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### NW CAMBRIDGE DEVELOPMENT Peter Friend

Continuing their excavations in conjunction with the University's North West Cambridge development, archaeologists from the Cambridge Archaeological Unit have started to dig the remains of a Medieval hamlet located on Huntingdon Road near the Traveller's Rest Pit Pub and just east of Girton College.





**Chris Evans** 

Our group of forty moved next to the Bullard Laboratories where short talks were given by Steve Boreham on the Quaternary geology, Chris Evans on the recent archaeological excavations and Heather Topel of the University development office on the development plans. Steve and Chris then guided the party on an evening walk to see the large model of the proposed development buildings made of "cob" (a mixture of

gravel, sand, mud and straw) constructed under the direction of the University's Artist in Residence programme.

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### NW CAMBRIDGE DEVELOPMENT Peter Friend



They went on to see the neighbouring archaeological excavations, and the edge of the Travellers Rest Pit.

Parts of the Pit are to be preserved as a Site of Special Scientific Interest, and there were discussions on how the significance of this might best be preserved for future education of the inhabitants and their schoolchildren. It is good to hear that names such as Gravel Hill and Ridgeway Village are to be used in the new development, and the Friends are particularly keen that they can be involved in considering how the exciting geological and archaeological history of the Site can be presented for the interest and enjoyment of the visitors and inhabitants of the future.

As darkness descended, half of the group then made its way to the Travellers Rest Beefeater Grill to celebrate with a light supper the historic importance of this special hostelry.

Peter Friend - June 2014



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### TYRANNOSAURUS - 'REX" Peter Friend

Tyrannosaurus Rex, known to all school children, appealed to the Committee organising the 2014 May Ball of Clare College, who commissioned a sculptor to make a half-size steel skeleton as a feature of the Ball decorations. Wind of this arrived in the Sedgwick Museum and a very reasonable bid was accepted by the College, provided the Museum took possession early on the morning after the Ball was over.



So the Sedgwick staff were alerted and on Tuesday 17<sup>th</sup> of June, the T. Rex was trundled up Senate House Passage, along King's Parade and, eventually into the Downing Site. At the time of writing it is securely penned behind some builders shuttering, awaiting its transfer to a site close to the Museum steps.

Peter Friend - July 2014

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#### Remembering Colin Lachlan Forbes (1922-2014)

#### **Douglas Palmer**

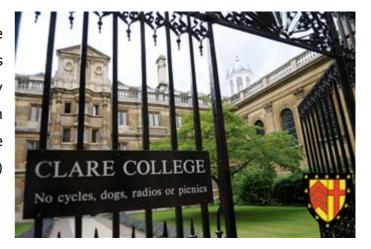
Colin died on 12 May 2014, aged 92. Many members will remember him from our Friends visit to the Royston Chalk Edge, which started with a marvellous demonstration on the tables of the wooded entrance to the Fowlmere Nature Reserve. Colin unfolded his superb personal

Colin in 1949

maps of the Chalk outcrops and water-table, so that we could understand the mechanics of the artesian fountains that are a feature of the former water-cress beds that now form the lakes, reed-beds and streams of the Reserve.

Colin was a Cambridge undergraduate, who served in World War II (1942- 1947), firstly as a sapper in the ranks of the Royal Engineers, then rising to become a motor transport officer and temporary captain in the Bombay sappers and miners. After demobilization in 1947, he was a student in Clare College, taking a degree in geology in 1949, followed by a PhD on the 'Carboniferous Stratigraphy and Palaeontology of Central Vetspitsbergen' in 1953. An the following year he was appointed as Assistant Curator in the Sedgwick Museum until 1967, when he was promoted to Curator. He took early retirement in 1983 in order to devote more time to his role as a director of the Cambridge Water Company.

Colin's local knowledge of the geology and the water in the Chalk was highly valued, and his holdings in Water Company shares eventually made him a wealthy man. It gave him much satisfaction in his later life to be able to give generous donations both to his College (Clare) and to the University's Sedgwick Museum.



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#### Remembering Colin Lachlan Forbes (1922-2014)

It was as a student that Colin first recognized the singularity of one particular cobble amongst the hundreds of others in Clare Old Court and he always claimed that it was his 'favourite feature of Old Court'. So it was a great pleasure that some of Colin's friends and College colleagues were able to arrange to have the cobblestone engraved with the initials CLF and relaid in the courtyard. He was told about this shortly before he died and he was clearly delighted with the news.

To a well trained geologist the 'CLF' cobble is instantly recognizable as an igneous rock known as a rhomb porphyry, and what is more, it is a kind of rhomb porphyry that only occurs in the Oslo region of southern Norway. Visitors to Clare College may find the CLF cobble along the cobble bounded pathway that leads to the door into the College Hall on the north-side of Old Court. It lies close to a distinctive drain cover.



So-called 'exotic' cobbles like this occur in surface 'Drift' deposits all over the lowlands of the east of Britain, dumped by the vast ice sheets that flowed out from the Scandinavian highlands during the Quaternary ice ages over the last two million years or so. Recognition and identification of the geological sources of such exotic rocks provided key evidence in the 19th century debate on whether 'Drift' deposits had a glacial origin or were the products of the Noah's Flood.

The rhomb porphyry of the Oslo region is a particularly attractive rock with large pale coloured and rhomb-shaped crystals of anorthoclase feldspar set amongst a much darker and fine grained mineral matrix. These rocks were originally erupted as thick and extensive lava flows over southern Norway some 350 million years ago in early Carboniferous times.

Douglas Palmer – July 2014

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#### **STUDENT PLACEMENTS IN 2014**

#### **Sarah Hammond**

The Sedgwick Museum has a collection of over 200 meteorites, these have recently been located in the stores and weighed. Student Sarah Lucas will be photographing and checking the names and classification of the meteorites in

the collection and updating the Museum's database with the weight and identification information, she will be supervised by Collections Manager Dan Pemberton.

The second student placement will be placed at the Brighton Building in the Museum Archives, to be supervised by Museum Archivist Sandra Freshney.

This volunteer will assist the Archivist listina administrative/financial records from the Svalbard Expeditions. The Archive documents many decades of scientific work undertaken bv (mostly) Cambridge researchers from 1938 until the early 1990s. These were mostly led by Walter Brian (1917-2003),Harland who also became the collector and collator of



the materials collected in Spitsbergen. The documentary archive complements the physical collection of geological specimens collected during those expeditions. This placement is being undertaken by Stephen Pates.

The third student will be working with the Museum's Education Co-ordinator Nicola Skipper. This volunteer will assist in the continuing production of a basic electronic catalogue of the rock, mineral and fossil specimens in the Museum's handling and school-loan collections both in the Museum and the Brighton Building. They will work with the Museum staff to rationalise the handling collection and create a new loans box. This year's student is Sara Sjosten.

Sarah Hammond – July 2014

#### "CAMBRIDGE CURIOSITIES"

The Museum staff are proposing that a glass-top cabinet should be made available for the presentation of a personal collection of materials/photos and/or maps and the stories that they tell. The staff will help with the presentation.

This will be an ongoing project with up to three different displays a year, each running for about 4 months, starting in October. Our Sedgwick displays will be a contribution to a project called

"Curating Cambridge" that will be run by all the Cambridge University museums.

We have a proposal for October's first display, but if you have an idea for projects further in the future, particularly involving local collections, photos etc., please get in touch with Nicola Skipper, Education Coordinator (<ns578@cam.ac.uk> or 01223 766079)

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#### SUMMER AT THE SEDGWICK MUSEUM

Where pre-booking is requested, please use 01223-333400 (Department Reception)





#### Stories from the beginning of time...

#### 'Boy

Boy's cave is cold. Can he find somewhere warm to sleep? Join him on his prehistoric adventure to find out!

Thursday 31<sup>st</sup> July 10.30 - 11.30

Under-5's, children must be accompanied by an adult Free but **booking is essential**. Booking will open on 5th July



#### **Oscar and Arabella: Hot Hot Hot**

Meet two woolly mammoths who don't like hot weather: and find out what they do about it!

Thursday 31<sup>st</sup> July 11.45 - 12.45

Under-5's, children must be accompanied by an adult Free but **booking is essential**. Booking will open on 5th July

#### **Fossil imprints**

Come and make your own fossil rubbing of footprints, frogs, pterosaurs and much more. Once you've made your rubbing see if you can find similar fossils in the museum collection.

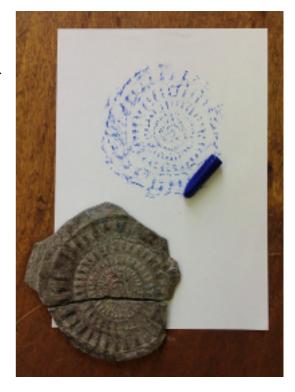
Wednesday 6<sup>th</sup> August 10.30 - 12.30 and 13.30 - 15.30 Free drop in event for all ages.

#### Ask the experts and feel a fossil

Bring along your geological specimens – rocks, minerals and fossils and experts from both the Sedgwick and the Zoology Museum will help you identify them.

Nothing to identify? Then test your own knowledge and get your hands on some specimens from the Sedgwick and Zoology museum's collection

**Saturday 16<sup>th</sup> August 10.30 - 12.30 and 13.30 - 15.30**Free drop in event for all ages.



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### CURRENT TEMPORARY EXHIBITIONS SEDGWICK MUSEUM

To complement the permanent displays, the Sedgwick Museum curates temporary exhibitions. These include collaborations with researchers and artists and also reflect relevant news stories, events and anniversaries.

Ediacaran Enigmas: Resolving the fossil record of early animals, Drs Alex Liu, Jennifer Hoyal Cuthill, Emily Mitchell and doctoral student Charlotte Kenchington.

#### Opened March 2014

This new display is a snapshot of the research taking place in the Department of Earth Sciences at Cambridge on fossils from the 540-580 million year old Ediacaran Period, known as the 'Ediacaran Biota'. These completely soft-bodied organisms were some of the earliest complex multicellular life on Earth and included the first fossils that can be recognised as



animals. The display focuses on one group, the frond-shaped Rangeomorphs. These organisms were like nothing else that has ever been discovered and studies in Cambridge are attempting to better understand these 'Ediacaran enigmas'.

Casts of fossils from Newfoundland in Canada are displayed alongside ones from Charnwood Forest in Leicestershire. This is the first time most of these specimens have been on display anywhere in the world. Also on display are 3D mathematical digital models of these organisms, produced using current research, which try and interpret how some of these organisms may have looked in life. The research in Cambridge makes this the most up-to-date and accurate display on Ediacaran fossils in the UK.

The research contributors to this display are:

Drs Alex Liu, Jennifer Hoyal Cuthill, Emily Mitchell and doctoral student Charlotte Kenchington.

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### CURRENT TEMPORARY EXHIBITIONS SEDGWICK MUSEUM



Understanding the Earth - Archival Evidence, Sandra Marsh

#### **Opened April 2012**

The Sedgwick Museum Archive holds over 800 boxes of irreplaceable materials relating to the history of geology and the Earth Sciences.

Dating back to the 17th Century this material provides a unique insight into the development of this field of scientific investigation and the people involved.



Sandra Marsh

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### CURRENT TEMPORARY EXHIBITIONS SEDGWICK MUSEUM





## Collect - Catherine Watling Opened April 2009

What motivates a person to collect, label, organise, store and display objects? What do we collect and why? How are scientific collections different from those of others?

A collaboration between artist Catherine Watling and the Sedgwick Museum, this display explores the secrets that hide within a bank of objects, based on the collections held at the Museum.

Through a series of reminiscence and handling workshops in February 2009, people at the Cherry Tree Age Concern Centre in Cambridge were encouraged to contribute to the installation by bringing in and sharing their own collections.

## 'As Old As The Hills' Fossils of the Llanfawr Quarries - Dr Joe Botting Opened Autumn 2009

A photographic display of 450 million year old fossils from Llandrindod Wells, Mid Wales, capturing a snapshot of an early marine ecosystem. Llandrindod Wells is a famous Victorian spa town in Wales, but evidence of a lesser-known and much older history can be found nearby. The hills around Llandrindod Wells are formed from 450 million year old mudrocks deposited in a tropical sea during the Ordovician Period. By this time the first truly complex marine ecosystems had developed.

Above the sea floor graptolite colonies floated in their millions and squid-like nautiloids swam in search of prey. Trilobites scuttled among delicate sponges on the muddy sea floor where brachiopods out-competed molluscs for food and living space. The empty chambered shells of dead nautiloids that sank to the sea floor acted as islands of firm ground in the soft mud. These were colonised by encrusting animals including worms.

The remains of these animals were covered in mud, baked by volcanic heat and turned into stone. These fossils were buried deep in the Earth and then much later they were raised to the surface and are now exposed in the Llanfawr Quarries of Llanddrindod.

This series of photographs gives a glimpse of a lost world hundreds of millions of years ago.

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#### **JOIN THE FRIENDS...**

## Membership is open to anyone!

#### **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.friendsofsedgwickmuseum.com

#### **SEDGWICK MUSEUM**

http://www.sedgwickmuseum.org/

#### SEDGWICK MUSEUM BLOG

http://sedgwickmuseum.org.uk/blog/

#### **CAMBRIDGESHIRE GEOLOGY CLUB**

http://www.cambridgeshiregeologyclub. org.uk/

#### APPLICATION FORM

ATTEICATION 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
EmailAge (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.
☐ 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.
SignedDate
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.
SignedDate
Digiteu

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