



***Lecture on Tuesday 12th July 2022:
The “real” value of microfossils***

***Presented by
Dr Haydon Bailey
Geological Adviser, The Chiltern Society
Scientific Associate, The Natural History Museum London***

Date: Tuesday 12th July 2022

Venue: Arup, Emmerson / Shears Meeting Room, 8 Fitzroy Street, London W1T 4BJ

Venue opens at 6:00pm and lecture starts at 6:30pm



Haydon Bailey graduated from the University of Sheffield in 1973 with an Honours Degree in Geology. He followed this with a PhD in Chalk micropalaeontology, is a Chartered Geologist and worked as a consultant micropalaeontologist in the oil and gas industry for over forty years. He ran his own company (Network Stratigraphic Consulting Ltd.) based in Hertfordshire, for twenty four years. He still specialises in Cretaceous stratigraphy, although his work has led to projects throughout much of the geological column, across Europe, around Africa and throughout the Middle East. He's been Chairman and Industrial Liaison Officer of The Micropalaeontology Society and is a past President of the Geologists' Association, as well as Geological Adviser to the Chiltern Society. Between 2012 and 2020 he was Honorary Lecturer on the MSc course in Applied & Petroleum Micropalaeontology at the University of Birmingham. He's married to a talented musician, has two brilliant children and three even more brilliant grandchildren.

Abstract of lecture:

Micropalaeontology or the study of microfossils may initially seem an esoteric subject for a desk bound academic; but if your thinking is along these lines then you couldn't be further from the truth. These microscopic sized fossils can be integral to major engineering projects, can result in helicopter flights to oil rigs around the world and also lead to detailed forensic studies as part of serious criminal investigations or simple art restoration. The information they provide can act as a proxy for past climate change and consequently as an indicator of the changes which may await us in the future.

Microfossils are abundant and diverse in many everyday rock types found worldwide or simply out in the UK countryside; they are attractive, sometimes structurally complex, but rarely dull and boring. Because they're not the size of a *Diplodocus* they're very easy to carry home in your pocket, but they can still have impact – there would be no pyramids without microfossils.

In industry they are used every day to assist in the enhanced recovery of oil and gas on a global scale, providing massive value added in oil production. Optimal placement and steering of production wells within "sweet spots" in the oil reservoir can enhance recovery by 30%. With oil prices on the rise once again, the micropalaeontologist can have a major impact on hydrocarbon production and consequently, company profits. This paper attempts to put a highly estimated figure onto that added value.

In addition, they were used to define the foundations of the Thames Barrier and to steer the tunnelling machines which cut the Channel Tunnel. How can you put a value on these? Closer to home, they're present in pharmaceuticals, in your breakfast cereals and in your supper drinks. Definitely food for thought!



Getting to the lecture venue:

The lecture is being held in the Emmerson / Shears Meeting Room located in the basement of Arup's offices at 8 Fitzroy Street, London W1T 4BJ.

On arrival at Arup's offices please go to reception and ask for the Emmerson / Shears meeting room.

Travel by public transport:

Tube - Nearest Tube stations are Warren Street (Northern and Victoria Lines), Gode Street (Northern Line) and Great Portland Square or Euston Square (Circle, Hammersmith & District and Metropolitan lines).

Bus services - run nearby on Euston Road and Tottenham Court Road

By car: There is no parking at the venue.

Light refreshments: will be available at the venue from 6:00pm.



This event is free of charge to all members of the Geological Society Home Counties North Regional Group. Priority will be given to Fellows, Candidate Fellows and Juniors of the Geological Society who are members of the Home Counties North Regional Group.

Please book your places on a first-come-first-served basis by e-mail to homecountiesnorthregionalgroup@gmail.com

Please provide your membership number when booking your place.

This event is supported by RSK, and Soil Consultants.

