

Centre for History of Science  
**Spring 2012 Friday Lunchtime Lecture programme**

**All lectures will take place on Fridays, 1pm to 2pm, in the Royal Society's Library Events Room (6-9 Carlton House Terrace, London, SW1Y 5AG). The lectures are free and all are welcome to attend. Bookings are not required and seats will be allocated on a first-come-first-served basis. Doors will open at 12.30pm. Please contact Felicity Henderson ([felicity.henderson@royalsociety.org](mailto:felicity.henderson@royalsociety.org) or 020 74512597) with any enquiries about the lectures.**

**2 March**

Hugh Aldersey-Williams

*Shakespeare the metallurgist, Eliot the spectroscopist: the cultural journey of the chemical elements*

From the moment of their discovery, each of the chemical elements has embarked on a journey into our culture. Over millennia and decades, they have gained meaning through encounter and manipulation. Those long known, such as gold, silver, iron and sulphur, all found in the Bible, have largely settled associations with immortality, virginity, strength and evil. The arts exploit, renew and modify these meanings often in surprising ways. Most of us are familiar with sodium chiefly from streetlighting. But why has this distinctive illumination been seized upon by contemporary writers as emblematic of dystopian decay? Why is its message so different from the light of neon? Why is mercury a fitting barrier between this world and the next? And why is europium incorporated into every euro banknote?

**9 March**

Prof. Tim Birkhead FRS

*The first ornithologist: Francis Willughby*

Francis Willughby transformed the study of birds in the mid 1600s. Rejecting anecdotes, hieroglyphs and emblematics, he made ornithology scientific for the first time. Sadly, he was almost certainly unaware of success since he died before his pioneering encyclopaedia was published. His ambitious project was completed and published by his colleague and one-time mentor John Ray, and entitled *The Ornithology of Francis Willughby* (1678). I will discuss the way Willughby and Ray worked together to produce this landmark in ornithological studies.

**16 March**

Dr Natasha McEnroe, Florence Nightingale Museum

*'Against Images Made By Hands': Florence Nightingale's Reluctant Life in Portraiture*

Florence Nightingale disliked having her portrait taken as much as she hated being a celebrity, yet it was largely through the visual representations of her face and person in the press that she gained iconic status in Victorian England. Used as a model by her artistic and adoring sister and cousin, sketches of the young Nightingale contrast sharply with the photographs and paintings of her later years, when the pressures of her work and ill health are very apparent. Representations of the idealised Angel of the Crimea tell as much about attitudes of her time as they do about the reality of her life. Natasha McEnroe will examine Nightingale's life through a selection of images of her, and will consider whether they can shed some light on the controversy around the mysterious illness of her later years.

### **23 March**

Dr Rachel Hewitt, Queen Mary, University of London

*The Early Ordnance Survey and the Royal Society: 'The Perfect Concurrence of Two Great Organisations'*

Britain's national mapping agency, the Ordnance Survey, was officially founded in the summer of 1791, in a climate of international revolution and military reaction. But the Ordnance Survey was much more than just a military map. Its foundation was partly inspired by a collaboration with the Royal Society, and the scientific ideals that characterised that project continued to inform the Ordnance Survey's direction and aspirations throughout its early years. Rachel Hewitt's talk will explore this 'perfect concurrence of two great organisations'.

### **30 March**

Dr Susan Mossman, Science Museum

*Dream to Reality?*

Plastics pioneers had great aspirations for their new materials. Roland Barthes called plastics "a miraculous substance . . . a transformation of nature". Serendipity, careful experimentation and entrepreneurial skills have all played significant roles in the development of modern plastics. This presentation will assess whether the visions of key early pioneers such as Leo Baekeland have been realised today.

### **13 April**

Dr James Sumner, University of Manchester

*"How should a Chemist understand Brewing?" Beer and theory around 1800*

Eighteenth-century chemists could gain useful income and patronage as advisors to industry – and some of the wealthiest and most influential industrialists were brewers. Making chemical knowledge credible to this audience, however, was not always easy: most brewers trusted the direct lessons of the brewhouse – and also the counting-house – to those of the laboratory. This talk discusses how chemists tried to resolve these problems, and how they were challenged by experienced brewers promoting a scientific identity of their own.

### **20 April**

Dr Rebekah Higgitt, National Maritime Museum

*Hero or villain? Nevil Maskelyne's posthumous reputation*

Nevil Maskelyne, 5th Astronomer Royal and Fellow of the Royal Society, is today best known as the villain of Dava Sobel's *Longitude*. This talk will, however, look further back and examine how Maskelyne has fared since his death in 1811, attempting to pinpoint when and why a more negative assessment overshadowed the positive celebration of a significant figure of British science.

### **27 April**

Alan Morrison, University of Westminster

*Sir George Cayley (1773-1857), the Father of Flight*

This talk discusses Cayley's pioneering aviation work; his role as an inventor; and as founder of the Royal Polytechnic Institution in Regent Street. Cayley's work will be related to the scientific and intellectual milieu of the day, and to debates regarding the public engagement with science and technology.

Alan Morrison is an Honorary Fellow at the University of Westminster, a Lemelson Center Research Associate at the Smithsonian's National Museum of American History; and teaches on the Masters Program in Museum Studies, Johns Hopkins University.

#### **4 May**

Andrea Wulf

##### *Chasing Venus: The Race to Measure the Heavens*

New York Times Best Selling and award-winning author Andrea Wulf tells the extraordinary story of the first global scientific collaboration set amid warring armies, hurricanes, scientific endeavour and personal tragedy. On 6 June 1761 and 3 June 1769 the planet Venus passed between earth and sun – each time visible as a small black dot. Transits of Venus always arrive in pairs – eight years apart – but then it takes more than a century before they are seen again. In the 1760s the world's scientific community was electrified because the transit would allow them for the first time to calculate the distance between the planets in our solar system. At a time when war was tearing Europe and much of the rest of the world apart, hundreds of astronomers overcame political, geographical and intellectual boundaries to work together. For a decade the Royal Society was gripped by transit fever, organising viewings and expeditions to farflung corners of the globe, including Captain Cook's Endeavour voyage to Tahiti.

#### **11 May**

Dr Noah Moxham, Queen Mary, University of London

##### *Triangulating Positions: Hevelius, Halley and the management of the open-sights controversy*

When the decade-long argument between Johannes Hevelius, the Danzig astronomer, and Robert Hooke about the respective merits of plain and telescopic sights for astronomical instruments reared its head again in 1685, the resulting controversy threatened to engulf the Royal Society. The sequel to this argument reveals not just a clash between two notable and notoriously egotistical natural philosophers but a complex set of negotiations between three British learned societies which developed into an open competition for ascendancy. The many figures who intervened in this dispute were taking part in a network of formal exchanges between institutions, as well as offering opinions about the debate itself: their involvement highlights the dense interconnectedness, and precariousness, of the institutions of early modern science.