

FREE LECTURES

2022-23



GRESHAM
COLLEGE

GRESHAM COLLEGE

LECTURES 2022-23

Gresham College has been making world-class knowledge and high-quality education freely accessible to the public since 1597. Today we bring together some of the world's most brilliant minds from Professor Joanna Bourke to Ronald Hutton and Chris Whitty - to speak in fields ranging across the arts and sciences.

NEW: PAGANISM, NET ZERO, HUMANISING CYBERSPACE, REIMAGINING THE LAW, MICROBES

The highlights in this year's lecture series include a series on *Why Net Zero?* by the physicist behind Net Zero, Professor Myles Allen; *Finding Britain's Lost Gods*, by Professor Ronald Hutton, who is a world-leading authority on the history of paganism; *Humanising Cyberspace* by Professor Victoria Baines, which will consider how to get the kind of cyberspace we want; *Reimagining the Law* by Professor Leslie Thomas QC, which will look at whether we really need barristers, judges, juries and police forces; while *All the World's A Microbe* by Professor Robin May will explore the complex interaction of microbes with cells, including in the human body.

ENVIRONMENTAL HEALTH SERIES: THE EXPOSOME, MEDICAL LAW, CHRIS WHITTY ON THE HEART

New Visiting Professor Ian Mudway will give an environmental health series on the *Exposome*; Visiting Professor Imogen Goold is back with lectures on gene editing, assisted dying and mandatory vaccination; and Emeritus Professor Chris Whitty will give three lectures on diseases of the heart. There will be a series of lectures on our most famous Professor, Sir Christopher Wren, for the 300th anniversary of his birth.

NEW SCHOOLS' ORACY COMPETITION

We are launching a communication / oracy competition for Year 12 students this year focused on the environment. Find out more here gres.hm/competition

THANK YOU TO OUR SPONSORS

We are very grateful for the continued support of our sponsors, the City of London Corporation and the Mercers' Company, our partners including the Frank Jackson Foundation and the Worshipful Company of Information Technologists, and individual donors. Become a Friend of Gresham College by donating today. gres.hm/donate



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GRESHAM COLLEGE HISTORY

Gresham College was London's first institute of higher education when it was founded in 1597 by Sir Thomas Gresham. Unusually for the time, Gresham lectures were free and given in both English and Latin - most other higher education of the period was in Latin only - making it accessible to anyone who had the time to attend. It has been providing free education to the public ever since.

ESSENTIAL INFORMATION

EMAIL UPDATES

Get email updates from the College by signing up here:

[gresham.ac.uk/
newsletter](https://gresham.ac.uk/newsletter)

REGISTER AT

gresham.ac.uk

CODE OF CONDUCT

Read our code of conduct for lectures:

gres.hm/policy

CONTACT US

[enquiries@
gresham.ac.uk](mailto:enquiries@gresham.ac.uk)

WATCH ONLINE NOW

We have over 2,500 videos on our new website that are ready to watch now and have transcripts to download. You can explore them by subject or speaker.

VENUES

This year, we are not publishing venues for the lectures in this programme. These are all in central London and will be announced closer to the dates of the lecture, and all registered attendees will be notified of the venue once they are announced.

REGISTER FOR 2022–23 LECTURES

All our lectures are free. We will live-stream all our lectures in 2022–23 and will also be taking bookings for in-person attendance. Registration for live stream events is available for all events now, via our website.

All lectures are ticketed. Registration for in-person tickets normally opens on the website 2 months ahead of the lecture date. We over-issue tickets because of no-shows, so please be aware a ticket will not guarantee entry.

SCHOOL AND COLLEGE BOOKINGS

We offer free school and college group bookings for most lectures. Please email: enquiries@gresham.ac.uk

ATTENDING IN PERSON

Doors open 30 minutes ahead of the lecture and most lectures last an hour. Please be ready to be seated at least 10 minutes before the start of the lecture. For most lectures, you can still turn up for returns on the door.

Where there are seats available the last admission is 10 minutes after the start of the lecture. We do not allow people to save seats.

MAKE A DONATION

THANK YOU FOR SUPPORTING GRESHAM COLLEGE

For more than 400 years, Gresham's mission has been to provide access to high quality education and knowledge to all those who seek it. As Gresham receives no Government funding, it is thanks to the generosity of our sponsors and supporters that we have been able to provide this offering free of charge since 1597.

Open access to knowledge and education has never been more important than it is today. With your support, we will be able to extend our lecture programme to offer new ways of learning, both in person and online, and reach bigger and broader audiences than ever before.

WAYS TO DONATE

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giftaid it

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ASTRONOMY

COSMIC CONCLUSIONS

KATHERINE BLUNDELL

GRESHAM PROFESSOR OF ASTRONOMY

The End of Planetary Atmospheres

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The End of Our Sun

6 pm Wednesday 2 November 2022

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The End of Massive Stars

6 pm Wednesday 18 January 2023

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Christopher Wren's Cosmos

6 pm Wednesday 22 February 2023

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The End of Life on Earth

6 pm Wednesday 29 March 2023

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The End of the Universe

6 pm Wednesday 31 May 2023

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ENVIRONMENT

WHY NET ZERO?

MYLES ALLEN

FRANK JACKSON FOUNDATION PROFESSOR OF THE ENVIRONMENT

Why Net Zero?

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The Atmospheric Physics Behind Net Zero

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The Ocean Physics Behind Net Zero

6 pm Tuesday 31 January 2023

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The Carbon Cycle Behind Net Zero

6 pm Tuesday 7 March 2023

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The Trillionth Tonne of Carbon: Why It Matters For Climate Change

6 pm Tuesday 18 April 2023

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How the World Agreed on Net Zero

6 pm Tuesday 23 May 2023

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ENVIRONMENTAL HEALTH

IAN MUDWAY

VISITING PROFESSOR OF ENVIRONMENTAL HEALTH

What Is the Exposome and Why Does It Matter to Your Health?

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London's Air: The 70th Anniversary of the Great London Smog

6 pm Monday 5 December 2022

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Lungs, Gut, and Skin: Biological Interfaces with the Outside World

6 pm Monday 27 March 2023

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BUSINESS

THE TECH REVOLUTION IN FINANCE

RAGHAVENDRA RAU

MERCERS' SCHOOL MEMORIAL PROFESSOR OF BUSINESS

Bypassing Banks Using Tech

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Trust and Cryptocurrencies

6 pm Monday 14 November 2022

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DeFi, Crypto, and NFTs in Business

6 pm Monday 23 January 2023

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Big Data in Business

6 pm Monday 27 February 2023

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AI in Business

6 pm Monday 22 May 2023

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The Risks of Technology in Business

6 pm Monday 5 June 2023

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LAW

REIMAGINING THE LAW

LESLIE THOMAS

GRESHAM PROFESSOR OF LAW

Do We Need Juries?

6 pm Thursday 29 September 2022

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Do We Need Judges?

6 pm Thursday 1 December 2022

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Do We Need Barristers?

6 pm Thursday 2 February 2023

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Does the Adversarial System Serve Us Well?

6 pm Thursday 9 March 2023

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Do We Need Criminal law?

6 pm Thursday 20 April 2023

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Do We Need The Police?

6 pm Thursday 25 May 2023

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MEDICAL LAW

IMOGEN GOOLD, VISITING PROFESSOR OF MEDICAL LAW

Should We Permit Voluntary Assisted Dying?

1 pm Monday 24 October 2022

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Would it be Right to Make Vaccination Mandatory?

1 pm Monday 16 January 2023

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Gene Editing: A New Legal Frontier

1 pm Monday 17 April 2023

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HISTORY

A CULTURAL HISTORY OF DISEASE

JOANNA BOURKE, GRESHAM PROFESSOR OF RHETORIC

- Tuberculosis: A Cultural History**
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- Polio: A Cultural History**
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- Breast Cancer: A Cultural History**
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- AIDS: A Cultural History**
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- Sickle Cell Disease: A Cultural History**
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ANCIENT LANDSCAPES OF BRITAIN

- Stonehenge: A History**
Mike Pitts
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- Landscapes of Roman Britain**
Martin Millett
6 pm Wednesday 15 March 2023 See Page 46
- The Medieval Agricultural Revolution: New evidence**
Helena Hamerow
6 pm Thursday 23 March 2023 See Page 48

ARCHITECTURE AND THE COURT

SIMON THURLEY

VISITING PROFESSOR OF THE BUILT ENVIRONMENT

- Progresses: Royal Courts on the Move in Tudor and Stuart England**
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- Sir Christopher Wren: Architect & Courtier**
6 pm Wednesday 14 June 2023 See Page 63

BLACK HISTORY MONTH

- The Lost Cities and Amazing Heritage of Kenya**
Robin Walker
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- Toussaint Louverture and the Haitian Revolution**
Sudhir Hazareesingh
6 pm Monday 17 October 2022 See Page 21
- The Politics of Fabric and Fashion in Africa 1960-Today**
Christine Checinska
6 pm Thursday 20 October 2022 See Page 23

HISTORY

BRITAIN'S EMPIRE AND THE ECONOMY

MARTIN DAUNTON

VISITING PROFESSOR OF ECONOMIC HISTORY

Why Did Europe's Economies Diverge from Asia?

6 pm Tuesday 8 November 2022

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Slavery and the British Economy

6 pm Tuesday 7 February 2023

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Who Benefited From the British Empire?

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PORTRAITURE AND POWER

Louis XIV: Versailles, Europe and the Arts

Philip Mansel

6 pm Wednesday 25 January 2023

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Queen Victoria: Images of Power and Empire

Jane Ridley

6 pm Wednesday 15 February 2023

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Portraits of Queen Elizabeth II: The Artists' Challenges

Philip Mould

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Portraits of Native Americans from Pocahontas to Sitting Bull

Stephanie Pratt

6 pm Tuesday 28 March 2023

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WREN 300

Christopher Wren's Cosmos

Katherine Blundell

6 pm Wednesday 22 February 2023

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The Mathematical Life of Sir Christopher Wren

Sarah Hart

1 pm Tuesday 7 March 2023

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Christopher Wren's Medical Discoveries: the 'Architect of Human Anatomy'

Jaideep Pandit

6 pm Wednesday 17 May 2023

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Sir Christopher Wren: Architect & Courtier

Simon Thurley

6 pm Wednesday 14 June 2023

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Lives in Limbo: Jewish Refugees in Portugal, 1940–1945

Marion Kaplan

6 pm Wednesday 23 November 2022

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The History of Barts' Hospital: Barts at 900

Charles Knight

6 pm Thursday 4 May 2023

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LITERATURE

POWERS OF THE NOVEL

JOHN MULLAN

VISITING PROFESSOR OF ENGLISH LITERATURE

Adultery in the Novel, from Flaubert to Sally Rooney

6 pm Wednesday 26 October 2022

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Historical Fiction from Sir Walter Scott to Georgette Heyer and Hilary Mantel

6 pm Wednesday 1 March 2023

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Endings in the Novel, from Austen and Dickens to Edward St Aubyn and Rachel Cusk

6 pm Wednesday 5 April 2023

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MATHEMATICS

MATHS AND MONEY

SARAH HART

GRESHAM PROFESSOR OF GEOMETRY

The Maths of Coins and Currencies

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The Maths of Game Theory

1 pm Tuesday 22 November 2022

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Lottery-Winning Maths

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UNEXPECTED MATHEMATICAL LIVES

SARAH HART

GRESHAM PROFESSOR OF GEOMETRY

The Mathematical Life of Sir Christopher Wren

1 pm Tuesday 7 March 2023

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The Mathematical Life of Florence Nightingale

1 pm Tuesday 16 May 2023

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Alan Turing: Pioneer of Mathematical Biology

1 pm Tuesday 6 June 2023

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Ideas About Proof in Mathematics

Agathe Keller, Richard Oosterhoff & Fenner Tanswell

4 pm Wednesday 19 October 2022

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The London Mathematical Society Lecture

Holly Krieger

6 pm Wednesday 24 May 2023

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Connecting the Dots: Milestones in Graph Theory

Robin Wilson

6 pm Tuesday 13 June 2023

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MEDICINE & HEALTH

ALL THE WORLD'S A MICROBE

ROBIN MAY

GRESHAM PROFESSOR OF PHYSIC

The Microbial Basis of Life

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Microbial Megastructures

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Microbial Master-Chemists

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Microbial Record-Breakers

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How Microbes Manipulate Life

6 pm Wednesday 22 March 2023

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A Microbial Future

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DISEASES OF THE HEART

CHRIS WHITTY

VISITING PROFESSOR OF PUBLIC HEALTH

Coronary Heart Disease

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Rhythm Disturbances of the Heart

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Diseases of the Heart Structure, Muscle and Valves

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LIVING WITH MENTAL HEALTH

Living with Mental Health

Monica Lakhanpaul

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Anxiety in Children

Cathy Creswell

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Guy Leschziner

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Monica Lakhanpaul

6 pm Thursday 15 September 2022

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MUSIC

THE LIFE OF CHORDS

MARINA FROLOVA-WALKER

GRESHAM PROFESSOR OF MUSIC

Triads, Major and Minor

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The Dominant Seventh Chord

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Musical Cadences

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Diminished and Augmented Chords

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Famous Chords

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Life Without Chords? – Atonal Music

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POLITICS

POWER, POLITICS AND NATIONHOOD

War and Peace in Europe from Hitler to Putin

Richard Evans

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Britain's Foreign Policy in a Fast-Changing World

Peter Ricketts

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Partition of British India: 75 Years On

Kavita Puri

6 pm Tuesday 1 November 2022

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Opposition in Russia: The Trials of Alexei Navalny

Thomas Grant

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The Irish Question and the Ulster Question Then and Now

Vernon Bogdanor

6 pm Wednesday 16 November 2022

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The Israel-Palestine Conflict: Religion, Violence and Peacebuilding

Jolyon Mitchell

1 pm Tuesday 6 December 2022

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The Annual Sir Thomas Gresham Lecture 2023

Rory Stewart

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RELIGION

FINDING BRITAIN'S LOST GODS

RONALD HUTTON

GRESHAM PROFESSOR OF DIVINITY

Gods of Prehistoric Britain

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Paganism in Roman Britain

6 pm Wednesday 7 December 2022

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Anglo-Saxon Pagan Gods

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Viking Pagan Gods in Britain

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Finding Lost Gods in Wales

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How Pagan Was Medieval Britain?

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WOMEN IN WORLD RELIGIONS

Women Leaders in Early Christianity

Morwenna Ludlow

1 pm Wednesday 5 April 2023

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Reclaiming Women in the Hebrew Bible

Deborah Kahn-Harris

1 pm Tuesday 25 April 2023

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Women, Islam and Prophecy

Shuruq Naguib

1 pm Tuesday 9 May 2023

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Situated in a quiet courtyard between London's City and the West End, our prestigious historic venue is ideal for meetings, lectures, parties and functions. Get in touch with hall-booking@gresham.ac.uk to find out more or visit our website gresham.ac.uk/hire-the-hall/

TECHNOLOGY

HUMANISING CYBERSPACE

VICTORIA BAINES

IT LIVERY COMPANY PROFESSOR OF INFORMATION TECHNOLOGY

Who Owns the Internet?

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What is the Metaverse?

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How To Fight Fake News

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What's The Problem With Encryption?

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Defeating Digital Viruses: Lessons From the Pandemic

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Cybersecurity for Humans

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ENGINEERING THE MODERN WORLD

Picturesque Engineering: Telford's Highland Roads and Bridges

Paul Marriott

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What Is the Role of Nuclear Power in a Net Zero System?

Sue Ion

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Architects and Engineers: Making Infrastructure Beautiful

Sadie Morgan

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The Future of Tall Buildings

Roger Ridsdill Smith

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IMPACT OF TECHNOLOGY IN MEDICINE, EDUCATION AND AI

Are We Too Reliant on Medical Imaging?

Owen Arthurs

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Rethinking Learning: New Models for Online Learning

Tom Crick

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Machine Learning and the 4th Industrial Revolution

Loubna Bouarfa

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SEPTEMBER



**6 pm Wednesday
14 September**

Progresses: Royal Courts on the Move in Tudor and Stuart England

gres.hm/royal-progresses

Simon Thurley

Visiting Professor of the Built Environment

Most summers Tudor and Stuart monarchs took their court on an extended progress round the home counties staying at their own palaces and the houses of their courtiers. The cost and impact of hundreds of people, their horses and servants, was considerable; for the aristocratic hosts a royal visit was a momentous event. This lecture draws on new research to reveal who they benefited, their impact on the economy, the landscape and on architectural ambition.



**6 pm Thursday
15 September**

Long Covid

gres.hm/long-covid

Monica Lakhanpaul

University College London

No one has been left untouched by COVID-19. Many individuals have been left with the physical and mental health consequences of the virus- now known as long Covid. This lecture looks at the medical issues, and the new therapies and treatments that are emerging. Those not physically infected by the virus continue to experience the broader impact of the virus; the increasing social inequalities and loss of employment, education and loved ones.

What Is the Exposome and Why Does It Matter to Your Health?

gres.hm/exposome

Ian Mudway

Visiting Professor of Environmental Health

Our health and susceptibility to disease are not wholly written in our genes. They are influenced throughout our lives by the environments in which we live, through our exposures to chemical agents, the infections we experience, to the psychosocial stresses of daily life. This appreciation of the role our environment plays in shaping our health and wellbeing is encompassed in the concept of the exposome, bringing together advanced statistical methods, exposure science and modern multi-omic techniques to better understand disease development and exacerbation.



**6 pm Monday
19 September**



Who Owns the Internet?

gres.hm/owns-internet

Victoria Baines

IT Livery Company Professor of Information Technology

The emergence of the global Internet challenged the notion that states have sovereignty over what their citizens see and hear, and what they can say. Governments around the world shut or slow down internet access for political and security reasons, and prohibit the online publication of undesirable content. How are they able to do this, when so much of the world's internet infrastructure is outside their control? And what are the prospects for future regulation of our online interactions?

**6 pm Tuesday
20 September**



**6 pm Wednesday
21 September**

Gods of Prehistoric Britain

gres.hm/prehistoric-gods

Ronald Hutton

Gresham Professor of Divinity

Britain has one of the richest of all pagan heritages in Europe, defined as the textual and material evidence for its pre-Christian religions. The island is possessed of monuments, burial sites and a range of other remains not only from several distinct ages of prehistory, but also from three different major historic cultures. This lecture will look at what we know of prehistoric worship, focusing on Stonehenge and the bog body known as Lindow Man, to examine the difficulties of interpreting evidence for ritual behaviour for which no textual testimony survives.



**6 pm Tuesday
27 September**

War and Peace in Europe from Hitler to Putin

gres.hm/hitler-putin

Richard Evans

Gresham College Provost (2014-2020)

How can we understand the war in Ukraine in the light of European history over the past century? Is Putin a '20th-century Hitler' as some have called him? What are his aims, and how do they compare with those of the Nazis during the Second World War? Why are the Ukrainians resisting the Russian invasion so fiercely? This lecture attempts to explain the nature of the current conflict by setting it in its historical and geopolitical context.



The End of Planetary Atmospheres

gres.hm/end-atmospheres

Katherine Blundell

Gresham Professor of Astronomy

Planet Venus is a hellish place and seemingly hostile to life, although recent measurements claimed the detection of biogenic signatures. Less than a billion years ago, Venus's atmosphere underwent a dramatic runaway greenhouse effect rendering it likely to be uninhabitable. This lecture will consider what can be learned about the possibility of catastrophic climate change on Planet Earth, in the light of thermodynamics and of what has happened to Earth's twin, Venus.

Do We Need Juries?

gres.hm/juries

Leslie Thomas

Gresham Professor of Law

This lecture looks at the development of juries in the common law world, addressing key questions about the role of juries in England and Wales today. Juries in modern English law are mainly used in criminal trials, civil trials, and coroners' inquests, and the English jury system differs from other common law jurisdictions, some of which use juries more, less, or not at all. What are the strengths and weaknesses of the jury system, and do jury trials or bench trials deliver fairer outcomes?

**6 pm Wednesday
28 September**



**6 pm Thursday
29 September**

OCTOBER

Bypassing Banks Using Tech

gres.hm/bypass-banks

Raghavendra Rau

Mercers' School Memorial Professor of Business

Financial intermediaries, like banks, mutual funds and brokers, who connect investors to firms (who need finance), have existed for thousands of years. Because they control a scarce resource, information, these intermediaries are expensive. Platforms, like crowdfunding platforms (organised meeting places for investors to meet firms), offer an alternative. Today's technological revolution is all about the competition between centralized intermediaries and decentralized platforms. This lecture discusses the technological innovations that are responsible for this competition: crypto, big data, and AI.



**6 pm Monday
03 October**



**6 pm Tuesday
04 October**

Are We Too Reliant on Medical Imaging?

gres.hm/medical-imaging

Owen Arthurs

Great Ormond Street Hospital

Imaging is used every day in medical healthcare, and the likelihood is that if you go to hospital that you will receive an X-ray, ultrasound or CT scan. With increasing reliance on complex imaging and the NHS now at breaking point, this lecture asks whether we have become too reliant on imaging and if so, how that manifests in today's healthcare. This lecture assesses the potential advantages and disadvantages of such a system and what the potential solutions might be.



The Microbial Basis of Life

gres.hm/microbial-life

6 pm Wednesday
05 October

Robin May

Gresham Professor of Physics

Single-celled microbes underpin all life on Earth, and even complex organisms like humans retain a surprising amount of their microbial heritage. Life began when free molecules became encapsulated in a lipid membrane and transformed into a self-replicating entity. Subsequently, multiple cells came together, forming a remarkable symbiosis that ultimately led to all complex, eukaryotic, cells and laid the foundations for multicellular life. Understanding this microbial legacy has some surprising implications, such as explaining why some antibiotics have unwanted side effects.

Tuberculosis: A Cultural History

gres.hm/tb-history

Joanna Bourke

Gresham Professor of Rhetoric

Tuberculosis (and especially drug resistant strains) is a major global health problem, with over nine million people developing the disease annually and 1.5 million dying from it. The history of TB reveals the complex and often contradictory meanings assigned to this disease. The terms used to talk about TB – phthisis, consumption, the “white plague”, and the “wasting disease”, for example – reveal a great deal about popular perceptions relating to contagion and individual social responsibility.



6 pm Thursday
06 October



1 pm Tuesday
11 October

The Maths of Coins and Currencies

gres.hm/maths-coins

Sarah Hart

Gresham Professor of Geometry

People have used money – and made counterfeits - for thousands of years. Archimedes came up with a clever way of finding out if you've been cheated by a goldsmith. Making coins with the right proportions of the right metals presented a huge mathematical challenge for Fibonacci and other mathematicians in the middle ages. This lecture will discuss mathematical elements of coin design, denominations, and why former Gresham Professor of Astronomy Sir Christopher Wren favoured decimal coinage.



6 pm Tuesday
11 October

Why Net Zero?

gres.hm/why-net-zero

Myles Allen

Frank Jackson Foundation Professor of the Environment

What will it take to stop global warming and how long have we got? These are huge questions for humanity, nature, society and geopolitics. Understanding our changing weather and its impacts is one of the greatest scientific challenges of our time. But understanding how to stop changing it turns out to be surprisingly simple. You don't need to be a scientist or policy wonk to appreciate what it will take to stop global warming. Focusing on fundamentals has surprising implications.

The Lost Cities and Amazing Heritage of Kenya

gres.hm/kenya-cities

Robin Walker

The coast of Kenya has a series of impressive medieval ruins. Amongst the monuments are tombs, grand houses, mosques, and palaces. East African archaeologists date the high point of this heritage to the 13th century. The Kenyan museums contain impressive, reconstructed artefacts that animated the urban life of these lost cities. In this lecture, Robin Walker will present this heritage and put it in its proper place as a powerful chapter in Africa's history.



**6 pm Wednesday
12 October**

Triads, Major and Minor

gres.hm/triads

Marina Frolova-Walker

Gresham Professor of Music

The major triad is considered the foundation of tonal music, its privileged position owed to its presence in the harmonic series of acoustics. The minor triad lacks this acoustic foundation, which led to it being treated as less stable, and even pieces in a minor key usually ended on the major form of the same triad. From the late 18th century onwards, major was paired with joy and minor with sorrow, and composers could play with these associations.



**6 pm Thursday
13 October**

Toussaint Louverture and the Haitian Revolution

gres.hm/toussaint-louverture

Sudhir Hazareesingh, University of Oxford

Toussaint Louverture (the "Black Spartacus"), was one of the main leaders of the Haitian Revolution (1791-1804), which overthrew slavery and led to the proclamation of the world's first independent post-colonial state. The lecture discusses his extraordinary life and legacy, as well as the international impacts of the Haitian Revolution across the 19th and 20th centuries, and how its ideals of equality, justice, and solidarity are still relevant to our times.



**6 pm Monday
17 October**



6 pm Tuesday
18 October

Britain's Foreign Policy in a Fast-Changing World

gres.hm/britains-fp

Peter Ricketts

King's College London

The 2022 Peter Nailor Memorial Lecture

For 40 years Britain's national strategy rested on two main pillars: close partnership with the United States, and a leading role in Europe. Both remain important, but the dramatic shifts in global geopolitics of recent years must make us re-appraise Britain's diplomatic priorities. How has Russia's aggression in Ukraine changed the focus of our foreign policy? How can the UK- outside the EU- best exercise influence to protect its interests and promote its values in a fast-changing world?



4 pm Wednesday
19 October

Ideas About Proof in Mathematics

gres.hm/mathis-proof

Agathe Keller, Université Paris Diderot,

Richard Oosterhoff, University of Edinburgh

Fenner Tanswell, University of Loughborough

Joint lecture with the British Society for the History of Mathematics.

This event will focus upon mathematical proofs. The main speaker, Professor Agathe Keller (6pm) will look at decolonisation of the history of proofs, providing examples outside of what has been called a "colonial library", using, in particular, Sanskrit sources. This will be preceded by shorter presentations by Dr Richard Oosterhoff (4pm) on *The Invention of Mathematical Proof in the Renaissance*, and Dr Fenner Tanswell (4.45pm) on *How Mathematical Proofs Are Like Recipes*.



The Politics of Fabric and Fashion in Africa 1960-Today

gres.hm/africa-fashion

Christine Checinska

Victoria and Albert Museum

1960 was the year of Africa. Over seventeen countries rid themselves of colonial rule and a new sense of pride in being Black and African was expressed through myriad artforms, notably via the fashioning of the body. Using objects in the V&As 'Africa Fashion' exhibition this lecture explores how fibre and fabric carried meaning in the moment of independence and carries meaning now in the cutting-edge work of Africa's contemporary fashion creatives, Aphia Sakyi, Thebe Magugu and Artsi Ifrach.

**6 pm Thursday
20 October**

Should We Permit Voluntary Assisted Dying?

gres.hm/voluntary-dying

Imogen Goold

Visiting Professor of Medical Law

The English courts have wrestled with challenges to the restrictions on euthanasia and assisted suicide for years, while the government has resisted calls to liberalise the law. Meanwhile, terminally ill people continue to travel overseas to clinics such as Dignitas, to end their lives. Assisted dying raises fundamental questions about respect for individual autonomy, protection of the vulnerable and the role the State should play. This lecture will explain the law and explore arguments for and against liberalisation.



**1 pm Monday
24 October**



6 pm Tuesday
25 October

What is the Metaverse?

gres.hm/metaverse

Victoria Baines, IT Livery Company
Professor of Information Technology

What exactly is the Metaverse? And is it really that new? This talk will explore our emotional connections to cyberspace, our feelings of presence and immediacy in online environments, and what this means for the intensity of our experiences, good and bad. As technology promises ever more immersive, embodied experiences involving 360 degree vision, touch, and even taste, how might this merging of cyber and physical affect our lives?



6 pm Wednesday
26 October

Adultery in the Novel, from Flaubert to Sally Rooney

gres.hm/adultery-novel

John Mullan,
Visiting Professor of English Literature

Adultery became the subject of some of the greatest European novels of the nineteenth century, including *Madame Bovary* and *Anna Karenina*. English novels of the period needed adultery for their plots, yet flinched from treating the subject openly. Through the twentieth century to the present – from *Ulysses* and *A Handful of Dust* to recent fiction by Zadie Smith, Tessa Hadley and Sally Rooney – adultery has fascinated novelists. Why is this? And do male and female authors treat adultery differently?



6 pm Monday
31 October

Rethinking Learning: New Models for Online Learning

gres.hm/online-learning

Tom Crick, Swansea University

During the pandemic global education was disrupted. From the "emergency remote teaching" phase of 2020, through to new models of online and hybrid learning, we have seen significant changes in the perception of digital education and how it compares to traditional face-to-face approaches. This lecture will explore the future of digital education, and what this means for learners and teachers from schools and universities, and for examiners, especially in the context of major curriculum and qualifications reforms across the UK.

NOVEMBER

Partition of British India: 75 Years On

gres.hm/india-partition

Kavita Puri, BBC

*The 2022 Royal Historical Society
Colin Matthew Memorial Lecture*

The partition of British India in 1947 was the world's largest migration outside war and famine. It may feel like a distant historical event, but 75 years on its impact continues to resonate in India, Pakistan, Bangladesh and in Britain. Many of those who lived through that tumultuous time migrated to Britain. In this lecture, which considers the importance and power of oral history, we will hear first-hand testimonies, understand why many partition survivors chose silence and are speaking now, and how its legacy persists down the generations.



**6 pm Tuesday
01 November**

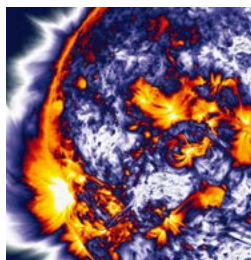
The End of Our Sun

gres.hm/end-sun

Katherine Blundell

Gresham Professor of Astronomy

Our nearest star, that is the engine sustaining life on Earth, will one day run out of fuel. When this happens, the Sun will start expanding dramatically, forming a red giant and engulfing much of the solar system including the inner planets, vaporizing oceans; formerly icy planets will become habitable.



**6 pm Wednesday
02 November**

Machine Learning and the 4th Industrial Revolution

gres.hm/machine-learning

Loubna Bouarfa, OKRA Technologies

AI technology is already changing the face of the world as we know it. This lecture looks at the reasons why AI is hailed as an unprecedented revolution using practical examples from healthcare and business. Humans and machines will coexist and make joint decisions, but what does this mean for humanity? Learn what this gigantic shift, a 4th industrial revolution, entails and how you can harness the benefits and avoid the traps.



**6 pm Thursday
03 November**



**6 pm Monday
07 November**

Opposition in Russia: The Trials of Alexei Navalny

gres.hm/navalny-trials

Thomas Grant

Visiting Professor of Politics and Law

Alexei Navalny is the leading opposition leader in Russia. He is also currently serving a lengthy prison sentence in a Russian correctional colony. This lecture will look at the use of the processes of the law by the Russian state to silence and isolate Navalny and to neutralise other forms of internal dissent. It will consider more widely the state of the rule of law in Russia since its invasion of Ukraine.



**6 pm Tuesday
08 November**

Why Did Europe's Economies Diverge from Asia?

gres.hm/diverge-asia

Martin Daunt

Visiting Professor of Economic History

The levels of income in parts of China and India were similar to those in Europe in the Middle Ages, until the Mediterranean pulled ahead – followed by northern Europe, initially Holland and then Britain. This 'great divergence' was one of the fundamental shifts in history – and is only now being reversed. Did the divergence arise from imperialism and a 'drain' of wealth from Asia, or did it arise from internal features of Asian and European Society?



**6 pm Wednesday
09 November**

Microbial Megastructures

gres.hm/microbial-megastructures

Robin May, Gresham Professor of Physics

Invisible microbes have created some of the largest structures on the planet. Mycorrhizal fungi form extraordinary subterranean networks that associate symbiotically with plant roots. Most land plants, including many human crops, need mycorrhizae for optimal growth, but recent research has shown they also play important roles in forest-wide communication and may even turn some trees into carnivores. More dramatically, microbial communities have created global landmarks ranging from the White Cliffs of Dover to the Great Barrier Reef.

Polio: A Cultural History

gres.hm/polio-history

Joanna Bourke

Gresham Professor of Rhetoric

Polio has a major role in the cultural history of the West. The early symptoms – which were often mild flu-like symptoms – would end in paralysis. Vaccinations against the disease proved controversial, given their trials on incarcerated prisoners and the use of “poster children”. Epidemics of the disease illustrate the uneven transmission of ideas about health and sickness. They show how the period’s germ theories resulted not only in mass deaths, but also in the demonisation of immigrants and poor households.



Image: © City of Boston Archives CC BY 3.0

**6 pm Thursday
10 November**



Trust and Cryptocurrencies

gres.hm/trust-crypto

Raghavendra Rau

Mercers' School Memorial Professor of Business

The crypto movement began as a reaction to the concentration of economic power in the traditional financial system (and associated financial crises). It involved the creation of a new type of financial recording system, that did not depend on any one individual keeping records, did not allow falsification, and prevented fraud and double spending. Crypto is underpinned by public-private key encryption, hashing and mining and allows a completely decentralised system to write enforceable contracts that cannot be altered once written.

**6 pm Monday
14 November**



**6 pm Wednesday
16 November**

The Irish Question and the Ulster Question Then and Now

gres.hm/irish-ulster

Vernon Bogdanor

Emeritus Gresham Professor of Law

Britain before 1914 was convulsed by the Irish Question. Since the Act of Union of 1800, Ireland had been governed without the consent of the vast majority of Irish Catholics, who comprised around 3/4 of the population. Home Rule was the suggested solution. But there was a second question, the Ulster Question arising from the presence of a large Protestant minority in the north east of Ireland, who rejected rule from Dublin. This lecture asks whether better answers are available today.



**1 pm Tuesday
22 November**

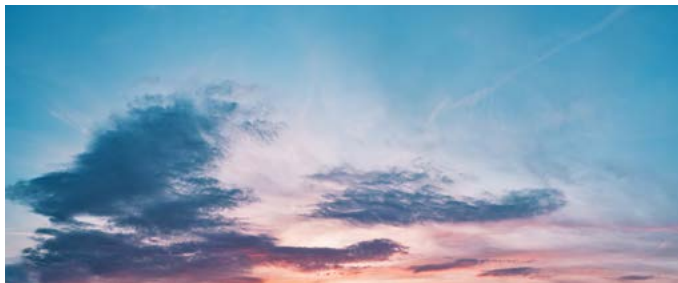
The Maths of Game Theory

gres.hm/game-theory

Sarah Hart

Gresham Professor of Geometry

When we buy, sell, bargain, barter, bid at auctions, and compete for resources, we want to be sure that we are using the best strategies. Game theory can help us understand precisely these kinds of situations. That's why in 1994, the Nobel Prize for Economics was won by a mathematician – John Nash. Using games like the Prisoner's dilemma, this lecture explains the work of game theorists such as Nash, David Blackwell and John von Neumann.



The Atmospheric Physics behind Net Zero

gres.hm/atmospheric-zero

Myles Allen

Frank Jackson Foundation Professor of the Environment

Before net zero, climate policy was all about contraction and convergence of emissions between rich and poor to achieve, in the words of the Rio Convention, “stabilization of greenhouse gas concentrations in the atmosphere” at a safe level. But scientists struggled to establish what that “safe” level was, making little progress in over a quarter of a century. And it was not because we were incompetent: for fundamental reasons in physics and probability theory, we were asking the wrong question.

Lives in Limbo: Jewish Refugees in Portugal, 1940–1945

gres.hm/refugees-portugal

Marion Kaplan

New York University

The Alfred Wiener Holocaust Memorial Lecture

This lecture highlights the experiences of Jewish refugees fleeing from antisemitic persecution and from World War II to Portugal. It describes how they were treated, how they attempted to escape Europe, and how they struggled in a “no-man’s land” between a painful past and an unknown future. Listening to their voices may help us to understand Jewish heartbreak and perseverance in the 1940s and encourage us to listen compassionately to refugees’ stories today.

**6 pm Tuesday
22 November**



**6 pm Wednesday
23 November**



6 pm Thursday
24 November

The Dominant Seventh Chord

[gresham.ac.uk/dominant-seventh](https://www.gresham.ac.uk/lectures/dominant-seventh)

Marina Frolova-Walker

Gresham Professor of Music

The name might sound forbiddingly technical, but the chord is immediately recognisable and it has played a hugely important role in tonal music. This is a chord of action and motion: it sounds unstable and incomplete, leading the listener to expect the particular triad that is its normal target. Without this chord, what we call Viennese classicism (Haydn-Mozart-Beethoven) would have been impossible. We will also look at how composers play with the expectations generated by the chord.

DECEMBER

Do We Need Judges?

gres.hm/judges

Leslie Thomas

Gresham Professor of Law

What is the role of the judiciary in England and Wales, how did it develop, and how does it compare with other countries? This lecture will examine how judges are appointed, whose interests they serve, and who they are accountable to. It will examine the relationship between an independent judiciary and the rule of law, and what ideological assumptions underpin the judicial function in modern liberal democracies. Do our judges have the training, understanding and skills to perform their roles?



**6 pm Thursday
01 December**



London's Air: The 70th Anniversary of the Great London Smog

gres.hm/londons-air

Ian Mudway

Visiting Professor of Environmental Health

On the 5th of December 1952 London experienced a major pollution episode, the Great Smog, resulting in thousands of deaths throughout the city. On the 70th anniversary of this event, the lecturer will review how air pollution has changed in the intervening period, the evidence that it is still having profound effects on our health and the effectiveness of measures to ensure clean air and better public health.

**6 pm Monday
05 December**



1 pm Tuesday
06 December



6 pm Tuesday
06 December



6 pm Wednesday
07 December

The Israel-Palestine Conflict: Religion, Violence and Peacebuilding

gres.hm/israel-palestine

Jolyon Mitchell, *University of Edinburgh*

Drawing on examples from the Israel-Palestine conflict, this lecture explores contrasting approaches, theories and practices for interpreting the relationship between religion and violence. It argues that understanding that religion can both incite violence and promote peace is vital for building peace in the Middle East. It will explore the Myth of Redemptive Violence theory; the Mimetic Violence and Scapegoat theory; and the Myth of Religious Violence theory.

How To Fight Fake News

gres.hm/fight-fake

Victoria Baines, *IT Livery Company*
Professor of Information Technology

Fake news, influence operations, disinformation, misinformation and conspiracy theories are different flavours of falsehoods that have one thing in common: they put citizens in the front line of countering threats to democracies, national security, and community safety. This talk will explore governments' and platforms' efforts to counter falsehood, and what citizens can do to defend themselves, their loved ones, and ultimately their nations from influence operations.

Paganism in Roman Britain

gres.hm/paganism-roman

Ronald Hutton
Gresham Professor of Divinity

What was religion like in Roman Britain? What pre-Roman deities persisted? Which new gods came with Romans? This lecture looks at the evidence: inscriptions, statues and figurines, carvings and all the impedimenta of ritual, as well as the testimony of hundreds of burials. It shows how the Romans developed the cults of native deities such as Sulis and Belatucadros, and imported their own official divinities such as Jupiter and Mercury and mystery religions such as that of Mithras.

JANUARY

Coronary Heart Disease

gres.hm/coronary-heart

Chris Whitty

Visiting Professor of Public Health

Coronary heart disease caused by narrowing and blockage of the heart arteries causes angina, heart attacks and heart failure. It remains one of the commonest causes of mortality in the UK and globally. Public health interventions and improvements in treatment have steadily reduced deaths from coronary heart disease. This lecture will discuss the causes of coronary heart disease and advances in reducing its effects.



6 pm Tuesday
10 January

Microbial Master-Chemists

gres.hm/master-chemists

Robin May

Gresham Professor of Physic

Microbial chemistry makes bread rise and cheese mature, and turns grapes into wine. Microbes help make engine fuel, life-saving antibiotics and nano-particle sunscreens. Without fungi and bacteria, the world would sink under its own waste within days, since only these microbes have the ability to degrade complex polymers such as the lignin in plants. Might we be able to harness this amazing power of microbial degradation to help remove the human-made plastic mountain, or clean up toxic waste sites?



6 pm Wednesday
11 January

Breast Cancer: A Cultural History

gres.hm/breast-history

Joanna Bourke

Gresham Professor of Rhetoric

Breast cancer is one of the most dreaded diseases for women, not only because it can be a serious medical condition resulting in painful therapies, but because it is regarded as an assault on a sufferer's self-image and sexuality. Historically, women have responded to diagnoses of breast cancer in different ways. This lecture explores some of the shifting ideas about breast cancer, including the appropriation of "blame" (that is, debates about "stress" and carcinogenic environments).



6 pm Thursday
12 January



1 pm Monday
16 January

Would it be Right to Make Vaccination Mandatory?

gres.hm/mandatory-vaccination

Imogen Goold

Visiting Professor of Medical Law

Vaccination against disease has saved countless lives, yet it remains a controversial topic because of concerns some hold about safety and potential harms. Should we be legally required to vaccinate ourselves and our children? How important is individual choice when balanced against saving lives? To what extent should vaccination of children be a matter for parents or the state? This lecture considers the challenges we face in fighting disease while remaining a democratic, liberal society.



6 pm Wednesday
18 January

The End of Massive Stars

gres.hm/end-stars

Katherine Blundell

Gresham Professor of Astronomy

The evolution of our Sun from ordinary star into red giant is radically different from the evolution of much more massive stars towards their end-points: supernova explosions followed by black holes. This lecture will contrast the relevant nuclear physics and thermodynamics that determine these very different outcomes.



6 pm Thursday
19 January

Medical Experts in the Family Court: Where Two Worlds Collide

gres.hm/medical-family

Owen Arthurs

Great Ormond Street Hospital

Jo Delahunty

Emeritus Gresham Professor of Law

How does everyday medical practice get interpreted in the courtroom? In cases of child protection, do everyday decisions made in a resource-limited NHS stand up to cross-examination? Does the duty of care in hospital also extend to collecting evidence, and are the obligations of the doctor looking after a child different to the obligations of the expert commenting on them in retrospect? How does this affect the number of medical personnel willing to come forwards to give expert evidence?

DeFi, Crypto, and NFTs in Business

gres.hm/crypto-nfts

Raghavendra Rau

Mercers' School Memorial Professor of Business

How is the decentralised finance world organised? This lecture discusses how cryptographic technology is applied in business. It discusses blockchains and their uses. It explains how smart contracts, open code that automatically executes contracts once certain conditions are fulfilled, are used. It will also look at non-fungible tokens, a type of cryptographic asset on a blockchain with a unique identification code and metadata that distinguishes it from any other.



**6 pm Monday
23 January**

Louis XIV: Versailles, Europe and the Arts

gres.hm/versailles-arts

Philip Mansel, *Institute of Historical Research*

Louis XIV saw himself as a patron of the arts, as well as an absolute monarch and warlord. He talked to his favourite artists and writers, including Bernini, Racine, Andre Lenotre the gardener and Charles Lebrun the painter, almost as equals, and made Versailles an arts and entertainment centre rivalling Rome. Versailles's influence, like the French language, spread across Europe. In his range and passion, Louis XIV was unsurpassed as a patron of the arts, both in his time and later.



**6 pm Wednesday
25 January**

Musical Cadences

gres.hm/musical-cadences

Marina Frolova-Walker

Gresham Professor of Music

Composers of tonal music, from the 17th century through to the latest jazz tune or film score, think mainly in terms of how their chords succeed each other, rather than taking chords in isolation. We will investigate the most important succession of chords in Western music, the cadence. Cadences are a kind of punctuation, dividing music into sentences or periods. They are also responsible for creating a sense of relief or suspense.



**6 pm Thursday
26 January**



1 pm Tuesday
31 January

Lottery-Winning Maths

gres.hm/lottery-maths

Sarah Hart

Gresham Professor of Geometry

The field of probability started when a French nobleman asked the mathematician Blaise Pascal to solve a dispute for him about a game consisting of throwing a pair of dice 24 times. Pascal discussed this and other problems with fellow mathematician Pierre de Fermat, in a series of letters in which they arrived at the basic principles of probability theory. This lecture looks at dice, cards, lotteries, and other games of chance. Can mathematics help us win?



6 pm Tuesday
31 January

The Ocean Physics Behind Net Zero

gres.hm/ocean-zero

Myles Allen

Frank Jackson Foundation Professor of the Environment

Why is the deep ocean cold? And why does this matter for global warming? Doing the maths with pipes and plumbing, not computers, we explore how processes that keep the deep oceans at frigid Arctic temperatures also determine how fast the world is warming in response to rising greenhouse gas concentrations – and also explain why it would be so difficult to say when the warming would stop even if we were to stabilize greenhouse gas concentrations at today's levels forever.

FEBRUARY

Anglo-Saxon Pagan Gods

gres.hm/anglo-saxon-gods

Ronald Hutton

Gresham Professor of Divinity

When the Western Roman Empire crumbled, the Anglo-Saxon peoples who occupied Britain brought their own paganism with them. This was Germanic, with a pantheon of deities that included Woden, Thunor, Tiw and Frig. Its temples were wooden structures that leave scant traces in the landscape, but you can find evidence for their beliefs in cemeteries like Sutton Hoo. This lecture looks at such evidence and at literature such as *Beowulf* and the history written by the Christian scholar Bede.



**6 pm Wednesday
01 February**



Do We Need Barristers?

gres.hm/barristers

Leslie Thomas

Gresham Professor of Law

What are the strengths and weaknesses of the distinction between solicitors and barristers? What is the purpose of the independent Bar in our legal system today? How does England and Wales compare with common law jurisdictions which have abandoned, or have never had, a split profession? Is the Bar's history as a bastion of privilege, its various historical monopolies and prerogatives, and its culture and organisation problematic? What are the benefits of an independent Bar?

**6 pm Thursday
02 February**



6 pm Monday
06 February

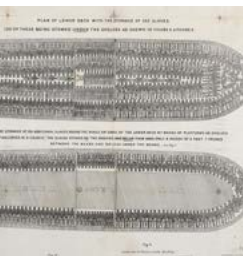
Living with Mental Health

gres.hm/mental-health

Monica Lakhanpaul

University College London

There is a rising number of people of all ages with mental health illnesses globally, that has been accompanied by a greater willingness to talk about it in many places. What are the most common disorders and the best treatment options, including non-medical treatment and lifestyle modifications? The lecture will conclude by looking at global mental health myths, for example in several cultures individuals with problems are considered to be holding a negative spirit inside them.



6 pm Tuesday
07 February

Slavery and the British Economy

gres.hm/slavery-british

Martin Daunton

Visiting Professor of Economic History

During debates over the abolition of slavery, supporters of the system claimed that it was vital to the British economy and that abolition would be disastrous. The abolitionists argued that slavery was immoral and that the economy would prosper in its absence. Just how important was slavery to British economic success? This question continues to resonate in modern debates over the historic role of slavery's profits in the building of country estates or the endowments of charities.



6 pm Wednesday
08 February

Microbial Record-Breakers

gres.hm/record-breakers

Robin May, Gresham Professor of Physic

Microbes hold astonishing speed records: the remarkable *Thiovulum majus* races along at 60 body lengths per second – the equivalent of Usain Bolt completing the 100m sprint in just over 0.8 seconds. Viruses such as SARS-CoV-2 replicate so rapidly that a single infection can produce 100 bn virus particles within a couple of days. And some bacteria lie dormant for millions of years. This lecture looks at the biology behind these record-breakers, and what they can teach us about creating new materials.

Diminished and Augmented Chords

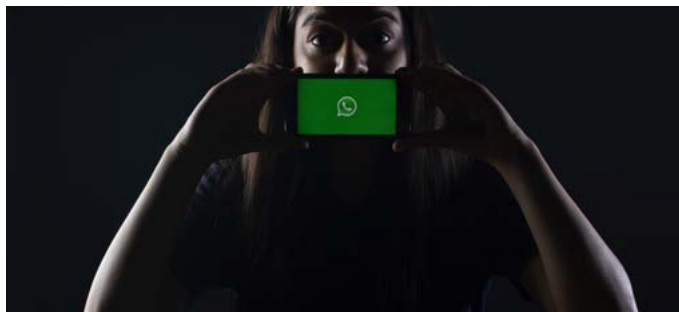
gres.hm/diminished-augmented

Marina Frolova-Walker
Gresham Professor of Music

In this lecture, we will delve into the history of opera because that is where the diminished seventh-chord gradually accumulated its expressive power as a chord for dramatic climaxes, demonic intrusions and generally for shock and horror of any kind. The augmented triad came to be used for the mysterious and supernatural. The symmetrical structure of these two chords allowed composers to veer off into unexpected keys or create new scales which have not shed their strangeness, even today.



6 pm Thursday
09 February



What's The Problem With Encryption?

gres.hm/problem-encryption

Victoria Baines
IT Livery Company Professor of Information Technology

End-to-end encryption secures messages before they leave a device, preventing them from being read in transit. Increasingly the default protocol for messaging apps, neither governments nor the platforms on which it operates can access unscrambled communications and message content. Some governments have demanded 'back doors' for criminal investigations, while others have exploited workarounds to access the encrypted messages of political dissidents. This talk considers the current public discourse on online surveillance and privacy, and where society might go from here.

6 pm Tuesday
14 February



6 pm Wednesday
15 February

Queen Victoria: Images of Power and Empire

gres.hm/victoria-portraits

Jane Ridley

University of Buckingham

This lecture will examine the images of power and empire projected by Queen Victoria over the course of her reign. Beginning with her coronation, it surveys her depictions as a young queen. It looks at the transformation of her image after Albert's death from devoted wife to grief-stricken widow. It examines portrayals of Victoria as grandmother of Europe and as Empress of India, and it concludes that the strongest image is that of the black-dressed Queen alone.



6 pm Thursday
16 February

AIDS: A Cultural History

gres.hm/aids-history

Joanna Bourke

Gresham Professor of Rhetoric

AIDS is an example of a highly stigmatising ailment. This lecture explores Susan Sontag's aphorism that "metaphors kill". Focussing on the period before the invention of antiretroviral drugs, the lecture also addresses questions of civil liberties, gender and sexuality, race, religion, and cultures of both harm and care. By paying attention to how hierarchies of grief were created and contested, it addresses questions of loss as well as solidarity.

Rhythm Disturbances of the Heart

gres.hm/rhythm-heart

Chris Whitty

Visiting Professor of Public Health

Our bodies depend on our hearts maintaining a steady beat, and increasing it appropriately in response to exercise. If the heart goes too fast, or too slowly, we have effects ranging from tiredness to unexpectedly passing out to death. This lecture will consider the normal heartbeat, the causes of the heart going too fast or slowly and how it is treated when it does.



**6 pm Tuesday
21 February**



Christopher Wren's Cosmos

gres.hm/wren-cosmos

Katherine Blundell

Gresham Professor of Astronomy

Sir Christopher Wren was one of the most remarkable Gresham Professors of Astronomy. Though best known today as the architectural mastermind behind the rebuilding of London after the Great Fire, Wren's appointment to the Gresham chair in 1657 stemmed from his enthusiasm for turning his gaze well above London's skyline and focussing his attention on the heavens above. This lecture will consider Wren's contributions to astronomy and how Wren's appreciation of and contributions to art and design, and science and engineering, were fully integrated in his life and made him a polymath on a par with Leonardo da Vinci.

**6 pm Wednesday
22 February**



6 pm Thursday
23 February

Stonehenge: A History

gres.hm/stonehenge-history

Mike Pitts

British Archaeology Magazine

Our contemporary ideas about Stonehenge and British antiquity were shaped in times of empire and war. They dominate popular histories and inform national identity. Focusing on how Stonehenge was built, and drawing on a wealth of evidence which includes new archaeology and science, this lecture describes an alternative narrative of ancient communities, and presents a more positive and inclusive story – a Stonehenge re-imagined for modern Britain.



6 pm Monday
27 February

Big Data in Business

gres.hm/data-business

Raghavendra Rau

Mercers' School Memorial Professor of Business

Big data has really taken off over the past decade because of the presence of ubiquitous sensor technology everywhere. For example, we are all constantly monitored by our phones, smart doorbells, heating systems, televisions, watches and jewellery. These devices generate a constant flow of information about us. But this data is pretty much meaningless without context. This lecture talks about how data needs to be processed to make it useful to business.



1 pm Tuesday
28 February

Anxiety in Children

gres.hm/anxiety-children

Cathy Creswell

University of Oxford

Anxiety is part of the normal human experience and children show signs of it early in life – however, sometimes it can be so severe and persistent that it interferes with daily life. Anxiety problems are the most common mental health problem and have a particularly early age of onset. This lecture will describe how anxiety problems in children present and why they persist before illustrating how this understanding has advanced treatments both in terms of outcomes and reach.

MARCH

Historical Fiction from Sir Walter Scott to Georgette Heyer and Hilary Mantel

gres.hm/historical-fiction

John Mullan

Visiting Professor of English Literature

Until the 1970s, historical fiction was a scorned genre that belonged to Georgette Heyer and Jean Plaidy. Over recent decades, literary fiction has turned back to History, from Hilary Mantel's Thomas Cromwell trilogy to Helen Dunmore, Francis Spufford and Eleanor Catton. In the nineteenth century the historical novel had been more respected, with examples (sometimes impressive, sometimes absurd) from Scott, Dickens, and George Eliot. This lecture will examine the genre's vicissitudes (while noticing Georgette Heyer's novelistic virtues).



**6 pm Wednesday
01 March**



Portraits of Queen Elizabeth II: The Artists' Challenges

gres.hm/elizabeth-portraits

Philip Mould

Scores of painters and photographers over the last seventy years have grappled with the formal portrayal of Queen Elizabeth II from life. These range from the celluloid fantasies of Cecil Beaton to the directness of Lucian Freud; the Renaissance-inspired divinity of Pietro Annigoni to the naturalism of Annie Leibovitz. Underlying all her official portrayals is an artistic conflict: the requirements of royal iconography and the demands of the usually conservative institutional commissioner, versus modern expectations for artistic self-expression and psychological authenticity.

**6 pm Thursday
02 March**



1 pm Tuesday
07 March

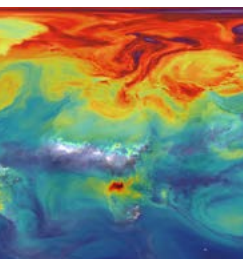
The Mathematical Life of Sir Christopher Wren

gres.hm/maths-wren

Sarah Hart

Gresham Professor of Geometry

Christopher Wren, who died 300 years ago this year, is famed as the architect of St Paul's Cathedral. But he was also Gresham Professor of Astronomy, and one of the founders of a society "for the promotion of Physico-Mathematicall Experimental Learning" which became the Royal Society. This lecture explores some of Wren's mathematical work on curves including spirals and ellipses and the mathematics behind his most impressive architectural achievement – the dome of St Paul's.



6 pm Tuesday
07 March

The Carbon Cycle Behind Net Zero

gres.hm/carbon-zero

Myles Allen

Frank Jackson Foundation Professor of the Environment

What happens to carbon dioxide after we emit it? Half is absorbed within a year or two by plants and the oceans, the rest, in effect, stays in the atmosphere. So, does that mean we just have to halve emissions to stop concentrations rising? Unfortunately, no. Despite the vast reserves of carbon dissolved in the oceans, carbon dioxide released by burning fossil fuels does not get diluted away, but makes an indelible mark on climate for hundreds of thousands of years.



6 pm Wednesday
08 March

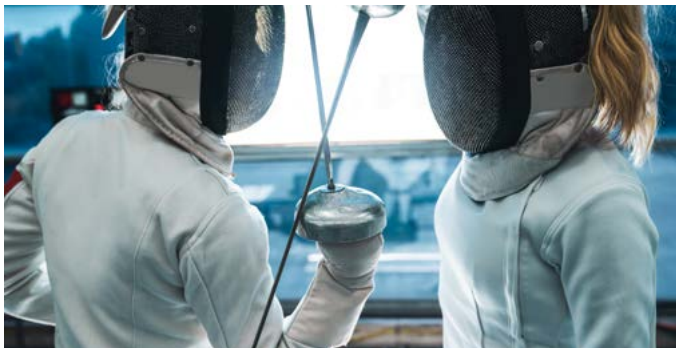
Viking Pagan Gods in Britain

gres.hm/viking-gods

Ronald Hutton

Gresham Professor of Divinity

The Norse and Danish invaders - commonly called Vikings - who occupied Britain in the ninth and tenth centuries, brought with them their own pagan gods. Odin, Thor, Tyr, Loki and Freya left their trace on the British landscape, in the form of scenes from their mythology carved on stone slabs, and Viking paganism has a further considerable legacy of material evidence in richly furnished graves, especially on the Isle of Man.



Does the Adversarial System Serve Us Well?

gres.hm/adversarial-law

Leslie Thomas

Gresham Professor of Law

What is the adversarial tradition in English criminal and civil procedure, and how does it compare with the inquisitorial systems found in some civil law jurisdictions? What are the strengths and weaknesses of adversarial and inquisitorial jurisdictions? Does our adversarial system truly deliver equality of arms between the powerful and the powerless? Have modern fair trial standards, such as those required by the European Court of Human Rights, -and other developments - brought the two families of systems closer together?

Sleep and Mental Health

gres.hm/sleep-health

Guy Leschziner

King's College London

In recent years, the links between sleep and mental health have been slowly unravelled. We are beginning to understand that not only does mental health impact sleep, but also that poor sleep has important consequences on our psychology. This lecture explores this complex relationship, and highlights the importance of sleep as a major factor in our mental wellbeing. The lecture covers strategies to manage disturbed sleep, and touches on other disorders such as nightmares and night eating syndrome.

**6 pm Thursday
09 March**



**6 pm Monday
13 March**



6 pm Tuesday
14 March

Picturesque Engineering: Telford's Highland Roads and Bridges

gres.hm/telford-highland

Paul Marriott

The Pennsylvania State University

In partnership with the Fulbright Commission.

In 1819, Thomas Telford and Robert Southey went on a six-week tour of the Scottish Highlands to inspect the region's newly built roads, bridges and canals. What compelled this unlikely duo, the "Colossus of Roads" and Britain's Poet Laureate, to undertake one of the greatest road trips of the picturesque era? Landscape historian and Fulbright scholar Paul Daniel Marriott explores the legacy of their extraordinary journey, meticulously chronicled by Southey, on travel, transport and design in the twenty-first century.



6 pm Wednesday
15 March

Landscapes of Roman Britain

gres.hm/roman-landscapes

Martin Millett

University of Cambridge

We used to think Roman Britain was a largely untamed natural landscape of woodland with occasional opulent villas representing the houses of an alien elite, set side by side with scattered peasant settlements. Archaeological work since the 1940s has radically altered this understanding through a combination of large-scale excavation and a revolution in remote sensing techniques, revealing a more varied picture of housing, farming, settlement and industry. This lecture will explore our current knowledge of the nature of Roman imperialism and the history of Britain.



Sickle Cell Disease: A Cultural History

gres.hm/sickle-cell-history

Joanna Bourke

Gresham Professor of Rhetoric

Sickle Cell Disease can only be understood in the context of racial politics. Predominantly seen in populations of African heritage, the diagnosis and treatment of this disease from the 1920s onwards draws attention to the importance of culture in biogenetic understandings of disease. Medical practices associated with sickle cell disease also shed light on health care disparities and the cultural construction of pain.

**6 pm Thursday
16 March**

The Annual Lord Mayor's Event

gres.hm/lord-mayor-23

Lord Mayor

City Of London Corporation

The Lord Mayor is the President of Gresham College and you can find out more online.

**6 pm Monday
20 March**

Defeating Digital Viruses: Lessons From the Pandemic

gres.hm/digital-pandemic

Victoria Baines

IT Livery Company Professor of Information Technology

This talk will explore the potential for harnessing the public health framework for addressing online safety and security. Throughout the COVID pandemic, citizens have washed their hands, covered their faces, and maintained a physical distance. If members of the public can protect themselves and others from offline viruses, why not digital ones?



**6 pm Tuesday
21 March**



**6 pm Wednesday
22 March**

How Microbes Manipulate Life

gres.hm/manipulate-life

Robin May, *Gresham Professor of Physic*

Every animal on the planet carries with it an astonishingly diverse microbial zoo – millions of invisible organisms that thrive on the skin and in the gut. They play an important role in health and disease and may also shape human emotions and behaviour. Viruses may stimulate aggression, parasites can trigger suicide and bacteria can block fear responses. The evidence for our interaction with microbes may even make us want to re-evaluate the concept of free-will.



**6 pm Thursday
23 March**

The Medieval Agricultural Revolution: New evidence

gres.hm/agricultural-rev

Helena Hamerow, *University of Oxford*

During the medieval 'agricultural revolution', new forms of cereal farming fuelled the exceptionally rapid growth of towns, markets and populations across much of Europe. The use of the mouldboard plough and systematic crop rotation were key developments and led to open-field farming, one of the transformative changes of the Middle Ages. Using new evidence from plant and animal remains from archaeological excavations in England, this lecture links these to wider developments in medieval society, notably growing social and wealth inequalities.



**6 pm Monday
27 March**

Lungs, Gut, and Skin: Biological Interfaces with the Outside World

gres.hm/interfaces-world

Ian Mudway

Visiting Professor of Environmental Health

We interface with our environment via the air we breathe, the food and water we eat and drink, and through physical contact via our skin. This lecture explores how these biological barriers act to protect us against toxins and toxicants, through an exploration of dose, detoxification and elimination mechanisms, antioxidant defences and innate immune mechanisms.

Portraits of Native Americans from Pocahontas to Sitting Bull

gres.hm/american-portraits

Stephanie Pratt

From 1600 – 1850, artists in England and, later, in North America depicted distinguished Native American tribal leaders, diplomats and warriors to commemorate their significance. Examples include Pocahontas (1617), and nineteenth century Lakota leaders Sitting Bull and Red Cloud. For many years, these portraits were not properly understood, reducing many of the sitters to simple exemplars of the 'noble savage' cliché. In fact, these works are far more interesting once the sitters' historical situation and agency are restored to them.



**6 pm Tuesday
28 March**

The End of Life on Earth

gres.hm/end-life

Katherine Blundell

Gresham Professor of Astronomy

Astronomically speaking, there are a number of ways in which life on Earth could be wiped out. For example, a giant asteroid could hit Earth with such energy that the oceans are boiled off. This lecture will assess which astronomical events are likely and which are not. [It will not consider anthropogenic means by which life on Earth might end.]



**6 pm Wednesday
29 March**

Famous Chords

gres.hm/famous-chords

Marina Frolova-Walker

Gresham Professor of Music

In this lecture, we shall explore a colourful collection of chords that have all acquired their own special, non-technical names. We will consider the Neapolitan Chord, that mainstay of Spanish (!) music, the Tristan Chord, The Petruszka Chord, The Mystic Chord and several others, with names that are sometimes helpful, and sometimes misleading or downright silly, looking at how such a thing as a chord could acquire a kind of fame, and how each entered popular culture.



**6 pm Thursday
30 March**

APRIL



6 pm Tuesday
04 April

Who Benefited from the British Empire?

gres.hm/benefit-empire

Martin Daunton

Visiting Professor of Economic History

Who benefited from the British Empire? In the metropole, did it benefit wealthy landed aristocrats and financiers of the City of London, or did the Empire create employment and cheap goods for British workers? What was the impact on different parts of the empire, and different social groups, as they were drawn into a global economy?



1 pm Wednesday
05 April

Women Leaders in Early Christianity

gres.hm/women-christianity

Morwenna Ludlow

University of Exeter

Saint Paul's letters show women playing leading roles in the earliest Christian communities. Yet, by the fourth century, women's ministry was very limited. Why? In the Roman Empire, women's roles were limited by the expectation that their speech was domestic. If it was inappropriate for women to speak in public, they could not be priests or bishops. However, this lecture will reveal how some Christian women subverted these conventions to become preachers and teachers.

Endings in the Novel, from Austen and Dickens to Edward St Aubyn and Rachel Cusk

gres.hm/endings-novel

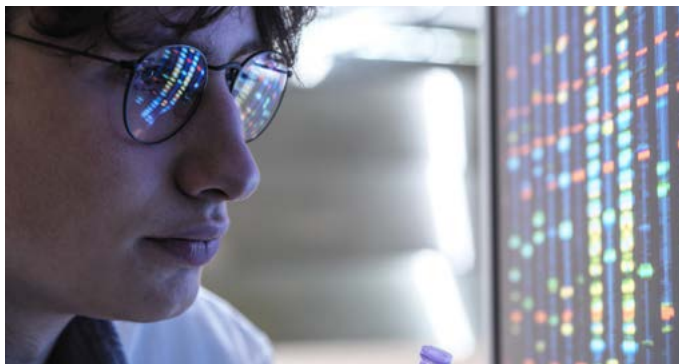
John Mullan

Visiting Professor of English Literature

More than anything else, the end matters to the novel reader. Novelists, including Austen and Dickens, sometimes changed their minds about their endings, using these changes of mind to explore how an ending satisfies, or fails to satisfy, our expectations. The lecture will explore the rise of the indeterminate ending, from Henry James on. And it will suggest how an ending can, for worse as well as for better, retrospectively change our experience of a novel.



**6 pm Wednesday
05 April**



Gene Editing: A New Legal Frontier

gres.hm/gene-editing-law

Imogen Goold

Visiting Professor of Medical Law

Gene editing technology gives us the ability to change our DNA – removing, adding and replacing parts of our genetic code. These technologies have been emerging and improving for some decades, but since the development of CRISPR-based editing technologies, our capacity to edit our DNA has become both more accessible, more accurate and consequently, more powerful. Gene editing could be used to prevent genetic diseases but also alter traits like height and intelligence, presenting both legal and ethical issues.

**1 pm Monday
17 April**



6 pm Tuesday
18 April

The Trillionth Tonne of Carbon and Why It Matters For Climate Change

gres.hm/trillionth-tonne

Myles Allen

Frank Jackson Foundation Professor of the Environment

When we connect our model of the global carbon cycle to the model of atmosphere-ocean temperatures we find every tonne of CO₂ we dump into the atmosphere ratchets up global temperatures, permanently, by around half a trillionth of a degree Celsius. So, to stop global warming, we need net zero carbon dioxide emissions. And to limit warming to 2°C, we need to limit the total amount we emit to around 3.7 trillion tonnes of CO₂: one trillion tonnes of carbon.



6 pm Wednesday
19 April

What is the Role of Nuclear Power in a Net Zero System?

gres.hm/nuclear-zero

Sue Ion

UK National Skills Academy for Nuclear

The UK's nuclear power reactors have provided a significant proportion of the UK's low carbon electricity over their lifetimes. Most will retire in this decade. Advances in technology mean that modern systems can compete with other forms of low carbon energy. The lecture will discuss the progress made in development of Small Modular Reactors which make these systems promising for future deployment and the additional functionality offered by next generation systems for hydrogen production and heat as well as electricity.

Do We Need Criminal law?

gres.hm/criminal-law

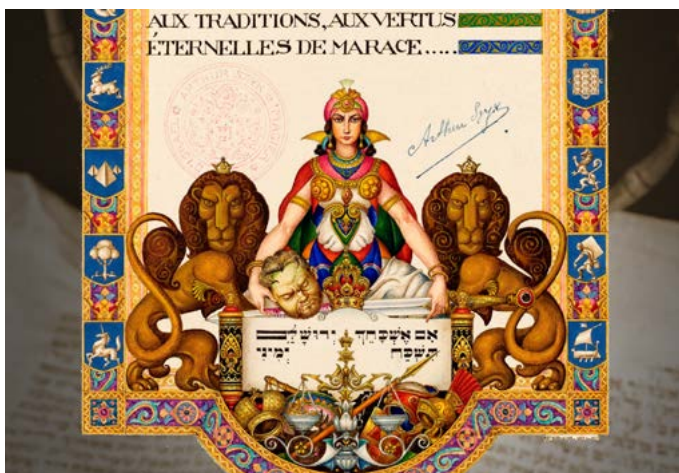
Leslie Thomas

Gresham Professor of Law

What is the role of criminal law in society, and do we need it? How did English criminal law develop? The traditional justifications for criminalisation are retribution, deterrence, containment and control: do they stand up to scrutiny? What are the alternatives to criminalisation, such as restorative and transformative justice? Should we abolish or reform criminal law? How should a just legal system respond to harm and conflict?



**6 pm Thursday
20 April**



Reclaiming Women in the Hebrew Bible

gres.hm/women-hebrew-bible

Deborah Kahn-Harris

Leo Baeck College

Since the 1970s feminist bible scholars have been reclaiming the stories of biblical women. From Eve to Esther this lecture will draw on both biblical accounts and cultural representations to bring their stories to life. Whether wives, mothers, and sisters; sex workers and foreign agents; prophetesses and queens; wise women and witches; victims and heroines and so much more, their stories reveal to us not only who these women were, but how their stories continue to resonate in the modern world.

**1 pm Tuesday
25 April**



**6 pm Tuesday
25 April**

Architects and Engineers: Making Infrastructure Beautiful

gres.hm/infrastructure-beauty

Sadie Morgan, dRMM Architects

Design excellence should be at the heart of all development. But what makes design good or bad? How can you build in beauty and longevity? Professor Sadie Morgan's lecture will showcase practical examples where early testing and thinking have elevated the impact of infrastructure projects. Looking at both policy and projects, from the National Infrastructure Strategy policy document for the NIC, to the Birmingham Curzon Street Station for HS2, her lecture will examine the elements behind making good design happen.



**6 pm Wednesday
26 April**

Finding Lost Gods in Wales

gres.hm/wales-gods

Ronald Hutton

Gresham Professor of Divinity

Since the late 19th century, scholars have thought the poetry and stories of medieval Wales, gathered in manuscripts such as the Red Book of Hergest and the Book of Taliesin, represent stories about pagan gods and goddesses – but recently this has been challenged. These books deal with magic and enchantment and contain vivid characters such as Rhiannon, the proud and wilful Arianrhod, the beautiful and treacherous flower-maiden Blodeuwedd, the decent and vulnerable Lleu Llaw Gyffes, and the supreme bard Taliesin.



**6 pm Thursday
27 April**

The Future of Tall Buildings

gres.hm/tall-buildings

Roger Ridsdill Smith, Foster + Partners

This lecture will explore the technologies that make tall buildings possible. With the current climate crisis in mind, what is the carbon footprint of a building, and how can it be reduced? Finally, the lecturer will present some recent projects by Foster + Partners, and set out his vision for the future of tall buildings, the new technologies that are improving them, and the benefits they offer to society.

MAY

A History of Barts, Britain's Oldest Hospital

gres.hm/barts-900

Charles Knight

St Bartholomew's Hospital

St Bartholomew's is the oldest hospital in England still operating on its original site and will celebrate its 900th anniversary in 2023. This lecture tells its history, from 1123 to today, via its people, buildings and the events that defined this iconic medical institution. Sir Thomas Lauder Brunton's work in vascular pharmacology, Sir James Paget's discovery of bone and breast disease, and Ethel Gordon Fenwick's campaign for registered state nursing are all important elements of Barts' history.



**6 pm Thursday
04 May**



Women, Islam and Prophecy

gres.hm/women-islam

Shuruq Naguib

Lancaster University

The study of 'Women and Islam' has expanded exponentially in recent decades. This lecture maps out emerging agendas, for example, the growing interest in women's role in the transmission of Islamic knowledge and practice. It examines new avenues such as conceptions of women and gender in Muslim theology, using the theological debate on whether women could be prophets as a case study. How might this help us to rethink our own ideas about women in Islam?

**1 pm Tuesday
09 May**



6 pm Tuesday
09 May

Cybersecurity for Humans

gres.hm/cybersecurity-humans

Victoria Baines

IT Livery Company Professor of Information Technology

Faceless hackers in hoodies, intergalactic warriors, and technology out of human control: are these representations of cyber threats accurate? And what might be their impact on levels of personal safety and security for organisations? This talk presents ideas for how we might empower people to protect themselves and help address human issues in the IT sector by thinking differently about how we portray security threats and operations.



6 pm Wednesday
10 May

A Microbial Future

gres.hm/microbial-future

Robin May, *Gresham Professor of Physics*

Microbes have existed on Earth for almost 4 billion years; 3x as long as multicellular organisms and 1000x longer than humans. So what does the future hold? Will recent advances in genetic engineering enable us to create bacterial 'drug-delivery' machines or self-replicating microbial vaccines? What will the first human-created lifeform mean for our understanding of biology? Will humanity end with a 'microbial bang', or might microbes perhaps be the solution we need to spread our wings beyond this planet?



6 pm Thursday
11 May

Dementia: A Cultural History

gres.hm/dementia-history

Joanna Bourke

Gresham Professor of Rhetoric

Dementia is often designated the "plague" of the twenty-first century. What does a cultural history of dementia reveal about commonly circulating ideas relating to the brain, personhood, embodiment, and normal/abnormal? What difference do "labels" make – "melancholy", "lunacy", "dotage", and "senility", for example? The lecture uses the historical development of the science of geriatrics to reflect on the experience of aging and claims about the modern self.



The Mathematical Life of Florence Nightingale

gres.hm/mathis-nightingale

Sarah Hart

Gresham Professor of Geometry

Florence Nightingale is the founder of modern nursing and a pioneer of data science and medical statistics. Her innovative use of statistical diagrams helped people see just how many deaths were being caused by poor hygiene in military hospitals. This lecture will look at the importance and legacy of Nightingale's work, which led to her becoming, in 1858, the first woman elected to the Royal Statistical Society.

**1 pm Tuesday
16 May**

Diseases of the Heart Structure, Muscle and Valves

gres.hm/heart-diseases

Chris Whitty

Visiting Professor of Public Health

The normal heart is very robust. Some people are born with abnormalities of the heart structure. Others acquire damage to the heart valves which become too narrow or unable to close properly. The muscle and linings of the heart may be affected by infections, drugs or other inherited or acquired diseases. All of these can cause heart failure or death if not treated. This lecture will consider the prevention and treatment of structural heart disease.



**6 pm Tuesday
16 May**



6 pm Wednesday
17 May

Christopher Wren's Medical Discoveries: the 'Architect of Human Anatomy'

gres.hm/wren-medical

Jaideep Pandit

University of Oxford

Christopher Wren was part of probably the first 'research team' assembled in Oxford in the 17th century, dedicated to better understanding the human body. With colleagues, Wren contributed to: the near-discovery of oxygen; the first human transfusion of blood; the first intravenous therapy and first intravenous anaesthetic; the description of the anatomy of the arteries supplying the brain (the 'circle of Willis'); and remarkably, the first successful cardiac resuscitation. The lecture will explain the continued relevance of these discoveries.



6 pm Thursday
18 May

Life Without Chords? – Atonal Music

gres.hm/atonal-music

Marina Frolova-Walker

Gresham Professor of Music

In the early 20th century, the system of tonal harmony started to break down. The vertical accumulations of notes became too complex for our powers of memory and recognition, and some have suggested that this led to a loss of meaning and even humanity in music. In this lecture we will discuss expressive uses of atonality, and also the return of familiar chords to music, but outside the grammar that used to give them their logic.

AI in Business

gres.hm/ai-business

Raghavendra Rau

Mercers' School Memorial Professor of Business

AI is another major technological innovation. AI needs data, or more precisely, big organized data. Most data processing is about making it useful for automatic systems such as machine learning, deep learning, and other AI systems. But one big problem with AI systems is that they lack context. An AI system is a pattern recognition machine devoid of any understanding of how the world works. This lecture discusses how AI systems are used in business and their limitations.



**6 pm Monday
22 May**

How the World Agreed on Net Zero

gres.hm/world-zero

Myles Allen

Frank Jackson Foundation Professor of the Environment

The climate had a bad year in 2009. Talks collapsed. Emails hacked. And several papers found even 50-80% reductions weren't enough: we had to get to net zero. Yet six years later, negotiators from 190 countries acknowledged the need for net zero in the Paris Agreement, even resolving to try to limit warming to 1.5 °C, which means net zero global emissions around 2050. Can it be done? It certainly can. Will it be done? That's up to all of us.



**6 pm Tuesday
23 May**

The London Mathematical Society Lecture

gres.hm/lms-2023

Holly Krieger

University of Cambridge

In partnership with the London Mathematical Society.

This lecture will be delivered by Dr Holly Krieger who is the Corfield Lecturer in Mathematics and the Corfield Fellow at Murray Edwards College, University of Cambridge



**6 pm Wednesday
24 May**



6 pm Thursday
25 May

Do We Need the Police?

gres.hm/police

Leslie Thomas

Gresham Professor of Law

Since the death of George Floyd in May 2020, some have asked whether we need a police force. This lecture will examine the role and purpose of the police in our society. What do the police do? What is their historical and social context? Does the current system of policing work? If so, for who? Are all citizens in our society policed fairly? Should we defund the police? If there were no police what might replace them? Are the alternatives realistic?



6 pm Wednesday
31 May

The End of the Universe

gres.hm/end-universe

Katherine Blundell

Gresham Professor of Astronomy

The Universe is expanding, increasingly so. Will this persist or will it collapse back on itself? If it does expand forever, what happens to the galaxies? What is the long-term trajectory for the ultimate in collapsed matter, black holes?

JUNE

The Risks of Technology in Business

gres.hm/tech-business

Raghavendra Rau

Mercers' School Memorial Professor of Business

What are the risks of using technological innovations in business? There are risks associated with the crypto world, including custodial risk and economic exploits. There are also regulatory risks with competition from central banks issuing their own digital currencies, and risks associated with extrapolation from patterns detected in big data by AI systems. Applying algorithms blindly can lead to miscarriages of justice, exploitation, and discrimination. So how should society mitigate these risks, and where do we go from here?



**6 pm Monday
05 June**



Alan Turing: Pioneer of Mathematical Biology

gres.hm/turing-biology

Sarah Hart

Gresham Professor of Geometry

Alan Turing is well-known for his work on the Enigma code in World War II, and his theoretical work underpinning computer science. But he is less well-known for his pioneering work on one of the great challenges of biology – how do complex living organisms develop from tiny collections of cells? This lecture will discuss Turing's ground-breaking work in this area, showing how patterns like a leopard's spots or a zebra's stripes can occur in nature.

**1 pm Tuesday
06 June**



6 pm Wednesday
07 June

How Pagan Was Medieval Britain?

gres.hm/medieval-pagan

Ronald Hutton

Gresham Professor of Divinity

Did paganism survive all through the Middle Ages, as scholars once thought, remaining the religion of the common people, while the elite had embraced Christianity? Or did it die out earlier? This lecture will consider a broad range of evidence, including figures in seasonal folk rites, carvings in churches, the records of trials for witchcraft and a continuing veneration of natural places such as wells. It will also compare ancient paganism and medieval Christianity as successive religious systems.



6 pm Thursday
08 June

The Annual Sir Thomas Gresham Lecture 2023

gres.hm/thomas-gresham-23

Rory Stewart

A writer and former MP, Rory Stewart was the Secretary of State for International Development. He worked in Afghanistan for several years as coalition Deputy-Governor of two provinces in the Marsh Arab region of Southern Iraq following the Iraq invasion of 2003. From 2005 to 2008 he was the Chair and Chief Executive of the Turquoise Mountain Foundation based in Kabul. He will speak about Afghanistan.

Connecting the Dots: Milestones in Graph Theory

gres.hm/graph-theory

Robin Wilson

Emeritus Gresham Professor of Geometry

Graph theory is the study of connections, as may be seen in the London Underground map with stations linked by rails, or a transportation network with cities linked by roads. Dating back to the 18th century, the subject increasingly took hold in the 20th century, developing rapidly from mainly recreational puzzles to a mainstream area of study with widespread applications and strong links to computer science. This illustrated historical talk will survey this century of development.



**6 pm Tuesday
13 June**

Sir Christopher Wren: Architect & Courtier

gres.hm/wren-courtier

Simon Thurley

Visiting Professor of the Built Environment

Sir Christopher Wren's success was underpinned by his consummate skill as a courtier, retaining the confidence of four monarchs through social and economic disasters and political revolution. Wren's life at court can be minutely reconstructed and shows a man who was first and foremost a courtier serving the architectural whims of the Stuart dynasty. Taking Wren the courtier as its starting point this lecture uses new research to paint his talents and career in a new light.



**6 pm Wednesday
14 June**

The Gray's Inn Reading 2023

gres.hm/grays-inn-23

Siobhan Keegan

The Honourable Society of Gray's Inn

In this annual event, Dame Siobhan Keegan will present a lecture on the legal topic of freedom of expression.



**6 pm Thursday
15 June**

HOW TO FIND US

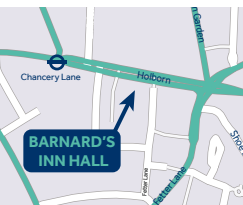
This year, we are not publishing venues for the lectures in this programme. These are all in central London and will be announced closer to the dates of the lecture.

BARNARD'S INN HALL

Barnard's Inn Hall is on the south side of Holborn between Furnival Street and Fetter Lane.

Underground: Chancery Lane

Buses: 8, 17, 25, 45, 46, 341, 521



THE MUSEUM OF LONDON

The Museum is situated on London Wall (EC2), at the junction with Aldersgate Street.

Underground: Barbican, St Paul's, Moorgate

Buses: 4, 8, 25, 56, 100, 242, 388, 521



LSO ST LUKE'S

LSO St Luke's is at 161 Old Street, London, EC1V 9NG

Underground: Old Street

Buses: 55, 243, 43, 76, 141, 205, 214, 271



OLD LIBRARY, GUILDHALL

The Old Library is situated on Basinghall Street. Access depends on the event, but is either from Basinghall Street or Guildhall Yard.

Underground: Bank **Buses:** 21, 25, 43, 141

MERCERS' HALL

Mercers' Hall is on Ironmonger Lane, EC2V 8HE, close to the junction with Cheapside.

Underground: Bank **Buses:** 11, 21, 43, 8

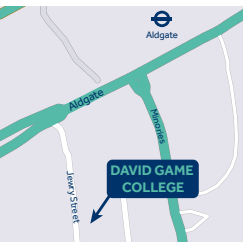


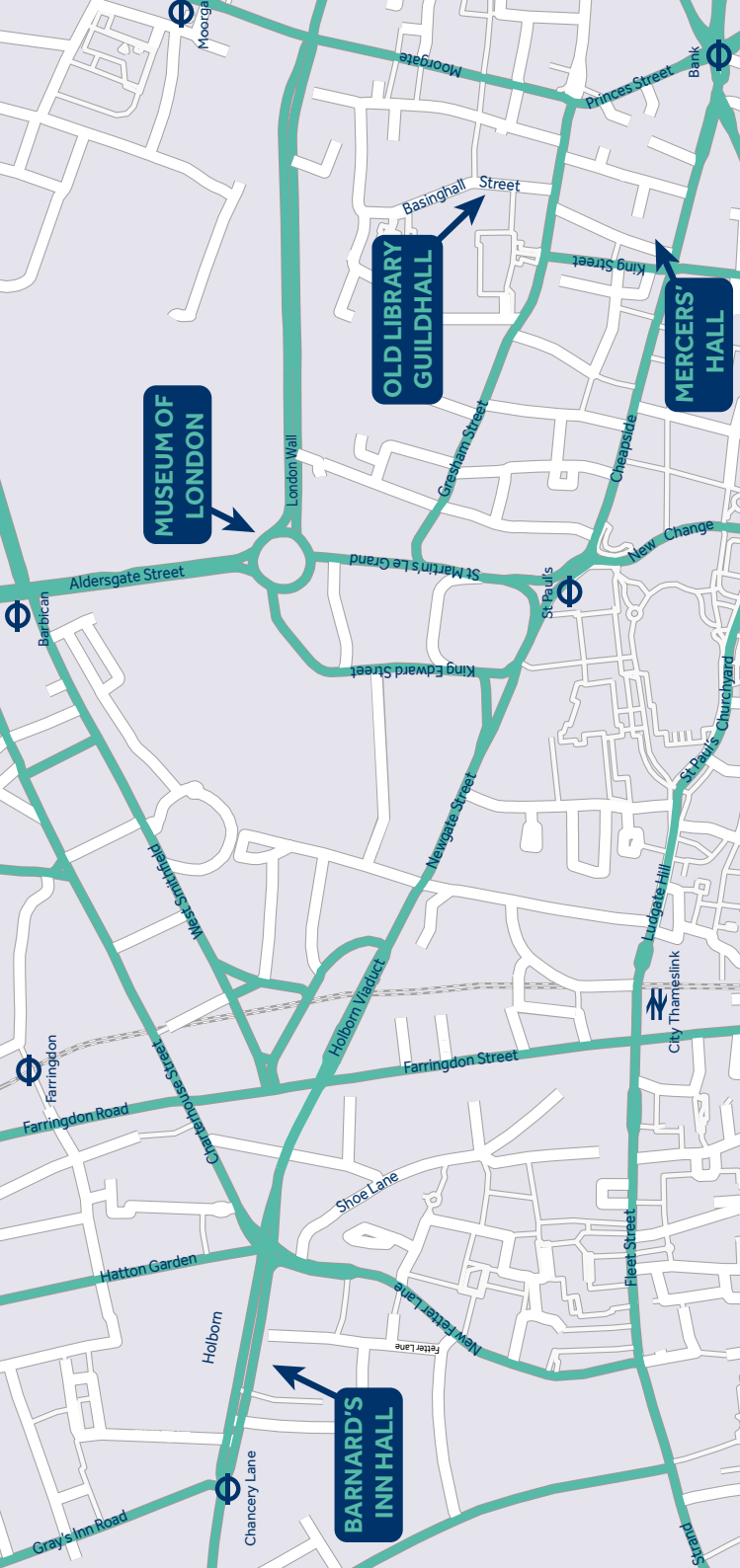
DAVID GAME COLLEGE

David Game College is at 31 Jewry St, EC3N 2ET.

Underground: Aldgate

Buses: 11, 133, 15, 205, 100, 343, 78





MUSEUM OF LONDON

OLD LIBRARY GUILDHALL

MERCERS' HALL

BARNARD'S INN HALL

Map labels include: Moorgate, Princes Street, Bank, Basinghall Street, King Street, Gresham Street, Chancery Lane, London Wall, St Martin's Le Grand, King Edward Street, New Change, Barbican, Aldersgate Street, West Smithfield, Farringdon, Farringdon Road, Charterhouse Street, Hatton Garden, Holborn, Shoe Lane, Fetter Lane, New Fetter Lane, Barnard's Inn Lane, Farringdon Street, Ludgate Hill, City Thameslink, St Paul's Churchyard, Fleet Street, Strand, Gray's Inn Road, and Holborn.

PROGRAMME SUMMARY

SEPTEMBER

6pm 14 Sep 22	S. Thurley	Royal Courts on the Move	gres.hm/royal-progresses
6pm 15 Sep 22	M. Lakhanpaul	Long Covid	gres.hm/long-covid
6pm 19 Sep 22	I. Mudway	What Is the Exposome?	gres.hm/exposome
6pm 20 Sep 22	V. Baines	Who Owns the Internet?	gres.hm/owns-internet
6pm 21 Sep 22	R. Hutton	Gods of Prehistoric Britain	gres.hm/prehistoric-gods
6pm 27 Sep 22	R. Evans	War and Peace in Europe	gres.hm/hitler-putin
6pm 28 Sep 22	K. Blundell	End of Planetary Atmospheres	gres.hm/end-atmospheres
6pm 29 Sep 22	L. Thomas	Do We Need Juries?	gres.hm/juries

OCTOBER

6pm 03 Oct 22	R. Rau	Bypassing Banks Using Tech	gres.hm/bypass-banks
6pm 04 Oct 22	O. Arthurs	Too Reliant on Medical Imaging?	gres.hm/medical-imaging
6pm 05 Oct 22	R. May	The Microbial Basis of Life	gres.hm/microbial-life
6pm 06 Oct 22	J. Bourke	Tuberculosis: A Cultural History	gres.hm/tb-history
1pm 11 Oct 22	S. Hart	The Maths of Coins and Currencies	gres.hm/maths-coins
6pm 11 Oct 22	M. Allen	Why Net Zero?	gres.hm/why-net-zero
6pm 12 Oct 22	R. Walker	Lost Cities and Heritage of Kenya	gres.hm/kenya-cities
6pm 13 Oct 22	M. Frolova-Walker	Triads Major and Minor	gres.hm/triads
6pm 17 Oct 22	S. Hazareesingh	Toussaint Louverture	gres.hm/toussaint-louverture
6pm 18 Oct 22	P. Ricketts	Britain's Foreign Policy	gres.hm/britains-fp
4pm 19 Oct 22	A. Keller et al.	Proof in Mathematics	gres.hm/maths-proof
6pm 20 Oct 22	C. Checinska	Politics of Fashion in Africa	gres.hm/africa-fashion
1pm 24 Oct 22	I. Goold	Should We Permit Assisted Dying?	gres.hm/voluntary-dying
6pm 25 Oct 22	V. Baines	What Is the Metaverse?	gres.hm/metaverse
6pm 26 Oct 22	J. Mullan	Adultery in the Novel	gres.hm/adultery-novel
6pm 31 Oct 22	T. Crick	New Models for Online Learning	gres.hm/online-learning

NOVEMBER

6pm 01 Nov 22	K. Puri	Partition of British India	gres.hm/india-partition
6pm 02 Nov 22	K. Blundell	The End of Our Sun	gres.hm/end-sun
6pm 03 Nov 22	L. Bouarfa	The 4th Industrial Revolution	gres.hm/machine-learning
6pm 07 Nov 22	T. Grant	The Trials of Alexei Navalny	gres.hm/navalny-trials
6pm 08 Nov 22	M. Daunton	Europe and Asia's Economies	gres.hm/diverge-asia
6pm 09 Nov 22	R. May	Microbial Megastructures	gres.hm/microbial-megastructures
6pm 10 Nov 22	J. Bourke	Polio: A Cultural History	gres.hm/polio-history
6pm 14 Nov 22	R. Rau	Trust and Cryptocurrencies	gres.hm/trust-crypto
6pm 16 Nov 22	V. Bogdanor	The Irish Question	gres.hm/irish-ulster
1pm 22 Nov 22	S. Hart	The Maths of Game Theory	gres.hm/game-theory
6pm 22 Nov 22	M. Allen	Physics Behind Net Zero	gres.hm/atmospheric-zero
6pm 23 Nov 22	M. Kaplan	Jewish Refugees in Portugal	gres.hm/refugees-portugal
6pm 24 Nov 22	M. Frolova-Walker	The Dominant Seventh	gres.hm/dominant-seventh
6pm 29 Nov 22	C. Whitty	Coronary Heart Disease	gres.hm/coronary-heart

DECEMBER

6pm 01 Dec 22	L. Thomas	Do We Need Judges?	gres.hm/judges
6pm 05 Dec 22	I. Mudway	The Great London Smog	gres.hm/londons-air
1pm 06 Dec 22	J. Mitchell	The Israel-Palestine Conflict	gres.hm/israel-palestine
6pm 06 Dec 22	V. Baines	How To Fight Fake News	gres.hm/fight-fake
6pm 07 Dec 22	R. Hutton	Paganism in Roman Britain	gres.hm/paganism-roman

JANUARY

6pm 11 Jan 23	R. May	Microbial Master-Chemists	gres.hm/master-chemists
6pm 12 Jan 23	J. Bourke	Breast Cancer: A Cultural History	gres.hm/breast-history
1pm 16 Jan 23	I. Goold	Mandatory Vaccination?	gres.hm/mandatory-vaccination
6pm 18 Jan 23	K. Blundell	The End of Massive Stars	gres.hm/end-stars
6pm 19 Jan 23	Arthurs & Delahunty	Medical Experts in Family Court	gres.hm/medical-family
6pm 23 Jan 23	R. Rau	DeFi Crypto and NFTs in Business	gres.hm/crypto-nfts
6pm 25 Jan 23	P. Mansel	Louis XIV	gres.hm/versailles-arts
6pm 26 Jan 23	M. Frolova-Walker	Musical Cadences	gres.hm/musical-cadences
1pm 31 Jan 23	S. Hart	Lottery-Winning Maths	gres.hm/lottery-maths
6pm 31 Jan 23	M. Allen	The Ocean Physics Behind Net Zero	gres.hm/ocean-zero

FEBRUARY

6pm 01 Feb 23	R. Hutton	Anglo-Saxon Pagan Gods	gres.hm/anglo-saxon-gods
6pm 02 Feb 23	L. Thomas	Do We Need Barristers?	gres.hm/barristers
6pm 06 Feb 23	M. Lakhanpaul	Living with Mental Health	gres.hm/mental-health
6pm 07 Feb 23	M. Daunton	Slavery and the British Economy	gres.hm/slavery-british

6pm 08 Feb 23	R. May	Microbial Record-Breakers	gres.hm/record-breakers
6pm 09 Feb 23	M. Frolova-Walker	Diminished Chords	gres.hm/diminished-augmented
6pm 14 Feb 23	V. Baines	What's Wrong with Encryption?	gres.hm/problem-encryption
6pm 15 Feb 23	J. Ridley	Images of Queen Victoria	gres.hm/victoria-portraits
6pm 16 Feb 23	J. Bourke	AIDS: A Cultural History	gres.hm/aids-history
6pm 21 Feb 23	C. Whitty	Rhythm Disturbances of the Heart	gres.hm/rhythm-heart
6pm 22 Feb 23	K. Blundell	Christopher Wren's Cosmos	gres.hm/wren-cosmos
6pm 23 Feb 23	M. Pitts	Stonehenge: A History	gres.hm/stonehenge-history
6pm 27 Feb 23	R. Rau	Big Data in Business	gres.hm/data-business
1pm 28 Feb 23	C. Creswell	Anxiety in Children	gres.hm/anxiety-children

MARCH

6pm 01 Mar 23	J. Mullan	Historical Fiction	gres.hm/historical-fiction
6pm 02 Mar 23	P. Mould	Portraits of Queen Elizabeth II	gres.hm/elizabeth-portraits
1pm 07 Mar 23	S. Hart	Wren's Mathematical Life	gres.hm/maths-wren
6pm 07 Mar 23	M. Allen	The Carbon Cycle Behind Net Zero	gres.hm/carbon-zero
6pm 08 Mar 23	R. Hutton	Viking Pagan Gods in Britain	gres.hm/viking-gods
6pm 09 Mar 23	L. Thomas	The Adversarial System	gres.hm/adversarial-law
6pm 13 Mar 23	G. Leschziner	Sleep and Mental Health	gres.hm/sleep-health
6pm 14 Mar 23	P. Marriott	Picturesque Engineering	gres.hm/telford-highland
6pm 15 Mar 23	M. Millett	Landscapes of Roman Britain	gres.hm/roman-landscapes
6pm 16 Mar 23	J. Bourke	Sickle Cell Disease	gres.hm/sickle-cell-history
6pm 20 Mar 23	L. Mayor	The Annual Lord Mayor's Event	gres.hm/lord-mayor-23
6pm 21 Mar 23	V. Baines	Defeating Digital Viruses	gres.hm/digital-pandemic
6pm 22 Mar 23	R. May	How Microbes Manipulate Life	gres.hm/manipulate-life
6pm 23 Mar 23	H. Hamerow	The Agricultural Revolution	gres.hm/agricultural-rev
6pm 27 Mar 23	I. Mudway	Lungs Gut and Skin	gres.hm/interfaces-world
6pm 28 Mar 23	S. Pratt	Portraits of Native Americans	gres.hm/american-portraits
6pm 29 Mar 23	K. Blundell	The End of Life on Earth	gres.hm/end-life
6pm 30 Mar 23	M. Frolova-Walker	Famous Chords	gres.hm/famous-chords

APRIL

6pm 04 Apr 23	M. Daunton	Who Benefited from British Empire?	gres.hm/benefit-empire
1pm 05 Apr 23	M. Ludlow	Women in Early Christianity	gres.hm/women-christianity
6pm 05 Apr 23	J. Mullan	Endings in the Novel	gres.hm/endings-novel
1pm 17 Apr 23	I. Goold	Gene Editing: Legal Frontier	gres.hm/gene-editing-law
6pm 18 Apr 23	M. Allen	The Trillionth Tonne of Carbon	gres.hm/trillionth-tonne
6pm 19 Apr 23	S. Ion	Nuclear Power in a Net Zero System	gres.hm/nuclear-zero
6pm 20 Apr 23	L. Thomas	Do We Need Criminal law?	gres.hm/criminal-law
1pm 25 Apr 23	D. Kahn-Harris	Women in the Hebrew Bible	gres.hm/women-hebrew-bible
6pm 25 Apr 23	S. Morgan	Making Infrastructure Beautiful	gres.hm/infrastructure-beauty
6pm 26 Apr 23	R. Hutton	Finding Lost Gods in Wales	gres.hm/wales-gods
6pm 27 Apr 23	R. Ridsdill Smith	The Future of Tall Buildings	gres.hm/tall-buildings

MAY

6pm 04 May 23	C. Knight	The History of Barts' Hospital	gres.hm/barts-900
1pm 09 May 23	S. Naguib	Women Islam and Prophecy	gres.hm/women-islam
6pm 09 May 23	V. Baines	Cybersecurity for Humans	gres.hm/cybersecurity-humans
6pm 10 May 23	R. May	A Microbial Future	gres.hm/microbial-future
6pm 11 May 23	J. Bourke	Dementia: A Cultural History	gres.hm/dementia-history
1pm 16 May 23	S. Hart	Florence Nightingale: Mathematician	gres.hm/maths-nightingale
6pm 16 May 23	C. Whitty	Diseases of the Heart Structure	gres.hm/heart-diseases
6pm 17 May 23	J. Pandit	Wren's Medical Discoveries	gres.hm/wren-medical
6pm 18 May 23	M. Frolova-Walker	Atonal Music	gres.hm/atonal-music
6pm 22 May 23	R. Rau	AI in Business	gres.hm/ai-business
6pm 23 May 23	M. Allen	How the World Agreed on Net Zero	gres.hm/world-zero
6pm 24 May 23	H. Krieger	The LMS Lecture	gres.hm/lms-2023
6pm 25 May 23	L. Thomas	Do We Need the Police?	gres.hm/police
6pm 31 May 23	K. Blundell	The End of the Universe	gres.hm/end-universe

JUNE

6pm 05 Jun 23	R. Rau	The Risks of Technology in Business	gres.hm/tech-business
1pm 06 Jun 23	S. Hart	Alan Turing & Mathematical Biology	gres.hm/turing-biology
6pm 07 Jun 23	R. Hutton	How Pagan Was Medieval Britain?	gres.hm/medieval-pagan
6pm 08 Jun 23	R. Stewart	Sir Thomas Gresham Lecture	gres.hm/thomas-gresham-23
6pm 13 Jun 23	R. Wilson	Milestones in Graph Theory	gres.hm/graph-theory
6pm 14 Jun 23	S. Thurley	Wren: Architect & Courtier	gres.hm/wren-courtier
6pm 15 Jun 23	S. Keegan	The Gray's Inn Reading 2023	gres.hm/grays-inn-23

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