



Lichfield Science & Engineering Society

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PRESIDENT 2009-2011

Professor John Campbell, OBE, FEng

Newsletter: December 2009

Membership

May I remind members on e-mail to keep Paul up-to-date if you change your e-mail address? It makes a great deal of work for him when messages 'bounce back' and he has to retry and possibly print and post mailings. Thank you.

Special Lecture for Schools

On December 2nd 2009, a lecture which Jenny organised as a part of the Society's 25th anniversary year celebrations took place in the Friary School's theatre. Some 60 students from 3 local schools had their minds stretched by Dr Ankit Rao, a Research Fellow with Cancer UK at Birmingham University. The subject of 'Cancer and Chemotherapy' was arranged to fit in with the A-level syllabus and exam timing. Dr Rao answered questions from staff and students and stayed to talk with some of the students after the event.

Celebratory Lunch

Sunday 20th June 2010. In lieu of our Informal Supper we will have a special, social event at Tuppenhurst Farm to mark 25 years of the Society. Not **just** a Hog Roast lunch, Paul promises it will all be undercover so you won't get wet if it rains! We have organised a couple of 'side shows' but

..... **the main part** of the event is **yours** so please respond to the enclosed invitation to exhibit. Invitations to the Lunch itself will be enclosed with the next mailing in April but, to ensure that you don't miss this once-in-a-life-time event, book it in your diaries now!

Meetings 2009

On September 17th, 78 Members and 18 Visitors enjoyed the promised 'Lavishly illustrated and well-informed introduction to the Larger Fungi of the Fifth Kingdom' by Camilla Lovatt, Immediate Past-Chairman of the Staffordshire Fungus Group. The small picture and 'clunky' nature of a 35mm projector slightly marred an otherwise very enjoyable evening with some 100 slides of fungi, mainly from Camilla's own garden.

September 27th provided dry, cool autumn conditions for a party of 28 to enjoy the Fungus Foray led by Camilla Lovatt and Neville Walters (Secretary of the SFG). Whilst the weather had been too dry for there to have been an abundance of fungi, we found plenty to interest us.

The Press are welcome to attend most of our events and on this occasion we were joined by Jacqui Gray, Editor of The Journal until recently redundant. She will include a report in her new on-line journal so do visit www.themidlandsmagazine.co.uk if you can.

Probably many of us learned that what we see is the 'Fruiting Body, or flower: the main organism is the Mycelium, the fine, white threads we possibly think of as roots when we find them in the soil.

October 14th took us back a few centuries to ancient Greece where, under the able guidance of Professor Mike Edmunds, 120 Members, 13 Visitors and 2 Students were fascinated by the depth and breadth of the forensic investigations which 'a piece of bronze' found on the sea bed off the coast of Antikythera by sponge divers in 1900 had generated.

The Antikythera Mechanism, dating from around 100BC, proved to be an assembly of bronze gears and dials, the complexity of which was not to be seen again until mediaeval times. X-ray tomography allowed the numbers of teeth on the wheels to be counted; they were found to correspond with astronomical cycles. A surface imaging technique allowed the inscriptions to be deciphered, giving an indication of the location and date of manufacture.

The Project's website is worth a visit at: <http://www.antikythera-mechanism.gr/>.

Erasmus Darwin Memorial Lecture

On 17th November 2009 179 members of the Society, 219 members of the public and 82 students enjoyed Dr Alice Roberts' extensive coverage of 'The Incredible Human Journey' from Africa to the world. Dr Roberts showed how Archaeological and Genetic investigations had both come to the same conclusion, that all Homo Sapiens originated from the same region

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of Africa. The clinching detail comes from the mitochondria, which is only passed through the female line and so does not mutate with passing generations.

Although Alice's lecture overran, leaving no time for questions, she remained at the theatre for over half-an-hour, sitting on the edge of the stage talking to the students present.

Annual Dinner

On 21st October 2009, following the usual excellent meal in The Oat Barn at Packington Moor Farm enjoyed this year by 77 members and guests, we had an address from Richard Tetley on his retirement from the post of President. Richard has served the Society since at least 1992 in various capacities, including participating in the organisation of at least 10 Erasmus Darwin Memorial Lectures. We are indeed deeply indebted to him.

Richard then handed over to John Campbell, ceremoniously placing the Society's medal around John's neck, and John gave us some idea of how good a President he intends to be, including along the way his regrets at not having established his factory in Lichfield and an amusing account of the time when he received his OBE.

The evening was completed with the presentation to Richard of an etched Crystal Glass Paperweight and to Claire, his wife, a bouquet.

Lichfield Festival Lecture

In July 2010, this season's Festival Lecture will feature Keith Barley's restoration of Lichfield Cathedral's Herkenrode Window.

Keith Barley pioneered the system of Isothermal Glazing which preserves stained glass in as near museum conditions as can be achieved within the original architectural setting. This system has been acknowledged as environmentally sound and has been adopted by the majority of stained glass conservators in Great Britain.

Discussion Luncheons

September 29th 2009 saw 24 members enjoy a superb meal arranged once again by Jenny and Carol. We then heard Cliff Ricketts' excellent paper on the Future of Energy Supplies and discussed the points raised, covering population growth and demands, climate change, fossil fuel reserves, alternative energy sources, transport and carbon capture.

The next Discussion Luncheon is planned for **Wednesday 24th February 2010**; see the enclosed details and send your application form and cheque to Tim straight away.

Visits

Those who went on the visit to Taylors Bellfounders will, I am sure, be saddened but perhaps not entirely surprised, to hear that the company went into receivership on

18th September. However, on 17th October the administrators announced that the business had been purchased by UK Bell Foundries Ltd and will continue on the same site so all is not lost after all for this famous company.

On September 24th and October 1st, a total of 46 members and their partners were suitably amazed by George Hook's craftsmanship with Mother-of-Pearl! Whilst Tim had described it very accurately in his Visit Notice, the reality of the business was even more amazing. George's capacity for collecting antique artefacts, plus his spare time occupation of providing the sound systems for a dance group, had filled every spare square foot of the early 20th century workshop with all manner of interesting objects. Many thanks to Tim for arranging *three* visits for us!

Thursday 8th October saw a 7am start from Lichfield by 42 members and their consorts for a visit to the National Physical Laboratory in their new building at Teddington. Organised as a special event for the Society's 25th anniversary year celebrations, it was just one big thrill after another. Brilliant presentations by the expert researchers in each of the five laboratories visited, dealing with the metrology of sound, electricity, radiation, light, temperature and length.

An excellent lunch in the magnificent and historic Bushy House was 'the icing on the cake'. At the end of the visit, each of the party was handed a copy of the informative NPL 'little big book of metrology'.

The visit by 35 members to **HoloVis on November 3rd** was something different again! This young, English high-technology company is a world leader in large format display systems. Their partners are Panasonic for display panels (their latest is a massive 105" plasma panel weighing nearly half a tonne), Sony for projectors (huge, £80,000, '4k' machines) and AutoDesk for application software. They produce everything from the single advertising screens we see in retail outlets to multi-panel walls for such as airport duty-free shops to sports stadium screens. But the piece de resistance is the CAVE, a four- or five-sided, virtual reality cube which you walk into and thus around the image which you are examining, e.g. a new car design.

The first visits for 2010 are detailed on the enclosed sheet so fill in the application and get it in the post to Tim straight away with your cheque.

Seasonal Greetings

The 10 events which we have organised for you in the first 4-month semester plus the planning up to summer 2011 have left me looking forward to the Christmas break. Have a good holiday and Season's Greetings to you all!

Brian Hammond
Chairman