

# Open House Weekend: History of Science Lecture Series

## **Jurassic Park and the quest to resurrect extinct creatures**

**Saturday 19 September – 10:30am**

Elizabeth Jones (UCL)

Learn how movies like Jurassic Park have blurred the lines between science and speculation, driving the science of ancient DNA research.

Ancient DNA research – the search for molecules in fossils – emerged from the interface of palaeontology, archaeology, and molecular biology. The controversial scientific and technological practices involved in ancient DNA research have given ability to reconstruct the past. Will this interdisciplinary science allow us the possibility of recreating extinct creatures too? The scientists behind the experimental ‘Ice Age’ natural reserve in Siberia, Pleistocene Park, have claimed that work is being done to reintroduce the Woolly Mammoth.

Join Elizabeth Jones as she examines the interplay between science and the media and the way our obsession with the resurrection of extinct creatures, from dinosaurs to mammoths, influences scientific research.

## **A 13<sup>th</sup> century theory of everything**

**Saturday 19 September – 12:00pm**

Giles Gasper (Durham University) and Brian Tanner (Durham University)

Discover how a collaborative research approach is bringing new life to medieval theories about the universe.

Robert Grosseteste was an English polymath who studied the physics of light and used it to explain colour and the rainbow, and the origin of the universe. Inspired by Grosseteste’s model, The Ordered Universe Project is bringing together historians, scientists linguists and philosophers to jointly study medieval texts in an aim to bridge the current perception gap between the study of science and humanities.

Join Dr Giles Gasper and Professor Brian Tanner as they reveal why 800 years later, Grosseteste’s theories are as relevant as ever.

## **Darwin and the evolution of emotion**

**Saturday 19 September – 1:30pm**

Paul White (University of Cambridge)

Take an intimate look at Charles Darwin’s private life and his lesser-known work on emotion.

Darwin’s work on the emotions is less well known than his writing on species, but it formed a central part of his thinking on human evolution. He conducted research on emotions for over three decades

using his friends, family and pets as objects of study and experiment, examining the central role of sentiments and affections in the origin of human nature and the development of moral behaviour.

Join Dr Paul White as he explores the relationship between Darwin's scientific study of emotions and his own emotional experience.

### **Hooke's microscopic world** **Saturday 19 September – 3:00pm**

Felicity Henderson (University of Exeter)

Delve into the work and motivation of one of the first English scientists.

In 1665 Robert Hooke published the first fully-illustrated book of microscopy, *Micrographia*. The book introduced its readers to a whole new world of tiny organisms, and astonished people with its beautiful images. It was an instant success – but was it just about documenting science, or was Hooke encouraging his readers to take part in scientific observation themselves?

Join Dr Felicity Henderson as she searches Hooke's microscopic discoveries in the plant and insect worlds for answers.

### **Shining light on medieval illuminations** **Saturday 19 September – 4:30pm**

Andrew Beeby (Durham University)

Discover how chemistry is helping historians and conservators track complex medieval trade routes and technology transfer.

By identifying the materials used in medieval illuminated manuscripts, we are able to gain insight into the techniques and skills of the scribes and illuminators. The challenge is to be able to identify materials on a delicate sheet of parchment, typically a folio of a bound manuscript that does not open readily, without contact, sampling or causing any damage.

Join Professor Andrew Beeby as he explains how his team are using contemporary spectroscopy and imaging techniques to study the pigments used in manuscripts from as far back as the 7<sup>th</sup> century.

### **Where were the women boffins?** **Sunday 20 September – 11:30am**

Sally Horrocks (University of Leicester)

Learn about the rarely-told experiences of women scientists and engineers of World War II.

During World War II women scientists and engineers participated in a range of wartime research projects. While the contribution of women to code-breaking at Bletchley Park has recently started to receive wider recognition, the full range of contributions made by women scientists and professional engineers to the war effort more generally have received little acknowledgement.

Join Dr Sally Horrocks as she explores the nature and extent of women's wide-ranging contributions to wartime science and why these efforts have been so rarely acknowledged and remembered.

### **The Society and the city** **Sunday 20 September – 1:00pm**

Noah Moxham (University of St Andrews)

Gain insight into activity of the Royal Society and its Fellows on the streets of 17<sup>th</sup> century London and the many ways the Society and the city influenced the other.

Established in 1660, the life of the Royal Society has always been closely bound up with the life of the city. Members met in coffee-houses, taverns, booksellers' shops and artisans' workshops to discuss, debate and exchange knowledge. Scientific work was not confined to the laboratory; experiments were conducted in church buildings, and animal dissections and medical consultations in the coffee-houses.

Join Dr Noah Moxham as he recounts how the Society dealt with plague, fire and war that shook the city during the 17<sup>th</sup> century.

### **Scientific conflict through the ages** **Sunday 20 September – 2:30pm**

Kanta Dihal (University of Oxford)

Take a deeper look into some of the most notorious cases of controversy and conflict in the history of science.

Science is not always as objective as one might think; it is often subject to interpretation and perception. As such, the history of science is rife with fierce, and sometimes very public, debates between individuals over accuracy, priority and ownership of ideas. Isaac Newton and Gottfried Leibniz famously battled over which of them invented calculus. An extended 'pamphlet war' erupted when mathematician John Wallis criticised Thomas Hobbes's calculations in *De Corpore*.

Join Kanta Dihal as she explores the involvement of the Royal Society in these conflicts and reflects on how they have influenced the public perception of science.

Attending these lectures:

- Free to attend
- Tickets available from the information desk, and allocated on a first-come-first-served basis, subject to availability.
- Doors will open 15 minutes prior to the start of the talk