

Programme for 2026 Earth Sciences Alumni Day and Dinner

Saturday, 9 May 2026

Location - Day

Department of Earth Sciences
Downing Street
Cambridge
CB2 3EQ

Location – Dinner

The Old Hall, Queens' College,
Silver Street,
Cambridge
CB3 9ET



Parking

If you require parking for accessibility needs, please email alumni@cam.ac.uk.

The nearest car park is Grand Arcade opposite the Department. Alternative car parks include Queen Anne on East Road and Park Street car park – both of which have electric vehicle charging points.

Programme Outline

Time	Location	Event
1:30pm	Watson Gallery	Registration Welcome! Pick up your badge and programme and enjoy the refreshments.
2:00pm	Physiology Lecture Theatre	<p>Welcome to the Department</p> <p>Opening talk - Daniel Field. <i>Remarkable new fossil evidence revealing the origin of birds</i> For centuries, fossils from the Maastrichtian type locality and adjacent quarries have provided key evidence of vertebrate diversity in the latest Cretaceous, yet until recently the Type Maastrichtian had revealed no important insights into the evolutionary history of birds, the world's most diverse group of living tetrapods. With the benefit of high-resolution microCT scanning, two important avian fossils from the Type Maastrichtian have now been examined in detail, offering profound, complementary insights into the evolutionary history of birds. The holotype specimens of these new taxa, <i>Janavis finalidens</i> and <i>Asteriornis maastrichtensis</i>, were originally collected in the 1990s, but were only investigated in detail more than twenty years later. Collectively, <i>Janavis</i> and <i>Asteriornis</i> provide some of the best evidence worldwide regarding the factors influencing bird extinction and survivorship through the Cretaceous-Palaeogene transition, as well as insights into the origins of key anatomical features of modern birds.</p> <p>Student project talks: Alexia von Wiese und Kaiserswaldau <i>Proficiency in Aqueous Geochemistry: 3 Easy Steps</i> This talk traces the progression of an aqueous geochemistry project, from field training to independent research on acid mine drainage and final write-up. Focusing on a natural mixing system where acidic, metal-rich waters are rapidly neutralised over short distances, we collected and analysed water chemistry data to investigate the processes driving this transformation. Using this project as a case study, I will show how field observations and analytical data are integrated, interpreted, and developed into a coherent PII research project.</p> <p>Mia Tan <i>Mapping in España! Geology of the Esla Region</i> The Esla Region, situated in the Cantabrian-Asturian Arc in northwest Spain, is comprised of a Palaeozoic siliciclastic and carbonate sedimentary succession that has undergone complex interference folding. Over 28 days in the field, my group and I mapped a 14km² area, particularly special, as it allowed us to explore many facets of the wonderful Earth Sciences, including sedimentology, structural geology, igneous petrology, and palaeontology.</p>
3:00pm	Activities	Refreshments will be available in the tearoom throughout the afternoon.

	<p>TOURS*: Tour time: 15:15</p> <p>Tour time: 15:10</p> <p>Stones tour repeated at: 15:10 15:35 16:00</p> <p>Lab tours repeated at: 15:10 15:35 16:00</p> <p>Lab tours repeated at: 15:10 15:35 16:00</p>	<p>Explore your local geology with Morag. Using the Watson collection as our starting point, Morag will help you locate what makes up the earth under your feet where you live or where you are from.</p> <p>Visit the Library Sarah hosts library visitors with displays of interesting facsimiles, prestigious maps and so on – plus a comfy chair and a cosy atmosphere in which to reminisce.</p> <p>The Museum. The Museum will be open all day 10am - 4pm and alumni and their families are very welcome at any time. Come and see our new display 'From Magma to Magnets' which showcases department research into Rare Earth Elements in Greenland. For families, we have a range of trails, a book trolley and a Mary Anning story and dress-up corner. The Museum shop sells a range of ethical and locally produced geological gifts, books and toys. Alumni wearing lanyards can claim 10% off shop purchases on the day.</p> <p>Museum Tour Museum Director Liz Hide will give a 30 mins introductory tour of the Museum. Meet in the entrance to the Museum by 15:10. Maximum 15 persons.</p> <p>Hidden department Join Andrew Stephenson on a walk through the lesser explored areas of the building. (45 mins) NB: <i>This tour will access different floors in the building via the staircases, good mobility and suitable footwear will be required.</i> Maximum 8 persons.</p> <p>Stories of three stones <i>Nigel Woodcock will lead a 20-minute field trip to three localities within the Earth Sciences/Arch & Anth courtyard. We'll compare Jurassic Limestones from Barnack, Clipsham and Ketton, each with their own geological and cultural backstory. All these stones have been widely used in Cambridge buildings because they are so durable and attractive; but what geological processes control this durability? Please bring your hand lens if you still have one.</i> Maximum 15 persons per tour.</p> <p>Visit the labs. Join Iris, Corinne, Jason, Marie-Laure, Claudine and Clancy to find out about the equipment and research our labs teams manage: Discover the plasma mass spectrometry clean laboratory suite – with Marie-Laure & Claudine <i>Visit the clean laboratories on the top floor of the Mineralogy Building. You will gain an insight into the state-of-the-art instruments and techniques used by geochemists to measure the chemical and isotopic compositions of natural samples. These are the starting points for major studies on the origin and evolution of the Earth, past and future of the environment, and the origin of life, all happening in our department!</i> Maximum 10 persons per tour.</p> <p>Welcome to the Laser Ablation–ICP–Mass Spectrometry (LA-ICP-MS) Lab – with Jason <i>In this lab, we use powerful, precisely controlled pulses of light from a laser to analyse tiny amounts of solid material. This allows us to identify and measure many different chemical elements at once. We regularly analyse geological materials such as crystals and volcanic glass, helping Earth Scientists understand their samples. The same technique is also used beyond the Geosciences, with applications in archaeology, materials science, plant science, biology, and many other fields. Unlike traditional chemical testing, which often involves destructive sample preparation procedures, laser ablation is micro-destructive. It removes less than a millionth of a gram of material—so small that the object usually looks completely unchanged to the naked eye. Come and see which sample is currently in the crosshairs of the laser.</i> Maximum 5 persons per tour.</p>
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	<p>Lab tours repeated at: 15:10 15:35 16:00</p> <p>Lab tours repeated at: 15:10 15:35 16:00</p>	<p>Electron Microscopy & XRD Lab – with Iris and Corinne Our Electron Microscopy and X-ray Diffraction (XRD) Lab is where solid materials get a closer look. With powerful microscopes and XRD tools, the lab lets students and researchers explore geological samples at the micro- and nanoscale, from crystal structure to surface details. It's a hands-on space that supports research, learning, and collaboration across several disciplines—and gives students experience with techniques widely used in industry and academia. Our lab has seen a lot of investment (upwards of £2 million) in the last 5 years, and in the tour, we would like to demonstrate these state-of-the-art instruments. Maximum 10 persons per tour.</p> <p>The Aqueous Geochemistry Laboratory – with Clancy The lab investigates the mineralisation processes that shaped the geologic and geochemical record across deep time. We use experimental approaches to decode signals preserved in ancient rocks and minerals, shedding light on how our planet — and life itself — came to be. Our research tackles some of the most intriguing open questions at the intersection of geochemistry, mineralogy, and biology:</p> <ul style="list-style-type: none"> • Banded iron formations — probing the origin of these enigmatic and economically vital ore deposits to understand the early ocean and atmosphere • Prebiotic chemistry — reconstructing the geochemical conditions that may have enabled the first complex molecules to form • Mineral–organic interactions — exploring how minerals may have templated the homochirality that defines all known life <p>We collaborate with researchers from across the UK and internationally, developing novel experimental methods that push the boundaries of what laboratory geochemistry can reveal. Materials produced in the lab are characterised using the advanced analytical instrumentation available within the department. Maximum 10 persons per tour.</p>
4:30pm	Physiology Lecture Theatre	<p>Marie's State of the Nation (10 mins)</p> <p>Student talk - Aimi Weightman (15 mins inc Q&A) <i>Part II Mapping Project in Newfoundland, Canada</i> This talk describes my experience of mapping in Canada last summer for my Part II project. My partners and I spent 5 weeks exploring the volcanic sequences and associated sediments and igneous intrusions that are exposed within a small, forested peninsula and along its beautiful coastline. Our fieldwork allowed us to reconstruct the geological history of the area from the late Neoproterozoic through the Palaeozoic, with the opportunity to also examine some curious glacial units which are subject of ongoing research.</p> <p>Closing talk - John MacLennan (30 mins inc Q&A) <i>Basalt in the Blender and other Stories from Beneath the Blue Lagoon</i></p>
5:30pm to 6:15pm	Sedgwick Museum-Darwin exhibition	<p>Drinks reception A relaxed opportunity to catch up with fellow alumni and guests. <i>Turn left when you enter the museum to reach the Darwin exhibition and the drinks table.</i></p>
	<p><i>Guests joining us for dinner are encouraged to take the time they need between the end of the programme and sitting for dinner to check in to accommodation / dress for the evening and make their way to our dining college.</i></p>	
6:30pm	Queens' Old Kitchens	Pre-dinner drinks
7:00pm	Queens' Old Hall	Dinner 3 course meal, wine and water, tea/coffee and mints After dinner speaker – Gavin Graham
10:30pm		Carriages.

This programme is subject to change at short notice. Where possible, guests will be alerted to any changes in advance.

Speaker Biographies:

John MacLennan

Originally from Glasgow, his interests in Physics and Geology have taken him to degrees and jobs in Cambridge, Paris and Edinburgh. His approach combines robust fieldwork, leading-edge microanalysis and computational techniques to provide a quantitative understanding of magmatic processes. Iceland has provided a natural focus for much of this work and provides a platform for a global view of magmatism at spreading ridges, ocean islands and large igneous provinces.

Daniel Field

Daniel is originally from Calgary, Alberta, studied Zoology at the University of British Columbia, and received a PhD in Geology and Geophysics from Yale University in 2017. He is a vertebrate palaeontologist interested in the evolutionary history of birds and other amniotes. His group's research explores the vertebrate fossil record and organismal biology in a phylogenetic framework to explore how and when extant vertebrate diversity has arisen. He joined the Department of Earth Sciences at Cambridge in 2018 and joined the University Museum of Zoology in 2021 as the Strickland Curator of Ornithology.

Gavin Graham

Gavin Graham describes himself as an Edinburgh/Cambridge-educated oil & gas professional with nearly 40 years' industry experience. He went to Fitzwilliam College Cambridge from 1973 to 1976, initially to be a chemist but following a field trip to Arran he fell in love with Geology (and a little-known society referred to as 'the Old Delaboles') and never looked back.

After a brief sojourn working at the University of South Carolina, he was sponsored by Shell to complete a PhD on the evolution of the Oman Mountains and joined the company in 1980. He spent the next 29 years working for Shell in a variety of exploration, commercial and leadership roles (mainly in the Middle East and Caspian regions), then joined the upstream arm of Petrofac, pioneering new ways of working with National Oil Companies in SE Asia, before becoming CEO of LOTOS Upstream, part of the Polish state oil company, for two years until retiring in 2019.

Since then, while taking on a number of Non-Exec and Advisory roles, he has spent most of his time, together with his wife Sylvie, restoring a 16th century mill house complete with 16th century mill.

Gavin summarises his interests as sport, hiking up Munros, photography, travel and trying to persuade the many women in his life (wife Sylvie, 4 daughters + 2 granddaughters) that watching 6-Nations rugby is a good way to spend a Saturday afternoon. This same group of 'advisors' made clear their belief that he had spent much of the last 40 years destroying the planet and so encouraged him to spend some time putting it back together again. There began a shared journey in search of sustainability.

***Tours:** To sign up for a tour, email alumni@esc.cam.ac.uk or add your name to the sheets on registration on the day. Places are allocated on a first come, first served basis.

Dress code: Business casual and you are welcome to change for dinner or come as you are. Comfortable footwear will be useful for some tours.

Please be aware that this event is being photographed by a member of the Department. The photographs may be used on the Department's website and social media and the purpose of promoting future alumni events. Should you have queries, please contact Cara Hanman, Alumni Co-ordinator, at alumni@esc.cam.ac.uk.

If you have any questions, please contact Cara Hanman, Alumni Coordinator:
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