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Department of History and Philosophy of Science, University of Cambridge

Free School Lane, Cambridge, CB2 3RH

Telephone: 01223 334500 Fax: 01223 334554 www.hps.cam.ac.uk

THE DEPARTMENT

Introduction

The Department of History and Philosophy's annual report is a review of the 2015-16 academic year and a celebration of the staff and students that make the HPS department a world-class institution. We would like to thank our exceptional students and talented staff for all of their hard work this year to secure so many successes.

We begin with hearty congratulations to Sachiko Kusakawa, a Fellow and Tutor in HPS at Trinity College who was promoted to Professor this year, and who gave her inaugural lecture on Friday 24th June, 2016, with the title 'Worth a thousand words? Early modern scientific images' at the Peterhouse Lecture Theatre. We also take this opportunity to extend our gratitude for her years of work with the Department and particularly her attention to our undergraduate students, many of whom have been fortunate to be supervised in history of science by Professor Kusakawa.



Professor Sachiko Kusakawa

Several members of the Department also had a successful year, in particular Simon Schaffer, Hasok Chang and Jim Secord who all received prestigious awards recognising their excellence in History and Philosophy of Science. More information, as well as the rest of the long list of congratulations for the year, can be found on page 6.

Praise was given to everyone involved in our teaching and learning review, which takes place every six years. It concluded by saying that our teaching staff had delighted students and that the quality of our teaching and learning was fantastic. Thank you to everybody who took part in this important review, and to all those whose hard work is responsible for the Department's amazing reputation in this area.



In-progress renovations on Rooms 20, 21, and 22

We welcomed several new members of staff this year, among them Dániel Margócsy as University Lecturer in Science, Technology and Medicine before 1800 and Jacob Stegenga as University Lecturer in Philosophy of Life Sciences. We also said goodbye to some of our staff as they continue on in their careers; we wish them every success.

This academic year also saw the refurbishment of our top floor offices, where we divided two rooms in to three in order to make more space for our expanding academic community. The project is now complete and three of our University Teaching Officers are now based in the new rooms. Thanks to everyone who put up with the disruption caused by having a building site in the department!

The Library has, as ever, had a very busy year, and their full report begins on page 44. The Whipple Museum's report also makes for informative reading on page 54.

Sadly this year has also seen the passing of several members and friends of the Department. In November 2015, Professor John Forrester, foremost historian of Freud and psychoanalysis who was Head of the Department between 2007 and 2013, passed away. His life and work were commemorated by a day of talks and remembrance on Wednesday 16th May, appropriately titled 'The John Forrester Case', details of which are on pages 4 and 5. In April, we were saddened to learn of the death of Anita McConnell, an affiliated scholar in the Department who worked closely with the Whipple Museum. Lastly, in June, one of our HPS alumni, Alison Winter, also passed away.



John Forrester



Tamara Hug and Clare Matthews

On a happier note, we must mention that 2016 was a special birthday year for our Departmental Administrator, Tamara Hug. It was good to have a chance to celebrate after what had been a difficult start to the year.

We end with thanks to everyone as they work hard to deliver the outstanding achievements demonstrated in this annual report. We conclude by paying tribute to the endeavour of all who play their part in our progress and we look forward to even greater success in the year to come

March 2017

The John Forrester Case

Wednesday 18th May 2016

On Wednesday 18th May 2016, The Department of History and Philosophy of Science, together with John Forrester's family, held a day of talks in honour of the memory of Professor John Forrester, who sadly died in November 2015.

Programme

Chaired by Simon Schaffer and Liba Taub

Talks take place in the McCrum Lecture Theatre, Bene't Street

- 9.15 **Arrival:** Coffee and tea will be served in the Department of History and Philosophy of Science
- 9.45 **Welcome:** Liba Taub and Simon Schaffer
- 10.15 **Boris Jardine:** The master of the marginal annotation
- 10.25 **Bonnie Evans:** John's insight and ability to raise new questions
- 10.40 **Alexandra Bacopoulos-Viau:** John Forrester, Doktorvater
- 10.50 **Emm Johnstone:** The supervisor as psychoanalyst
- 10.55 **Leon Rocha:** What does it have to do with my penis?
- 11.10 **Break**
- 11.30 **Richard Ashcroft**
- 11.45 **Amanda Rees:** John as a supervisor and rugby fan
- 12.00 **Julia Borossa:** John's vision of psychoanalysis and his gift as a supervisor
- 12.15 **Katherine Angel**
- 12.25 **Matt Drage:** "Follow the money!" John's supervision as libidinal cathexis
- 12.45 **Buffet lunch** in the Department of History and Philosophy of Science
- 14.00 **Andreas Mayer:** Thinking in cases and its ramifications for HPS
- 14.40 **Michael Molnar:** Emails and the origins of psychoanalysis
- 15.00 **Laura Cameron:** On generosity
- 15.15 **Jim Secord**
- 15.20 **Nick Hopwood and colleagues:** Generation to Reproduction
- 15.40 **Rich McKay:** T'ree Love Song
- 15.45 **Final words**
- 16.15 **Memorial and afternoon tea** in King's College Hall
- 17.45 **Drinks reception** in the Whipple Museum
- 20.00 **Finish**

Memorial

King's College Hall at 16.15

Sam Yetman

Schubert: Sonata in B flat major, D. 960, second movement

Professor Simon Goldhill (University of Cambridge)

Professor Liba Taub (University of Cambridge)

Ian Patterson (University of Cambridge)

Professor Maud Elman (University of Chicago)

Professor Peter de Bolla (University of Cambridge)

Professor Sherry Turkle (MIT)

Professor Daniel Pick (Birkbeck, University of London)

Professor Michael Ignatieff (Harvard University)

Lisa Appignanesi

Krysia Osostowicz

Bach: Sarabande in D from Partita no 2

Largo in F major from Sonata no 3

Followed by a drinks reception in the Main Gallery of the Whipple Museum from 17.45.



Congratulations

The 2015-16 academic year began with **Helen Curry** receiving a Wellcome Trust Seed Award to work on 'Seeds for survival: A global history of seed banking', as part of a major new research initiative to investigate the history of seed banking as a conservation practice and human health imperative. In July 2016, she was selected as a CRASSH ProFutura Scientia Fellow for 2017-2020, during which time she will spend one year at the Swedish Collegium of Advanced Study in Uppsala as well as two years in Cambridge, researching the history of agro-biodiversity conservation.



Helen Curry

In November 2015, it was announced that **Simon Schaffer** would be awarded the Caird Medal of the National Maritime Museum. He gave a lecture to mark the receipt of the medal, with the title, 'The Ark and the Archive: Encounters, Expeditions and Equivocal Objects' on 1st December, at 6pm in the Leopold Muller Lecture Theatre at the National Maritime Museum, Greenwich.

At the end of 2015, **Martin Rudwick** was given the Watson Davis and Helen Miles Davis Prize for his book 'Earth's Deep History: how it was discovered and why it matters'. He also won the 2016 Vladimir V. Tikhomirov history of geology award from the International Union of Geological Sciences.

January was a successful month with **Jim Secord** awarded the SHNH Founders' Medal, given to persons who have made a substantial contribution to the study of the history or bibliography of natural history; **Jenny Bangham** won a Wellcome Trust Research Fellowship to work on a project titled 'FlyBase: Communicating Drosophila Genetics on Paper and Online, 1970-2000'; **Hasok Chang** was awarded the 2015 Wilkins-Bernal-Medawar prize for excellence in the history, philosophy and social function of science by the Royal Society, and gave his prize lecture on 10th May 2016, titled 'Who cares about the history of science?'

In February **Salim Al-Gailani**, a teaching associate in the Department, was awarded a visiting research fellowship at the John Rylands Research Institute, University of Manchester.



Leah Astbury

Also at the start of 2016, congratulations were given to **Leah Astbury** who was appointed to a Research Associate position in the Generation to Reproduction group for six months. Then in March she was awarded an Evelyn S. Nation Fellowship at the Huntingdon Library in San Marino, California, to be taken up in the next academic year.

In August, College Fellow and HPS affiliate **Simon Mitton** was elected to a Fellowship at the Royal Historical Society in recognition of his contributions to historical scholarship.

The students of the Department have also excelled this year. In December, **Josh Hunt**, an MPhil student from the 2014-2015 cohort, was awarded the Hanneke Janssen Memorial Prize 2015 by Radboud University, Nijmegen for his MPhil dissertation, 'Interpreting the Wigner-Eckhart Theorem'. **Edwin Rose**, also an MPhil student from last year and about to begin a PhD here in the Department, won the Cambridge University Library 2016 Rose Book Collecting Prize for his collection, 'Popular natural history and natural philosophy of the eighteenth century'.



Edwin Rose and Dániel Margócsy

Of our finishing PhD students, **Riana Betzler** was awarded a post-doctoral fellowship at the Konrad Lorenz Institute, in Vienna; **Tillman Taape** won a four-month doctoral fellowship at the Günther Findel Foundation to research the alchemical collections of the Herzog August Bibliothek in Wolfenbüttel; and **Megan Barford** became Curator of Cartography at the National Maritime Museum. Also, *Satellites* by **Caitlín Doherty**, PhD student and poet, received a glowing review by China Miéville in the Sunday edition of *The Guardian* in February.

Staff and Affiliates

Administrative Staff

Tamara Hug
Agnieszka Lanucha
Louisa Russell
David Thompson
Agnieszka Doroszuk
Toby Bryant
Maria Iljuczonek

Computing Staff

Mark Rogers

Library Staff

Anna Jones
Agnieszka Lanucha
Clare Matthews
Dawn Kingham

Museum Staff

Lorena Bushell
Rosanna Evans
Steven Kruse
Jenny Mathiason
Joshua Nall
Alison Smith
Claire Wallace

Teaching Officers

Anna Alexandrova
Mary Brazelton
Hasok Chang
Helen Curry
Marta Halina
Nick Hopwood
Stephen John
Lauren Kassell
Tim Lewens

Simon Schaffer
Jim Secord
Richard Staley
Liba Taub

Research Fellows and Teaching Associates

Salim Al-Gailani
Adrian Boutel
Boyd Brogan
Sarah Bull
Chris Clarke
David Crawford
Jo Edge
Clare Griffin
Mike Hawkins
Boris Jardine
Natalie Kaoukji
Richard McKay
Daniel Mitchell
Jesse Olszynko-Gryn
Yvonne Martin-Portugues
Sam Murison
Valentina Pugliano
Rob Ralley
Efram Sera-Shriar
Eran Tal
John Young
Gabriella Zuccolin

Affiliated Lecturers & CTOs

Patricia Fara
Marina Frasca-Spada
Sachiko Kusukawa
Richard Serjeantson
Deborah Thom

College Fellows

Jeremy Butterfield
Peter Jones
Melanie Keene
Sarah Marks
Simon Mitton
James Poskett
Andreas Sommer
Frances Willmoth

Emeritus Professors

German Berrios
Andrew Cunningham
Nick Jardine
Geoffrey Lloyd
Michael Redhead

Other UoC People who do HPS

Sara Baker
Alison Bashford
Michael Bravo
Angela Breitenbach
Adam Caulton
Tim Crane
Lukas Engelmann
Rebecca Fleming
Sarah Franklin
Sietske Fransen
Richard Holton
Joel Isaac
Martin Johnson
Tony Lawson
Kathy Liddell
Scott Mandelbrote
Peter Mandler
Alexander Marr
Francis Neary
Brian Pitts
Huw Price
Katherine Reinhart

Staff and Affiliates

Other UoC people who do HPS (contd.)

Sujit Sivasundaram
Jeff Skopek
David Sloan
Richard Smith
Emma Spary
Simon Szreter
Frances Willmoth

Affiliated Scholars

Robert Anderson
Scott Antony
Debby Banham
Jenny Bangham
Katy Barrett
Christina Benninghaus
Marie-Françoise Besnier
Sanjoy Bhattacharya
Peter Bowler
Janet Browne
Robert Bud
Tatjana Buklijas
Soraya de Chadarevian
Gloria Clifton

Sophie Defrance
Silvia De Renzi
Robbie Duchinsky
Katie Eagleton
Karin Ekholm
Martha Fleming
Zoe Fritz
Roger Gaskell
Susannah Gibson
Marion Godman
Jeremy Gray
Ole Grell
Philippa Hardman
Vanessa Heggie
Sonia Horn
Shelley Innes
Richard Jennings
Gerald Kutcher
Elaine Leong
Chris Lewis
Helen Macdonald
Anita McConnell
Christina McLeish
Jianjun Mei
Jim Moore
Adam Mosley
Ayesha Nathoo

Jaume Navarro
Francis Neary
Hannah Newton
Alison Pearn
Emma Perkins
Christopher Preston
Sadiah Qureshi
Jennifer Rampling
Sally Riordan
Rohan Deb Roy
Martin Rudwick
Christine Salazar
Anne Secord
Nicholas Teh
Anke Timmermann
Martin Underwood
Charissa Varma
Marion Vorms
Milena Wazek
Andrew Wear
Rick Welch
Paul White
Daniel Wilson
Catherine Wilson
Louise Wilson



Lonisa Russell, Aga Lanucha and Tamara Hug

Visitors and Students

Visitors

Sarah Bezan
Dorit Brixius
Hui Cao
Stephen Casper
Xan Chacko
Amy Coombs
Willem van der Deijl
Alan Heiblum Robles
Eugene Kang
Remus Manoila
Merisa Martinez
Jiho Moon
Serge Reubi
Raphael Scholl
Ju Yeon Suk
Sang Wook Yi
Mark young
Rafael Vaz

PhD students

Leah Astbury
Feraz Azhar
Megan Barford
Claudia Baisini
Riana Betzler
Toby Bryant
Jenny Bulstrode
Andrew Buskell
Stijn Conix
Charlotte Connelly
Stephen Courtney
Caitlin Doherty
Matthew Drage
James Hall
Sebastian de Haro
Seb Falk
Meira Gold
Timothy Hyland
Stephen Irish

Magali Krasny
Sebastian Kroupa
Natalie Lawrence
Niels Linnemann
Katrina Maydom
Esther Momcilovic
Karoliina Pulkkinen
Emma Pyle
Timothy Rees-Jones
Hardy Schilgen
Christophe Schinkus
Susanne Schmidt
Minwoo Seo
Reuben Shiels
Tilmann Taafe
Ann-Sophie Thwaite
Elina Vessonen
Christopher Wagner
Michelle Wallis
Jack Wright

MPhil students

Alissa Aron
Alex Aylward
Sean Biggins
Dannielle Cagliuso
Alfie Cheesman
Nathan Cofnas
Claudia Dumitru
Haris Durrani
Pedro Feijo
Enno Fischer
Alexandra Gurel
Felicitas Holzer
Ava Kofman
Lewis Kopman
Chaka Laguerre
Vi Le
Paul Marett
Fiona Milway
Nicholas Myerberg

Gouray Nandi
Daniel Ott
Edwin Rose
Rebecca Rothfeld
Susannah Russell
Henry Schmidt
Tobias Schoenwitz
Clemens Schwaninger
William Simpson
Katelyn Smith
Georg Starke
Nathaniel Tailleux
John Thornton
Joseph Wu

Part III students

Sarah Binney
James Bristow
Sam Brooks
Eoin Carter
Holly Clothier
Mary Dai
Katharine Griffiths
Robert Hart
Rogelio Luque-Lora
Mikey Lynam
Joe Painter
William Scott

Part II students

Joe Bonham-Carter
Mahid Choudhury
Theo Clark
Robert Corbyn-Smith
Joanna Drury
Louis Dwyer-Hemmings
Cassandra Fairhead
Emma Farmery
Daniel Farraway
Stephanie Frow
Skye Gostling

Visitors and Students

Part II students (contd.)

Rachel Hartley Young
David Hewett
Charlotte Ivers
Furqaan Kaji
Rory McFadyen
George Moore
Ekaterina Morgunova
Emma O'Hare
Robin Polding
Mark Pozlep
Lydia Price
Peter Rees
Nina Sands
Danielle Shipp
Rosanna Suppa
Catherine Tennyson
James Whitehouse
Amy Wilson
Xuelin Yeong

BBS Paper 2

Heather Dorrell
Eimear Lambe
Emily Thorpe

BBS Paper 5

Chloe Marsden
Matthew Preece
Sophie Protheroe
Joshua Swanwick
Olwen Wilson
Dominila Bogusiewicz

BBS History and Ethics of Medicine

Anna HeylenII
Josh McQuail
Bogdan Petrisor
Chongin Ra
Georgina Shepherd
Niamh Spence

Chun Tam
James Livesey
Rory Prescott

PBS taking IB HoS

Nicole Creasey
Kleopatra Kyprianou
Dhara Shah
Kayleigh Skene

HSPS students taking IB HoS

PBS taking IB PoS

David Bradbury
Jade Hope
Charlotte Leach
Emma Neville
Leah Orme

HSPS students taking IB PoS

PBS students taking Part II Paper 5

Jack Andrews

PBS students taking Part II Paper 10

Katie Brown
Leor Zmigrod

History Students taking Paper 2 (P11)

Shona Whatford
Eve Waller
William Fenby
Thomas Beaven
Natasha Boyd
Oliver Cottrell
Manveer Badesha
Ateka Tarajia

Lucy Twistleton



Staff and students at the Department of History and Philosophy of Science, 2015-2016

Comings and Goings

Jenny Bangham took up the position of Wellcome Trust Fellow in September.

Adrian Boutel left the Department in August.

Toby Bryant joined the Administration team in June as the new receptionist.

Lorena Bushell went to work full time as an Education and Outreach Assistant for the Museum of Archaeology and Anthropology in March.

Christopher Clarke left in April to become Assistant Professor in the Faculty of Philosophy at the Erasmus University Rotterdam.

Rosanna Evans left the Receptionist role in May to become the new Learning Co-ordinator for the Museum.



Rosanna Evans and Louisa Russell

Boris Jardine returned to the Department in March as a Leverhulme Early Career Fellow.

Dawn Kingham, our Library Assistant, returned from her maternity leave in January.

Agnieszka Lanucha became the new Senior Accounts Clerk in August.

Dániel Margócsy took up the position of University Lecturer in Science, Technology and Medicine before 1800 in September.

Jenny Mathiasson left in May to take up the position of Museum Conservator at Clifton Park Museum.

Sara Mano Ivo Peres joined the Department as a Research Associate in September to work on Helen Curry's Seeds for Survival: A Global History of Seed Banking project.

Valentina Pugliano finished her fellowship in the Department in October.

Efram Sera-Shriar left in December to join the University of Leeds.

Jacob Stegenga started in September as a University Lecturer in Philosophy of Life Sciences.

David Crawford left the department in June 2016.



Dániel Margócsy

Agnieszka Doroszuk also left the department administration team in 2016.

Eran Tal left at the end of June. He went on to join the Philosophy Department at McGill University.

ROLES AND RESPONSIBILITIES

Departmental Positions

Head of Department: Prof. Jim Secord (2015) and Prof. Liba Taub (2016)

Administrative Officer: Ms. Tamara Hug

Director of Graduate Studies: Prof. Simon Schaffer and Dr. Nick Hopwood

MPhil Manager: Dr. Anna Alexandrova

Part III Manager: Prof. Hasok Chang

Part II Manager: Dr. Lauren Kassell

Part IB Manager: Dr. Marta Halina

Staff Development Officer: Prof. Liba Taub (academic staff) and Ms. Tamara Hug (support staff)

Dignity Officer: Prof. Hasok Chang and Prof. Liba Taub

College Liaison Officer: Dr. Lauren Kassell

Chair of the Monitoring Committee: Dr. Lauren Kassell

Graduate Training Officer: Dr. Marta Halina

HPS Board and Degree Committee

Chair of the HPS Board Committee: Prof. Simon Schaffer

Chair of the HPS Degree Committee: Dr. Nick Hopwood

Professors and Readers: Professors Hasok Chang, Tim Lewens, Simon Schaffer (Chair), Jim Secord, Liba Taub, and Drs Nick Hopwood and Lauren Kassell

Curator and Director of the Whipple Museum: Prof. Liba Taub

Secretary of the Board and Secretary of the Degree Committee: Ms. Tamara Hug

Librarian: Ms. Anna Jones

General Board Members: Prof. Tim Crane and Dr. Emma Spary

Co-options: Dr. Helen Curry, Dr Anna Alexandrova, Dr. Marta Halina, Dr. Richard Staley

Elected Members: Dr. Sarah Marks, Dr. Daniel Mitchell, Dr. Mary Brazelton

Junior Members: Graduate: Alissa Aron (Darwin), Catherine Tennyson (Girton), Undergraduates: Ollie Webster (Clare)

Philosophy Faculty Board

HPS Representative: Hasok Chang

Examiners

NST Part IB History and Philosophy of Science

Senior Examiner: Prof. Hasok Chang

Examiners: Prof. Simon Schaffer, Dr. Mary Brazelton, Dr. Helen Curry, Dr. Marta Halina, Dr. Adrien Boutel

NST Part II History and Philosophy of Science including BBS History and Ethics of Medicine

Senior Examiner: Dr. Richard Staley

External Examiner: Dr. Jeff Hughes (University of Manchester)

Examiners: Prof. Nick Jardine, Dr. Anna Alexandrova, Dr Nick Hopwood, Dr Marina Frasca Spada

MPhil/Part III in History, Philosophy and Sociology of Science, Technology and Medicine

Senior Examiners: Dr. Marta Halina

Examiners: Dr. Mary Brazelton

External Examiners: Dr. Emma Tobin (University College London)



Staff and students at the Cabinet Garden party

PRIZES, PROJECTS AND HONOURS

Student Prizes

Joe Bonham-Carter was awarded both the Jacob Bronowski Prize for the best overall performance in the HPS Part II exams and the Frances Wilmoth Prize for the best performance in the dissertation component of the course.

Holly Clothier was awarded the seventh Annual Peter Lipton Prize for the best overall performance in the HPS Part III course.

This year, the 19th Annual Jennifer Redhead Prize for the best overall performance on the essay portion of the MPhil in History, Philosophy and Sociology of Science, Technology and Medicine had an unprecedented three winners: **Alissa Aron**, **Claudia Dumitru** and **Henry Schmidt**.

Henry Schmidt also won the 13th Annual Hans Rausing Prize for the best MPhil dissertation.

New Research Projects

Helen Curry, one of our University Lecturers, gained a Wellcome Trust seed award to work on "Seeds for survival: A global history of seed banking". The grant supports a major new research initiative that will investigate the history of seed banking as a global conservation practice and human health imperative.

SEMINARS AND SPECIAL LECTURES

Wellcome Lecture

Michael Stolburg from the University of Würzburg delivered the 11th Cambridge Wellcome Lecture in the History of Medicine in the HPS Department on ‘Curing diseases and exchanging knowledge: sixteenth-century physicians and their female patients’.

Rausing Lecture

Professor Sherry Turkle from the Massachusetts Institute of Technology delivered the 21st Annual Hans Rausing Lecture in the McCrum Lecture Theatre, Bene't Street on ‘Reclaiming our conversation: our new silent spring in a digital age’.

Seminars, Graduate Workshops, Reading and Discussion Groups, and Language Groups

Departmental Seminars organised by Mary Brazelton and Marta Halina

Cabinet of Natural History organised by Katrina Maydom

Twentieth Century Think Tank organised by Richard Staley, Jesse Olszynko-Gryn, and Mary Brazelton

Early Medicine Seminars organised by Lauren Kassell, Valentina Pugliano, and Gabriella Zuccolin

History of Modern Medicine and Biology Seminars organised by Nick Hopwood, Mary Brazelton, and Salim Al-Gailani

Generation to Reproduction Seminars organised by Lauren Kassell, Nick Hopwood and Jesse Olszynko-Gryn

HPS History Workshop organised by Andreas Sommer and Seb Falk

CamPoS organised by Huw Price, Jeremy Butterfield, and Hasok Chang

Coffee with Scientists organised by Hasok Chang

Nature and Culture Reading Group organised by Sam Murison

History and Theory Reading Group organised by Matthew Drage

Science and Literature Reading Group organised by Melanie Keene and Charissa Varma

Philosophy and History of Physics Reading Group organised by Jeremy Butterfield, Hasok Chang, and Daniel Mitchell

Philosophy of Psychology Reading Group organised by Ali Boyle and Sarah Marks

Latin Therapy organised by Tillmann Taape and Natalie Lawrence

Greek Therapy organised by Liz Smith

Arabic Therapy organised by Seb Falk

STUDENTS

Student Statistics

Undergraduates	Part IB	59
	Part II	31
	Part II BBS: History and Ethics of Medicine	5
	Part III	12
Graduates	MPhil	28
	PhD	39

Examination Results

Part II	1	12 (38.7%)
	2i	17 (54.8%)
	2ii	2 (6.5%)
	3	0
	Fail	0
Part II BBS: History and Ethics of Medicine	1	3 (60%)
	2i	2 (40%)
	2ii	0
	3	0
	Fail	0
Part IB	1	9 (20.45%)
	2i	18 (40.91%)
	2ii	15 (34.09%)
	3	2 (4.55%)
	Fail	0

Graduate Degrees Awarded

MPhil degrees awarded	28
Part III degrees awarded	12
PhD degrees awarded	9

PART II ESSAY AND DISSERTATION TITLES

Primary Source Essays

Primary Source 2: Astrological Casebooks

Was Simon Forman an expert in women's medicine?

Simon Forman's use of his casebooks as a personal diary

'The 12. house is the house of witchcrafte': the complexities of witchcraft as a disease category and its astrological diagnosis in Simon Forman's casebooks

'Something of a specialist in women's health care': an analysis of Simon Forman as an expert in women's health using his casebooks

Primary Source 3: The Board of Longitude: Materials and Documents

What role does rank play in the Harrison and Maskelyne debates?

George Airy's collection and a comparison of the religious sentiments expressed in the longitude pamphlets

Why did William Whiston defend his longitude proposals differently in 1715 and 1738?

Jane Squire: the only woman to openly pursue the rewards offered by the Board of Longitude

A comparative study of women and the Board of Longitude

Primary Source 4: Science and Print in Colonial India

'On cooling wines': James D. Herbert's vision of a domestic scientific culture in colonial India

Why were measurements of longitude published in *Gleanings in Science*?

Was the concept of race among British colonists in early nineteenth century India unified?

The concept of race in colonial Burma, 1829-1831

The conceptualisation of race in Gleanings in Science

Advertising India: Bengal agricultural industry in Gleanings of Science

Perceptions of the Burmese landscape and people in Gleanings in Science (1829-1831)

'A very considerable service to the opium trade'; colonialism and drug packaging in Gleanings in Science, 1830

How and why the British learned about elephants in colonial India in Gleanings in Science

How does Arthur Conolly discuss race in his travelogue Overland Journey to India?

Primary Source 5: The Population Bomb

The Population Bomb: the dangers of population control and panic based reasoning

The Population Bomb, ZPG and feminist movements: complex and dynamic relations

Ehlich v Hartmann: feminist responses to The Population Bomb and its legacy in the era of climate change

The global politics of The Population Bomb: feminist responses since 1968

How has The Population Bomb shaped 21st century ideas about population control and the environment?

The Population Bomb and abortion in America

Making a movement; constructing activism in text and beyond (The Population Bomb and Women and their Bodies: A Course)

Birth control, American Catholics, and The Population Bomb

Ehrlich as a scientific activist: using The Population Bomb to define his activism

Diminishing support for Ehrlich: a comparison of American opinion of the ideas presented in The Population Bomb and The Population Explosion, with reference to China's one-child policy and India's compulsory sterilisation programme

'Family planning and other failures' – with a focus on India and the IUD

The relationship between the mass media, Paul Ehrlich, and The Population Bomb

Primary Source 7: Doha Declaration and Novartis Ruling

Evergreening, Indian patent law, and utilitarian principles: the case of India v Novartis

Lessons about intellectual property rights in the developing world from the Novartis v. India case

Did the Doha Declaration do more harm than good for access to medicines?

The legal battles of pharmaceutical globalisation: what are the current and future global consequences of the Novartis v. Union of India and Others case and the evolution of India's patent laws for developing countries?

What similarities can be drawn between the recent Novartis v Union of India & Others ruling and the case of Diamond v Chakrabarty?

To what extent has India's history of patent law shaped interpretations of innovation and invention regarding the Indian pharmaceutical industry?

Evergreening, Indian patent law, and utilitarian principles: the case of India v Novartis

Changing understandings of the global commons in Novartis v. India

The influence of India's international position on the case of Novartis vs the Union of India

The Doha Declaration of 2001 shows that intellectual property rights are incompatible with solving issues related to public health in developing nations

Conflicts between access to medicine and intellectual property rights: should Novartis receive a patent for Glivec based on its extensive drug donation programme?

Bioprospecting and preventing access to medication: how the pharmaceutical industry reinforces neo-colonialism

Unjust patents and patent injustice: how patents fail to achieve distributive justice, and what Novartis v India tells us about how we can do better

Primary Source 8: Galileo's Dialogue

The use of ad hoc arguments in Galileo's Dialogue

Telescopic evidence in the Dialogue: revisited

Ad hocness in Galileo's Dialogue

Thought experiments in Galileo's Dialogue: more than just 'picturesque arguments'

Galileo's theory on the tides: ad hoc methodology or logical reasoning?

Does Galileo rely on propaganda to make underdetermined arguments convincing?

Paper 10: DSM-5

The DSM-5 and the dream of dimensionality

Determining which deviances are mental disorders: a value-laden process

The values of psychiatry

DSM-5: is it fit for research purposes? What can be salvaged for the future of classification systems in the field of research into mental health disorders?

The DSM-5 presents itself as objectivist. Should it do so? Is it problematic if it does not?

Looping and dimensionality: a case study in Dissociative Identity Disorder

Negativity in the DSM-5 and the perpetuation of an unhelpful stereotype surrounding ASD

Progress in the wrong direction? Exploring the conflict between reliability and validity in the DSM-5

Cultural bias in the DSM-5

Is gender dysphoria a mental disorder?

Do values play a role in DSM-5 based diagnosis at the clinical level, and should this be of concern?

Why we should accept the 'bridge' to dimensionality proposed in the DSM-5

Is it acceptable for the DSM-5 to rely upon clinical judgement to prevent the medicalisation of grief?

Dissertations

Superbugs: a historical analysis of the rise of antibiotic resistance in the 20th century

Integration in cognitive neuroscience: the case of selective visual attention

'Things of science': science kits and educating young scientists, 1940-1980

Is ARCH modelling a telling example of a paradigm? A Kuhnian perspective on financial economics

The role of infant formula in the rise of corporate neo-colonialism

Climate change and politics

Frontline chemotherapy: research and policy in the UK and USA, 1914-2000

Charlatan medicine in 18th-century Italy: therapeutics, theatricality and visual oratory

Ethics of cancer screening

The birth of modern motherhood: surrogacy in the British media, 1980s and 1990s

Is the Copenhagen interpretation inevitable? Pluralism in quantum mechanics

The emergence of Isaac Newton's identity as a Unitarian founding father

Was Ottoman medicine backward?

Science, race and empire in the 19th-century works of 'Peter Parley'

'A wicked operation'? Tonsillectomy in Britain since 1900

The history of the 'morning-after pill' in Britain

The problem of male sterility in medicine and the media

Counterfeiting the truth - is accuracy the best way to think about John White's images?

Rosicrucianism, Freemasonry and the Royal Society

Should we eat dogs?

Secrecy and censorship in the Manhattan Project

The politics of maternity care in 1980s Britain

'The revolution that isn't coming: female sexual dysfunction, speech acts and the battle for women's bodies

The 'scientific' and the 'clinical': the changing face of anatomy in the British medical curriculum since c. 1900

Can scientific revolutions be forced?

The ethics of prenatal screening for neural tube defects

MPHIL AND PART III ESSAY AND DISSERTATION TITLES

MPhil Essay and Dissertation Titles

Alissa Aron

Essays

Selling small doses: advertising domestic homeopathy in Victorian Britain (supervised by Shinjini Das)

Perceptions of provenance: conceptions of wine, health and place in Louis XIV's France (supervised by Emma Spary)

Manure to minerals: understanding the role of reductionism in 19th-century agricultural chemistry (supervised by Hasok Chang)

Dissertation

Of microbes and men: changing scientific perceptions of life in the soil (supervised by Helen Curry)

Alex Aylward

Essays

'Organismic bias' and the construction of 'inclusive fitness': selfishness, altruism and embracing the plurality of agents (supervised by David Crawford)

Between distance and domination: feminism, experimentalism and the manipulation of nature (supervised by Anna Alexandrova)

What's in a word? H.G. Wells and the identity of the 'scientist' in British popular writing, 1895-1925 (supervised by Paul White)

Dissertation

'Put-up-or-shut-up' or 'shut up about putting-up'? Redressing power imbalances in the contingentism-inevitabilism debate (supervised by Hasok Chang)

Sean Biggins

Essays

Galileo, rhetor: rhetorical aspects of argument, experiment and observation in Galileo's *Dialogue* (supervised by Nick Jardine)

Need psychology be a science without a soul? William James' debate with George Ladd seen against the backdrop of 19th-century positivism (supervised by Andreas Sommer)
Dawkins' use of Darwin (supervised by Jim Moore)

Dissertation

The Turing Test, computationalism and tacit knowledge (supervised by Richard Staley)

Dannielle Cagliuso

Essays

'The causes...they be far or nye': an exploration of how social factors influenced the differences between the sweating sickness treatises of Thomas Le Forestier and John Caius (supervised by Peter Jones)

'The whole matter of interference microscopes is...becoming rather complex': Sir Andrew Huxley and the design and dissemination of his custom interference microscope (supervised by Josh Nall)

Veni, vidi, vetui? The role of the family in opt-out organ donation under Human Transplantation (Wales) Act 2013 (supervised by Tim Lewens)

Dissertation

Cantabrigian collaborative commercialisation: collaborations between Cambridge University scientists and scientific instrument manufacturers, circa 1881-1939 (supervised by Josh Nall)

Alfie Cheesman

Essays

Adam Ferguson, Reinhart Koselleck and the 'physiology' of historical change (supervised by Nick Jardine)

The Modern, Berry and Lea terrestrial globe (c. 1683) (supervised by Liba Taub)

Niklas Luhmann and the observation of modern science (supervised by Anna Alexandrova)

Dissertation

Global perspectives and visual pedagogies in the English Enlightenment, 1650-1770 (supervised by Simon Schaffer)

Nathan Cofnas

Essays

Innateness as genetic adaptation: Lorenz redivivus (and revised) (supervised by Tim Lewens)

Evolutionary mismatch and emotional well-being (supervised by Anna Alexandrova)

Conceptual issues in the cognitive science of religion: investigating what makes good concepts successful (supervised by Marta Halina)

Dissertation

Why we respect institutions: an evolutionary perspective (supervised by Anna Alexandrova)

Claudia Dumitru

Essays

Hume against the modern philosophy (supervised by Marina Frasca-Spada)

Perceptual cognition and its limits: Jacopo Zabarella and the elimination of the cogitative faculty (supervised by Richard Serjeantson)

Between Galen and Aristotle: Simone Porzio (1496-1554) on the nature and causes of pain (supervised by Richard Serjeantson)

Dissertation

Naturgeschichte, Naturbeschreibung and the purposiveness of nature in Kant's critical and pre-critical writings (supervised by Nick Jardine)

Haris Durrani

Essays

How the rest became the west in the Mars One *fatwa* controversy: spaceflight, globalism, risk to life, and strategic Orientalism in the UAE (supervised by Mary Brazelton)

New words, old ideas: the problem with retrospective terminology in historical analysis of the correspondence between Ibn Sina and al-Biruni (supervised by Tony Street and Liba Taub)

Mineralogy, God and proof in the vacuum flask experiments of al-Biruni and Ibn Sina (supervised by Liba Taub)

Dissertation

Space crystals and 'our window on the world': economic development, imagination and humanity in the orbital heterotopias of the International Space station (supervised by Richard Staley)

Pedro Feijo

Essays

Science was born cyborg (supervised by Simon Schaffer)

Man and his monsters: a short genealogy of Renaissance monstrosity (supervised by Lauren Kassell)

Doctors herding cats: the misadventures of modern medicine and psychology with non-human identities (supervised by Sarah Marks)

Dissertation

Of this nothing is known: archives, witches and the limits of history (supervised by Simon Schaffer)

Alexandra Gurel

Essays

'Race poison' to 'supreme selfishness': constructions of alcohol-related foetal risk in UK newspapers from 1918 to 2007 (supervised by Salim Al-Gailani)

Evidence and authority in infanticide trials at the Old Bailey, 1674-1734 (supervised by Lauren Kassell)

Debating the link between obstetric radiography and childhood cancer in Britain, 1954-1962 (supervised by Nick Hopwood)

Dissertation

The demand for IUDs: making a 'respectable' alternative to oral contraception in Britain, 1962-86 (supervised by Jesse Olszynko-Gryn)

Felicitas Holzer

Essays

The forgotten historical perspective in biocultural anthropological models: the case of Ebola (supervised by Mary Brazelton)

International patient regimes and access to medicines: is the Health Impact Fund an effective solution? (supervised by Gabriele Badano)

The 'socially valuable knowledge' principle is a prudential and not an ethical requirement for research involving human subjects (supervised by Anna Alexandrova)

Dissertation

The relevance of behavioural experiments in political philosophy: Henrich et al.'s cross-cultural studies and idealism in normative theories (supervised by Anna Alexandrova)

Lewis Kopman

Essays

Sokal and Wendt: first as farce, then as science? (supervised by Marina Frasca-Spada)

Can economics be modelled? A consensus undermines a paradox (supervised by Christopher Clarke)

An art of science and a science of art: modernist cuisine and molecular gastronomy (supervised by Emma Spary)

Dissertation

Open formulae and modelling diagnostics: a general framework for the use of models in experiment design and explanation in economics (supervised by Anna Alexandrova)

Chaka Laguerre

Essays

Race's place in nature: James Hunt and the construction of scientific racism in mid-19th-century Britain and America (supervised by Efram Sera-Shriar)

Racism explanations: approaches, models and epistemologies in social science (supervised by Anna Alexandrova)

Racial health inequities and epigenetic mechanisms: rethinking race in the biomedical and social sciences (supervised by Nick Hopwood)

Dissertation

Standpoint feminist epistemology: the challenge of race and black feminist thought (supervised by Anna Alexandrova and Tom Dougherty)

Vi Tuong Thi Le

Essays

Problems in the conceptualisation and demonstration of interactional expertise (supervised by Hasok Chang)

Anthropology of logic in the works of Lévy-Bruhl and Lévi-Strauss on the primitive mind (supervised by Richard Staley)

Structure and construction in Carnap's Aufbau (supervised by Hasok Chang)

Dissertation

Bertrand Russell's behaviouristic turn, 1914-1927 (supervised by Richard Staley)

Paul Marrett

Essays

Dyson's sphere: the Cold War politics of science, science fiction, and the search for extraterrestrial intelligence (supervised by Jesse Olszynko-Gryn)

'Blindsight spread over every sense': why high levels of intelligence do not require consciousness (supervised by Marta Halina)

Planning for the future: augmented reality and the extended mind (supervised by Adrian Boutel)

Dissertation

The false start of a field, or 'why can't I major in futures studies?' (supervised by Helen Curry)

Fiona Milway

Essays

The Beck Depression Inventory: a study of the role of aggregation in measurement (supervised by Anna Alexandrova)

Charles Elcock and the Postal Microscopical Society: a 19th-century scientific community (supervised by Josh Nall)
Kuhn, Feyerabend and incommensurability (supervised by Hasok Chang)

Dissertation

Natural history of sale: Maison Deyrolle and its role in the 19th-century natural history community (supervised by Liba Taub)

Gourav Krishna Nandi

Essays

Situating Jewson: the immediate context of the disappearance of the sick-man (supervised by Salim Al-Gailani)
The philosophical foundations of Maxwell's induction model (supervised by Josh Nall)
Do explanatory-sentences that answer only why-questions increase our understanding? (supervised by Hasok Chang)

Dissertation

India's polio-free status: a case study in global health politics (supervised by Mary Brazelton)

Daniel Ott

Essays

Conceptual clarification of pain: a sensorial theory (supervised by Hasok Chang)
Challenging the pursuit of mechanistic description: complete versus partial explanation in neuroscience (supervised by Marta Halina)
Confusion of kinds: ontological clarification through process philosophy (supervised by Anna Alexandrova)

Dissertation

Progress in psychopathology, step-by-step: ousting a Kuhnian imperative by prescribing epistemic-iteration (supervised by Marta Halina)

Edwin Rose

Essays

R. Brooke's General Gazeteer: or, Compendious Geographical Dictionary (1762-1876) (supervised by Nick Jardine)
The late 18th-century reception of Joseph Black's discovery of 'fixed air' (CO₂) (supervised by Hasok Chang)
Using historical microscopes to understand microscopic anatomical observations by Marcello Malpighi and Nehemiah Grew (supervised by Sachiko Kusakawa)

Dissertation

From Chelsea to Montague House: Hans Sloane's collection of Jamaica plants, 1742-1768
(supervised by Simon Schaffer)

Rebecca Rothfield

Essays

Fifty shades of Grue: the gruesome challenge to epistemic iteration (supervised by Hasok Chang)
Strong, but not too strong: the strong programme in first-personal and third-personal explanatory
contexts (supervised by Tim Lewens)
Inventing as creation and lie: truth in literary fictions and histories of science (supervised by Nick
Jardine)

Dissertation

Wide-eyed and legless: bodies, body-schemas and the metaphysics of illness (supervised by Tim
Lewens and Paulina Sliwa)

Susannah Russell

Essays

'Sound reasoning': Dublin and Edinburgh accoucheurs and the stethoscope, 1830-1850 (supervised
by Salim Al-Gailani)
Applying a narrative model of self to organ transplant experiences (supervised by Marta Halina)
Seeding the human microbiome: child birth and cleanliness (supervised by Nick Hopwood)

Dissertation

'We are strangers in a strange land': fathers in the National Childbirth Trust (supervised by Salim
Al-Gailani)

Henry Schmidt

Essays

Robert Hook and 'similitude' (supervised by Simon Schaffer)
Moral sensibility and mental computation in Hutcheson, Gay and Hartley (supervised by Marina
Frasca-Spada)
Hill's cloud camera and meteorological photography (supervised by Josh Nall and Liba Taub)

Dissertation

Robert Hooke on mathematics, mind and substance (supervised by Simon Schaffer)

Tobias Schoenwitz

Essays

Science or art? Pharmacy in 19th-century Austria and England (supervised by Hasok Chang)

Thick concepts in science—responsibilities for scientists (supervised by Anna Alexandrova)

The identification-problem of mechanisms and weak mechanistic realism (supervised by Marta Halina)

Dissertation

Thomas Kuhn's plurality of worlds: reconsidering the linguistic turn (supervised by Hasok Chang)

Arthur Schwaninger

Essays

Fictions in physical computer simulations: a case study of molecular dynamic simulations (supervised by Brian Pitts)

Rethinking Fodor's concept of variable realisations (supervised by Anna Alexandrova)

The self-driving car from a neuro-scientific perspective (supervised by Adrian Boutel)

Dissertation

Computational science: moving towards scientific unity (supervised by Hasok Chang)

William Simpson

Essays

Half-baked Humeanism (supervised by Anna Alexandrova)

Towards a neo-Aristotelian account of emergence (supervised by Jeremy Butterfield)

The decline of substantial form and the rise of corpuscularianism (supervised by John Marenbon)

Dissertation

Causal powers and the scientific image (supervised by Hasok Chang and Tim Crane)

Katelyn Smith

Essays

The Bendien business: British medical and newspaper coverage of a Dutch test for cancer (supervised by Jesse Olszynko-Gryn)

Anglicizing a feminist classic: the UK edition of *Our Bodies, Ourselves* (1978) (supervised by Salim Al-Gailani)

The Cullen project: a study of nervousness in the late 18th century (supervised by Lauren Kassell)

Dissertation

Feminist activism and the British controversy over the injectable contraceptive Depo-Provera 1970-1985 (supervised by Nick Hopwood)

Georg Stark

Essays

A quest for values: DSM-5 and the bereavement exclusion criterion (supervised by Anna Alexandrova)

How to collect 100,000 genomes: trust and consent in genomic research (supervised by Tim Lewens)

Epistemic ideals and human brain mapping: objectivity in functional magnetic resonance imaging (supervised by Marta Halina)

Dissertation

Fear of mice: the case for animal emotions in comparative neuroscience (supervised by Marta Halina)

John Thornton

Essays

A public health approach to cybersecurity (supervised by Tim Lewens)

Leaving the Chinese Room (supervised by Marta Halina)

Signpost to a forgotten science: Stokes's Capital Mnemonical Globe (supervised by Josh Nall)

Dissertation

Waiting for midnight: risk, authority and the Doomsday Clock (supervised by Helen Curry)

Joseph Wu

Essays

Mechanistic Explanations in cancer (supervised by Tim Lewens)

Well-being, phenomenology and illness (supervised by Anna Alexandrova)

Reproducibility, external validity and translational success (supervised by Hasok Chang)

Dissertation

On the ethics of CRISPR/Cas9: germlines, genomes and future generations (supervised by Tim Lewens)

Part III Essay and Dissertation Titles

Sarah Binney

Essays

Margaret Cavendish's *Blazing World* as an example of fantastic voyage literature in the 17th century (supervised by Patricia Fara)

The modernisation of time? 1853-1905 (supervised by Richard Staley)

Dissertation

The science of horology: making and using time in the long 19th century (supervised by Richard Staley)

Jamie Bristow

Essays

An ethical examination of the bogus pipeline: are proscribed guidelines failing participants in deception studies? (supervised by David Crawford)

A review of the mark test in non-human primate self-awareness studies (supervised by Marta Halina)

Dissertation

Anthropocentrism and self-awareness (supervised by Marta Halina)

Sam Brooks

Essays

What was the reaction to *Hereditary Genius* in the Victorian periodical press, and how is this a reflection of Victorian science and society? (supervised by Efram Sera-Shriar)

Bridging the gap: assessing the diffusion model of science popularisation in the post-Victorian era (supervised by Josh Nall)

Dissertation

Early 20th-century debates over life on Mars and their impact on the 1938 War of the Worlds broadcast incident (supervised by Josh Nall)

Eoin Carter

Essays

Constructed identities: phrenology and race in early ethnographic mapping (supervised by Melanie Keene)

'More brilliant than relevant'? Charles Southwell in the history of popular science (supervised by Simon Schaffer)

Dissertation

The making of the Scottish mechanics' class: reinterpreting the Mechanics' Institutes (supervised by Simon Schaffer)

Holly Clothier

Essays

Navigating the 'double contact zone': the role of travel narratives in James Cowles Prichard's construction of the African races (supervised by Efram Sera-Shriar)

Imagining the end: examining the use of apocalyptic narratives in modern environmentalism (supervised by Richard Staley)

Dissertation

Children of the environmental apocalypse (supervised by Richard Staley)

Mary Dai

Essays

Tea: science and reconfiguration of empire in the 19th century (supervised by Mary Brazelton)

Grace Hopper: representations of gender in the history of computing (supervised by Richard Staley)

Dissertation

Grace Hopper and fellow pioneers in the 20th century: war, computers and the question of gender

Katharine Griffiths

Essays

Robert Hooke on music, memory and natural knowledge (supervised by Lauren Kassell)

Tarantism: caught in a web of historiographical errors (supervised by Sietske Fransen)

Dissertation

Tarantism: a diverse historical tool (supervised by Sietske Fransen)

Rob Hart

Essays

Stuck in time: an evaluation of sceptical objections to nonhuman mental time travel (supervised by Marta Halina)

Do extreme risks indicated by science legitimize authoritarian action? (supervised by Shahar Avin)

Dissertation

Reconsidering speculation: charting the permissible use of speculative ethics as a preparatory tool for considering future developments in science and technology (supervised by Shahar Avin and Tim Lewens)

Rogelio Luque-Lora

Essays

Is it better to be safe than sorry? Mass tropical extinctions, the precautionary principles and moral responsibilities in scientific publishing (supervised by Tim Lewens)

The disenchantment and re-enchantment of nature and their environmental implications

Dissertation

'Balancing beauty and horror': exploring the role of enchantment in motivating environmentalism in the Anthropocene (supervised by Chris Sandbrook and Robert Macfarlane)

Michael Lynam

Essays

Making new metaphors: feminist self-help and developmental biology in America, 1980-2000 (supervised by Jesse Olyszynko-Gryn)

The institute for Scientific Treatment of Delinquency, 1931-48 (supervised by Deborah Thom)

Dissertation

Criminals and ourselves: the ISTD, criminal justice and the psychoanalytic decline (supervised by Deborah Thom)

Joe Painter

Essays

How can the flourishing of plague paintings in Italy between 1549 and 1662 be understood from a history of medicine perspective? (supervised by Valentina Pugliano)

The last man: thought experiments contemplating the intrinsic value of nature (supervised by Tim Lewens)

Dissertation

Elimination of surplus cockerels: applying and communicating early Cambridge genetics (supervised by Nick Hopwood)

Will Scott

Essays

The treatment-enhancement distinction, medical duties and the doctor's role in athletic achievement (supervised by David Crawford)

Reduction and the incorporation of the electron into organic chemistry (supervised by Hasok Chang)

Dissertation

Manipulation of the electron: Gilbert Lewis and Robert Robinson (supervised by Hasok Chang)

PHD THESES

Awarded

Megan Barford

‘Naval Hydrography, Charismatic Bureaucracy, and the British Military State, 1825-1855’

(Supervised by Simon Schaffer)

Andrew Buskell

Modelling Culture: a philosophical study of cultural dynamics and cultural evolution

(Supervised by Tim Lewens)

Sebastian Falk

Improving Instruments: Equatoria, Astrolabes and the Practices of Monastic Astronomy in Late Medieval England

(Supervised by Liba Taub)

Stephen Irish

Analytic Crystallography in British Scientific Practice, 1798-1820

(Supervised by Hasok Chang)

Natalie Lawrence

Monstrous Assembly: Constructing Exotic Animals in Early Modern Europe

(Supervised by Simon Schaffer)

Emma Pyle

Wonder and the Microscopy in late Victorian England

(Supervised by Paul White)

Iris Montero Sobrevilla

Transatlantic Hum: Natural History and the Itineraries of the Torpid Hummingbird, 1500-1800

(Supervised by Nick Jardine)

James Poskett

Metropole of the mind: phrenology and the making of global science, 1815-1923

(Supervised by Jim Secord)

Kathryn Schofert

The view from the psychiatric laboratory: the research of Ernst Grünthal and his mid-twentieth-century peers

(Supervised by John Forrester)

Submitted

Leah Astbury

Breeding women and lusty infants in seventeenth-century England

(Supervised by Lauren Kassell)

Riana Betzler

‘Why empathy? The pernicious consequences of conceptual confusion in empathy research’

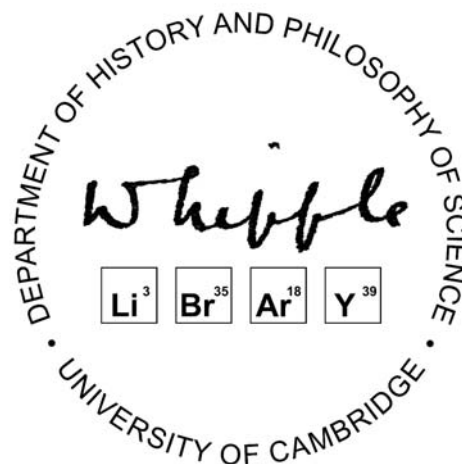
(Supervised by Tim Lewens)

Stephen Courtney

‘The Divine Science of Optics: Trinity House’s Scientific Advisors and the Construction of Lighthouse Technology in Nineteenth-Century Britain’

(Supervised by Simon Schaffer)

The Library



On the face of it, 'business as usual' seems a modest way to summarise 12 months in the life of an institution, but when 'business' is as varied as it is for us here at the Whipple Library, then the entertainment value of the annual report has greater promise. We were glad that the breadth of the Library's contribution to supporting the teaching and research work of the Department was recognised in the Teaching and Learning Review in May, and thanks to all who also shared their thoughts on how the service supports their needs and how it might be improved through our snap user experience survey in February, and via the usual Departmental questionnaires. This feedback is crucial to ensuring that 'business as usual' remains fit for purpose and not hampered by inappropriate assumptions.



Thanks to good guidance from colleagues in UIS during the pilot project and cooperation from staff across the Department the full implementation of Moodle as the new online environment to

store teaching support materials (including reading lists, lecture handouts and scanned material for restricted distribution) from October 2015 happened smoothly. With a more user-friendly interface than its predecessor Moodle also reports on the number of downloads from each 'course', so we're now able to monitor with slightly more confidence how our practice to scan readings from copyrighted material on reading lists where an e-version is not otherwise available relates to usage as determined by circulation figures. Please see the summary table at the end of this report for further information.

User education

Induction tours for students and visitors new to the Department were offered in the first week of full term in a similar pattern to recent years, including some general drop-in sessions and some targeted to specific user groups, and attended, in total, by 96 people. An innovation was an informal 'Whipple Treasures' session where staff offered brief introductions to notable items from the special collections as a prelude to the start of year party. This was both well attended and well received, and a reminder of the power of the original to inspire and entertain.

School Teaching Associate Scheme

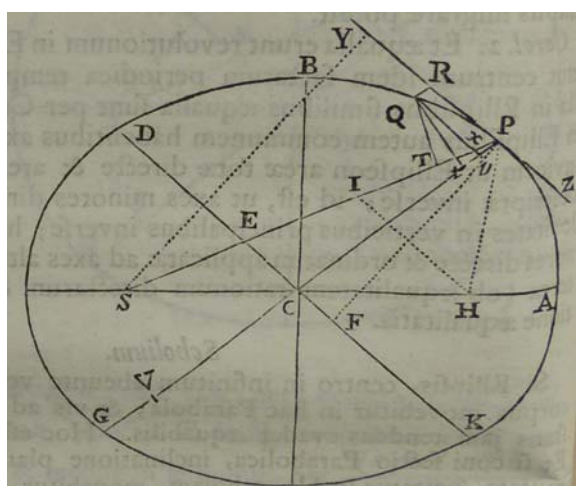
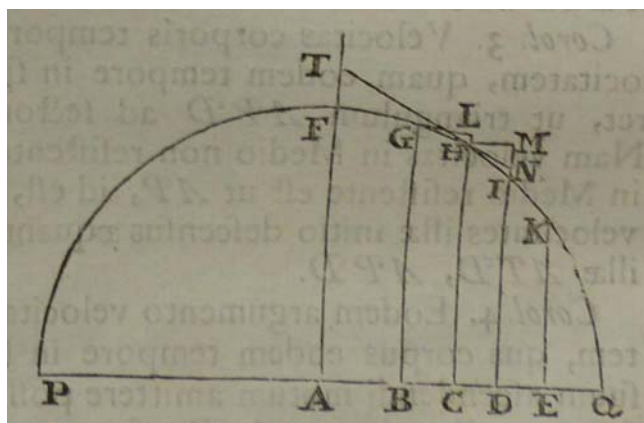
For the second year running the Library coordinated a programme of study skills sessions funded by a grant from the School of Humanities and Social Sciences Teaching Support Fund, and delivered by a variety of experienced graduate students, postdocs and supervisors in the Department. The programme seeks to help students make a smooth transition to HPS from a variety of disciplinary backgrounds, and in 2015-16 included separate essay writing workshops for Part IB, Part II and HEM students, a session on effective reading for HPS, and a series of one-to-one writing supervisions for Part II students preparing Primary Source essays in the Lent Term and dissertations in Easter.



Science in Print

Our popular seminar looking at techniques of book production and why bibliography matters expanded in 2015-16 to become two sub-series, one focusing on the hand-press period (4 sessions in the Michaelmas Term, including one in the Historical Printing Room at the University Library, led by Roger Gaskell and Anna Jones) and one on the nineteenth and twentieth centuries (3 sessions in the Lent Term, led by Drs Sarah Bull and James Poskett). Both attracted a healthy 20 participants, limited only by the practicalities of guaranteeing everyone hands-on access to the books on display.

Room capacity very nearly flawed us for the first of two special events offered under the Science in Print banner during the year, a lecture by Roger Gaskell on 'The Scientific Woodcut: A 300 year history'. The promise of a new discovery throwing light on the printing of diagrams in the 1713 Cambridge edition of Newton's *Principia* kept a rapt audience enthralled until the closing moment when the very woodblocks used for two of the diagrams in the text were revealed, specially couriered for the occasion by the Graduate Trainee at Trinity College Library, where Roger had recently found them in a box of blocks cut to illustrate work by Roger Cotes, the editor of the 1713 *Principia*, and used in the posthumous *Harmonia Mensurarum* (1722). On several counts it was an occasion to remember, and we thank Roger and Trinity College Librarian Dr Nicolas Bell very much indeed for sharing these fresh discoveries with us so generously.



The second extra-curricular treat came by way of a fieldtrip to the Cory Library at the Botanic Garden on 8 June, timed for the convenience of our MPhil members, and affording us all a chance

to sample the garden's early summer delights on route to the Lodge. There we were guided through some of the Library's significant but little known treasures of botanical and related works by Librarian Jenny Sargent, providing plenty of contrasts and complements to the material examined from the Whipple and UL collections earlier in the series.

School Graduate Training

In a new initiative organised by the School Librarians for Arts and Humanities, and Humanities and Social Sciences a programme of cross-disciplinary training for graduate students in both Schools was offered in the Michaelmas Term. Anna Jones co-presented with Libby Tilley from English a session on 'Managing Information', which was well-attended by HPS MPhil students, and the other topics covered in the series (Effective literature searching and Managing your online presence) were also promoted during the Whipple induction sessions. Joint ventures such as these to pool professional expertise and maximise the impact of training sessions is one of the specific aims of the Cambridge University Library affiliation project, so we were glad to be involved.

Outreach & public events

Our outreach activities were heavily influenced by two significant anniversaries in 2015-16. We continued to celebrate 350 years since the publication of Robert Hooke's *Micrographia* in 2015 into the new academic year, resuming with a display of microscopy books set out in the Museum's New Gallery for Open Cambridge on Friday 11 September. This was followed a month later by a unique opportunity to host a workshop for the AHRC-funded research project, 'Making Visible: The visual and graphic practices of the early Royal Society', based at CRASSH. Participants enjoyed a full morning's showcase of book illustration with a particular focus on intaglio techniques under the expert guidance of practitioner and historian of engraving, Ad Stijnman, using examples from the Whipple and Trinity College Library collections. After lunch, a select few were able to try out engraving using sections of Hooke's flea as a template – even more difficult than it looks!



The earliest surviving records of donations to the University Library in Cambridge in the wills of William Loring and William Hunden, both dated March 1416, were the spur to a year of 600th anniversary celebrations at the UL through 2016. The opening of the flagship *Lines of Thought* exhibition on 10 March 2016 marked the public start of the campaign,¹ but Whipple staff had been involved behind the scenes since the previous summer since Anna was invited to curate the history of anatomy section, and the Museum lent some objects for display.



Anatomy became by default the topic of 2016, spurring an event on ‘Visualizing medicine’, jointly with the Museum for Science Festival on 11 March, and later a book display for the cases on Level 1 on anatomy textbooks in the Whipple collections, prepared by Dawn. In a separate development, Clare worked with Rosanna Evans in her new role as the Museum’s part-time Learning Coordinator to compile a session for schools on ‘Medicine and Anatomy through time’ which uses illustrated material from the Library collections as part of a thought-provoking tour through medical techniques and representations from the sixteenth to the nineteenth centuries. Like the session for Key Stage 5 on ‘Darwin, Evolution and *The Origin of Species*’, developed the previous year, and offered again in 2015-16, the anatomy session is proving popular, and is a fruitful example of how creative linking of the Library and Museum collections can inspire a variety of audiences.

Besides face-to-face events we also developed our engagement with remote audiences from the summer of 2016 with an alphabetical series of blog posts highlighting well and lesser known items from the special collections.² Special thanks are due to all the members of the Library team who contributed. Our collective enthusiasm turned the project into a larger undertaking than we’d originally planned, since we all found more to say than a few lines for a weekly post. However, while the complete alphabet did spill over beyond the end of the academic year, what we lost in terms of the schedule we gained in terms of the end product, since over the course of the 26 posts we will

¹ <https://exhibitions.lib.cam.ac.uk/linesofthought/>

² <https://whipplelib.wordpress.com/2016/04/19/whipple-library-a-z-exploring-the-rich-diversity-of-our-collections/>

have a substantial body of writing and images to generate interest in the collections for some time to come.

Visits

In 2015-16 we hosted visits to the Library from participants in the BSHS student conference held in the Department in early January, the annual perambulation of Graduate Trainees from Cambridge libraries in February, and a return visit from Phoebe Harkins and Ross Macfarlane of the Wellcome Library following the Whipple team's staff development day there the previous summer. Anna and Clare also hosted a group from 'Cambridge Celebrates Age' for a show-and-tell session in the Museum Main Gallery looking at highlights from Robert Whipple's original book bequest.

Collections

The Library incorporated 485 items into the open shelf and special collections in 2015-16 through a combination of donation and purchase. Significant among the former was the arrival of 36 books from the estate of the late Professor Sir Robert Edwards on a range of topics related to his research into IVF treatment, and we are grateful to Prof Edwards's executors for giving us the opportunity to select particular items of interest from his personal library.



Significant among our purchases was Grace Chisholm-Young's personal copy of the book she authored jointly with her husband, W.H. Young. *The Theory of Sets of Points* (1906), marked up for a subsequent edition, and secured for the Library with assistance from the Whipple Fund.

Cambridge Philosophical Society archive

In December 2015 the Library took temporary custody of the archive of the Cambridge Philosophical Society. The CPS administration had occupied premises in the Arts School on Bene't Street for several decades, but were required to vacate these as part of major building and renovation work on the north range of the New Museums Site. While most of the CPS's library was moved into dark store, it was important to offer convenient access to the archive in anticipation of a new history of the Society to celebrate its bicentenary in 2019, and the Whipple was in the fortunate position to be able to offer good reader facilities to enable this.

Displays

The Level 1 display space was used from February to April 2016 for an exhibition prepared by Clare of material formerly owned by G.H. Darwin, purchased by the Library in 2015 (online version here: <http://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays/george-darwin>). An example of a volvelle and manuscript notes from Robert Hooke's copy of Fermat's *Varia opera mathematica* were used as part of Boris Jardine's display of paper instruments in the cases between the Main and New Galleries in the Museum during the Michaelmas Term.

Staff matters

There were a number of comings and goings amongst the Library staff during the year. Dawn Kingham returned from maternity leave in January to work three days a week, and we were glad that Clare Matthews was able to stay on to cover the remaining two days of the Library Assistant post, and a further two days on a temporary basis to work on special collections projects. Rosanna Evans did her last Library lunchtime shift on 29 April before taking up the post of Museum Learning Coordinator, and Aga Lanucha also moved on to a different desk in the Department when she took up the post of Senior Accounts Clerk from 1 August. Our extended term-time hours depend on a dedicated team of invigilators from the HPS PhD cohort, and in 2015-16 this comprised Annie Thwaite, Meira Gold, Tillmann Taape and Riana Betzler. We were glad of additional assistance from recent HPS graduates Dannielle Cagliuso and Sarah Binney to provide lunchtime cover and help with data upgrade projects over the summer.

Training & Professional development

After a year's break the annual libraries@cambridge conference for all staff working in libraries was revived in January 2016 with a day of presentations and workshops at the Computer Laboratory, for which Clare and Aga jointly prepared a poster describing the Whipple's outreach work. Clare and Anna attended a workshop hosted by the Historic Libraries Forum at Christ's College in December 2015 on practical conservation techniques, and Anna participated in the inaugural forum day organised by the new Cambridge Centre for Teaching and Learning in April 2016. Seeking to spread the method, Anna offered some reflections on teaching historical bibliography using collections

Reaching out at the Whipple
This poster is based on recent outreach activities, involving staff from the Whipple Library in partnership with the Whipple Museum and University of Cambridge events. The Library has collaborated with Museum staff and research students in the HPS Department to bring our special collections alive in a variety of ways. The aims were to make connections between the Whipple Library and Museum, and to promote our collections among staff, students and the wider public.

Museums at Night
May 15th 2015
Museums at Night is a national initiative encouraging visitors to engage with collections in different ways. We collaborated with the Whipple Museum to promote a particular aspect of the Whipple's collections: microscopy, to coincide with the 350th anniversary of the publication of Hooke's *Micrographia*.
An exhibition on 'Microscopy in Print' showcased 19th and 20th century books reflecting the popularisation of the microscope.
For the event, we expanded our display space to show a range of items from the Library's collection, including handbooks, journals, children's literature, and specialised studies of the scientific applications of the microscope.
In the Whipple Museum, we also displayed 2 copies of the *Micrographia*, with the Librarian on hand to respond to any questions.
Benefits & limitations
This was a great opportunity to collaborate with the Museum and to take part in a national event. Library staff had the opportunity to learn more about the collections in order to take on the roles of 'meet the researchers' and in responding to visitors' questions we discovered the interests of people from outside the academic department.
The limitations we found were largely down to the time commitment needed alongside our usual work, both in preparing the displays and in keeping the Library open after hours.

Open Cambridge
September 11th 2015
Open Cambridge was a 3 day celebration of Cambridge's history and heritage in which many of the libraries took part. In the Whipple, visitors could see a display on 'Colour Science', based on research done by one of the HPS Department's MPhil students into the study and analysis of colour. Items on display ranged from works of Boyle and Newton to late 19th century texts on perception and colour blindness, and also included a set of Tintometer slides for the measurement of colour from the Whipple Museum's collections.
In the Whipple Museum, visitors were encouraged to try out the handling collection of microscopes and slides. Some of the Library's books on popular microscopy were displayed alongside these to provide further context for the uses and enjoyment of these instruments.
Benefits & limitations
This was a chance to physically connect the Library and Museum collections in both spaces, and to make our collections better known and accessible to those who may not have seen the Library otherwise. We were also able to showcase the research of one of our students through the colour display.
The event did not require a great deal of preparation, but as it took place during working hours, our staff could not be in both the Library and Museum to talk about the collections. Drawing visitors in through the Department to find us was also difficult and relied on well placed signs.

The Origin of Species
At the Whipple Museum & Library
As part of the University of Cambridge Museums' Post-16 Learning package, the Whipple's Learning Coordinator has developed a session based on Charles Darwin's *Origin of Species* and theories of evolution to link with the KS4 'Science in Society' curriculum. Bookings are open to groups of Year 12 students who explore the background and impact of Darwin's theory through activities which encourage them to engage with primary texts and unique objects such as Darwin's microscope.
A range of books from the Library's teaching and special collections are used during the sessions, and Library staff are on hand to help interpret and put them in context.
With thanks to our colleagues in the Whipple Museum.

to a ‘train the trainer’ event run for Cambridge librarians in June, and benefited hugely from the first week-long Bodleian Library Printing Summer School in Oxford from 27 June to 1 July, discovering the hard way that type-setting is not as easy as it looks!

Whipple Library usage at a glance - 2015-16

Moodle usage				Book borrowing ³			Other			
Moodle course	No. of students ⁴	No. of scans	No. of views	Borrowing category	No. of active users ⁵	No. of loans	Total no. of visits	Average no. of readers AM	Average no. of readers PM	Store requests
Part IB History of Science	53	51	597	Part IB	97 (94)	573 (659)	31215 (31107)	16.8	20.3	477 (377)
Part IB Philosophy of Science	54	26	1407	Part II	125 (105)	1414 (1568)				
Part II HPS (8 papers)	31	179	3142	Undergraduate (other)	29 (51)	135 (180)				
BBS History & Ethics of Medicine	5	21	191	Part III	20 (17)	469 (311)				

³ 2014-15 figures in brackets for comparison.

⁴ No. of students sitting exam. HPS Moodle courses are open to all University members but only those sitting the exam can access material scanned under the CLA licence.

⁵ Includes members of other departments and faculties beyond HPS.

MPhil/Part III seminar	28/12 = 40	3	175	MPhil	76 (74)	1259 (1254)				
				Postgraduate (other)	15 (24)	42 (204)				
				PhD	87 (81)	664 (643)				
				Visitor	34 (53)	148 (349)				
				Senior Member	99 (85)	547 (535)				
				Teaching staff	19 (19)	385 (323)				
				Totals	601 (603)	5643 (6026)				

This year has turned into the Year of the Frog! With new objects on display, a new section on our Explore website and a myriad of events over the summer, there was a lot of hype over our amphibious friends.



Wh.6599 - Didactic anatomical model of a frog with five accompanying guides to physiology, English, mid C20th

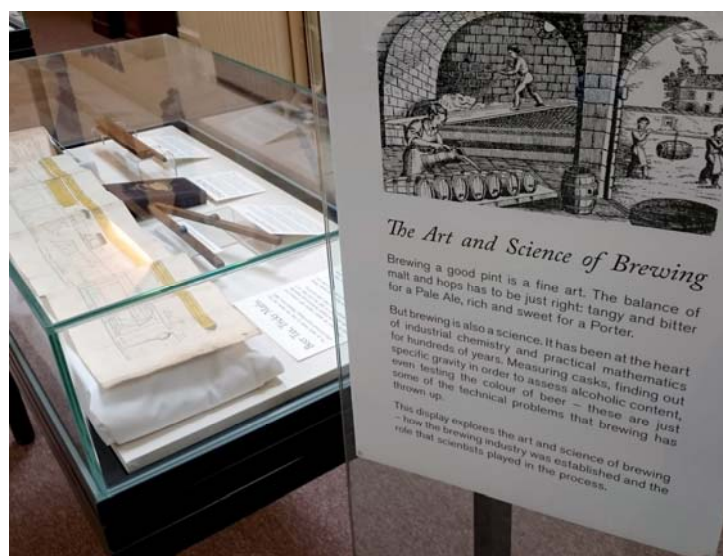
Exhibitions

The Paper Tools of Science

Paper may seem like a simple material, but its flexible, cheap nature allows it to be transformed into something magnificent or, as a writing surface, it can bear witness to a moment of inspiration. From the paper instruments of the scientific revolution to cardboard teaching models, the peculiar qualities of paper have given it a decisive role in the history of science. This exhibition featured a wide range of paper tools that had been used by scientists over the last 500 years and was curated by Boris Jardine, Munby Fellow in Bibliography, Cambridge University Library. It ran from November 2015 to July 2016.

The Art and Science of Brewing

Brewing is a little-known science, but has been at the heart of industrial chemistry and practical mathematics for hundreds of years. This exhibition explored the art and science of brewing, how the brewing industry was established and the role that scientists played in the process. The display featured objects that assessed alcoholic content and tested the colour of beer amongst others. It was curated by Josh Nall and Boris Jardine and opened in July 2016.



Special Projects

Gallery and Store Development

Temporary Exhibition Gallery

The decision was made in the summer of 2016 that it was now time for the Whipple to be putting on larger special (temporary) exhibitions. The current *discover* gallery will be used for these gallery-sized special displays. The first exhibition, Imperial Surveying and the Science of Empire, is due to open in October 2017 and will be followed by an exhibition showcasing the original Whipple collection in 2019, our 75th anniversary year.

Alongside this special exhibition gallery, we will also be refreshing displays in the Main Gallery and the New Gallery.

Storage

The work to replace the open shelving in the Whipple's stores has continued over the last year with more 'visible storage' cabinets purchased for the Reserve Gallery. The Cavendish Case, no longer fit for purpose at the Whipple, has found a new home at the Internal Fire Museum of Power in Wales.

As part of the store moves, Whipple staff have been consolidating some objects containing plastic (which can be problematic from a conservation standpoint) and have been reviewing the way that these plastic items are stored.

The Museum staff have also been reviewing the storage of items containing radon paint and have continued talks with The Polar Museum about the possibility of sharing the storage of these items. The Polar Museum is able to place such objects in a more isolated store, which does not need to be accessed very often, thereby reducing the risk of exposing staff to radioactive materials.

Teaching and Research

Departmental Teaching

The Whipple Museum plays an important role in teaching within the Department of History and Philosophy of Science. Lecturers use the Museum displays and the collection to illustrate their own lectures, and lecture-demonstration classes on instruments, models and collections are specifically offered for Paper 1. Students have the opportunity to work with the Museum's collection as part of their studies and in recent years a number of undergraduates and postgraduate theses have been undertaken on objects in the collection.

Student Essays and Theses

Henry Schmidt, 'Hill's cloud camera in the Whipple Museum: Meteorological communication, cloud classification', HPS MPhil essay.

Gourav Nandi, 'The Philosophical Foundations of Maxwell's Induction Model', HPS MPhil essay.

Dannielle Cagliuso, 'Cantabrigian Collaborative Commercialisation: Collaborations between Cambridge University Scientists and Scientific Instrument Manufacturers, circa 1890-1960', HPS MPhil dissertation.

Edwin Rose, 'Using historical microscopes to understand microscopic anatomical observations by Marcello Malpighi and Nehemiah Grew', HPS MPhil essay.

Alfie Cheesman, 'The Morden, Berry and Lea Terrestrial Globe (c.1683)', HPS MPhil essay.

Tobias Schoenwitz, 'Science or Art? Pharmacy in 19th Century Austria and England', HPS MPhil essay.

Dannielle Cagliuso, "'The whole matter of interference microscopes is... becoming rather complex": Sir Andrew Huxley and the Design and Dissemination of His Custom Interference Microscope', HPS MPhil essay.

Michael Thornton, 'Signpost to a Forgotten Science: Stokes's Capital Mnemonical Globe (1870s)', HPS MPhil essay.

Fiona Milway, 'Charles Elcock and the Postal Microscopical Society: A Nineteenth-Century Scientific Community', HPS MPhil essay.

Robin Polding, 'Things of Science: Science Kits and Educating Young Scientists 1940 - 1980', HPS Part II dissertation.

Object-based teaching and seminars

'Geography IB Core Skills' seminars

On 17th and 19th November, we hosted seminars in the New Gallery on 'Geography IB Core Skills'. These seminars were delivered by Josh Nall and Michael Bravo and included the use of objects from the collection. These object-handling seminars looked at the history of exploration and surveying and were delivered to over 100 students.

'Researching in Museums' session

Josh Nall, with Jenny Bulstrode, Seb Falk, and James Poskett, delivered a graduate training session about Researching in Museums. The session was held in the New Gallery and used objects from the collection to illustrate the use of objects in research.

'Early Modern French' seminars

During the Lent and Easter Terms, we hosted a seminar series in the New Gallery on early modern French. This seminar series was organised by Josh Nall and Tim Chesters and included the use of objects from the collection.

Use of Museum objects in other seminars

During the Lent Terms, we hosted further seminars in the New Gallery. These included the Library's 'Science in Print' seminars and also Richard Staley's Paper 4 lecture on Cavendish physics on 25th February. These seminars and lectures all used Museum objects within their teaching. Josh Nall also participated in a taught session at the Museum of Cambridge for the Part 1 History Faculty paper on 'The History of Collecting'.

Staff Research

On 3rd-4th December Josh Nall participated in the Museum as Method seminar at Corpus Christi College, Cambridge.

On 15th March Josh Nall gave a talk on 'Questioning the 'laboratory' metaphor' as part of the Museum as Method conference at the Centre for Research in the Arts, Social Sciences and Humanities, Cambridge (CRASSH).

Also in March, Steven Kruse completed and submitted his University of Leicester Museum Studies MA dissertation 'Narthex, courtyard, badge: Entering embedded museums through shared thresholds.'

On 26th April, Josh gave a talk at the Institute for Historical Research at University College London, for their Maritime History and Culture Seminar: 'The Great Mars Boom' of 1892: International telegraphy and the making of the Martian canals.'

On 26th-27th May, Josh was a Co-Convener of the Cain Conference: The Evolving Search for Life in the Universe at the Chemical Heritage Foundation, Philadelphia. He also gave a public talk on 'Victorian life on Mars'.

On 4th July, Josh gave a talk, 'Forgers and Collectors' at CRASSH for the workshop 'Embodied Knowledge: Methodological considerations of the histories of culture and science'.

On 5th September, Liba Taub gave a talk at The Nobel Museum in Stockholm, 5th Watson Seminar in the Material and Visual History of Science: 'Prizes and Awards in Science before Nobel'.

Josh was also the Chair of the session 'Object Lessons and Nature Tables: Research Collaborations between Historians of Science and University Museums at the BSHS Conference at Reading on 23rd September.

Rosanna gave a paper at the same BSHS Conference on 23rd September, written collaboratively with Liba Taub and Henry Schmidt and entitled 'Is it the International Year of the Frog?'.

Jenny Mathiasson published the following project-based blog entries on the University of Cambridge Museums blog:

<https://camunivmuseums.wordpress.com/2016/03/02/how-strong-is-a-piece-of-string/>

<https://camunivmuseums.wordpress.com/2015/10/01/the-next-big-leap-at-the-whipple/>

<https://camunivmuseums.wordpress.com/2016/03/29/things-of-science/>

Rosanna published the following project-based blog entries on the University of Cambridge Museums blog:

<https://camunivmuseums.wordpress.com/2016/04/19/a-trip-to-the-moon/>

<https://camunivmuseums.wordpress.com/2016/07/28/ribbeting-on-about-frogs/>

Josh Nall and Liba Taub wrote two articles relating to their research:

Joshua Nall and Liba Taub, 'Three-Dimensional Models', in: Bernard Lightman (ed.), *A Companion to the History of Science* (Chichester: Wiley Blackwell, 2016).

Joshua Nall and Liba Taub, 'Selling by the book: British scientific trade literature after 1800', in: A. D. Morrison-Low, Sara J. Schechner, and Paolo Brenni (eds.), *How Scientific Instruments Have Changed Hands* (Leiden: Brill, 2016).

Josh also wrote an Explore article about the Elcock collection of microscope slides:

<http://www.sites.hps.cam.ac.uk/whipple/explore/microscopes/elcockscientistorcraftsman/>

Whipple Museum objects were also mentioned on the following website which was published in 2016:

Smithsonian National Museum of American History, Collections section: Electronic Calculators—Handheld, by Peggy Kidwell (based in part on research conducted at Whipple), posted July 2016:

<http://americanhistory.si.edu/collections/object-groups/handheld-electronic-calculators>

Formal and Lifelong Learning

Our Learning Coordinator, Lorena Bushell, continued to work to broaden the Whipple Museum's learning programme, delivering two Bronze Arts Awards in collaboration with two artists as well as the Fitzwilliam Museum and Kettle's Yard. Lorena led a number of sessions, including a tour and handling session for a group from Wintercomfort, before she began full-time work at the Museum of Archaeology and Anthropology in March.

In May, Rosanna Evans took over the Learning Coordinator role in addition to her Technician role. Since then, Rosanna has been familiarizing herself further with the UCM team as well as the pre-existing formal sessions at the Museum. In collaboration with the Whipple Library, in particular Clare Matthews, Rosanna has developed a new session for GCSE and A level students on medicine

and anatomy, which has proven very popular, with over 75 attendees since it first ran in June. Currently Rosanna is working on a new session for KS3 students on the Science of Light and Colour that will be taught as part of the Arts Award at North Cambridge Academy.

The Whipple continued to take part in public engagement programmes through events such as the 'Science Festival', 'Festival of Ideas', 'Open Cambridge' and 'Twilight at the Museums'. In order to help us take part in these initiatives, in January Lorena recruited a new team of nine volunteers who have been helping to deliver events for different audiences.

With the installation of Wh.6599 in the New Gallery, the museum commenced an ambitious project to exemplify the frog's significant contribution to the history of science. This project will soon culminate in a new Explore section on our website, and frogs were also the focus of our very popular 'Summer at the Museums' programme as well as a new family resource, the Frog March, and temporary blog Ribbets from the Whipple: www.whippleribbets.wordpress.com. The Frog March, created by intern Sarah Binney, takes users to the different University museums and gardens to explore how frogs hop into histories and folklore across the different sites.

In collaboration with the collections staff, Rosanna has also been managing intern Katya Morgunova in her project to refresh our Victorian Parlour. Katya has worked to create a new and improved set of family activities, to improve interpretation materials and to refresh the displays. This is likely to be finished in October 2016.

Lorena and Rosanna have also been taking handling material and outreach activities out of the museum to locations such as Mill Road Winter Fair, Big Weekend, and ChYpPs' Summerdaze programme.

Outreach Events

The following events were supported by funding from the Connecting Collections project, made possible by a grant from Arts Council England [www.artscouncil.org.uk].

Festival of Ideas

The Big Game Night

Back due to popular demand, on the evening of Thursday 22 October, the Museum of Zoology, the Whipple Museum and the Polar Museum brought you a night of entertainment with our very own

game show Q-ice. Contestants battled it out for museum domination with our wise and witty compere, Ed Turner. Points were given for knowledge, perseverance and - of course - for pure entertainment value.

Explorers and Collectors Activity Day

On Wednesday 28th October, at the Polar Museum, visitors became explorers themselves as we celebrated the explorers and collectors that make our museums, via science experiments, craft activities and much more throughout the day. There were special activities from the Botanic Garden, the Whipple Museum, the Museum of Zoology, the Museum of Archaeology and Anthropology.

Twilight at the Museums

At 4.30pm on 18th February, space explorers and their families switched on their torches and braved the darkened galleries to discover objects that explored our galaxy from the comfort of planet Earth. A 'Cosmic Mission'-themed trail led visitors around the galleries spotting objects, making calculations, and finally claiming their own glow-in-the-dark prize.

This was an extremely popular event with families queuing in the rain and 1510 people attending over the course of the evening – our highest-ever visitor figures for Twilight, and a single-day attendance record for the Museum.

Cambridge Science Festival

Visualizing Medicine- An evening of art, anatomy, and science

On the evening of Friday 11th March, the Museum hosted an evening in collaboration with the Whipple Library that gave visitors a real insight into their insides. Modeller Robert Whittaker and anatomical illustrator Emily Evans showed audiences the ins and outs of studying and drawing anatomy, and the Whipple Library laid out an impressive display of historical anatomical books.

Saturday Opening: Whipple Anatomy Arcade

This family drop-in event encouraged visitors to learn more about how the human body works. Visitors were invited to look at some of our anatomical teaching models and take part in fun anatomical games and puzzles.

“This true book of ours, man himself”

Over three lunchtimes in March, medical historian Andrew Cunningham explored the fascinating history of anatomising human and animal bodies in illustrated talks featuring anatomy in the theatre, in the laboratory, and in the graveyard.

The Art and Science of Brewing

Josh Nall and Boris Jardine hosted a talk on 26th July about our most recent temporary display and the research findings made during its curation. This was followed by a tasting of some home-brewed beer.

University Open Days

On 30th June and 1st July, the Museum was open from 11.30am for visitors to explore whilst they were in Cambridge for the University’s Open Days. Anna Alexandrova also gave a talk in the New Gallery to prospective students.

Summer at the Museums

Frogs in Focus

2nd August and 16th August 2016

Families were invited to use our range of historical microscopes to inspect samples of frogs’ lungs, blood and kidneys up close and personal, before recording their observations and even comparing to human samples.

Frog Leaps in Science

9th and 23rd August 2016

Families hopped down to the Museum to study our anatomical frog models and make their own jumping frog model to take home. Visitors were invited to enter a competition to name our anatomical models who we’ve been calling Mr. and Mrs. Froggy – and following a period of much deliberation, they have since been named Mr. Paddy Froggy and Mrs. Lilly Froggy.

The Summer at the Museums events were all reported on the UCM blog (<http://camunivmuseums.wordpress.com/tag/summer-at-the-museums/>).

Open Cambridge: Orreries and Globes

On Friday 9th September, the Museum opened early at 10am and held drop-in hourly tours by the Learning Coordinator and Curator, giving visitors an insight into the stories behind our impressive collection of orreries and globes.

Other Events

Start of Term party

On 9th October 2015, the Whipple opened its doors to all staff and students in the Department of History and Philosophy of Science and hosted the start of term party.

Perse School 400th Anniversary Event

On 13th November 2015, the Whipple hosted an event for Perse School alumni and VIPs. We were very pleased to be able to offer the original Perse Hall for their event celebrating 400 years of the school.

‘Rising Stars’ course

On 1st December and 12th January, we hosted the ‘Rising Stars’ course in the New Gallery. This course is run by the University’s Office of External Affairs and Communications and is for postgraduates, post-docs and early career academics who require training in public engagement and educational outreach.

BSHS Graduate Conference

On 6-8th January, the British Society for the History of Science held their Graduate Conference in the Department of History and Philosophy of Science. Some sessions were held in the Whipple and Josh Nall gave a tour to conference attendees.

Sir David King evening reception

On 12th February, Sir David King (Foreign Secretary's Special Representative on Climate Change) gave a talk in the Department of History and Philosophy of Science as part of the Coffee with Scientists seminar series. His talk, 'Are we tackling the causes of global warming effectively?' was followed by refreshments in the Museum.

Whipple trip to 'Cosmonauts'

On 16th February, some of the Whipple staff visited the Science Museum in London. We had the privilege of viewing the Cosmonauts exhibition and whilst there, went to view the model of the gravitational field (potential) around a black hole designed and commissioned by Stephen Hawking (Wh.3770) which is currently on loan there from the Whipple, as part of the 'Einstein's Legacy' exhibition.

Recipes to improve your Love Life: Advice from the Eighteenth Century

On 31st March, we hosted a public talk organized by Leah Astbury as part of the Generation to Reproduction research group. At this event, Dr Lisa Smith from the University of Essex discussed examples of domestic recipes to improve love lives.

John Forrester Memorial event

On 18th May the Whipple hosted the memorial evening reception following a day of lectures celebrating the life of Professor John Forrester, our much-missed colleague and former Head of Department. We were pleased to be able to put on a small display of his published works and welcome his friends and family to the Museum.

Special Visits

On 5th November, Josh Nall gave a tour to a group of graduate students from the Department of Archaeology and Anthropology. These students were pursuing the Museum Studies MA.

On 26th November, Josh Nall gave a tour to a group of students from the Computing Science Department.

On 20th January, a group of Curators from the Wellcome Trust visited the Whipple. Josh Nall gave them a tour as part of their visit.

The 3rd July saw the Whipple playing host to the AGM of the Scientific Instrument Society.

In the Easter term, Josh Nall gave tours to Ken Metz's Boston College undergraduate class in the history of chemistry. He also gave tours to people participating in the International Programme of the Institute of Continuing Education.

On 7th September, we hosted a visit from Julie Dawson from The Fitzwilliam Museum and four new members of staff from SHARE East of England. They were given a tour of the Whipple by Claire Wallace and Steven Kruse.

Television, Radio and Magazine Appearances

Stephen Mawdsley was interviewed with museum objects in the Main Gallery on 9th November by the University's Communications office; he spoke about his research on teenage immunisation.

<http://www.cam.ac.uk/research/features/call-to-arms-how-lessons-from-history-could-reduce-the-immunisation-gap>

Anna Jones was interviewed on 12th February and again on 17th August for a University Library video about the Anatomy case in the 'Lines of Thought' exhibition. She was interviewed in front of the Whipple's display of models by Auzoux. <https://www.youtube.com/watch?v=90dzA2lF4Ec>

Josh Nall was interviewed by a journalist for a cover feature on technicians in the University of Cambridge Staff Newsletter (Summer 2016 issue).

Grants and Donations

Connecting Collections

Lorena Bushell received a Strategic Enablement Grant of £5000 to enable her to provide education and outreach activities throughout the year.

We received £500 funding to allow us to be open on occasional weekends throughout the year. We were also awarded an allowance of £500 to support workforce development and attendance at conferences.

Whipple Museum of the History of Science Conservation Fund

Following the establishment of the Whipple Museum of the History of Science Conservation Fund, Robert Whipple's grandchildren have continued to be very generous to the Museum and have given further donations to actively conserve the collection.

Other Donations

We thank Anita McConnell and the Ann D Foundation for their continuing contributions. An annual prize has now been established in memory of Dr McConnell: The Anita McConnell Prize. This will be awarded to the student who has produced the best work based on holdings in the Whipple collection.

Staff News

Lorena Bushell left her post as Learning Co-Ordinator at the end of February. She has joined the Museum of Archaeology and Anthropology, Cambridge as their full-time education coordinator for the Hide and Seek: Archaeology of Childhood exhibition. We wish her all the best for the future.

Rosanna Evans continued in her role accessioning new objects into the collection and has now completed the digitization of all of the object images. She assisted with the preparations for and the running of Twilight and the Science Festival as well as delivering sessions and teaching in the Museum after Lorena Bushell left in February. She was appointed to the Learning Co-Ordinator post, and her Museum Technician post has been extended until the end of March 2018.

Jenny Mathiasson left her role as Museum Technician in May 2016 to take up a permanent conservation post in Rotherham. Before she left she was mainly focusing on repairs to objects such as the Herschel Telescope. We wish her all the best in her new post.

Steven Kruse graduated with a distinction from his Museum Studies MA course in July. This was a two-year distance learning course covering a wide-range of museum work and museology.

Josh Nall continued to serve as a Trustee and Committee Member of the Scientific Instrument Society and also as a Trustee and member of the Board of Directors at the Museum of Cambridge. He also served on the Astronomical Heritage Committee of the Royal Astronomical Society and was elected a Fellow of the Royal Astronomical Society.

Lorena Bushell has recruited a pool of 9 volunteers who have helped with staffing events and activities. She was nominated for the SHARE Volunteer Awards in the category of Best Volunteer Manager.

The Whipple team welcomed Dannielle Cagliuso, Sarah Binney, Katya Morganova and Henry Schmidt as Summer Interns. Dannielle worked on detailed inventories of the Don Unwin, Dillon Weston and Microprobe archives, Sarah helped Rosanna with Summer at the Museums activities such as The Frog March, Katya worked on refreshing the Victorian Parlour and Henry wrote a new Explore section on Frogs and the History of Science.

In June, we welcomed Lucy Fisher and Rebecca Bradfield for two days of their UCM work experience week. We also welcomed Saffron Anderton and Francesca Emter for their school work experience weeks in July.

Training

22nd October 2015

Conservation of Photographs (organised by the Archives & Records Association)

Jenny Mathiasson attended this course which ran through the basics of conserving photographs.

10th November 2015

Disaster Response and Salvage Training (run by the University of Cambridge Museums)

Jenny Mathiasson attended this important table-top exercise which was a practical workshop in how to deal with museum objects in a disaster salvage scenario.

12th November 2015

Writing for the Web and University Platforms (run by University of Cambridge Museums) Jenny Mathiasson attended this course which introduced her to the best language to use when writing for the internet and university platforms.

12th November 2015

Introduction to Falcon (run by University of Cambridge Computing Services) Steven Kruse attended this course which introduced him to the University webpage platform Falcon.

20th January 2016

Use Not Abuse: The 2nd SHARE and UCM Conference on Collections Care, Hughes Hall, Cambridge.

Claire Wallace and Jenny Mathiasson attended this conference. The conference themes included: collaborations with native communities, packing travelling exhibitions, designing tours for visually impaired people, 3D printing and the restoration of museum objects. There were also drop-in workshops on disability access to objects, 3D printing, packing costumes and conservator Q & As.

22nd February 2016

Front of House Staff Tour (The Polar Museum, Cambridge)

Alison Smith attended this tour which aimed to give Front of House staff across the University of Cambridge Museums a better understanding of The Polar Museum and what they offer to visitors.

29th February-3rd March 2016

Conservation of Plastics (West Dean College).

Claire Wallace attended this residential course which gave her more awareness of how to deal with the degrading plastics in the Whipple's collection. As we add more 20th century objects to our collection, this is a problem which is likely to increase and as such, training in this element of the collection is very important.

9th March 2016

Social Media: Next Steps (organised by SHARE East of England, held at the Museum of East Anglian Life, Stowmarket).

Claire Wallace attended this course which looked at Social Media opportunities for Museums. In particular, it looked at Twitter, Facebook and other platforms before introducing Blogging in more depth.

10th March 2016

Front of House Staff Tour (Sedgwick Museum of Earth Sciences, Cambridge)

Alison Smith attended this tour which aimed to give Front of House staff across the University of Cambridge Museums a better understanding of the Sedgwick Museum and what they offer to visitors.

30th March 2016

Museum Archives: Taking the First Steps (organised by SHARE East of England, held at the Sedgwick Museum of Earth Sciences (Bullard Laboratories, Cambridge)

Claire Wallace attended this course which outlined the principles of basic archive care and conservation. The course covered topics such as funding, further training and intellectual collections care and also had a practical exercise on physical collections care and archive packaging.

7th April 2016

Behind the Scenes at the World Collections and Exhibitions Centre, British Museum

Claire Wallace and Rosanna Evans attended this course which took a look at the new storage at the British Museum. It looked at the challenges of building new facilities at a listed site and also at the new storage and pest management facilities

11th April 2016

Writing Effective Museum Text (organised by SHARE East of England)

Jenny Mathiasson attended this course which refreshed her knowledge of how to write museum labels so that they can be easily understood by all.

23rd May 2016

Disabled People – offering a good face-to-face service (The Fitzwilliam Museum, Cambridge) Alison Smith attended a course about offering a good face-to-face service to disabled visitors. This course was run by the University of Cambridge Museums and was designed to help Front of House staff learn the best ways to offer and give assistance. The barriers faced by disabled people were explored through discussion and group work to show how to make services as accessible as possible.

31st May 2016

Gathering Feedback (organised by the University Library)

Rosanna Evans attended this course which refreshed her knowledge of how to effectively gather feedback from events so that future events can be improved.

7th June 2016

Evac-Chair training

Claire Wallace, Steven Kruse, Alison Smith and Rosanna Evans attended this course which instructed them on how to evacuate a disabled visitor from the Museum using the Evac-Chair in the event of an emergency.

22nd September 2016

University Museums Group conference

Josh Nall attended this conference in Reading.

Loans

The Whipple Museum continues to receive requests from other museums for the loan of objects from its collection, evidence of how highly regarded the collection is both nationally and internationally. The Whipple contributes material to exhibitions in other institutions in order to encourage new research in and public enjoyment of its collection. Below is a list of the borrowing institutions, exhibitions held and the objects borrowed during this academic year.

Loans in

King's College Library, Cambridge

From October 2015 (10 year rolling loan)

E524 Simple theodolite with tripod stand, by Richard Glynne, English, c.1724

Sally Forwood, London

From October 2015 (10 year rolling loan)

E544 Instruction or demonstration sheet for navigation (volvelles, showing moons and tides and compass directions in various parts of the world, by or for William Robb of Coleraine, Northern Ireland, c.1730

Clinical School Library, Cambridge

From July 2016 (10 year rolling loan)

E561 Model of Whale Myoglobin, associated with Professor H. Lehmann

Loans out

Historic Royal Palaces (Kensington Palace), London

Glorious Georges, April 2014-September 2016 (loan extension)

Wh.0195 Simple Pocket Microscope by George Lindsay, 1742

The Science Museum, London

Churchill's Scientists, January 2015-March 2016

Wh.6574 Piece of custom laboratory apparatus designed and used by
Andrew Huxley in muscle fibre physiological research, c.1958

Museum of Archaeology and Anthropology, Cambridge

Horace Beck, February 2015-February 2016

Wh.1633 Achromatic Compound Microscope by R & J Beck Ltd., c.1929

Whipple Library, Cambridge

Colour Science exhibition, September 2015-February 2016

T338 Tintometer Slides

The Science Museum, London

Einstein's Legacy exhibition, September 2015-April 2017

Wh.3770 Model of the Gravitational Field (Potential) around a Black Hole, designed and
commissioned by Stephen Hawking, English, c.1978

Cambridge University Botanic Garden, Cambridge

Joint UCM event 'Explorers and Collectors', October 2015

N/A Wardian Case from the Victorian Parlour

Bullard Instrument Archive Group, Cambridge

Demonstration and Display, January 2016 (10 year rolling loan)

Wh.2647 Pendulum Apparatus for investigating variations in gravity

Wimpole Hall (National Trust), Royston

Capability Brown exhibition, February 2016-October 2016

Wh.0247 Claude Lorraine Glass, c.1800

University Library, Cambridge

Lines of Thought: 600 Years of Cambridge University Library, March 2016-October 2016

Wh.1428 Boxed Set of Post-Mortem and Dissection Instruments, by S. Maw, Son and Thompson

Wh.6543 3-D Cardboard Model of the Human Brain, by J. F. Lehmann and
Eduard M. W. Weber, c.1966

Wh.6547 Three Plaster Models of Chicken Heads from Genetics Research, by
Reginald Punnett, early 1930s

Fitzwilliam Museum, Cambridge

Filming for Festival of Ideas event (October 2016), May 2016

Wh.5984 Camera Obscura/Model of the Human Eye, 19th century

- Wh.4552 Astrological Astrolabe, 16th century
- Wh.0785 Copernican Armillary Sphere, by Richard Glynne, c.1725
- Wh.6362 Deck of Manuscript Astronomy/Geography Cards, by Mary
Morris
- Wh.6540 Didactic Astronomy/Geography Cards, c.1790
- Wh.1608 Copernican Armillary Sphere, c.1780
- Wh.1590 Ptolemaic Armillary Sphere, c.1790
- Wh.1274 Table Orrery, 1790-1846

Museum of Archaeology & Anthropology, Cambridge

Antipodes exhibition, June 2016-September 2016

- Wh.1116 Florentine spirit-in-glass Thermometer, Italian, c.1660, owned by Charles
Babbage

New Acquisitions

- Wh.6583 Advertisement for didactic anatomical model of a horse, by Louis Auzoux, French, 1860
- Wh.6584 Report on new anatomical models, by Louis Auzoux, French, 1844
- Wh.6585 Botanist's field set: satchel containing field equipment, English, 20th century
- Wh.6586 Islamic astrolabic quadrant, possibly Ottoman Turkish, 19th century
- Wh.6587 Home-assembled 'Cambridge' electronic pocket calculator, by Sinclair, English, c.1973
- Wh.6589 'Isotope Calculator', circular slide rule with instructions, by The Isotope Division, Atomic Energy Research Establishment, English, c.1949
- Wh.6590 The Ross Precision Computer complex slide rule, by Computer Mfg. Co., USA, c.1921
- Wh.6591 EC-4021 programmable scientific electronic pocket calculator, by Tandy, English, c.1990
- Wh.6592 FX-911N electronic pocket calculator, by Casio, Japanese, c.1985
- Wh.6593 Addmaster 'baby' mechanical pocket calculator, by Addimult, German, c.1960
- Wh.6594 HL-809 electronic pocket calculator, by Casio, Japanese, c.1976
- Wh.6596 LC-787 electronic pocket calculator, by W. H. Smith, Japanese, c.1985
- Wh.6596 Novelty electronic pocket calculator, by W. H. Smith, English (?), c.1990
- Wh.6597 Metric conversion slide rule, by Armstrong Cork Co., English, c.1970
- Wh.6598 Papier-mâché didactic model of a human hand, by Auzoux, French, 1876
- Wh.6599 Didactic anatomical model of a frog with five accompanying guides to physiology, English, mid 20th century

- Wh.6600 Stokes's Capital Mnemonical globe, by William Stokes, published by Houlston and Sons, English, c.1867
- Wh.6601 Charles Elcock archive of microscope slides, preparatory tools and materials, book and ephemera, collected by the slide preparatory Charles Elcock, Irish, 1872-1910
- Wh.6602 Titan Slave Store, by David Wheeler and Ferranti, English, c.1963-1973
- Wh.6603 Tennis ball with additional lines marked on it for exploring Venn diagrams, by Anthony Edwards, English, c.1989
- Wh.6604 Souvenir items related to amusement park rides "A Trip to the Moon" and "A Trip to Mars by Aeroplane", USA, early 20th century
- Wh.6605 Postcard depicting "Trip to Mars by Aeroplane" amusement park ride, USA, early 20th century
- Wh.6606 Postcard "La lune pour deux sous", by Künzli Frères, French, early 20th century
- Wh.6607 Children's educational material globe gores to be used as part of the assembly of a globe and orrery, by Benjamin Tena, Spanish, late 19th century
- Wh.6608 12-inch topographical globe of Mars, by Sky & Telescope, USA, c.2011
- Wh.6609 12-inch Venus globe by Sky & Telescope, USA, c.2011
- Wh.6610 Concave Rowland-type diffraction grating, by J. A. Brashear, USA, late 19th – early 20th century
- Wh.6611 Advertisement for Malby's 12 and 18 inch globes, by Malby, English, c.1843
- Wh.6612 'Service II' compound microscope, by W. Watson & Sons, English, 1954
- Wh.6613 Working models for engineering students, by Thomas & T. Gilbert Jones, English, c.1900
- Wh.6614 Broadsheet advertisement for transparent orrery "Dioastrodoxon", English, c.1820
- Wh.6615.1 Things of Science kit (Polypropylene #300), made by Science Service, USA,

c.1965

- Wh.6615.2 Things of Science kit (Pendulum #302), made by Science Service, USA, c.1965
- Wh.6615.3 Things of Science kit (Measurement #313), made by Science Service, USA, c.1965
- Wh.6615.4 Things of Science kit (Cast Iron #317), made by Science Service, USA, c.1965
- Wh.6615.5 Things of Science kit (Center of Gravity #318), made by Science Service, USA, c.1965
- Wh.6615.6 Things of Science kit (Color #319), made by Science Service, USA, c.1965
- Wh.6615.7 Things of Science kit (Glass #320), made by Science Service, USA, c.1965
- Wh.6615.8 Things of Science kit (Magnetism #321), made by Science Service, USA, c.1965
- Wh.6615.9 Things of Science kit (Corrosion #335), made by Science Service, USA, c.1965
- Wh.6616.1 Things of Science kit (Polystyrene Plastic #245), made by Science Service and repackaged by Advisory Centre for Education, English, c.1961
- Wh.6616.2 Things of Science kit (Surface Tension #260), made by Science Service and repackaged by Advisory Centre for Education, English, c.1962
- Wh.6616.3 Things of Science kit (Space Age Minerals #266), made by Science Service and repackaged by Advisory Centre for Education, English, c.1962
- Wh.6616.4 Things of Science kit (Cotton #270), made by Science Service and repackaged by Advisory Centre for Education, English, c.1963
- Wh.6616.5 Things of Science kit (Metal Fasteners #271), made by Science Service and repackaged by Advisory Centre for Education, English, c.1963
- Wh.6616.6 Things of Science kit (Fossils #274), made by Science Service and repackaged by Advisory Centre for Education, English, c.1963

- Wh.6616.7 Things of Science kit (Simple Machines #8/275), made by Science Service and repackaged by Advisory Centre for Education, English, c.1963
- Wh.6616.8 Things of Science kit (Copper #276), made by Science Service and repackaged by Advisory Centre for Education, English, c.1963
- Wh.6616.9 Things of Science kit (Papermaking #282), made by Science Service and repackaged by Advisory Centre for Education, English, c.1964
- Wh.6616.10 Things of Science kit (Coal #286), made by Science Service and repackaged by Advisory Centre for Education, English, c.1964
- Wh.6616.11 Things of Science kit (Artists' Colours #291), made by Science Service and repackaged by Advisory Centre for Education, English, c.1964
- Wh.6616.12 Things of Science kit (Unusual Optical Phenomena in Minerals #296), made by Science Service and repackaged by Advisory Centre for Education, English, c.1965
- Wh.6616.13 Translating page from Things of Science kit (Fossils), by Advisory Centre for Education, English, c.1963
- Wh.6616.14 Things of Science kit (Simple Machines #1), by Advisory Centre for Education, English, c.1960s
- Wh.6616.15 Things of Science kit (Chemical Indicators #2), by Advisory Centre for Education, English, c.1960s
- Wh.6616.16 Things of Science kit (Shells #3), by Advisory Centre for Education, English, c.1966
- Wh.6616.17 Things of Science kit (Iron #4), by Advisory Centre for Education, English, c.1960s
- Wh.6616.18 Things of Science kit (Kaleidoscopes #5), by Advisory Centre for Education, English, c.1960s
- Wh.6616.19 Things of Science kit (Osmosis #6), by Advisory Centre for Education, English, c.1960s
- Wh.6616.20 Things of Science kit (Polarised Light #7), by Advisory Centre for Education, English, c.1960s

- Wh.6616.21 Things of Science kit (Astronomy #8), by Advisory Centre for Education, English, c.1966
- Wh.6616.22 Things of Science kit (Air Pollution #10), by Advisory Centre for Education, English, c.1967
- Wh.6616.23 Things of Science kit (Road Safety #11), by Advisory Centre for Education, English, c.1967
- Wh.6616.24 Things of Science kit (Rock and Earth), by Advisory Centre for Education, English, c.1969
- Wh.6616.25 Things of Science kit (Rocks and Minerals), by Advisory Centre for Education, English, c.1971
- Wh.6617 Inflatable globe toy, by Societa Italiana Globi Pneumatici, Italian, c.1900
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- HC116 6-inch 'Insight' terrestrial globe for children, by Stellanova, German, early 21st century
- HC117 "Antique" topographical globe, by Repogle, USA, early 21st century
- HC118 Two toy sets for designing optical instruments, by Construments, English, 20th century

INDIVIDUALS

Annual Reports of Members of the Department

Anna Alexandrova



This year I served as the Department's MPhil Manager. It was a privilege to get to know our thirty three MPhil students, to support them in their time at Cambridge, and to supervise the work of many of them. Research-wise in our capacity as co-PIs on the Limits of Numerical grant at CRASSH, Steve John and I lead a team of researchers exploring the advantages and disadvantages of quantification in the spheres of medical research and policy.

Publications

Articles in journals

"Is Well-being Measureable After All?" *Public Health Ethics*. First published online on May 6th 2016

"Can The Science Of Well-being Be Objective?" *British Journal of Philosophy of Science*. First published online August 18th 2016

Reviews

Tainted: How Philosophy of Science Can Expose Bad Science by Kristin Shrader-Frechette, OUP 2014. *British Journal of Philosophy of Science*. doi: 10.1093/bjps/axv045. 4 pages

Lectures, seminars and conferences

March 2016

"Theoretical and Empirical Methods in Economics: Seeking a Balance" (with Robert Northcott) London School of Economics, Models and Uncertainty Conference

June 2016

"Is Well-being Measurable After All?" London School of Economics, Reasons and Mental States in Decision Theory Workshop

Public Engagement and Impact

“History and Philosophy of Science at Cambridge”, Open Day talk, July 2016

Salim Al-Gailani

Salim Al-Gailani joined St. Edmund’s College as Director of Studies in History and Philosophy of Science from October 2010. With Mary Brazelton, he organised the History of Modern Medicine and Biology Seminars in Michaelmas Term 2015. He was awarded a two-month Visiting Research Fellowship at the John Rylands Research Institute, University of Manchester. He held the fellowship between April and June 2016, researching the history of medical genetics in Manchester.

Lectures, seminars and conferences

October 2015

“Drawing Aside the Curtain: Natural Childbirth on Screen in the 1950s” (paper presented at the HPS History Workshop, Department of History and Philosophy of Science, University of Cambridge)

July 2016

“‘The Mothers of England Object to it’: The Notification of Pregnancy in Early Twentieth-Century Britain” (paper presented at the Society for the Social History of Medicine Conference 2016, University of Kent, Canterbury, July 7–10)

September 2016

“Liberty, Privacy and the Surveillance of Pregnancy in Early Twentieth-Century Britain” (paper presented at the ‘Reproductive Politics in France and Britain’ conference, Centre for Research in the Arts, Social Sciences and Humanities [CRASSH], University of Cambridge, September 5–7)

Public Engagement and Impact

“From Rubella to Zika: Pregnancy, Disability, Abortion and the Spectre of an Epidemic”, The H Word Blog, *The Guardian*, January 29, 2016,

<https://www.theguardian.com/science/the-h-word/2016/jan/29/rubella-zika-pregnancy-disability-abortion-epidemic>

Debby Banham

Debby had another busy teaching year in both Cambridge and London, this time including a term teaching Latin at Queen Mary. Latin Therapy had another good year, with more excellent home baking, some authors showing off their high-flown Latin style in their prefaces (relax, guys!), and a fascinating visit to the Herbarium. In the summer, Debby was delighted to hear she'd been awarded a Collaborative Fellowship for 2016–17 by the American Council of Learned Societies, to work on *Bread in Early Medieval England: Survival, Civilization and Salvation*, with Professor Martha Bayless of the University of Oregon. Sadly, this means Debby won't be able to tutor the Latin Therapy group next year, but she's hoping to attend, and perhaps do some baking, and she's pleased to be leaving the group in the capable hands of Dr Maria Ramandi.

Publications

Chapters in books

with Christine Voth, "The diagnosis and treatment of wounds in the Old English medical collections: Anglo-Saxon surgery?", in *Wounds and Wound Repair in Medieval Culture*, ed. Larissa Tracy and Kelly DeVries (Leiden and Boston: Brill, 2015), 153–74

"The Old English monastic sign language", in *Sign Languages of the World: A Comparative Handbook*, ed. Julie Bakken Jepsen, Goedele De Clerck, Sam Lutalo-Kiingi and William B. McGregor (Berlin and Boston: De Gruyter Mouton and Preston: Ishara Press, 2015), 901–10

Lectures, seminars and conferences

November 2015

"The Norman Conquest of the *Materia medica*?" (paper presented to the Cabinet of Natural History, Department of History and Philosophy of Science, University of Cambridge, 16 November 2015)

"Anglo-Saxon Farmers and the Supernatural" (paper presented to the Institute of Medieval Studies, University of St Andrews, 23 November 2015)

April 2016

"Yes, there is some evidence for Anglo-Saxon farming" (paper presented to the Medieval Archaeology Group, Macdonald Institute for Archaeological Research, University of Cambridge, 25 April 2016)

May 2016

"The earliest English culinary recipes: dietary advice in Old English medical texts" (paper presented to the Medieval Diet Group, Rewley House, University of Oxford, 14 May 2016)

July 2016

“Monastic sign language as evidence for monastic diet in the middle ages” (paper presented at the International Medieval Congress, University of Leeds, 4–7 July 2016)

Public Engagement and Impact

“Farming in Anglo-Saxon England” (talks at Sutton Hoo Anglo-Saxon burial ground, Suffolk, 9 July 2016)

“A walk round early medieval Cambridge” (Sutton Trust Summer School, University of Cambridge, 26 July 2016)

Mary Augusta Brazelton

In addition to the following, I co-organized a year-long reading group at the Needham Research Institute, “Historiography of non-western sciences,” with Huiyi Wu and Mujeeb Khan.

Publications

Reviews

Review of Farewell to the God of Plague: Chairman Mao’s Campaign to Deworm China by Miriam Gross, *East Asian Science, Technology and Society: An International Journal* (2016) 10: 1-4, DOI 10.1215/18752160-3684747

Lectures, seminars and conferences

October 2015

“Vaccinating the Nation: Immunology and Public Health in Twentieth-Century China” (paper presented at the Modern China Research Seminar, Faculty of Asian and Middle Eastern Studies, University of Cambridge, October 28, 2015)

November 2015

“Domesticating Viruses in China’s Wartime Southwest: Immunology and Environment in Yunnan, 1937-45” (paper presented at Workshop on Revolutionary Natures: The Environment in Modern Chinese History, Dickson Poon University of Oxford China Centre, Oxford, November 13-14, 2015)

May 2016

“Nationalist Vaccination: Engineering Health in China’s Wartime Southwest, 1937-45” (paper presented at the Technology in Modern East Asia Workshop, CNRS and Needham Research Institute, Cambridge, May 19-20, 2016)

June 2016

“The League of Nations and immunological humanitarianism in southwest China, 1937-45,” (paper presented at the workshop on Material Culture, Bodily Practice and Medical Textuality, Needham Research Institute, Cambridge, June 13, 2016)

July 2016

“Situating Immunology in Southwest China, 1937-45” (paper presented at the biannual meeting of the Society for the Social History of Medicine, University of Kent, Canterbury, July 7-10, 2016)

September 2016

Participant, Workshop on Local Primary Sources on Late Imperial China, 900-1900, Cambridge-PSL Programme

Public Engagement and Impact

“Chinese medicine and history,” talk given to visiting Hong Kong secondary school students, Needham Research Institute, Cambridge, June 23, 2016

Boyd Brogan

Awarded non-stipendiary Junior Research Fellowship at Wolfson College, to begin in October 2016.

Public Engagement and Impact

“Sex, Disease, and Fertility in History” *NOTCHES: (re)marks on the history of sexuality*, January 28, 2016, <http://notchesblog.com/2016/01/28/sex-disease-and-fertility-in-history>

Sarah Bull



2015/2016 was my first full year working on my Wellcome Trust research project at HPS. In addition to doing a lot of archival research and writing, I supervised for Part II, Paper 5 in Michaelmas term, and taught a seminar on Science in Print in the Nineteenth and Early Twentieth Centuries, with James Poskett and Anna Jones, in Lent term. I also sat on the Whipple Library Committee. Outside Cambridge, I convened two panels on the history of the medical book for the annual meeting of the Society for the History of Authorship, Reading, and

Publishing, which took place in Paris this July, and took a training course on reading publishers' business archives at the University of Virginia's Rare Book School in the same month.

Publications

Reviews

Review of *Fragile Minds and Vulnerable Souls: The Matter of Obscenity in Nineteenth-Century Germany*, by Sarah L. Leonard. SHARP News, August 23, 2016.

<http://www.sharpweb.org/sharpnews/2016/08/23/sarah-l-leonard-fragile-minds-and-vulnerable-souls-the-matter-of-obscenity-in-nineteenth-century-germany-philadelphia-university-of-pennsylvania-press-2015-272-p-ill-isbn-9780812246704-usd/>

Review of *The Pleasure's All Mine: A History of Perverse Sex*, by Julie Peakman. *Journal of Social History* 49.1 (Fall 2015): 254-256. DOI: 10.1093/jsh/shu126

Lectures, seminars and conferences

November 2015

"The Medical Book in the Victorian Pornography Trade" (Talk for the History of Modern Medicine Seminar, Department of History and Philosophy of Science, University of Cambridge, November 24, 2015)

April 2016

"The Anti-Intimate Book: Respectable Victorian Medical Publications on Sexual Topics" (Paper presented at the annual meeting of the Victorian Studies Association of Western Canada, Winnipeg, Canada, April 22-23, 2016)

July 2016

"Specialism and the Medical Book Trade in England, 1830 – 1870" (Paper presented at the annual meeting of the Society for the History of Authorship, Reading and Publishing, Paris, France, July 18 – 22, 2016)

August 2016

"Newspaper Advertising and the Popular Consumption of Sexual Knowledge in Print, 1840-1900" (Paper presented at the annual meeting of the British Association for Victorian Studies, Cardiff, Wales, August 31 – September 2, 2016)

Public Engagement and Impact

"Aristotle's Masterpiece and Other Objects from which the Victorians Learned About Sex" (Workshop at King's College, Cambridge, for Sex in Six Objects: A Series of Workshops for

Hasok Chang

I have continued to publish at a good rate. The most notable public recognition I've had this year was the Wilkins–Bernal–Medawar Lecture Prize of the Royal Society.



In professional service, I have focused on the cause of integrated history and philosophy of science. I have served as the Chair of the Executive Board of the international Committee for Integrated HPS group since the summer of 2015, and maintained a key role in the UK Integrated HPS Network. I have also been chairing the history–philosophy Joint Commission of the International Union of HPS (IUHPS). In other service, I have continued on

the governing Council of the Society for History of Alchemy and Chemistry, and served on the 2016 Programme Committee for the Philosophy of Science Association.

Within Cambridge I continued as a joint leader of the Cambridge Philosophy of Science (CamPoS) network, organising the weekly seminar series. My collaborative agreement with the Department of Chemistry continues, and was renewed for another 3 years in August. Within HPS I have continued to organise the Coffee with Scientists seminar group, and to help maintain the Philosophy and History of Physics reading group.

In the administration of the Department, I served as Part III Manager, Part IB Senior Examiner, Dignity Officer (along with Liba Taub), and Paper 8 Manager. I have delivered a full load of lectures and supervisions, looking after an especially large number of MPhil and PhD students this year.

I continue as a Fellow of Clare Hall, and have served on its Council. I also continued my service as the external DoS for HPS at St Catharine's College, and a member of the Philosophy Faculty Board.

Publications

Edited works

(Co-edited, with A. M. Alfonso-Goldfarb, M. Ferraz, J. M. Rampling and S. Waisse) *Chemical Knowledge in Transit*, special issue of *Ambix* 62, no. 4 (2015).

(Co-edited, with A. M. Alfonso-Goldfarb, W. Carnielli, M. Ferraz, J. L. Goldfarb and S. Waisse) *Crossing Oceans: Exchange of Products, Instruments and Producers in the History of Chemistry and Related Sciences*, special issue of *Coleção CLE* 75 (2015).

Articles in journals

“The Transmission of the Voltaic Battery”, *Coleção CLE* 75 (2015):187–204.

Chapters in books

“Scientific Realism and Chemistry”, in *Essays in the Philosophy of Chemistry*, ed. Eric Scerri and Grant Fisher (Oxford: Oxford University Press, 2016), 234–252.

“The Rising of Chemical Natural Kinds through Epistemic Iteration,” in *Natural Kinds and Classification in Scientific Practice*, ed. Catherine Kendig (London: Routledge, 2016), 33–46.

“Cultivating Contingency: A Case for Scientific Pluralism,” in *Science as it Could Have Been: Discussing the Contingency/Inevitability Problem*, ed. Léna Soler, Emilio Trizio and Andrew Pickering (Pittsburgh: University of Pittsburgh Press, 2015), 359–382.

“Afterword”, in *The Cradle of Chemistry: The Early Years of Chemistry at the University of Edinburgh*, ed. Robert G. W. Anderson (Edinburgh: John Donald, 2015), 178–188.

Reviews

Review of *Objects of Chemical Inquiry*, ed. by Ursula Klein and Carsten Reinhardt, *Isis* 107 (2016): 143–144.

Lectures, seminars and conferences

October 2015

“Volta’s Battery: Electrochemistry, but not as we know it” (lecture for the Cambridge University Chemistry Society, October 16, 2015).

November 2015

“Measurement” (lecture in the series “Fundamental Concepts in Philosophy of Science”, PhD School, Politecnico di Milano, November 6, 2015).

“How Do You Know that Water is H₂O?” (lecture for the Trinity College Science Society, Cambridge, November 10, 2015).

“Pluralism” (special seminar for PhD students in Development Studies, Cambridge, November 18, 2015).

January 2016

“Scientific Pluralism” (special teaching session for MRes in Inter-disciplinary Urban Design, Bartlett School of Planning, UCL, January 29, 2016).

March 2016

“Kelvin’s Absolute Temperature and Its Measurement” (paper presented at the Institute of Physics conference on “A History of Units from 1791 to 2018”, at the National Physical Laboratory, March 17, 2016).

“Putting Science back into History of Science” (Jaakko Suolahti Lecture, Suomen Oppihistoriallinen Seura, Helsinki, Finland, March 31, 2016).

April 2016

“Realism as a Pragmatist Doctrine, or How to make Realism more Realistic” (seminar at TINT, the Centre of Excellence in the Philosophy of the Social Sciences, University of Helsinki, April 1, 2016).

“Can Presentism Produce Good History of Science?” (History of Science Colloquium, Princeton University, April 13, 2016).

“Ice, But Not As We Know It” (paper presented at the conference “Ice Cubed: An Inquiry into the Aesthetics, History and Science of Ice”, Columbia University, April 15, 2016).

May 2016

“Pragmatism and Pluralism in the Philosophy of Science”, 6 lectures (Bielefeld Masterclass in Philosophy, Bielefeld University, May 23–25, 2016).

“Who Cares About the History of Science?” (Wilkins-Bernal-Medawar Prize Lecture, Royal Society, May 10, 2016).

June 2016

“Pragmatist Coherence as the Source of Truth and Reality” (paper presented at the 6th biennial conference of the Society for Philosophy of Science in Practice (SPSP), Rowan University, June 17, 2016).

July 2016

“Pragmatism, Humanism and Integrated HPS” (keynote address at the 6th biennial conference on Integrated History and Philosophy of Science (&HPS6), University of Edinburgh, July 4th, 2016).

August 2016

“The Curious History of Volta’s Battery” (Fellows Talk, 50th Anniversary Week, Clare Hall, Cambridge, August 10, 2016).

September 2016

“Voltaic Batteries and Technoscience in the 19th Century” (Science and Technology Policy Colloquium, Korea Advanced Institute of Science and Technology (Daejeon, South Korea), September 22, 2016).

“Philosophy of Science and Science Education” (45th Anniversary Lectures, Korea Advanced Institute of Science and Technology (Daejeon, South Korea), September 23, 2016).

Public Engagement and Impact

“A Humanist View on Science” (keynote address, Seoul Humanities Forum 2016 (Seoul, South Korea), September 28, 2016).

Helen Anne Curry

This year, my fourth as a lecturer in HPS, I spent Michaelmas and Lent Terms on research leave. In October 2015, I was a visiting fellow at the Max Planck Institute for the History of Science in Berlin and in April 2016 a visiting scholar at the Duetsches Museum in Munich. During the Lent Term, I enjoyed a Cambridge Early Career Fellowship at CRASSH. I was able to undertake a number of archival research trips linked to my long-term research project on agro-biodiversity conservation throughout the year thanks to the award of a Cambridge Humanities Research Grant from the School of Social Sciences and Humanities. Sites I visited between December and April included the UN Food and Agriculture Organization in Rome, Italy; the World Bank in Washington, DC; the North Central Regional Introduction Station in Ames, Iowa; Seed Savers Exchange in Decorah, Iowa; the North Dakota State Archives in Bismarck, North Dakota; and the Missouri Botanical Garden in St. Louis, Missouri.

Publications

Articles in journals

"Atoms in Agriculture: A Study of Scientific Innovation between Technological Systems," *Historical Studies in the Natural Sciences* 46 (2016): 119–153.

Reviews

"The Beauty of Botanicals," review of Richard Mabey, *The Cabaret of Plants* (New York: Norton, 2016) in *Science* 351, no. 6271 (22 January 2016): 346.

Lectures, seminars and conferences

October 2015

"Breeding Uniformity and Banking Diversity: The Genescapes of Industrial Agriculture" (paper presented at Ludwig-Maximilians-Universität, Munich, 29 October)

January 2016

"Contested Collections: Conservation Biology, Global Development, and Preservation of Genetic Diversity in Agricultural Plants, 1945–1975" (paper presented at the workshop "Experts and the Global Environment in the 20th Century: A History of Coproduction and Negotiation," Maastricht University, 19 January)

"Raising Yields and Losing Genes" (paper presented at the CRASSH Work-in-Progress Seminar, 25 January)

March 2016

"Crop Genes and Breeders' Dreams: Mutation Breeding, Seed Banks, and the Problem of Genetic Diversity in Agricultural Crops" (paper presented at the Missouri Botanical Garden, 22 March)

May 2016

"From the World Germplasm Project to the Global Seed Vault: Agricultural Modernization and Genetic Conservation at the Rockefeller Foundation" (paper presented at the Centre for History and Philosophy of Sciences, University of Leeds, 4 May)

Public Engagement and Impact

Panelist, Creative Exchange on *SEED: The Untold Story*, Sheffield Doc/Fest (Documentary Film Festival), 11 June 2016.

"X-ray Lilies and Atomic Marigolds," short article for *The Conversation*, 24 May 2016.

<https://theconversation.com/the-flower-breeders-who-sold-x-ray-lilies-and-atomic-marigolds-59504>

"Raising Yields and Losing Genes," blog post for HistPhil.org, 19 January 2016.

<http://histphil.org/2016/01/19/raising-yields-and-losing-genes>

Interview on BBC World Service *The Inquiry*, "Should We Solar Panel the Sahara?" first aired 29 December 2015.

"Do-It-Yourself Evolution, A Historian's Guide to Amateur Plant Breeding," public lecture for the Royal Society of Chemistry, Mid-Anglia Section, Cambridge, UK, 3 December 2015.

Sebastian De Haro

Publications

Articles in journals

Dennis Dieks, Jeroen van Dongen, Sebastian de Haro, "Emergence in holographic scenarios for gravity," *Studies in History and Philosophy of Modern Physics* 52 (2015): 203-216.

Lectures, seminars and conferences

October 2015

"Emergence and RG in Gauge/Gravity Dualities" (talk given at the workshop Effective Theories, Mixed Scale Modeling, and Emergence, University of Pittsburgh, 3 October, 2015.

January 2016

“Emergence in Gauge/Gravity Dualities” (Chicago-Geneva talk, given for the project Beyond Spacetime, at the University of Geneva, 14 January, 2016)

March 2016

“Philosophy of Spacetime” (4-minute pitch at the meeting of the Dutch National Science Agenda, Amsterdam, 22 March, 2016)

April 2016

“Duality and Emergence” (joint talk with Elena Castellani given at the conference L’*é*mergence dans les sciences de la matière, Louvain-la-Neuve, 9 May, 2016)

May 2016

“Spacetime and Emergence” (talk at the conference Philosophy of Science in a Forest, Utrecht, 20 May 2016)

“Spacetime and Emergence” (joint talk with Jeremy Butterfield, given at Carlofest, Carlo Rovelli’s 60th birthday conference, Marseille, 26 May, 2016)

June 2016

“Duality and Emergence” (seminar given at the Munich Center for Mathematical Philosophy, 1 June, 2016)

“Duality and Emergence” (sigma club talk, London School of Economics, 6 June, 2016)

“Duality and Emergence” (philosophy of physics seminar, University of Oxford, 9 June, 2016)

July 2016

“Can we understand the information paradox debate by studying its history?” (joint talk with Jeroen van Dongen given at the Sixth International Conference Integrated History and Philosophy of Science, Edinburgh, 4 July 2016)

“Duality and Emergence of Diffeomorphism Invariance” (paper presented at the British Society for the Philosophy of Science annual meeting, Cardiff, 7 July, 2016)

“Duality and Diffeomorphism Invariance” (paper presented at the conference Foundations 2016, London School of Economics, 16 July, 2016)

“Can we understand the black hole information paradox debate by studying its history?” (talk given at the HPS of Quantum Gravity Workshop: Dashed Hopes – What hasn't worked in Quantum Gravity (and why)?, MPI for the History of Science, Berlin, 20 July, 2016)

September 2016

“Dualities and Emergence of Space” (talk given at the conference DICE 2016 Spacetime – Matter – Quantum Mechanics, Castiglioncello, 15 September, 2016)

Patricia Fara

I have been elected as the President of the British Society for the History of Science (2016-18) and also the Honorary President of the Antiquarian Horological Society.

Publications

Articles in journals

“Emilie du Châtelet: A Woman of Gravity,” *New Scientist*, 28 May 2016: 40-1

Chapters in books

“Innovation in the Enlightenment: Inventing Progress,” in *Designing the Future: Economic, Societal & Political Dimensions of Innovation*, ed. Austrian Council for Research & Technology Development (Vienna, Echomedia Buchverlag: 2015), 42-59

“That the apple fell and Newton invented the law of gravity, thus removing God from the cosmos,” in *Newton’s apple and other myths about science*, eds. Ronald L Numbers and Kostas Kampourakis (Cambridge, MA: Harvard University Press, 2015), 48-56

Reviews

Review of James Watt: Making the World Anew, by Ben Russell, *British Journal for the History of Science* 48 (2015), 694-6

Review of Making Marie Curie: Intellectual Property and Celebrity Culture in an Age of Information, by Eva Hemmungs Wirtén, *British Journal for the History of Science* 49 (2016), 134-5

Review of The Invention of Science: A New History of the Scientific Revolution, by David Wootton, *Literary Review* Oct 2015: 56-7

Review of Scientists as Prophets: A Rhetorical Genealogy, by Lynda Walsh, *Isis* 107 (2016) 140-1

Lectures, seminars and conferences

January 2016

“Scientists and Suffragettes” (keynote address at BSHS postgraduate conference, Cambridge)

“What you See Depends on how you look: Time and Space in Scientific Imagery” (Guest Lecture at University of Durham)

March 2016

“A Shocking History: Electricity in the Eighteenth Century” (lecture to the Venice Circolo Italo-Britannico)

June 2016

“Science and Suffrage in World War One” (Key note address at SCI post-doc conference, Cambridge University)

July 2016

“A Lab of One’s Own: Science & Suffrage in the First World War” (Keynote address at 3rd Network Gender and STEM conference, Newcastle)

September 2016

“Fighting for Equality: Scientists and Suffragettes in World War One” (Paper given at ESHS conference, Prague)

“Women in Science” (presentation at LSE)

Public Engagement and Impact

“Women Astronomers” (panel presentation at BSA Festival, Swansea)

“Einstein’s refrigerator” (Cheltenham Science Festival: Panel discussion)

“A Lab of One’s Own: Science & Suffrage in the First World War” (Clare College Alumni lecture)

“Making a Difference” and “Science: A 4000 Year History” (lectures for Society of International Business Fellows)

“Ada Lovelace” (musical event at the Science Museum)

“Alessandro Volta” (Radio 4 interview for Science Stories)

“The beauty of equations” (Radio 4 interview)

“Marie Curie” (*In our Time*, Radio 4)

“Marie Curie” (BBC World Radio)

“Robert Hooke” (Radio 4, *In our Time*)

“Women in science” (Radio Wandsworth interview)

Roger Gaskell

Publications

Reviews

Review of *Tickets to the Healing Arts*, by Caroline Benenson Perloff and Daniel M. Albert, *The Book Collector* 26/2 (Summer 2016) 339-341.

Lectures, seminars and conferences

November 2015

“Science in Print” (HPS seminar series, 11, 18 and 25 November).

January 2016

“Books and Libraries” HPS Part 2 Paper 3 lecture2, 27 January 2016)

“The scientific woodcut: a 300 year history” (Lunchtime lecture, HPS, 28 January 2016)

April 2016

“Scientific Illustration” (One day seminar at the New York Academy of Medicine, 7 April 2016).

July 2016

“The Illustrated Scientific Book to 1800” (course taught at Rare Book School, University of Virginia, 10-15 July).

Marta Halina

Lectures, seminars and conferences

January 2016

“Abstraction, Idealisation, and the Ontic View of Explanation” (paper presented in the Mind, Metaphysics, and Psychology Seminar Series, King’s College London, January 26, 2016)

April 2016

“Do Apes Point in Order to Direct Attention?” (paper presented at the Evidence of Animal Minds Symposium, Durham University, April 18-20, 2016)

June 2016

“Abstraction, Idealisation, and the Ontic View of Explanation” (paper presented at the biennial meeting for the Society for the Philosophy of Science in Practice, Rowan University, Glassboro, New Jersey, June 17-19, 2016)



Michael Hawkins

Michael Hawkins continued to work as Technical Director on the Casebooks Project.

Publications

Edited works

Lauren Kassell (ed.), with Michael Hawkins, Robert Ralley, John Young, Joanne Edge and Janet Yvonne Martin-Portugues, *The Casebooks Project: A Digital Edition of Simon Forman's and Richard Napier's Medical Records, 1596-1634* (2009-18)

Edition: www.magicandmedicine.hps.cam.ac.uk

Dataset: github.com/CasebooksProject/casebooks-data

This is a digital edition of Simon Forman's and Richard Napier's medical records. To date, work on the records from 1596 to 1610 is complete and publicly accessible. These contains 48,500 edited cases, together with innovative search and data visualization facilities, and an image archive of the original manuscripts. These are mounted on an open-access website that contains introductions to the manuscripts, guides to reading the texts and searching the edition, and information about the astrologers and their record-keeping practices, along with our detailed editorial guidelines. Our full data is accessible through GitHub. This is the print equivalent of a twenty-three volume critical edition. It contains 2.3 million edited words plus six times this much metadata. Work is underway to edit Napier's records from 1621 to 1634, containing an additional 31,500 cases. When complete, the project will contain an estimated 3.5 million edited words, the print equivalent of a 35 volume critical edition, with optimum functionality enabled by copious metadata.

Robert Ralley, with Michael Hawkins, Lauren Kassell and John Young (eds), "Forman, Simon Forman's. "The Astrologically Judgements of phisick and other Questions,"" with Robert Ralley, Lauren Kassell, and John Young, <http://www.magicandmedicine.hps.cam.ac.uk/view/text/normalised/TEXT5><http://dev.magicandmedicine.hps.cam.ac.uk/view/text/normalised/TEXT5>.

Lectures, seminars and conferences

January 2016

"The Perils and Promises of Text Encoding: A View from the Trenches" (paper presented at Going Digital with Humanities Research, University of Manchester, UK, 27-8 January 2016)

Nick Hopwood

Nick Hopwood will be promoted to Professor of History of Science and Medicine, with effect from October 2016. He took sabbatical leave in Michaelmas Term and in Lent and Easter Terms served as director of graduate studies and chaired the degree committee. He managed our Wellcome Trust strategic award in the history of medicine on “Generation to Reproduction,” which was extended to 30 September 2017, and spent much time contributing to and (with Rebecca Flemming and Lauren Kassell) coediting the main output from this grant, *Reproduction: Antiquity to the Present*, a large book to be published by Cambridge University Press. He finished a five-year stint on the Wellcome Trust medical humanities and social science selection panel. His book, *Haeckel's Embryos: Images, Evolution, and Fraud* (Chicago, 2015), was “highly commended” for the 2016 SHARP DeLong Book History Prize and shortlisted for the 2016 BSHS John Pickstone Prize.

Publications

Articles in journals

“Copying Pictures, Evidencing Evolution,” *Public Domain Review*, 18 May 2016,
<http://publicdomainreview.org/2016/05/18/copying-pictures-evidencing-evolution/>

Reviews

Review of *Representation in Scientific Practice Revisited*, edited by Catelijne Coopmans, Janet Vertesi, Michael Lynch and Steve Woolgar, *Isis* 106 (2015): 899–901

Review of *Embryos under the Microscope: The Diverging Meanings of Life*, by Jane Maienschein, *Journal of the History of Medicine and Allied Sciences* 71 (2016): 230–2

Lectures, seminars and conferences

November 2015

“Human Embryos: A Visual History” (Wolfson College Science Society, Cambridge, November 20, 2015)

“Haeckel’s Embryos: Images, Evolution and Fraud” (interview on the [New Books Network](#), November 30, 2015)

March 2016

“The Many Births of the Test-Tube baby” (The H. G. Wells Lecture on Science and Society, Centre for the History of the Sciences and Centre for Interdisciplinary Studies of Reproduction, University of Kent, March 2, 2016)

“Proof and Publicity in Claims to Human in Vitro Fertilization” (Cultural History Forum, KU Leuven, March 11, 2016)

May 2016

“Generation to Reproduction” (talk at *The John Forrester Case*, Department of History and Philosophy of Science, University of Cambridge, May 18, 2016)

June 2016

“Haeckel’s Embryos: Images, Evolution and Fraud” (keynote lecture at the 25th annual meeting of the Deutsche Gesellschaft für Geschichte und Theorie der Biologie, Bonn, June 17, 2016)

September 2016

“Haeckel’s Embryos: Images, Evolution and Fraud” (opening guest lecturer at the 111th annual meeting of the Anatomische Gesellschaft, Göttingen, September 21, 2016)

“Proof and Publicity in Claims to Human in Vitro Fertilization” (Science Studies Colloquium, University of Oslo, September 28, 2016)

Public Engagement and Impact

“Germs, Surgery and Public Health in the Modern World” (talk at *Medicine through Time* [GCSE History], AIM Conferences, Cambridge, November 3, 2015)

“Paul Ehrlich’s Magic Bullet and the Cure for Syphilis” (interviewed for *Science Stories*, BBC Radio 4, June 1, 2016)

“Haeckel’s Embryos: Images, Evolution and Fraud” (talk at the British Science Festival, Swansea, September 7, 2016)

Nick Jardine

Nick has continued with lecturing, graduate supervision, and helping with the organisation of seminars and workshops, notably the Cabinet of Natural History, Latin and Greek Therapy, and Aims and Methods of Histories of the Sciences. He is currently working on genres of writing and modes of persuasion in the sciences, and with Helen Curry, Jim Secord and Emma Spary on a new edition of *Cultures of Natural History*. He continues to slave away at his long-overdue book *On Histories of the Sciences*. Nick is on the Botanic Garden Syndicate, and devotes ever more time to the study of fungi.

Publication

The pasts, presents and futures of testimony,
Essay review of A. Gelfert, *A Critical Introduction to Testimony*
(London, 2014), *Studies in History and Philosophy of Science*, 52/1 (2015), 95-100 (with M. Frasca-Spada).



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Boris Jardine

In March 2016 Boris Jardine began a three-year Leverhulme Trust/Isaac Newton Trust project entitled ‘The Lost Museums of Cambridge Science, 1865–1936’. This project, hosted by HPS and the Whipple Museum, and sponsored by Prof. Liba Taub, recovers the history of the ‘New Museums Site’, and will result in a new website and a book on the fate of Victorian scientific collections.

Publications

Edited works

“The ‘Total Archive,’” special issue of the journal *Limn* (issue #6, March, 2016), co-edited with Christopher Kelty (available at: <http://limn.it/issue/06>)

Articles in journals

“Unending Archives,” *Limn* 6 (March, 2016, special issue “The Total Archive”), 22–25

“The Origins of Happiness,” *Limn* 6 (March, 2016, special issue “The Total Archive”), 48–52

“Reverse-Printed Paper Instruments (With a Note on the First Slide Rule),” *Bulletin of the Scientific Instrument Society* 128 (March, 2016), 36–42

“Henry Sutton’s Collaboration with John Reynolds (Gauger, Assayer and Clerk at the Royal Mint),” *Bulletin of the Scientific Instrument Society* 130 (September, 2016), 4–6

Chapters in books

“Microscopes,” in *A Companion to the History of Science*, ed. Bernard Lightman (Oxford: Wiley-Blackwell, 2016), 515–529.

“Mechanical Subjectivity: Mass-Observation and the Scientific Citizen in Interwar Britain,” in *(In)visibility and Labour in the Human Sciences*, ed. Jenny Bangham and Judith Kaplan (Berlin: Max Planck Institute for the History of Science, 2016), 25–38.

Reviews

“Religion – Sex – Politics,” essay review of *Committed Styles: Modernism, Politics, and Left-Wing Literature in the 1930s*, by Benjamin Kohlmann, *Modernist Cultures* 11 (March, 2016), 137–42

Review of *Grown but Not Made: British Modernist Sculpture and the New Biology*, by Edward Juler, *The British Journal for the History of Science* 49 (June, 2016), 311–12

Lectures, seminars and conferences

September 2016

“Commonplacing the Seasons: Luke Howard’s Meteorology between Manuscript and Print” (paper presented at the symposium “Manuscript, Print and the Organization of Knowledge”, Wordsworth Trust, Grasmere, September 3–4, 2016)

Public Engagement and Impact

Exhibition

“The Art and Science of Brewing,” at the Whipple Museum of the History of Science, University of Cambridge, co-curated with Joshua Nall (from July 26, 2016)



Richard C. Jennings

Richard Jennings is an affiliated Research Scholar in the Department of History and Philosophy of Science. He directs studies for about a quarter of the HPS IB students and supervises them in philosophy of science. He is Director of Studies in Philosophy for Girton College, Homerton College, Murray Edwards College, and Queens’ College. In the early 1990s he established in the HPS Department the teaching of ethical issues in science. He currently runs workshops on Ethical Conduct and the Ethics of Scientific Practice for the Graduate programme at the Wellcome Trust Sanger Institute as well as for the final year and first year graduate students in the University of Cambridge, Department of Physics.

Publications

Articles in journals

‘Conflicting Values in the GM Food Crop Debate’ *Journal of Clinical Research & Bioethics* 6: 236 (15 September 2015). doi:10.4172/2155-9627.1000236 [This article was solicited under false pretences by a predatory journal and published against the author’s wishes. For details contact the author.]

February 2016

“Ethics in Physics” two workshops on ethical issues that arise in the conduct of physics research, Cavendish Laboratory, Cambridge, February 11 & 18, 2016

“Ethics in Physics” one workshop on ethical issues that arise in the conduct of physics research, Cavendish Laboratory, Cambridge, February 25, 2016

March 2015

“Ethics in Physics” one workshops on ethical issues that arise in the practice of physics, Cavendish Laboratory, Cambridge, March 3, 2016

May 2016

“Ethics in Genetic Science and Technology” workshop on Ethical Conduct of Research in Genetic Science and Technology, Wellcome Trust Sanger Institute, Wellcome Trust Genome Campus, Hinxton, Cambridgeshire

July 2016

“The Ethical Limits of Science” Plenary lecture presented to the Cambridge University Institute of Continuing Education, Science Summer School Programme, July 11, 2016

Public Engagement and Impact

Scientists for Global Responsibility stall at “Work to Change the World” – Cambridge University’s alternative careers fair, 4 February 2016.

Stephen John

Publications

Articles in journals

“The moral physiology of inequality” *Public Health Ethics* (2016), 9(2)

Lectures, seminars and conferences

October 2015

“Lies, damn’d lies and statistics: is it possible to communicate medical risk accurately?” (Philosophy and Medicine Colloquium, King’s College London)

November 2015

“Non-expert Knowledge, Folk Philosophy of Science and Climate Change Scepticism”
(Manufactured Dissent workshop, Karlsruhe Institute of Technology)

December 2015

“Wishful speaking” (Values in Science workshop, Durham University)

January 2016

“Social equality versus prudentialism?” (Social Equality and Public Policy conference, UCL)

March 2016

“Lies, damn’d lies and statistics” (Institute for Cancer Research Annual Retreat, Institute for Cancer Research, London)

June 2016

“Wishful Speaking” (Centre for Philosophy of Science, Peking University, Beijing)

July 2016

“How we learned to stop worrying and love NICE’s threshold” (Limits of the Numerical workshop, CRASSH, Cambridge)

“Cancer screening: ethical and epistemological issues” (Early Detection and screening workshop, Trinity College, Cambridge)

September 2016

“Science, Truth and Dictatorship: wishful speaking or wishful thinking?” (“Science, Values and democracy” workshop, University of Tilburg)

Lauren Kassell

Lauren Kassell continued to direct the Casebooks Project, which was awarded an additional £138,500 Provision for Public Engagement by the Wellcome Trust and matching funds from Isaac Newton Trust Research Grant and Cambridge/Wellcome Institutional Strategic Support Fund to move the project to Cambridge University Digital Library. She contributed to the Generation to Reproduction project, headed by Nick Hopwood, with whom she co-organised the project’s research seminar. With Valentina Pugliano and Gabriella Zuccolin, she co-organised the Early Science and Medicine Seminar. With Andrew Webber, Orietta Da Rold, Michael Hawkins, Laura Moretti, John Rink, Jason Scott-Warren and Chris Stokoe she co-organised a conference on ‘Digital Editing Now’, 7-9 January 2016, at CRASSH. She sponsored Leah Astbury’s AHRC Public Engagement Fellowship and matching funding for her project on ‘Marital Health in Early Modern England’ from the Isaac Newton Trust. She continued as the Department’s representative on the

School of Humanities and Social Sciences Research Committee and the School Libraries Sub-syndicate, acted as a Senior Academic Promotions CV scheme mentor, and served on the University's Examinations Review Committee and the Mill Lane Board at Pembroke College. She joined the advisory board of *Annals of Science*, and continued to serve on those of the *Bulletin of the History of Medicine and Renaissance Studies*. With Sarah Franklin and Maryon McDonald, she set up an MPhil in Health, Medicine and Society that will launch in autumn 2017.

Publications

Edited works

Lauren Kassell (ed.), with Michael Hawkins, Robert Ralley, John Young, Joanne Edge and Janet Yvonne Martin-Portugues, *The Casebooks Project: A Digital Edition of Simon Forman's and Richard Napier's Medical Records, 1596-1634* (2009-17)

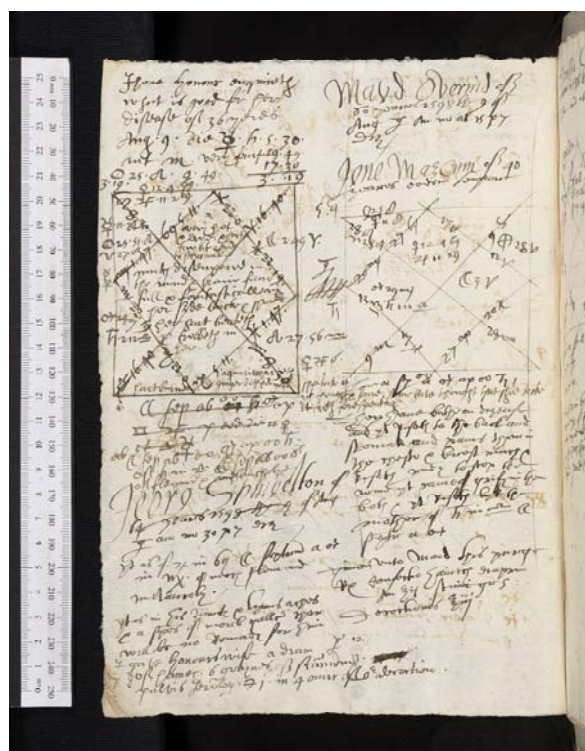
Edition: www.magicandmedicine.hps.cam.ac.uk

Dataset: github.com/Casebooks-Project/casebooks-data

This is a digital edition of Simon Forman's and Richard Napier's medical records. To date, work on the records from 1596 to 1610 is complete and publicly accessible. These contains 48,500 edited cases, together with innovative search and data visualization facilities, and an image archive of the original manuscripts. These are mounted on an open-access website that contains introductions to the manuscripts, guides to reading the texts and searching the edition, and information about the astrologers and their record-keeping practices, along with our detailed editorial guidelines. Our full data is accessible through GitHub. This is the print equivalent of a twenty-three volume critical edition. It contains 2.3 million edited words plus six times this much metadata. Work is underway to edit Napier's records from 1621 to 1634, containing an additional 31,500 cases. When complete, the project will contain an estimated 3.5 million edited words, the print equivalent of a 35 volume critical edition, with optimum functionality enabled by copious metadata.

Nick Hopwood, Peter Murray Jones, Lauren Kassell, and Jim Secord (eds), *Communicating Reproduction*, a special issue of *Bulletin of the History of Medicine*, 89 (2015), 379-556.

Articles in journals



'A page of Richard Napier's 1598 casebook with an entry by Simon Forman. MS Ashmole 228, f. 11v. Reproduced by permission of the Bodleian Library, University of Oxford.'

Nick Hopwood, Peter Murray Jones, Lauren Kassell, and Jim Secord, 'Introduction: Communicating Reproduction', in idem, *Communicating Reproduction*, a special issue of *Bulletin of the History of Medicine*, 89 (2015), 379-405.

Chapters in books

'Paper Technologies, Digital Technologies: Working with Early Modern Medical Records', in Anne Whitehead, Angela Woods, Sarah Atkinson, Jane Macnaughton and Jennifer Richards (eds), *The Edinburgh Companion to the Critical Medical Humanities* (Edinburgh: Edinburgh University Press, 2016), pp. 120-35. <http://preview.ncbi.nlm.nih.gov/books/NBK379261/>

Lectures, seminars and conferences

April 2016

'CASE12702: Early Modern Medical Records and the Challenges of Digital Humanities', panel on 'The Future of the Patient Record in History', annual meetings of the American Association for the History of Medicine, Minneapolis, MN, 28 April-1 May

July 2016

Contribution to a round table on 'The Place of the Digital History of Medicine', Society for the Social History of Medicine Conference, University of Kent, 7-10 July 2016

August 2016

'The Casebooks Project: Simon Forman's and Richard Napier's Medical Records', in a panel on medical casebooks in early modern Europe, sponsored by the Medici Archive Project, at the Society for Sixteenth Studies Conference, Bruges, 18-20 August 2016.

Public Engagement and Impact

Public Lecture on 'Life, Death and Astrology in Shakespeare's England', Bodleian Library, University of Oxford, 29.6.16

Kettle's Yard 'Open House': a discussion between Lauren Kassell and Emma Smith about Smith's 'Variations on a Weekend Theme', a work inspired by the Casebooks Project, 25.10.15, Fitzwilliam Museum, Cambridge

'Should we be having babies at 20?', a public debate at the Cambridge Festival of Ideas organized with Leah Astbury, 21.10.15 www.festivalofideas.cam.ac.uk/events/should-we-be-having-babies-20

Melanie Keene

Melanie continued as Graduate Tutor at Homerton College, and also lectured on the history of education for Parts I and II of the Education Tripos. She organised the Science and Literature Reading Group with Charissa Varma.

Publications

Reviews

Review of Allison Speicher's "A Space for Science: Science Education and the Domestic in Louisa May Alcott's *Little Men*", *Journal of Literature and Science* 8.2 (2015), 76-77.

Lectures, seminars and conferences

November 2015

"The elephant in the room: presence, practice, and pachyderms in Victorian education" (paper presented at the annual meeting of the History of Science Society, San Francisco, California, November 19-22, 2015)

April 2016

" 'Begin with the girls': narratives of science and education in juvenile periodicals, ca. 1860-1910" (paper presented at the annual meeting of the British Society for Literature and Science, Birmingham, April 7-9, 2016, and as the Departmental Seminar at the Centre for the History of Science, Technology and Medicine, University of Manchester, April 26, 2016)

May 2016

" 'Quadruped. Graminivorous'. Equine facts in Victorian children's literature" (paper presented at 'Pony Tales: Writing the Equine' conference, Cambridge, May 12, 2016)

June 2016

"Life after death: geological resurrection and extinction in Victorian children's books" (paper presented at 'Horrible Histories? Children's Lives in Historical Contexts' conference, King's College London, June 16-18, 2016)

July 2016

"Noah's Ark-aecology and nineteenth-century children" (keynote speaker at 'Packaging the Past for Children, c. 1750-1914' conference, Durham, July 6-7, 2016)

"Histories of the sciences for children: past, present, and future" (paper presented at 'Science in Public: past, present, future' conference, Canterbury, Kent, July 13-15, 2016)

Public Engagement and Impact

“Science in Wonderland” public talk at ‘Wonderday’, Christ Church, Oxford, November 13, 2015

Sarah Marks

Sarah Marks was a Junior Research Fellow at Murray Edwards College, University of Cambridge. In 2015-16 she ran a graduate training seminar with Matthew Drage entitled ‘Psychotherapy in Historical Perspective’, co-organised the department’s Philosophy of Psychology reading group with Ali Boyle, and was a post-doctoral representative on the HPS Board and Degree Committee. She spent most of the year researching and writing up her monograph, provisionally entitled *Reforming and Normalizing the Mind: Mental Health in Cold War Czechoslovakia*. In June 2016 she was appointed to the editorial board of *History of the Human Sciences*, for whom she is editing two special issues on the history of psychotherapeutics from the twentieth century to the present, expected for publication in 2017.

Publications

Edited works

Psychiatry in Communist Europe, ed. with Mat Savelli (Basingstoke: Palgrave, 2015)

Articles in journals

“From Experimental Psychosis to Resolving Traumatic Pasts: Psychedelic Research in Communist Czechoslovakia, 1954-1974” *Cahiers du monde russe* 56 (2015): 53-75

Chapters in books

‘Communist Europe and Transnational Psychiatry’ (with Mat Savelli) in *Psychiatry in Communist Europe*, ed. Mat Savelli and Sarah Marks (Basingstoke: Palgrave, 2015), 1-26

‘Ecology, Humanism and Mental Health in Communist Czechoslovakia’ in *Psychiatry in Communist Europe*, ed. Mat Savelli and Sarah Marks (Basingstoke: Palgrave, 2015), 134-52

‘Psychologists as Therapists: Behavioural Traditions’ in *Clinical Psychology in Britain: Historical Perspectives*, ed. John Hall, David Pilgrim and Graham Turpin (Leicester: British Psychological Society, 2015), 194-207

Lectures, seminars and conferences

October 2015

“Psychiatry in the Service of Communism: Czechoslovakia, 1948-1968” (paper presented at ‘The History of Health and Disease in Central and Eastern Europe since 1945’ Conference, Warsaw, October 14, 2015)

December 2015

“The Uses of History for Clinical Psychologists” (paper presented at the annual conference of the British Psychological Society Division of Clinical Psychology, London, December 3, 2015)

February 2016

“Cold War Science and Medicine: East European Perspectives” (paper presented at ‘Debating the Cold War’ conference, Birkbeck, University of London, February 5, 2016)

March 2016

“Was there a Communist Psychiatry in Cold War Eastern Europe?” (paper presented at the Centre for the History of Emotions Seminar, Queen Mary, University of London, March 25, 2016)

June 2016

“Relaxation Training Therapies in Communist East Germany” (paper presented at the Joint Cheiron and European Society for the History of Human Sciences Conference, Barcelona, June 28, 2016)

“Preventing the Side Effects of Socialism: Treating and Educating about Neurosis in Cold War Eastern Europe” Invited paper presented at ‘Preventing Mental Illness’ conference, University of Strathclyde, June 2-3, 2016)

July 2016

‘Psychiatry, Dissidents and the Czechoslovak Security Services’ invited paper presented at ‘Interrogation, Confession and the Psy-Disciplines in a Time of Cold War’ conference, Birkbeck, University of London, July 1-2 2016)

Public Engagement and Impact

“Thinking about Science through History and Philosophy” (widening participation open day talk, Murray Edwards College, University of Cambridge, March 3, 2016.

Richard A. McKay

Working 50% full-time as a Wellcome Trust Research Fellow and the remainder of his time as a career, academic, and life coach at Rich Life Coaching (www.richlifecoaching.co.uk), during the 2015-16 academic year Dr. Richard A. McKay continued in his position as Director of Studies for HPS at Magdalene College. As chief investigator for the ‘Before HIV’ project, he secured favourable ethics decisions from the University’s School of the Humanities and Social Sciences

Ethics Committee and the London - City & East Research Ethics Committee, part of the National Research Ethics Service. He also continued working on the executive committee of the Society for the Social History of Medicine as Policy Development Officer.

Publications

Chapters in books

“Before HIV: venereal disease among homosexually-active men in England and North America,” in *The Routledge History of Disease*, ed. Mark Jackson (London: Routledge, 2016), 439-57.



Lectures, seminars and conferences

January 2016

Richard A. McKay, “Evil is in the eyes of the beholder”: Commercialized male same-sex sexual activity and venereal disease in Vancouver’s bathhouse debates” (paper presented at the annual meeting of the American Historical Association, Atlanta, 9 January 2016)

Simon Mitton

As a Life Fellow of St Edmund’s College I am no longer involved with the governance of the College, which leaves me with more time to continue my research in the history of astronomy from 1900. In October 2015 I received an approach from the Sloan Foundation, New York. They invited me to join a large planetary science project: the Deep Carbon Observatory, a collaboration of 1000 professionals from 40 countries, managed by the Carnegie Institution of Washington. In January 2016 I started on a three-year project, funded by Sloan, to prepare an academic history of deep carbon science. With a collaborator in Ireland I am continuing to do research and to write about the history of evolutionary models of the universe in the half century after the general theory of relativity, 1915–1965.

Publications

Books

Heart of Darkness: Unlocking the Mysteries of the Invisible Universe (Princeton: Princeton University Press, 2015)

Edited works

Magnetospheric Plasma Physics: The Impact of Jim Dungey’s Research (Heidelberg: Springer, 2015)

Articles in journals

- “Fred Hoyle’s birth centennial,” *Astronomy & Geophysics* 56 (2015): 6.10
- “Where is Fred Hoyle’s Pale Blue Dot prediction of 1948? *The Observatory* 134 (2015): 367
- “Einstein’s cosmology review of 1933: a new perspective on the Einstein-de Sitter model of the cosmos,” *European Physical Journal H* 40 (2015):301
- “A new perspective on steady-state cosmology: from Einstein to Hoyle,” *arXiv* (2015): 1506.01651

Reviews

- “Masters of the Universe,” by Helge Kragh, *The Observatory*, 135 (2015) 150
- “Galactic Encounters: Our Majestic and Evolving Star System, from the Big Bang to Time’s End,” by William Sheehan and Christopher J. Conselice, *The Observatory*, 135 (2015) 236

Public Engagement and Impact

Cruise ship guest lecturer on astronomy and the history of science, *Saga Sapphire*, January 2016

Jesse Olszynko-Gryn

Wellcome Trust research fellow in medical humanities (2015–18)

Visiting scholar (invited), Department of History of Science and Ideas, Uppsala, May-June 2016

Qualification aux fonctions de maître de conférences, France, Section 72, Epistémologie, histoire des sciences et des techniques

College Research Associate and Director of Studies in HPS, St. John’s College, Cambridge

Co-convener: Twentieth Century ‘Think Tank’ seminar and reading group in HPS

Publications

Reviews

- “Film lessons: early cinema for historians of science,” essay review of *Devices of Curiosity* by Oliver Gaycken and *The Shape of Spectatorship* by Scott Curtis, *British Journal for the History of Science* 49 (2016): 279–286

Lectures, seminars and conferences

October 2015

- “Thin blue lines: Clearblue and the rise of pregnancy testing in British cinema and television”, Higher seminar, Division of History of Science, Technology, and Environment, KTH Royal Institute of Technology, Stockholm, 12 October 2015

November 2015

“Diagnostic consumers: A history of pregnancy testing in Britain,” research seminar in the history of science, technology and medicine, King’s College London, 4 November 2015

December 2015

“Thin blue lines: Clearblue and the rise of pregnancy testing in British cinema and television”, History and film research seminar, Bremen University, 14 December 2015

February 2016

“Thin blue lines: Clearblue and the rise of pregnancy testing in British cinema and television”, Medical humanities research seminar, University of Leeds, 8 February 2016

May 2016

“From patients to consumers: the democratization of pregnancy testing in Britain,” history of medicine research seminar, Department of History of Science and Ideas, Uppsala University, 26 May 2016

July 2016

“Technology on screen: Public visibility, product placement and pregnancy testing in British television and cinema,” paper presented at the Science in Public Conference, University of Kent, Canterbury, 13-15 July 2016

“The feminist appropriation of pregnancy testing in 1970s Britain,” paper presented at the Society for the Social History of Medicine, University of Kent, Canterbury, 7-10 July 2016

September 2016

‘Reproductive politics in France and Britain’, conference co-organised with Caroline Rusterholz), CRASSH, Cambridge, 5-7 September 2016

Public Engagement and Impact

Advisor and contributor: ‘From frogs to wands of destiny: The evolving science of home pregnancy tests’, a Mother podcast, PRX (Public Radio Exchange), 22 November 2015, also aired on New Hampshire Public Radio, WAMC (New England + Mid-Atlantic states) and NPR One, for Mother’s Day 2016

<https://beta.prx.org/stories/165555>

Facilitator: workshop on pregnancy tests for ‘Sex in Six Objects: A Series of Workshops for Young People Investigating the History of Sexuality’, Cambridge, 25 April 2016

<https://sexinsixobjects.com>

Presenter: *X: The Man with the X-Ray Eyes*, ‘Playing God’ film series, International Anthony Burgess Foundation, Manchester, 17 March 2016

<http://thescienceandentertainmentlab.com/pgp-film-2016/>

“The “rat utopia” experiment behind JG Ballard’s *High-Rise*’, *The H-Word*, published online 23 March 2016

<https://www.theguardian.com/science/the-h-word/2016/mar/23/science-ballard-high-rise-animal-research-pathological-overcrowding>

Curator and host: 'Reproduction on Film: Sex, Secrets and Lies', St John's College, Cambridge, 3 February-20 March 2016, a series of six free public film screenings in collaboration with Alliance Française Cambridge, Cambridge Polish Studies, Polish Waves on Cambridge 105 and the Cambridge Science Festival

<http://www.hps.cam.ac.uk/medicine/film5.html>

James Poskett

James Poskett works on the global and imperial history of science, from 1750 to 1900. He also has



research interests in the history of the book and the history of race. In 2015 he was elected as the Adrian Research Fellow at Darwin College, University of Cambridge. He was also awarded the McCorison Fellowship by the Bibliographic Society of America. At Cambridge, James teaches the Paper 4 Primary Source, 'Science and Print in Colonial India', as well as a graduate seminar (with Dr Sarah Bull) on the history of the book.

Publications

Articles in journals

'National types: the transatlantic publication and reception of *Crania Americana* (1839)', *History of Science*, 53 (2015), pp. 264-295.

Reviews

'William Burns, *The Scientific Revolution in Global Perspective* (Oxford, 2015)', *The British Journal for the History of Science*, 48 (2015), pp. 689-690.

Lectures, seminars and conferences

January 2016

'Moulding the African mind: phrenology, slavery and the material culture of scientific racism, 1791-1861', 20 January 2016, Research Seminar, Department of Science and Technology Studies, University College London, UK.

May 2016

'Remembering Haiti: phrenology, slavery and the material culture of scientific racism, 1791-1861', 25 May 2016, Things, Centre for Research in the Arts, Social Sciences, and Humanities, University of Cambridge, UK

June 2016

'Phrenology on the plantation: correspondence, character and the abolition of slavery', 23 June 2016, Britain and the World Conference, King's College London, UK.

Public Engagement and Impact

'The Image Series: Crania Americana', HAST Blog for Massachusetts Institute of Technology, 1 November 2015, <http://hasts.mit.edu/2015/11/01/the-image-series-crania-americana/>

'Phrenology', *BBC History Magazine*, 3 December 2015.

'Science and race in colonial India', Sutton Trust Lecture, 20 August 2015.

Robert Ralley

Publications

Edited works

Forman, Simon. "The Astrologicall Judgements of phisick and other Questions," with Lauren Kassell, Michael Hawkins and John Young,
<http://www.magicandmedicine.hps.cam.ac.uk/view/text/normalised/TEXT5>

Articles in journals

With Justin Colson. "Medical practice, urban politics and patronage: the London 'Commonalty' of Physicians and Surgeons of the 1420s," *English Historical Review* 130 (2015): 1102–31.

Jennifer Rampling

At Princeton, Jenny ran the History of Science colloquium series and organized the HOS Annual Workshop, *Depicting the Invisible: Science and Image in Early Modern Europe*. With Tony Grafton and a team of students and postdocs, she donned an early modern persona (and mobcap) to deliver the plenary session at the History of Science Society Annual Meeting, introducing the fruits of their Magic Grant-funded project, *Knowledge in the Margins: Annotating the Winthrop Library, 1570-1730*. She and Grafton also won further funding from Princeton's Center for Digital Humanities to put the project online, and organized a workshop on *The Winthrops and their Library*. In August she was a visiting fellow at the Centre Simão Mathias for Studies in the History of Science (CESIMA) at the Pontifical Catholic University of São Paulo (PCU-SP), Brazil, where she gave one of the biennial Allen Debus Lectures. In September she returned to Cambridge to begin a year's research leave as a visiting fellow at CRASSH and Clare Hall. She continued to edit *Ambix* and to co-edit *Sources of Alchemy and Chemistry*.

Publications

Articles in books

- “Theory Choice in Medieval Alchemy,” in *Theory Choice in the History of Chemical Practices*, ed. Emma Tobin and Chiara Ambrosio (Heidelberg, New York, Dordrecht, London: Springer, 2016), 7–16.
- “Alchemical Translation in Rudolfin Prague: The Case of George Ripley,” in *Alchemy in the Time of Rudolf II*, ed. Ivo Purš and Vladimir Karpenko (Prague: Institute of Art, 2016), 293–296. [Revised version of Jennifer M. Ramplingova, “Překladačská činnost alchymistů v rudolfínské Praze: případ Georga Ripleye,” in *Alchymie a Rudolf II*, ed. and transl. Purš and Karpenko (Prague: Artefactum, 2011), 293–296.]

Articles in journals

- Introduction to “Chemical Knowledge in Transit,” with Ana Maria Alfonso-Goldfarb, Hasok Chang, Marcia H. M. Ferraz, and Silvia Waisse, *Ambix*, 62:4 (2015): 305–311.

Reviews

- “Trial by Gender,” review of *The Astronomer and the Witch: Johannes Kepler’s Fight for his Mother*, by Ulinka Rublack, *Nature* 527 (12 November 2015), 164.

Lectures, seminars and conferences

October 2015

- “Alchemists as Re-enactors: Five Hundred Years of Experimental Reconstruction?” (*Making and Knowing* Reconstruction Workshop, Chemical Heritage Foundation, Philadelphia, 9–10 October 2015)
- “Passing the Book: Bringing Early Modern Readers to Life,” with Ann Blair, Richard Calis, Frederic Clark, Anthony Grafton, and Madeline McMahon (History of Science Program Seminar, Princeton, 26 October 2015)

November 2015

- “Passing the Book: Bringing Early Modern Readers to Life,” with Ann Blair, Richard Calis, Frederic Clark, Anthony Grafton, and Madeline McMahon (plenary session, History of Science Society Annual Meeting, San Francisco, 19–22 November 2015)

December 2015

- “Substituting the Philosophers’ Stone: The *quid pro quo* of Experimental Reconstruction” (*The Matter of Mimesis*, CRASSH, Cambridge, 17–18 December 2015)

February 2016

- “A New Heaven and a New Earth: Picturing Alchemical Change” (*Depicting the Invisible: Science and Image in the Early Modern World*, Princeton, 12–13 February 2015)

“Passing the Book: Bringing Early Modern Readers to Life,” with Ann Blair, Richard Calis, Frederic Clark, Anthony Grafton, and Madeline McMahon (Material Texts Seminar, University of Pennsylvania, 29 February 2016)

March 2016

Concluding remarks (From the Library to the Laboratory and Back Again – Reappraising Experimental History of Science, Office for History of Science, Uppsala University, 14–16 March 2016)

April 2016

“Analyzing Alchemical Images in Early Modern England” (52nd Annual Meeting of the Renaissance Society of America, Boston, 31 March–2 April 2016)

“The Missing Stanzas: Looking for Alchemical Expertise in Pre-Reformation England” (History of Science Departmental Seminar, Johns Hopkins University, Baltimore, 14 April 2016)

May 2016

“Alchemy as ‘Practical Exegesis’” (CEDR Workshop, Chemical Heritage Foundation, Philadelphia, 4–7 May 2016)

“Unrolling the Ripley Scrolls: Alchemy, Art and Patronage in Fifteenth-Century England” (International Congress on Medieval Studies, Kalamazoo, 12–15 May 2016)

July 2016

“Healing by Analogy in Late Medieval Alchemy” (*Alchemy, Universal Medicine, and the Prolongation of Life*, St Anne’s College, Oxford, 4 July 2016)

“Lull, Ripley, Paracelsus: The Vegetable Stone and the Evolution of Pseudepigraphic Corpora” (*Pseudo-Paracelsus: Alchemy and Forgery in Early Modern Medicine and Natural Philosophy*, Villa Vigoni, Italy, 26 July 2016)

August 2016

“What is an Alchemical Image?” (Centre Simão Mathias for Studies in History of Science (CESIMA), Pontifical Catholic University of São Paulo, Brazil, 9 August 2016)

“Healing by Analogy: Alchemy and Medicine in Medieval and Early Modern Europe” (CESIMA, PCU-SP, Brazil, 10 August 2016)

“Roll Play: Making an Alchemical Scroll in Early Modern England” (Institute of Physics, University of São Paulo, Brazil, 16 August 2016)

“Secrets and Experiments in English Alchemy” (CESIMA, PCU-SP, Brazil, 17 August 2016)

“The ‘Prison Diaries’ of Edward Kelley, English Alchemist” (CESIMA, PCU-SP, Brazil, 23 August 2016)

“English Alchemy before Newton: An Experimental History” (2016 Allen Debus Lecture, CESIMA, PCU-SP, Brazil, 24 August 2016)

Martin J. S. Rudwick

In San Francisco in November 2015, at the annual meeting of the History of Science Society, I was awarded the Watson Davis and Helen Miles Davis Prize for my book *Earth's Deep History: How it was Discovered and Why it Matters* (University of Chicago Press, 2014).

In August 2016 the International Union of Geological Sciences, at its meeting in Cape Town, gave me the Vladimir V. Tikhomirov Award for the history of geological sciences. This award, named in honour of the first president of the International Commission on the History of Geology (INHIGEO), has only been given on one previous occasion.

Publications

Articles in journals

"The origin of the Parallel Roads of Glen Roy: a review of the 19th century research," *Proceedings of the Geologists' Association*. Published online: 10.1016/pgeola.2016.04.001

Chapters in books

"Constructive controversy and the growth of knowledge," in *Shifting Paradigms: Thomas S. Kuhn and the History of Science*, ed. Alexander Blum et al. (Max Planck Institute for the History of Science, 2015), 181-9

Lectures, seminars and conferences

October 2015

"The King of Siluria: How the Marches came to be known to geologists everywhere" (keynote lecture at a meeting of the Geologists' Association, Ludlow, Shropshire, 3 October 2015)

November 2015

"Landscape art and hard-nosed geology in the Romantic era," (keynote lecture, study day on "Layered Landscapes: Geology and Travel in Romantic-era Britain," National Museum of Wales, Cardiff, 27 November 2015)

February 2016

"Was geology the first science to inject history into the natural world?" (Departmental Seminar, Department of History and Philosophy of Science, Cambridge, 18 February 2016)

"Did the earth sciences have a 20th-century revolution?" (Coffee with Scientists seminar, Department of History and Philosophy of Science, Cambridge, 19 February 2016)

Public Engagement and Impact

See above. The History of Science Society awarded my book *Earth's Deep History: How it was Discovered and Why it Matters* (2014), the 2015 Davis Prize, which is specifically for a book that "promotes public understanding of the history of science". My lectures at the National Museum of Wales, and to the Geologists' Association (a nation-wide society composed primarily of *amateur* geologists), were opportunities to explain the cultural importance of the science to a wide audience.

Simon Schaffer

In 2015-16 Simon Schaffer chaired the Board of History and Philosophy of Science and chaired the Faculty Senior Academic Promotions Committee. In Michaelmas 2015 he was Director of Graduate Studies for History and Philosophy of Science. He served on the Management Committee of the Scott Polar Research Institute, on the Advisory Board of the Science Museum, and on the Advisory Committee of the Centre for History and Philosophy of Physics, Oxford. He was a member of selection panels for Newton International Fellowships, British Academy-Leverhulme Trust Senior Research Fellowships, and for British Academy Postdoctoral Awards. In December 2015 he delivered the Caird Lecture at the National Maritime Museum. He helped co-ordinate the salon "What was Europe?" at the Victoria and Albert Museum, December 2015-March 2016.



Publications

Articles in journals

"Newton: une Révolution Scientifique au Temps des Lumières," *L'Histoire* 418 (December 2015): 31-42

"Origins and Barriers: Reflexions on Subrahmanyam," *Modern Asian Studies* 50 (2016): 52-60

"From Millais to Wells," *Tank Magazine* 8.7 (2016): 5-10

Chapters in books

"La Philosophie et les Ailes de l'Ange," in *Persona: Étrangement Humain*, ed. Emmanuel Grimaud (Arles: Actes du Sud, 2016), 103-6

Lectures, seminars and conferences

October 2015

"Imitation Games: Conspiratorial Sciences and Intelligent Machines" (seminar for Conspiracy and Democracy, CRASSH, Cambridge, October 27, 2015)

November 2015

“Let’s get physical: liaison between arts and sciences” (lecture at Bozar, Brussels, November 2, 2015)

“Object Lessons and Material Histories” (lecture at Free University of Brussels, November 3, 2015)

“Dipesh Chakrabarty: The Calling of History” (commentary, World History Seminar, Cambridge, November 19, 2015)

December 2015

“The ark and the archive: encounters, expeditions and equivocal objects” (Caird Lecture, National Maritime Museum, December 1, 2015)

January 2016

“Optical Philosophy in the Republic of Letters” (Early Modern French Seminar, Whipple Museum, January 22, 2016)

September 2016

“Object Lessons and Nature Tables” (keynote speaker, University of Reading, September 23, 2016)

Public Engagement and Impact

“Too Old to be a Genius”, BBC Radio 4, November 25, 2015

<http://www.bbc.co.uk/programmes/b06pxm4f>

“Maxwell’s Genius”, BBC Radio 4, November 27, 2015

<http://www.bbc.co.uk/programmes/b06rlkwb>

“James Clerk Maxwell”, BBC TV Scotland, December 2, 2015

<http://www.bbc.co.uk/programmes/b06rd56j>

“In Our Time: Voyages of James Cook”, BBC Radio 4, December 3, 2015

<http://www.bbc.co.uk/programmes/b06qkrks>

“Inside Einstein’s Mind”, PBS Nova / BBC TV, December 14, 2015

<http://www.bbc.co.uk/programmes/b06s75vs>

“Science Stories: the Meteorite and the Hidden Hoax”, BBC Radio 4, January 20, 2016

<http://www.bbc.co.uk/programmes/b06wg805>

“*Principia*: Words that Changed the World”, University Library Cambridge iPad app, released March 5, 2016

<https://itunes.apple.com/gb/app/words-that-changed-the-world/id1086597833?mt=8&ign-mpt=uo%3D4>

“In Our Time: Invention of Photography”, BBC Radio 4, July 7, 2016

<http://www.bbc.co.uk/programmes/b07j699g>

“Peng’s Journey to the Southern Darkness: conversation with Ting-Tong Chang”, screened interview, Asia House London, August 24, 2016

Anne Secord

Publications

Edited works

Gilbert White, *The Natural History of Selborne* (Oxford: Oxford World's Classics, 2016)

Editorial notes on *The Correspondence of Charles Darwin*, vols 24 (Cambridge: Cambridge University Press, 2016)

Lectures, seminars and conferences

May 2016

“The politics of participation: early C19th scientific citizens” (paper presented to the Oxford Science Medicine and Culture in the 19th Century Seminar Series of the “Constructing Scientific Communities: Citizen Science in the 19th and 21st Centuries” group, St Anne’s College, University of Oxford)

Jim Secord

Jim was on research leave for the whole of the 2015-16 academic year. He spent the autumn in Berlin at the Max Planck Institute for the History of Science, beginning work on a short book developing some of the ideas in his ‘Knowledge in Transit’ (*Isis* [2004], 95: 654-72). During the year he was elected to the Council of the Cambridge Philosophical Society, in part to help prepare for activities associated with their bicentennial in 2019.

Publications

Edited works

The Correspondence of Charles Darwin, 1875, vol. 23 (Cambridge: Cambridge University Press, 2015), with F. Burkhardt and the Darwin Correspondence Project

Lectures, seminars and conferences

November 2015

‘Global Geology and the Tectonics of Empire’ (lecture at the Central European University, Budapest, Hungary, 25 November 2016)



December 2015

‘Thoughts on “Knowledge in ‘Transit’”: Seven Questions in History of Science’ (colloquium discussion at Max Planck Institute for the History of Science, Berlin, 9 December 2016)

February 2016

‘Global Geology and the Tectonics of Empire’ (Woodford-Eckis lecture, Pomona College, Claremont California, 17 February 2016)

‘Charles Darwin and the World of Geology’ (Woodford-Eckis lecture, Pomona College, Claremont California, 18 February 2016)

‘Global Geology and the Tectonics of Empire’ (seminar, Department of History, UCLA, 17 February 2016)

April 2016

‘Raising the Whale: Defining Zoology at Cambridge’ (invited lecture to open celebrations for the 150th anniversary of the Department of Zoology, University of Cambridge, 28 April 2016)

Andreas Sommer

Publications

Articles in journals

(With Pascal Le Maléfan): “Léon Marillier and the Veridical Hallucination in Late-Nineteenth and Early-Twentieth Century French Psychology and Psychopathology.” *History of Psychiatry* 26 (2015): 418-32.

“Are You Afraid of the Dark? Notes on the Psychology of Belief in Histories of Science and the Occult.” *European Journal of Psychotherapy & Counselling* 18 (2016): 105-22.

Reviews

Review of Extraordinary Beliefs: A Historical Approach to a Psychological Problem, by Peter Lamont. *British Journal for the History of Science* 48 (2015): 707-08.

Lectures, seminars and conferences

October 2015

“Consciousness Studies: The Hidden History” (invited lecture delivered at 8ème Congrès Médecine et Spiritualité, October 24-25, 2015, Lille, France).

February 2016

“Hidden Histories: Science and the Occult” (seminar at CHUtalks, JCR, Churchill College, Cambridge, 24 February, 2016).

June 2016

“The American Society for Psychical Research, 1884-9: A Reconsideration” (paper present at the Eighth Three Societies Meeting for the History of Science, University of Alberta, Edmonton, Alberta, June 22-25, 2016).

July 2016

“A Caller in the Wild: William James and the American Society for Psychical Research” (seminar, American Society for Psychical Research, New York, July 21, 2016.)

September 2016

“Science vs. superstition? William James, Leonora Piper, and the American psychological profession” (paper presented at the 7th European Society for the History of Science Conference, Charles University, Prague, September 22-24, 2016).

Public Engagement and Impact

“Fresh off the Press: Léon Marillier and the Veridical or Telepathic Hallucination in France.”

Forbidden Histories, November 18, 2015, <http://www.forbiddenhistories.com/?p=997>

“Are you Afraid of the Dark?” *Forbidden Histories*, March 4, 2016,

<http://www.forbiddenhistories.com/?p=1086>

“‘The Living and The Dead’: Working as a History Advisor for the Upcoming BBC Drama Series.”

Forbidden Histories, March 22, 2016. <http://www.forbiddenhistories.com/?p=1156>

“Can Psychotherapists Benefit from History of Science Scholarship?” *Forbidden Histories*, April 15, 2016, <http://www.forbiddenhistories.com/?p=1298>

“The Enlightenment Myth” (public lecture, SPR Study Day 71, Society for Psychical Research, London, April 30, 2016).

“William James and the American Society for Psychical Research, 1884-9.” *Forbidden Histories*, July 4, 2016, <http://www.forbiddenhistories.com/?p=1319>

Richard Staley



This year I spent Michaelmas on sabbatical (including a period as a research scholar at the University of Uppsala), continuing research on Ernst Mach, the history of mechanics, and aspects of anthropology, as well as on climate change. This research has involved ongoing collaborations with Shaul Katzir and others on Interactions in Interwar Physics, Jaume Navarro and others on ether and modernity, and Daniel Mitchell and others on phases of physics in the nineteenth century. As well as offering a full load of lectures and supervisions for the department through the rest of the year, I helped lead the Twentieth Century Think Tank, served as Part II Senior Examiner, and served as DoS at Gonville & Caius College. I continued my work as Chair of the Advisory Committee to the American Institute of Physics History Programs (as the AIP goes through a period of restructuring), and this year

completed a three-year term on the Executive Committee of the American Physical Society Forum for the History of Physics (serving as Chair of the Abraham Pais Prize Committee). In 2015 I was also elected Fellow of the American Physical Society, “for multifaceted historical works on how the early community of theoretical and experimental physicists developed relativity physics, and for outstanding analysis of the career of Albert Michelson.”

Publications

Articles in journals

“Tomar el pulso a la luz: Los experimentos de Albert Michelson con espejos y tuercas [Taking the Pulse of Light: Albert Michelson’s Experiments with Mirrors and Screws]” *Investigación y Ciencia* 471 (2015): 34

Chapters in books

“Physical Sciences: History and Sociology,” in *International Encyclopedia of the Social and Behavioral Sciences*, Second Edition, Vol. 18, ed. Michael Lynch, ed.-in-chief James D. Wright, (Oxford: Elsevier, 2015), 100.

“On Reading Kuhn’s *Black-Body Theory and the Quantum Discontinuity, 1894-1912*,” in Alexander Blum, Kostas Gavroglu, Christian Joas, and Jürgen Renn, eds. *Shifting Paradigms: Thomas S. Kuhn and the History of Science* (Berlin: Max Planck Research Library for the History and Development of Knowledge (Edition Open Access) <http://www.edition-open-access.de>, 2016), 203.

Reviews

“Telling Histories: Working Worlds and the Sciences of the Twentieth Century,” Essay review of *Science in the Twentieth Century*, by Jon Agar, *Historical Studies in the Natural Sciences* 46:1 (2016), 110.

Lectures, seminars and conferences

October 2015

“Machines, Modernity and the New Physics in Post-war Discourse,” (paper presented at “Interactions of Interwar Physics: Technology, Instruments and Other Sciences,” a joint workshop of the Cohn Institute, Tel Aviv University and the Center “History of Knowledge,” ETH & University of Zurich, held at Tel Aviv University, Israel, 11-12 October 2015).

“Physicist Anthropologies and the Cultural History of Mechanics, 1860s-1930s,” (School of History Research Seminar, University of Kent, 14 October 2015).

November 2015

“Mach’s Ether, Einstein’s Ether, and the Debate between Relativists and Their Critics” (paper presented in session on “New Perspectives on the Ether in Early Twentieth-century Physics and Art,” History of Science Society Annual Meeting, San Francisco, USA, 21 November 2015).

April 2016

“Revisiting Einstein’s Happiest Thought: On Ernst Mach and the Early History of Relativity” (paper presented at the American Physical Society April Meeting, Salt Lake City, USA, 17 April 2016).

May 2016

“‘The Guiding Hand of History:’ Perception, Politics and Principles in the Critique of Mechanics from the Late Nineteenth Century” (Kings College London Research Seminar, 4 May 2016).

“History of Science: Climate Change” (class for Gonville and Caius students in Historical Tripos Part II Paper 1 (Historical Argument and Practice), 24 May 2016).

June 2016

“Revisiting Einstein’s Happiest Thought: From the Physiology of Perception to Experimental Propositions and Principles in the History of Relativity” (Keynote lecture, International Conference on Ernst Mach, Vienna, Austria, 18 June 2016).

July 2016

“The Co-Creation of Classical and Modern Physics: On the Emergence of Quantum Physics in the Early Twentieth Century” (Departmental Colloquium presented at Department Physik, Universität Siegen, Germany, 7 July 2016).

“Sensory Studies, or When Physics was *Psychophysics*: Physics Between Physiology and Psychology in the Mid Nineteenth Century” (Invited contribution to Phases of Physics Workshop, Cambridge, 22 July 2016).

September 2016

“Why Celebrate Accident? Ernst Mach’s 1895 Account of Invention and Discovery” (Invited talk, 2nd International Congress in the History of Physics, Pöllau, Austria, 5 September 2016).

Public Engagement and Impact

“On Thought Experiments, Principles and Their Limits on the Path to General Relativity” (plenary talk presented at “Einstein’s Legacy: Celebrating 100 Years of General Relativity,” Queen Mary University of London, 28 November 2015).

“On Thought Experiments and Principles on the Path to General Relativity” (lecture at Lancashire and Cumbria Branch of the Institute of Physics, UCLan Preston, also a Lancashire Science Festival Fringe event, 22 June 2016).

Liba Taub

Liba Taub is Director and Curator of the Whipple Museum of the History of Science, and Professor of History and Philosophy of Science. In September she became Head of Department. She is a Fellow of Newnham College, where she is Director of Studies in HPS; she is also Director of Studies at Trinity Hall. During 2015-16 she served on the International Programme Committee for the upcoming 25th International Congress of the History and Philosophy of Science in Rio de Janeiro, scheduled for July 2017. She continues to serve on the UK Spoliation Advisory Panel, as well as numerous University and College committees.

Publications

Chapters in books

‘Dimensional Models’, with Joshua Nall, in *A Companion to the History of Science*, ed. Bernard Lightman (Chichester: Wiley-Blackwell, 2016), 572-86

‘Meteorology,’ in *A Companion to Science, Technology and Medicine in Ancient Greece and Rome*, ed. Georgia Irby (Chichester: Wiley Blackwell, 2016), 232-46

Lectures, seminars and conferences

September 2016

‘Rewarding science in ancient Greece and Rome’ (invited response to paper by Serafina Cuomo, at conference on Prizes and Awards in Science before Nobel, the 5th Watson Seminar in the Material and Visual History of Science, The Nobel



Museum, Stockholm, 5 September 2016)

'Plutarch's Concept of the Moon in his *De facie in orbe lunae* against the Background of his Predecessors' (Invited paper presented at 'Finding, Inheriting or Borrowing? Construction and Transfer of Knowledge about Man and Nature in Antiquity and the Middle Ages', International Conference of the Research Training Group 1876, 'Early Concepts of Man and Nature: Universal, Local, Borrowed', Johannes Gutenberg University, Mainz, Germany, 14-16 September 2016)

'Genres of Greek Science: Mathematics, Poetry and Mathematical Poetry' (paper presented at the History of Science, Technology and Medicine Colloquium, History of Science Department, University of Oklahoma, Norman, OK, 22 September 2016)

'Is it the international year of the frog?' (with Rosanna Evans and Henry Schmidt) (paper presented at the "Object Lessons & Nature Tables," Conference on History of Science and University Museums, University of Reading, 23 September 2016)

Public Engagement and Impact

July 2016

'Mathematics and Culture in Ancient Greece: Poetry, Pythagoreanism and ancient Jewish accounts of the development of philosophy' (Keynote speaker at 7th European Congress of Mathematics (7ECM), The Jewish Museum, Berlin, 17 September 2016)

September 2016

'Challenges and Perspectives: Curating the Whipple Museum for the History of Science, Cambridge', in 'Beyond our Walls' series, co-sponsored by History of Science Department and University of Oklahoma Libraries, Norman, OK, 20 September 2016)

Elina Vessonen

Awarded the Emanuel Miller Essay Prize, November 2015, awarded by St. John's College, University of Cambridge

Lectures, seminars and conferences

November 2015

"The complementarity of RTM and psychometrics in evaluations of well-being concepts" (paper presented at the XII. Conference of the International Network for Economic Method, University of Cape Town, South Africa, November 19-22, 2015.

July 2016

“Conceptual Engineering and the Science of Well-Being” (paper presented at the The Uses and Abuses of Quantification in Healthcare: interdisciplinary perspectives -conference, at University of Cambridge, UK, July 21-22, 2016.

August 2016

“RTM and psychometrics as partial approaches to measurement” (paper presented at The Fifth Conference of the European Network for the Philosophy of the Social Sciences (ENPOSS), University of Helsinki, Finland, August 24-26, 2016.

Rick Welch

Rick Welch is Dean of Arts and Sciences Emeritus and Professor of Biological Sciences at the University of Maryland, Baltimore County. He is a Resident Member of Clare Hall and an Affiliated Research Scholar in the Department of History and Philosophy of Science at Cambridge.

Publications

Books

Physiology: The Language of Life and Nature (Bern: Peter Lang International Academic Publishers, 2016)
[Vol. 13 in the series “Nature, Science, and the Arts”]

SEMINAR PROGRAMMES

Michaelmas Term 2015

Seminars

Departmental Seminars

Seminars are held on **Thursdays from 4.30 to 6pm in Seminar Room 2**. There is tea beforehand from 4pm in Seminar Room 1.

Organised by Mary Brazelton and Marta Halina.

Abstracts

15 October **Sabina Leonelli (University of Exeter)**

On the movements and value of research data

This paper reports on an ongoing effort to study the movement of scientific data from their production site to many other sites of use within or beyond the same discipline, from both an empirical and a philosophical standpoint. Empirically, the study is grounded on the reconstruction of specific data journeys within four research areas: plant biology, model organism biology, biomedicine and oceanography. Philosophically, the study aims to analyse the conditions under which data travel across what I call, following John Dewey, 'research situations', and what implications this has for the epistemology of science. I focus in particular on online databases set up to facilitate data dissemination and their multiple re-interpretations as evidence for a variety of claims across different settings; and on the wealth and diversity of expertise, resources and conceptual scaffolding used by database curators and users to expand the evidential value of data thus propagated. Through the reconstruction and careful analysis of data journeys, a great deal can be learnt about the multiple roles and valences of data, ranging from their essential function as evidence to their importance as currency in trading, tokens of identity and means to foster the legitimacy, accountability and value of research within a variety of contexts. These insights inform a philosophical analysis of knowledge production that is attentive to the processual, dynamic nature of research, as well as its embedding in social, political and economic settings that have a strong bearing on what comes to be viewed as scientific data, by whom, and why.

16 October **Special Joint Needham Research Institute and HPS Seminar**
Floris Cohen (Utrecht University)

To explain the Scientific Revolution by means of comparison

In my talk I shall take up in succession the two constituent elements of the title: (1) Over past decades the idea that it makes historical sense to speak and keep speaking of 'The Scientific Revolution of the 17th century' has been much disparaged, not so say condemned as hopelessly outdated. In the 'Epilogue' to my 300 pages long book *The Rise of Modern Science Explained* (just published with Cambridge University Press) I give five major reasons, drawn from the book's argument, why it makes eminent sense to retain the idea of 'The Scientific Revolution, now properly reconceptualised in my book as compared to how the concept first arose in the late 1930s. (2) In the much lengthier parent book *How Modern Science Came Into the World: Four Civilizations, One 17th Century Breakthrough* (Amsterdam UP, 2010) I have set forth in general terms why I have throughout the book used historical comparison as the royal road toward historical explanation. In my talk today, I shall briefly sum up the general point and then illustrate it by means of some salient examples, drawn from the history of European as well as Chinese nature-knowledge.

22 October **Alison Wylie (University of Washington)**

How archaeological evidence bites back: putting old data to work in new ways

A passion for things has taken hold in the social sciences and humanities in the form of an enthusiasm for the capacity of material evidence to bear witness to dimensions of social, cultural life that are otherwise inaccessible. As Daston puts it, the 'bony materiality' of physical traces of human action sustains a certain epistemic optimism but, at the same time, she reports considerable ambivalence about their status as evidence. To make sense of how trace evidence constrains interpretative inference despite being, itself, a heavily interpreted construct I consider three strategies by which archaeologists elicit new evidence from old data. The first two – secondary retrieval and recontextualization – are a matter of reconfiguring the scaffolding that underpins evidential reasoning. The third turns on redeploying old data in the context of computational models that make possible the experimental simulation of the cultural systems and contexts under study.

29 October **Samir Boumedience (History, Cambridge)**

Questions and questionnaires: knowledge, evidences and rituals of speaking in the early modern period

I will present my new project on the history of questions and questionnaires from the 15th to 19th century. The works devoted to the scientific construction of the world have underlined two key processes: measurement and observation. In the continuity of these works I would like to study a common, though complicated, practice: asking questions. Techniques such as having somebody talk, preventing him or her from lying, collecting and cross-checking testimonies are essential to the history of scientific expeditions but also to the history of justice and confession. How did the ritual of avowal become a way to appropriate knowledge for scientists? How did the use of questionnaires move from courthouses, religious and civil administrations, to scientific activities? I will focus my presentation on the 1570s, when several questionnaires were sent to

the Americas and when Francisco Hernández, a physician to King Felipe II, was sent to Mexico in order to ask questions to Amerindians.

5 November **Jeff Hughes (University of Manchester)**

‘Winston’s Gestapo’: Churchill, the Royal Society and scientific secrecy before the Bomb

In the summer of 1945, a number of leading British scientists were invited to attend the 220th anniversary celebrations of the Soviet Academy of Sciences in Moscow. The Royal Society quickly assumed responsibility for the organisation of the junket, turning it into a semi-diplomatic mission intended both to build scientific links with Britain's still-valued wartime ally and to strengthen its own position in relation to the British government as it began to frame a project for post-war institutional renewal. On the eve of the delegation's departure, the travel visas of eight of the scientists were suddenly cancelled for contrived reasons. The order came directly from Churchill who, in the last days of his caretaker government, misled Parliament about the reason for the scientists' treatment. Excavating this episode, the paper will reveal what lay behind the ban and explore its ramifications: for government, from high-level inter-allied politics to MI6 and the DSIR; for the Royal Society, whose Officers were embarrassingly compromised; and for the scientists themselves, for whom 'Winston's Gestapo' was a paradoxical and potent focus for debate about secrecy, freedom, and the values and governance of science as it shifted from war to an uneasy peace.

12 November **Jacob Stegenga (University of Victoria)**

Magic bullets

Some medical interventions – such as arsphenamine, penicillin, and insulin – are good examples of 'magic bullets'. The magic bullet model of medical interventions represents two principles: specificity and effectiveness. The magic bullet model gained currency in the mid-20th century with the introduction of antibiotics and insulin. However, scientists have begun to recognize the complexity of many pathophysiological mechanisms, and philosophers have begun to note what such complexity entails. I argue that once we appreciate the complexity of physiological mechanisms, the expectation of effectiveness and specificity ought to be mitigated. The expectation that drugs can intervene on one or few micro-level targets and thereby bring about an effect that is both clinically significant and symptomatically specific is, for many of our contemporary medical interventions, unfounded. Nevertheless, the magic bullet model is a good normative ideal for medical interventions, and the low effectiveness of many contemporary medical interventions can be understood in virtue of the fact that these interventions and their target diseases do not satisfy the principles of the magic bullet model.

19 November **Bryan Roberts (LSE)**

Electricity and crystallography: the history and philosophy of Curie’s Principle

Many consider symmetry principles to be even more fundamental than the laws of nature, and Curie's Principle is often upheld as an example. In this talk I will argue that, on the contrary, Curie's principle arose out of a heuristic rule of thumb, which Pierre Curie and his brother used to show how crystals generate electricity when twisted and compressed. The principle they applied was strictly false, but still managed to play a fruitful role in the discovery of new physics.

26 November **Robert Bud (Science Museum, London)**

Negotiating 'applied science' in the early 1930s: new media, new discourses, new ideology

The study of the way science is talked about, in the press, literature and the media as well as academia and politics provides a way of going beyond the problems of 'popularisation'. The term 'applied science' has been redeployed and reshaped over two centuries since its introduction into English in the early 19th century. Its meanings have come certainly from negotiations among policy makers, but also from the institutions to which it has been applied, the speeches in which it has been invoked, and the stories through which its triumphs have been retold in books, broadcast through the media, and displayed in museums. Its progress has served to give substance to the difference between past, present and future. Having outlined this methodological framework, the paper will focus on a key period during the early 1930s in which BBC radio created a new context for talk about science and HG Wells deftly managed a variety of platforms – books, film and newspapers – to promote Wellsianism. During this period the concept of 'applied science' was allied to such related concepts as planning, rationalisation and research, as illustrated by Aldous Huxley's *Brave New World* of 1933. I shall argue for the relevance of Michael Freeden's term 'ideology' to denote this ensemble of concepts in the public sphere.

Coffee With Scientists

The aim of this group is to explore and enhance the interface between HPS and science. We in HPS do not often pull together in our activities in this direction, though many of us have close engagements with science and scientists. We could benefit from more explicit discussions about the relationship between HPS and the sciences themselves, and from encouraging HPS-scholars and scientists to help each other's work. Many of our graduate students and postdocs currently work in isolation from scientists; they may benefit from the stimulation of interactions with colleagues and mentors from various science departments (in Cambridge and elsewhere), which are difficult to induce in our regular seminars and reading groups, infused as they are with standard HPS expectations, assumptions and customs.

During Michaelmas Term 2015 we will continue to meet on **Fridays, 3.30–5.00pm in Seminar Room 2.**

23 October **Alison Wylie (University of Washington and Durham University) and John Robb (Archaeology, Cambridge)**

Making archaeological knowledge

- 30 October **Margaret Ann Goldstein (Baylor College of Medicine, and Clare Hall)**
A 21st-century biologist looks at Sir Isaac Newton
- 13 November **Corina Logan (Zoology, Cambridge)**
Behavioural flexibility in birds and beyond
- 4 December **Keith Taber (Education, Cambridge)**
The role of conceptual integration in understanding and learning chemistry
- Eugene Kang (Science Education, Pusan University and Visiting Scholar, HPS, Cambridge)**
On the historical development and the pluralistic approach from the concept of electricity in secondary-school science

Cabinet of Natural History

This research seminar is concerned with all aspects of the history of natural history and the field and environmental sciences. The regular programme of papers and discussions takes place over lunch on Mondays. In addition, the Cabinet organises a beginning-of-year fungus hunt and occasional expeditions to sites of historical and natural historical interest, and holds an end-of-year garden party.

The cabinet has a blog at <https://cabinetofnaturalhistory.wordpress.com>

Seminars are held on **Mondays at 1pm in Seminar Room 1**. You are welcome to bring your lunch with you. Organised by Katrina Maydom.

- 12 October **G.A. Cook (University of Hong Kong)**
Is it one's cup of tea? Early-modern experimentation on tea as materia medica

From Antiquity onwards Europeans incorporated exotic, plant-derived materia medica into their pharmacopeia. The so-called era of exploration gave this process an enormous boost, making available a variety of new plants from the New World and Asia. Some of these enjoyed parallel existences both as medicines and as foods or beverages. They included not only spices, but also most prominently, plants with stimulant properties such as tea, coffee, chocolate, tobacco and ginseng. These novelties lent themselves to investigation using the experimental methods being propounded by the Royal Society and like-minded Continental savants.

The popularity of this approach was such that by the late 17th century, it was no longer sufficient for novel plants simply to be acclaimed by experts as materia medica based on traditions from the place of origin, travelers' accounts or other untested testimonials. The experts themselves – usually



physicians – demanded proofs of efficacy using the experimental method and their writings primed an ever-larger and more well-informed reading public to follow suit. In 1730, for example, the physician Thomas Short advertised his tea experiments to readers as 'easy, and practicable by every curious Person on any Plant, without Experience, much Apparatus, Loss of Time, Danger to any Animal, or Acquaintance with the chymical Jargon of Words...'. In my talk I survey the surprisingly varied experimental history of tea over approximately one hundred years, from the late 17th century to the third quarter of the 18th century.

19 October **Laura Jane Martin (Harvard University)**

Recovery after attack: 1960s radioecology and shifting conceptions of humans as agents of ecosystem change

When ecologist Lauren Donaldson was hired by the Manhattan Project in 1943 to study whether radioactive effluent from Hanford Works affected Columbia River fisheries, most scientists considered nuclear contamination to be a localized threat. But by the time of the Castle Bravo detonation in 1954, scientists and the public had begun to conceptualize radioactive fallout as a regional, even a global, concern. As a number of environmental historians have argued, fallout studies played a central role in the rise of ecosystem ecology and the idea of an interconnected biosphere

In this paper I likewise aim to illuminate the relationship between the Cold War, the rise of ecosystem ecology, and the postwar environmental movement. But my objects of analysis are not fallout studies, but rather studies in which ecologists simulated nuclear attacks. Alongside the Cold War era concern over nuclear fallout was the blunter fear of World War III. In 1950, the United States had 299 weapons in its stockpile. By 1960, it had 18,638. And by 1965, it had 31,139. As the United States and Russia increased both the power and the range of their nuclear weaponry, it became possible to conceive of a catastrophic, global-scale war, and the U.S. Atomic Energy Commission (AEC) funded studies to investigate the economic and environmental consequences of such a war. While ecologists and military planners were tasked with recognizing the immense destructive power of nuclear weaponry, they did not imagine the outcome of nuclear war as the total annihilation of life on earth. In a very definite way, there would have been no point to such a vision. Instead, ecologists and military planners envisioned the period of environmental and economic recovery after WWII and considered how the government could hasten that recovery. Their visions both drew on and advanced ecological theory about the capacity of nature to self-regulate and to repair itself when damaged. Thus I argue that those Cold War narratives about ecological destruction, which have had such staying power, must be considered alongside those about ecological restoration. Both narratives emerged simultaneously from the ideational and material entanglements between atomic warfare and ecological science. And both would come to shape environmental management worldwide, and therefore, the material environment itself.

26 October **Annual Fungus Hunt**

2 November **Emma Spary (History, Cambridge)**

Order and object: constructing collections in late 18th-century France

The recent digitisation of a large number of auction catalogues allows a more intensive enquiry into the composition of late 18th-century French collections than has hitherto been possible. On the principle that we cannot afford to make a priori judgements about who counted as an expert collector, this paper suggests some ways in which this material might be used: 1) to construct overarching parameters for analysing collecting practices, which can serve as a baseline for comparing styles of ordering and arrangement, and 2) to elaborate more tightly focused narratives of the movement and significance of individual specimens, collectors or collections, drawing upon work on 'object biographies' and networks. This dual perspective upon collecting as practice generates some interesting and unexpected links between categories of collector often separated in standard narratives, highlights some trends in collecting within the specific culture under consideration, and suggests the potential of a pan-European approach.

9 November **Dominik Heunniger (University of Göttingen)**

Systems, synonyms and strife—the making of European entomology around 1800

Inspired by general developments in natural history, a growing academic interest in insects developed in late 18th-century Europe. The five decades between c.1760 and 1810 can be considered a very important era for the development of entomology as an academic subject. The advancement of and disputes on Linnaean systematics in botany and zoology caused paradigmatic changes in the pan-European perception, systematization and classification of insects. Additionally, an increasing number of hitherto unknown species filled the European cabinets and collections. Hence, natural historians, amateur collectors, noble enthusiasts and draughtsmen developed new systems of classification and communicated about their 'objects' in letters, articles, monographs and multi-volume series. Furthermore, many of the actors involved in this process also travelled widely and exchanged their knowledge and objects in direct or indirect contact with each other.

In my presentation I would like to analyse how knowledge on insects was created, communicated and debated. What were the most contentious issues? How and why did early entomology come up with a variety of ordering systems? What were the practices of collecting? Additionally, I would also like to reflect on the epistemological status of the specimens as well as the debates on amateurism and professionalization. Finally, I'd like to address how practitioners of entomology reflected on political and cultural contexts like colonialism and nationalism.

16 November **Debby Banham (ASNC, Cambridge)**

The Norman Conquest of the material medica? Expanding pharmaceutical horizons in 11th-century England

The 11th century was a time of great change in England. It is well known that the country was conquered twice, in 1016 and 1066, but less well known is that there were considerable changes in medicine, at least as far as the surviving manuscripts tell us. Latin replaced English, to a great extent, as the language of the extant texts, and there were changes in their structure, attribution, and vocabulary of medical writing. This paper will explore aspects of those changes that relate to *materia medica*, examining a manuscript, BL Sloane 1621, that was used and annotated at Bury St Edmunds in the late 11th century, in the context of earlier medical writings in both Latin and English.

23 November **Dorit Brixius (European University Institute)**

Spicing up Mauritius' gardens: informal empire and the hybridity of knowledge and plant exchange in the East Indies, 11740s to 1770s

In the 1740s, the young Frenchman Pierre Poivre (1719–1786) proposed to the *Compagnie française pour le commerce des Indes orientales* (hereafter the CIO) to gather 'useful' plants and spices in different parts of the world. In the 1740s and the 1750s, Poivre was not only missionary but also botanist, agronomist and later, between 1767 and 1772, intendant of the Mascarene Islands, a group of islands off the East coast of Madagascar, consisting of Isle de France (present-day Mauritius), Bourbon (present-day Réunion) and Rodrigues. On his first mission to the Moluccas Islands – coveted spice monopoly of the Dutch East India Company (VOC) – Poivre aimed at gathering luxury spices, namely clove and nutmeg, and introduce them to Isle de France with the idea to turn the island into the cultivating ground for the French spice trade. I argue that this enterprise was by no means 'purely' French but a hybrid project, which involved actors from different backgrounds with different types of knowledge.

The case of Isle de France's spice garden serves as a particular place-in-the-making in order to understand the wider French imperial system and its dynamics from the overseas actors' point of view. While stressing the performative character of botany, I will consider actors as mobile agents from different backgrounds. These actors were connected between various geographical regions, yet, their disparity as opposed to their collaboration is assumed – when it comes to Europeans as opposed to Europeans or Europeans as opposed to non-Europeans. Thus, the purpose of my paper is to closely examine the connected and cross-cultural communication in botany through the lens of Poivre's exchange networks in a bottom-up perspective. What I call 'informal empire' is thus an umbrella term for the cross-cultural relations between actors offside imperial rule and rivalry. I hope that I can marry approaches from the history of science, economic history and global history – in short botany as a nuanced global science which I demonstrate through three dimensions: 1) the informal collaboration between European actors, 2) indigenous plant knowledge in the Indo-Pacific region, and 3) natural knowledge and slavery on Isle de France.

30 November **Emily Hayes (University of Exeter)**

From 'clap-trap and flummery' to 'scope and methods'—the Royal Geographical Society's lantern-slide lectures, c.1886-1924

Founded in 1830, the Royal Geographical Society (RGS) was conceived to promote 'that most important and entertaining branch of knowledge, geography'. Across the 19th century the RGS attempted to hold within its centre a diverse demographic of practitioners of science, explorers and audiences eager for 'red hot tales of adventure'. From the pre-magic lantern era to the provision of instruction in photography in 1886, the subsequent authorization of the much-debated medium of the lantern, and diversification of lecture practices, this talk traces some of the multiple registers in which geographical knowledge was communicated. In order to bring to light the 'overlooked images' and 'suspended conversations' of the RGS lantern-slide lectures, I outline three case studies of lantern-slide lectures given by Halford Mackinder, Vaughan Cornish and Julia Henshaw. These examples, I argue, illustrate the RGS's tailoring of geographical knowledge to the audiences of its own Fellowship, practitioners of science and children. I demonstrate that the RGS lantern-slide lectures were 'threshold' sites through which geographical knowledge and practices, a spectrum of sciences and diverse RGS communities circulated. I suggest that the synergy of the perceived effects of lantern projections and the spoken word were a galvanizing force that expanded the geographical imaginary. In doing so I bring to light the Society's history as centripete and centrifuge of individuals and ideas, and science and culture.

History of Medicine Seminars

Seminars are on Tuesdays **from 5.00 to 6.30pm in Seminar Room 1**. Tea and biscuits are available from 4.40pm. All welcome!

Early Science and Medicine

Organised by Lauren Kassell, Valentina Pugliano and Gabriella Zuccolin.

- 20 October **Stefano Cracolici (Durham University)**
Locked in colour: doctors and the bite of the tarantula
- 10 November **Joseph Ziegler (University of Haifa)**
On the political use of physiognomy around 1500
- 1 December **Katharine Park (Harvard University)**
Rethinking the one-sex body: sex, gender and medicine in the medieval world

History of Modern Medicine and Biology

Organised by Salim Al-Gailani, Nick Hopwood, and Mary Brazelton.

- 13 October **Roberta Bivins (University of Warwick)**

- 'Highly coloured': race, ethnicity and the NHS
 3 November **Dora Vargha (Birkbeck, University of London)**
 After the end of disease: looking past the epidemic narrative
 24 November **Sarah Bull (HPS, Cambridge)**
 The medical book in the Victorian pornography trade

Generation to Reproduction

These seminars are funded by our Wellcome Trust strategic award in the history of medicine. Organised by Lauren Kassell, Nick Hopwood, and Jesse Olszynko-Gryn.

- 27 October **Generation to Reproduction Reading Group**
 We will read drafts of the Introduction and Conclusion to Nick Hopwood, Rebecca Flemming, Lauren Kassell (eds), *Reproduction: Antiquity to the Present*.
 17 November **Lucy Bland (Anglia Ruskin University)**
 Interracial relationships and the 'brown baby' problem: black GIs, white women and their mixed race offspring in World War II Britain

CamPoS

CamPoS (Cambridge Philosophy of Science) is a network of academics and students working in the philosophy of science in various parts of the University of Cambridge, including the Department of History and Philosophy of Science and the Faculty of Philosophy. The Wednesday afternoon seminar series features current research by CamPoS members as well as visitors to Cambridge and scholars based in nearby institutions.

Seminars are held on Wednesdays, **1.00–2.30pm in Seminar Room 2**.

- 14 October **Raphael Scholl (HPS, Cambridge)**
 The argument from the good lot: unconceived alternatives and 20th-century genetics
 21 October **Bernhard Salow (Trinity College, Cambridge)**
 Expecting misleading evidence
 28 October **Shahar Avin (Centre for the Study of Existential Risk, Cambridge)**
 Simulating scientific merit dynamics
 4 November **Catrin Campbell-Moore (Corpus Christi College, Cambridge)**
 Imprecise credences and the probabilistic liar
 11 November **Jacob Stegenga (University of Utah)**
 Absolute measures of effectiveness
 25 November **Sang Wook Yi (Hanyang University)**
 Three junctures of science and democracy: knowledge, value and policy
 2 December **Maria Serban (LSE)**

On geometrical concepts, proofs and understanding in pure and applied mathematics

Special event at Trinity College, Saturday 14 November 2015

- 10.00–11.00 **David Wallace (University of Oxford)**
Quantum aspects of statistical mechanics
- 11.30–12.30 **David Wallace (University of Oxford)**
Two kinds of Maxwell's demon
- 2.00–3.00 **James Ladyman (University of Bristol)**
Is thermodynamics a control theory? If so what follows, and if not what is it?
- 3.30–4.30 **Roman Frigg (LSE)**
Rethinking equilibrium

Philosophy of Psychology Reading Group

We meet on **Thursdays, 11am–12noon in Seminar Room 1**. Organised by Ali Boyle and Sarah Marks.

- 15 October Sarah-Jane Leslie (2014), 'Carving up the social world with generics', in Lombrozo, Knobe & Nichols (eds) *Oxford Studies in Experimental Philosophy* (OUP)
- 22 October Rachel Sterken (2015), 'Leslie on generics', *Phil Stud* 172, 2493–2512
- 29 October Prasada, Khemlani, Leslie & Glucksberg (2013), 'Conceptual distinctions amongst generics', *Cognition* 126, 405–422
- 5 November Andrei Cimpian & Erika Saloman (2014), 'The inherence heuristic: an intuitive means of making sense of the world, and a potential precursor to psychological essentialism', *Behavioural and Brain Sciences* 27, 461–527 (Target article & two commentaries of your choice)
- 12 November Susan Gelman (2003), *The Essential Child: Origins of Essentialism in Everyday Thought*, chapter 10 'Unfinished Business'
- 19 November Susan Gelman (2003), *The Essential Child: Origins of Essentialism in Everyday Thought*, chapter 11 'Why do we essentialise?'
- 26 November Michael Strevens (2000), 'The essentialist aspect of naive theories', *Cognition* 74, 149–175

Nature and Culture Reading Group

Meetings take place on **Thursdays, 1–2pm, in Seminar Room 1**, Department of History and Philosophy of Science. Please direct any queries to Samuel Murison.

This term's reading group will focus on the topic of emotion.

We will be discussing recent work on the emotions by philosophers, evolutionary psychologists, anthropologists, historians and cognitive scientists. Does it make sense to talk of basic emotions, or of emotions grounded in biology? On the other hand, do emotions vary between societies or over time? Can these two competing ideas be reconciled? If so, how?

8 October **Philosophers on What a Theory of Emotions Should Do**

Goldie, Peter. 2007. 'Emotion'. *Philosophy Compass* 2 (6): 928–38. doi:10.1111/j.1747-9991.2007.00105.x.

Robinson, Jenefer M. 2004. 'Emotion: Biological Fact or Social Construction'. In *Thinking About Feeling: Contemporary Philosophers on Emotions*, edited by Robert C. Solomon, 28–44. Oxford University Press.

Introduced by Christopher Clarke

15 October **Evolutionary Psychologists on the Function of Emotions**

Cosmides, Leda, and John Tooby. 'The Evolutionary Psychology of the Emotions'. In *Handbook of Emotions*. 3d ed. Edited by Michael Lewis, Jeannette Haviland-Jones, and Lisa Feldman Barrett, 114–137. New York: Guilford, 2008.

Ekman, Paul, and Daniel Cordaro. 2011. 'What Is Meant by Calling Emotions Basic'. *Emotion Review* 3 (4): 364–70. doi:10.1177/1754073911410740.

Introduced by Tim Lewens

22 October **Neuroscientists and Developmental Psychologists on Basic Emotions**

Izard, Carroll E. 2011. 'Forms and Functions of Emotions: Matters of Emotion–Cognition Interactions'. *Emotion Review* 3 (4): 371–78. doi:10.1177/1754073911410737.

Levenson, Robert W. 2011. 'Basic Emotion Questions'. *Emotion Review* 3 (4): 379–86. doi:10.1177/1754073911410743.

Panksepp, Jaak, and Douglas Watt. 2011. 'What Is Basic about Basic Emotions? Lasting Lessons from Affective Neuroscience'. *Emotion Review* 3 (4): 387–96. doi:10.1177/1754073911410741.

Introduced by Adrian Boutel

29 October **How Do Emotions Vary Between Places and Societies?**

Tsai, Jeanne L., James N. Butcher, Ricardo F. Muñoz, and Kelly Vitousek. 2002. 'Culture, Ethnicity, and Psychopathology'. In *Comprehensive Handbook of Psychopathology*, edited by Patricia B. Sutker and Henry E. Adams, 105–27. Springer US.

Excerpt of pages 114–124 only

Wong, Ying, and Jeanne Tsai. 2007. 'Cultural Models of Shame and Guilt'. *The Self-Conscious Emotions: Theory and Research*, 209–23.

Introduced by Riana Betzler

5 November **How Do Emotions Vary Between Places and Societies? II**

Haidt, Jonathan, Paul Rozin, Clark Mccauley, and Sumio Imada. 1997. 'Body, Psyche, and Culture: The Relationship between Disgust and Morality'. *Psychology & Developing Societies* 9 (1): 107–31. doi:10.1177/097133369700900105.

12 November **Historians on Emotions in the Past**

Matt, Susan J. 2011. 'Current Emotion Research in History: Or, Doing History from the Inside Out'. *Emotion Review* 3 (1): 117–24. doi:10.1177/1754073910384416.

Reddy, William M. 1997. 'Against Constructionism: The Historical Ethnography of Emotions'. *Current Anthropology* 38 (3): 327–51. doi:10.1086/204622.

We will discuss Reddy's article only (pages 327–339) not the commentary (pages 339–351).

19 November **Anthropologists on How to Write about Emotions**

Beatty, Andrew. 2010. 'How Did It Feel for You? Emotion, Narrative, and the Limits of Ethnography'. *American Anthropologist* 112 (3): 430–43. doi:10.1111/j.1548-1433.2010.01250.x.

Beatty, Andrew. 2013. 'Current Emotion Research in Anthropology: Reporting the Field'. *Emotion Review* 5 (4): 414–22. doi:10.1177/1754073913490045.

26 November **Are Emotions a Natural Kind? Have Philosophers Anything to Contribute?**

Griffiths, Paul E. 2004. 'Is Emotion a Natural Kind?' In *Thinking About Feeling: Contemporary Philosophers on Emotions*, edited by Robert C. Solomon, 233–50. Oxford University Press.

Griffiths, Paul E. 2013. 'Current Emotion Research in Philosophy'. *Emotion Review* 5 (2): 215–22. doi:10.1177/1754073912468299.

Philosophy and History of Physics Reading Group

Organised by Daniel Mitchell, Hasok Chang and Jeremy Butterfield.

The topic of this term's meetings is mathematical representation in physics. We will concentrate on the long 19th century and consider such developments as algebraic functions, the vector calculus, the quantity calculus, and dimensional analysis, from philosophical and historical perspectives. We are particularly interested in learning how historical circumstances led to the

introduction of these mathematical formalisms into physics; the impact this had on physical concepts; and what philosophical issues arose.

The group will meet weekly between **4pm and 6pm on Tuesdays in the Board Room beginning on 13 October.**

- 13 October Morris Kline, *Mathematical Thought from Ancient to Modern Times* (OUP, 1972), ch. 26 'Mathematics as of 1800' and Craig Fraser, 'Mathematics', in Roy Porter (ed.), *The Cambridge History of Science: Volume 4, Eighteenth-Century Science* (CUP, 2003), ch. 13.
- 20 October Jesper Lutzen, 'Between rigor and applications. Developments in the concept of function in mathematical analysis', in Mary Jo Nye (ed.), *The Cambridge History of Science: Volume 5, The Modern Physical and Mathematical Sciences* (CUP, 2003), ch. 24.
- 27 October Elizabeth Garber, *The Language of Physics. The Calculus and the Development of Theoretical Physics in Europe 1750–1914* (Birkhäuser, 1999), ch. 4 "'Empirical literalism": mathematics versus experimental physics in France, 1790–1830'.
- 3 November Oliver Darrigol, *Physics and Necessity* (OUP, 2014) ch. 6 'Numbers and math' and Nadine de Courtenay, 'The double interpretation of the equations of physics and the quest for common meanings' in Lara Huber and Olivier Schlaudt (eds), *Standardization in Measurement: Philosophical, Historical, and Sociological Issues* (Pickering and Chatto, 2015), ch. 4.
- 10 November Daniel Jon Mitchell, 'James Thomson, J.D. Everett, and the Making of Dimensional Analysis', draft paper.
- 17 November Jim Grozier, 'Are angles dimensionless?', draft paper.
- 24 November Michael J. Crowe, *History of Vector Analysis* (University of Notre Dame, 1967), ch. 4 'Traditions in vectorial analysis from the middle period of its history'.

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin (including beginners) are very welcome. We meet on **Fridays, 4.00–5.30pm in the Board Room**, to translate and discuss a text from the history of science, technology or medicine. If a primary source is giving you grief, we'd love to help you make sense of it over tea and biscuits! Thus we provide a free translation service for the Department, and a means for members to brush up their skills.

Arabic Therapy

The Arabic Therapy group meets every **Tuesday, from 3.00 to 4.30pm, in Room P19.**

We are an informal group for beginners and more experienced learners who want to improve their Arabic language. Each week we spend a little time discussing some light grammar, before reading through a text together.

Greek Therapy

Greek Therapy meets every Wednesday during term time in the **Board Room from 5.30 to 7pm.**

We are an informal group for beginners and for experienced readers of Greek seeking to brush up their skills – all levels are welcome. Sessions usually involve a basic grammar session at the beginning followed by reading through a more advanced text. We will be reading Lucian's *Philosophies for Sale* this term.

Lent Term 2016

Seminars

Departmental Seminars

Seminars are held on **Thursdays from 3.30 to 5pm in Seminar Room 2**. There is tea beforehand from 3pm in Seminar Room 1.

Organised by Mary Brazelton and Marta Halina.

Abstracts

- 14 January 4.30pm Eleventh Cambridge Wellcome Lecture in the History of Medicine
Michael Stolburg (University of Würzburg)
Curing diseases and exchanging knowledge: sixteenth-century physicians and their female patients

In the sixteenth century, 'diseases of women' – thought to originate from their womb – and matters of generation, pregnancy and childbirth attracted growing attention in learned medical writing. So far we know very little, however, about how commonly women consulted physicians – rather than midwives and wise women – in such matters and what they could expect. Drawing on the notebooks and practice journals of sixteenth-century physicians, this lecture will examine the place of gynecological and obstetrical problems in ordinary medical practice. It will trace the ways in which physicians acquired the knowledge and the skills they needed to diagnose and treat these patients – including foetal anatomy, manual examination and the use of the speculum. And it will show that learned physicians were even prepared to take the empirical knowledge of non-academic healers and ordinary womenfolk seriously in this domain to which they traditionally had only limited access.

- 21 January **Zur Shalev (University of Haifa; visiting fellow, Clare Hall, 2015–2016)**
'Travelling texts: notes on early modern geography and Hebraism

In recent decades the study of early modern geography has taken a fruitful humanist turn. We now understand better the mechanisms of textual transmission, translation, and appropriation that shaped much of the geographical knowledge at the time. Scholars, for understandable reasons, concentrated so far on the classical tradition and its central role in this process. My work highlights another group of sources that has so far received little or no notice in this context: medieval Hebrew travel texts and related materials, which became more accessible to Christian readers once they appeared in print during the sixteenth century. In my talk I will look at a few

notable early modern Christian Hebraists (such as Benito Arias Montano, Gilbert Générard, Sebastian Münster, J.H. Hottinger) and examine these scholars' various engagements with these seemingly outdated Hebrew travel tales. What, I ask, was the significance of these texts for members of the republic of letters during an age of new geographical and religious discoveries?

28 January **Hjalmar Fors (Uppsala University)**

Extracting the exotic: global chymical medicine in the seventeenth century

While Galenic medicine provided the main framework for diagnose and prescription that made use of exotic substances, the second half of the seventeenth century saw chymical medicine emerge as the preferred medical school of the elites of northern and central Europe. Simultaneously, the period saw a marked and largely elite-driven increase of consumption of exotic substances both as medicine and food. This is something of a conundrum. The present essay discusses how exotic substances could become a *locus* for the merger of Galenic and Chymical medical traditions. It does this by contextualizing and analyzing the medicine of Herman Nicolai Grim (1641–1711). Grim was a ship's surgeon and physician who worked for the Dutch East India Company in (among other places) Ceylon and Java. After his return to Europe, Grim also worked as a physician in a number of towns around the Baltic Sea. His publications, as well as the medical practice that he pursued in Europe, is used as an inroads into wider issues concerning the relationship between on the one hand knowledge of medicine and medical substances garnered in the East Indies, and on the other European medical practice. To what extent could Grim use his East Indian experience back home in Europe? How did apothecaries, chymists and medical practitioners deal with the problem that chymical refinement processes might destroy the very sensible qualities for which exotic plant substances were appreciated as spice, and from which they ultimately derived their value as trading goods?

4 February **Sietske Fransen (CRASSH, Cambridge)**

Visual tools in seventeenth-century medical education

How did seventeenth-century physicians make use of images and other visual material within their profession? More specifically, what role was assigned to images in the process of acquiring and memorizing knowledge as part of medical education at an early modern university? While publications such as Vesalius' *De humani corporis fabrica* (1536) and Johann Remmelin's 'flap book' *Catoptrum microcosmicum* (1619) contained anatomical images that attained iconic status, further research is required to more fully comprehend how these books and their images fitted into the broader framework of early modern medical education. Furthermore, in addition to the illustrations from famous works on anatomy, other medical textbooks relied upon diagrams to convey information. Employing a small body of material consisting of student notebooks, lecture notes and texts that describe teaching circumstances, this paper aims to understand how visual tools complemented and supplemented texts in imparting medical learning to early modern physicians. For this paper, I will focus upon the English context and attempt to demonstrate how a judicious interpretation of such material leads to some answers to these questions.

11 February **Paola Bertucci (Yale University)**

Translating embodied skill: the politics of writing about making in the early modern period

Well before 1751, when the first volume of Diderot and D'Alembert's *Encyclopédie* was published, several encyclopedic projects on the mechanical arts were under way in Europe. This talk will show that such encyclopedic projects relied on natural history as a model for collecting information on crafts and artisans. By comparing works about artisans with works by artisans, I will discuss the political implications of creating an inter-connected, multi-volume work on the arts and crafts: a natural history of arts.

18 February **Martin Rudwick (HPS, Cambridge)**

Was geology the first science to inject history into the natural world?

My *Earth's Deep History* (Chicago, 2014) is an attempt to summarise historical research on what I see as an unduly neglected theme of outstanding importance in the *longue durée* of the natural sciences: the reconstruction of the past history of nature, and of our human place in it, as opposed to (or at least, in contrast to) time-independent causal explanations of natural processes and events. I argue that this historicisation was first attempted in the science that came to be called 'geology', and that it later spread to other natural sciences. My book was designed to be accessible to the 'general reader' and has not yet been widely reviewed by historians of the sciences, so I would like to get the seminar's reactions to its main arguments. I start with C17 chronologists such as Scaliger and Ussher, whom I treat as serious world-historians; and I argue that C17 naturalists such as Hooke and Steno exemplify a crucial transposition of the chronologists' historical methods and concepts from human history into the natural world. I regard the late C18 and early C19 as the pivotal period (which is why I focussed on it in most of my earlier and more detailed books), because it was then that naturalists such as Cuvier – and specifically those then newly called 'geologists', such as Buckland and Lyell – worked out in practice *how* to interpret natural evidence in detail and comprehensively in terms of nature's history (and Darwin, initially a geologist, later transposed this into the organic world). I conclude with the period from the later C19 to the present, arguing that new radiometric dating methods, for example, were significant less for expanding the Earth's timescale than for giving precision to a new picture of the Earth's eventful history, with mobile continents, mass extinctions, global ice ages, an evolving atmosphere and so on. In the late C20 Earth scientists adopted a still wider perspective in which the Earth's history became just one instance of diverse *planetary* histories, and geology's historical methodology was transposed into (or at least, it was paralleled in) astronomy and cosmology. (I treat modern American 'young-Earth' creationism as a sideshow closely analogous to flat-Earthism, and I relegate it to a brief appendix.)

25 February **Jim Endersby (University of Sussex)**

Cunning, killer orchids

At the end of the nineteenth century, orchids were among the most desirable, collectable and exotic flowers to grace British greenhouses, but despite the hours spent watering and tending to them, they turned on their keepers and started trying to kill those who grew them. The first victim was a Mr Winter-Wedderburn, who almost died when a vampiric orchid tried to drain every drop of blood from his body; only his quick-thinking housekeeper's intervention saved him. Others were not so lucky, and the list of fatalities grew slowly but steadily during the next few decades. Fortunately, these attacks only occurred in fiction (Mr Winter-Wedderburn was a character in a short story by H.G. Wells), yet they present a curious puzzle for historians. Orchids were to become deadly, sexy, mobile and – most noticeably – increasingly cunning over the next few decades. To understand why, we need to trace the 'killer orchid' genre back, via popularisations of Darwin's botany, to a mystery that Darwin was unable to solve; why some orchids mimic insects. The solution was only found in the twentieth century, and I will argue that the fictitious orchids formed a crucial link in this discovery.

3 March **Elaine Leong (Max Planck Institute for the History of Science)**

Reading Rivière in early modern England: tracing early modern epistemic itineraries

In the late 1630s, Lazare Rivière, professor at the University of Montpellier, delivered a series of lectures on practical medicine. Later, in response of requests from physicians writing from all over Europe, Rivière expanded these to include the theory of diseases and the resulting *Praxis medica cum theoria* was printed in 1645. The work was hugely popular and translated into French and English. Peter Cole, the English printer of the work, claims that by 1663 over 1700 copies of the folio-sized tome had been sold. Moreover, the book did not only leap off the shelves of booksellers but was actually read. Surviving copies are often annotated and extracts from the work appear in contemporary medical notebooks. In bringing Rivière's work to English audiences, Cole and his team made two crucial changes to the text. Firstly, in his preface, Cole specifically targeted 'Ladies and Gentlemen' as potential purchasers and readers. Thus, bringing knowledge originating in the University setting into the domestic sphere. Secondly, later editions were often sold and bound with the English translation of Rivière's *Observationes medicae* (1646) so mixing the older *practica* with the new medical genre of *observationes*. This paper traces the *Praxis medica*'s journey from university settings into early modern homes. I examine three crucial stages in this journey. Firstly, the codification of the original *practica* lectures into print. Secondly, the transformation from the *Praxis medica* to *The Practice of Physick* and, finally, how readers engaged with and appropriated the knowledge offered by the book. Each one of these steps, I show, left its own epistemic footprint on Rivière's *practica* and when taken together form what might be termed an 'epistemic itinerary'. By that I mean itineraries in which bodies of knowledge (as small as a one-line recipe and as large as multi-volume work) become entangled as they journey through the winding, convoluted processes of early modern book production and reading and writing practices. Historians of science and medicine have recently argued that reading, writing and note-taking practices are now also themselves recognised as knowledge

codification processes. The story of Rivière's *Praxis medica*, I suggest, demonstrates that there is much to be gained by paying close attention to the route (and pit stops) which knowledge takes in this process.

Twentieth Century Think Tank

The Twentieth Century Think Tank offers broad coverage of 20th- and 21st-century topics in the history, philosophy and sociology of science, technology and medicine. The regular programme of papers and discussions takes place on Thursdays over lunch.

Think Tank meetings are held on **Thursdays, 1–2pm in Seminar Room 2**, unless indicated otherwise. All welcome!

Organised by Richard Staley, Jesse Olszynko-Gryn and Mary Brazelton.

4 February **Henry K. Miller (Slade School of Fine Art, UCL)**
The impact of machines

More than thirty years before the 'Two Cultures' debate came into the national consciousness, I.A. Richards, the leading light of the nascent English school at Cambridge, was writing of 'the transference from the Magical View of the world to the scientific', combined with 'the more sinister potentialities of the cinema and the loud-speaker' as grave challenges to his young discipline. One of Richards's best students, Humphrey Jennings, became a film-maker and author of the compendium 'Pandaemonium: The Coming of the Machine as Seen by Contemporary Observers', which charted a version of this 'central dominant change' in worldviews. This talk explores an unofficial but significant interest in the history of science within 'Cambridge English' which stood in partial opposition to the latterly dominant F.R. Leavis.

12 February **Sir David King (UK Foreign Secretary's Special Representative for 3.30–5pm Climate Change)**
Are we tackling the causes of global warming effectively?
(This will be a joint event with Coffee with Scientists)

18 February **Marcia Holmes (Birkbeck, University of London)**
Brainwashing the cybernetic subject: *The Ipcress File* and fantasies of interrogation in the 1960s

This year marks the 50th anniversary of *The Ipcress File* (1965), the film that introduced Harry Palmer, a spy who, like James Bond and George Smiley, is iconic of the Cold War era's fascination with British espionage. Less recognized is how *The Ipcress File* heralded a new

approach to depicting 'brainwashing' on screen. Unlike previous films that portrayed brainwashing as a brutal process of indoctrination, Harry Palmer is subjected to psychedelic abstractions of light and electronic music, pulsating to the 'rhythm of brainwaves'. This new cinematic language of brainwashing brought into alignment late 1950s and early '60s innovations in media, art and science, shading them with anxieties about secret intelligence and mind control. As my paper will argue, in this emerging constellation of aesthetic and intellectual concerns, what Jonathan Crary has called the 'problem of attention' intersects with what Fred Turner has called the 'politics of consciousness', conceiving a vulnerable human subject that not only attends to media and other demands on her perception, but also scrutinizes, and perhaps resists, the effects this attention has on her psyche. Beginning in the early '70s this fantasy of the doubly-perceiving subject would be pointedly criticised by British neuropsychologists like Timothy Shallice, in their reactions to revelations that British agents used sensory deprivation techniques in interrogation.

3 March **Tom Simpson (Gonville and Caius College, Cambridge)**

'A day of comparatively small things': spatial anxiety in the high British Empire

Around the turn of the twentieth century, surveyors under the auspices of European Empires apparently eliminated much of the remaining blank space on the world map. Exploration and border demarcation parties made significant inroads into interior regions of Africa, the high mountains and deserts of Central Asia, and Arctic regions. At the same time, however, a host of fears regarding spatial understandings and practices crystallised among numerous agents, from men of science in metropolitan and colonial hubs to junior surveyors beyond the fringes of effective European control. If, as Joseph Conrad famously claimed, British geography triumphed in this era, it was a curiously ambivalent victory.

This paper examines how concerns over understanding and enacting spaces travelled within and beyond the British Empire through the dispersal of images, texts, and key individuals. These mobile elements often originated at the outskirts of empire rather than in established centres. Far from being immutable, they were repeatedly reformulated, facilitating anxieties that were widespread but far from homogeneous across different settings. The paper also shows that agents of imperial science questioned the very elements that many recent scholars consider constitutive of a spatial modernity emanating from Europe, such as maps, borders, and exploration narratives. In their place, previously overlooked regions and disparaged non-Western epistemologies became increasingly vital within British spatial imaginaries.

Coffee with Scientists

The aim of this group is to explore and enhance the interface between HPS and science. We in HPS do not often pull together in our activities in this direction, though many of us have close engagements with science and scientists. We could benefit from more explicit discussions about the relationship between HPS and the sciences themselves, and from encouraging HPS-scholars and scientists to help each other's work. Many of our graduate students and postdocs currently

work in isolation from scientists; they may benefit from the stimulation of interactions with colleagues and mentors from various science departments (in Cambridge and elsewhere), which are difficult to induce in our regular seminars and reading groups, infused as they are with standard HPS expectations, assumptions and customs.

During Lent Term 2016 we will continue to meet on **Fridays, 3.30–5.00pm in Seminar Room 2**, unless indicated otherwise.

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| 18 January | 5.00–6.30pm Sybil de Clark (University of Arizona)
The Scharnhorst Effect: faster-than-light propagation and causality in the Casimir vacuum |
| 12 February | Sir David King (Foreign Secretary's Special Representative on Climate Change)
Are we tackling the causes of global warming effectively? |
| 19 February | Martin Rudwick (HPS, University of Cambridge)
Did the earth sciences have a 20th-century revolution? |
| 4 March | Dermot Cooper (Department of Pharmacology, University of Cambridge)
The second messenger concept – how the discovery of cyclic AMP dominated cell biology for 60 years |

Cabinet of Natural History

This research seminar is concerned with all aspects of the history of natural history and the field and environmental sciences. The regular programme of papers and discussions takes place over lunch on Mondays. In addition, the Cabinet organises a beginning-of-year fungus hunt and occasional expeditions to sites of historical and natural historical interest, and holds an end-of-year garden party.

Seminars are held on **Mondays at 1pm in Seminar Room 1**. You are welcome to bring your lunch with you.

Organised by Katrina Maydom.

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| 18 January | Andrew Wear (University College London)
'Improvement': British colonial settlement and the environment |
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My paper will, I hope, form part of a book I am writing on British colonial settlement and the environment in both temperate and tropical colonies. Improvement and the environment in the colonial context has many strands. Some of them are discussed in this paper: advertising to prospective settlers about resources and improvement, ideological and conceptual beliefs, the role of the law of ownership in ensuring that improvement of a pre-existing environment took place and the language of improvement. The paper, like the book, goes from the seventeenth

century to the nineteenth and in some parts of the book to the twentieth, so my time period is very long. Geographically, this particular paper covers the settler colonies of North America, Australia, New Zealand and South Africa, though much of the material is from North America. Given the limits of space I have generalized across different colonies though differences between the colonies will, I hope, become clearer in the book itself.

Improvement was one of the ideological engines for colonial settlement. It was one of the lenses through which colonial settlement was viewed, with its own discourses and as well as being one of the inducements and one of the drivers of settlement and of consequent environmental change and destruction of pre-colonial peoples and their cultures. At the very least it was an indicator of change, though, ironically, it was one of the constants of colonisation. Though the sense of improvement changes in some of its meaning, nevertheless, it is an ever present concept across time and places so my paper may well be eliding some cherished distinctions as to types of empire or kinds of colonization. This is something that can jar with British and American historians who tend to concentrate on change and difference rather than on continuities.

25 January **Clare Hickman (University of Chester)**

Invisible gardeners? The role of Scottish botanic gardeners in knowledge creation and exchange in the late eighteenth and early nineteenth century

Like many technicians in the history of science and medicine, the gardeners who managed, developed and disseminated knowledge obtained via botanic collections have generally been overlooked. Although unlike Shapin's earlier scientific technicians there are indications that they were more visible to their peers. The focus of academic work in this field has mainly concentrated on the superintendents or members of the medical faculty (in the case of the university botanic garden) who used them as teaching spaces (Findlen), or else the collections themselves as representatives of national identity creation (Spary and O'Kane) or products of Empire (Drayton). This paper will instead concern itself with a small number of head gardeners at the Edinburgh and Glasgow botanic gardens and re-consider their roles in the teaching of botany in the late eighteenth and early nineteenth centuries. As with many lower status groups, the evidence pertaining to their lives and work is fragmentary but there are indications in both the archives and material features of the gardens that such men were crucial in the creation and dissemination of botanic knowledge. The 1770s–1800s also mark a point when botanic knowledge becomes more specialized and they seem to be developing a professional identity. The paper will explore these themes by considering the following head gardeners: John Williamson and Thomas Somerville at the Edinburgh Botanic Garden in the 1770s and 1800s respectively, and William Lang at the University of Glasgow in the 1800s.

1 February **Raffaella Bruzzone (University of Nottingham)**

John Ray and Francis Willughby herborising around the lighthouse in Genoa in March 1664

The English naturalists John Ray (1627–1705) and Francis Willughby (1635–1672) spent part of the spring of 1664 collecting plants around the lighthouse (Ital. *lanterna*) in Genoa. This paper is about the geography of that site and in particular the evidence for the continuity of plant species collected there from 1664 until the present day. This research is based on the archival and printed material which Ray and Willughby left behind, the notebook at the Chelsea Physic Garden Library in London, the dried specimens at the Natural History Museum in London and the printed volume of their European Tour (1663–66), *Observations Topographical, Moral, & Physiological Made in a Journey Through part of the Low-Countries [...]* (1673), all concerning the species collected around the so-called Pharos – a landscape that has partially survived until the current day. Whilst the plants found at the site today are few, those that remain can be compared with their past botanical ancestors through some historical artefacts, including nineteenth-century herbaria held in Genoa.

8 February **Geoffrey Belknap (University of Leicester)**

Participating in Victorian natural history through the illustrated periodical

The practice of illustrating Victorian natural history periodicals was widespread throughout the century. Yet the value, meaning and intent of these illustrations as objects of scientific evidence within an essential site of scientific communication is little understood. Focusing on the genre of the natural history journal between 1840 and 1890, this talk will evaluate the role of illustrations in offering an access point for the amateur naturalists to participate within the knowledge community of the Victorian periodical. A key aspect in this analysis will be to differentiate between authors and readers of competing periodicals in order to evaluate whether there is an overlap between contributors and consumers of the Victorian periodical. In this way, this paper will pay particular attention to the category of the non-professional author and illustrator in order to better understand the role of the periodical in giving access to a wide audience to the sites of production and reproduction of nineteenth-century natural history. Highlighting the website www.sciencegossip.org, the paper will also draw parallels between the historical practice of uncovering participants in Victorian natural history through the periodical with the modern practice of utilizing digital humanities tools – particularly citizen science/humanities – to generate and forward historical research.

15 February **Christopher McHugh (University of Sunderland)**

Recontextualizing the George Brown Collection through creative ceramics

The George Brown Collection of ethnographic objects and some natural history specimens has a contested and complex history. Accumulated in the latter half of the nineteenth century by Brown while he was a Methodist missionary in Oceania, it has had a number of 'homes', exercising the endeavours of a variety of groups and individuals. In 1986, the majority of the collection was controversially sold by Newcastle University to the National Museum of Ethnology (NME), Osaka, Japan.

This presentation will discuss the author's investigation of the collection's status and role at its current location in Osaka undertaken during a placement at the NME in 2013. To augment this research, elements of the collection which, for various reasons, remain in UK institutions were also traced in order to compare and contrast respective approaches to community engagement and display. Between 2013 and 2015, the author made a new body of ceramic artwork which attempted to materialize the convoluted interrelationships between the collection and its various communities through time and space.

It will be argued that collaborations between museums and artists have the potential to 'rejuvenate' such dispersed collections by creating new contexts where person-object relations can be initiated. Practice-led approaches can re-examine marginalized collections by harnessing the power of objects – both old and new – to captivate and engage.

22 February **Alice Marples (King's College London)**

Reviving the Royal Society in the early eighteenth century

By the end of the seventeenth century, the Royal Society was buckling under the weight of its own ambition: it was deep in debt and lacking in both confidence and members. Most histories cite the presidency of Isaac Newton as halting this decline briefly before the Society descended into a period of amateurism and antiquarianism. This paper shall posit a different explanation by outlining the range of internal administrative reforms undertaken by Hans Sloane (1660–1753) and other officers between 1700 and 1740, and their effects. Of particular importance is the conscious consolidation and expansion of the Society's correspondence networks, and the ways in which Sloane blurred the Society's resources with his own in order to re-establish the Society as a necessary node in scientific knowledge production. I argue that Sloane's work as a natural history collector at the centre of many different networks is linked to a deliberate shift in the role and purpose of the Society, from ruling over matters of fact to facilitating the work of others and providing a repository of information to discuss. Rather than being a symptom of the 'decline' of the Royal Society in the early eighteenth century, this was a key element of its revival.

29 February **Mariana Françaço (Leiden University)**

Locating indigenous knowledge in the *Historia Naturalis Brasiliae* (1648)

The *Historia Naturalis Brasiliae* (1648) is the earliest published treatise on the natural history of Brazil. Edited by Johannes de Laet from the notes made by Willem Piso and Georg Marcgraf in colonial Dutch Brazil (1637–41), it remained the authoritative source on South American flora and fauna well into the nineteenth century. The names, descriptions and definitions in this encyclopaedic work are mainly based on Piso's and Marcgraf's contact with local populations and indigenous groups in northeastern Brazil, who provided them with botanical and zoological specimens as well as information about their characteristics and uses. However, while the HNB has been subject of numerous studies, its reliance on indigenous knowledge about the natural world it describes has yet to be properly studied. In this presentation, by discussing the botanical

sections of the HNB, I will argue that the book is a comparative ethno-botanical catalogue of plant names and plant uses that compares Brazilian species to plants existing in or imported from West Africa, New Spain, and the Caribbean. Additionally, I will consider the material culture associated with the indigenous knowledge-practices described in the book in order to connect the HNB with collections presently kept in European museums.

7 March **Maria Avxentevskaya (Freie Universität Berlin)**

The physician's Stammbuch: humanist cultures of medical networking

By the term Stammbuch, German historiographical tradition mainly means *album amicorum* or 'memory book' – a genre that first became popular in the Protestant circles in mid-sixteenth century, where a piece of *manu propria* advice from Luther or Melanchthon could be viewed as a collectable rarity and a letter of recommendation. Stammbuch documents offer rich evidence on theological, literary, musical, and medical cultures of the seventeenth to nineteenth centuries, as well as the vitality of humanist scholarship in verbal and visual quotes. German Stammbücher depicted vividly the episodes of early Protestant polemics, but also captured the development of essential values of early-modern medical inquiry, as many of *alba amicorum* were kept by physicians travelling between celebrated academic communities. My paper will explore the heuristic role which the humanist cultures of collecting and transferring experience, as displayed in Stammbücher, played in promoting early-modern medical experimentalism.

For instance, Johann Georg Volckamer (1616–1693), a well-recognized physician and travelling writer, subsequently the President of Leopoldina, kept a Stammbuch where he collected notes from fellow scholars at numerous European universities. In 1645, his Stammbuch marked a significant point in an entry 'Non verbis sed HERBIS' (capitals as in the original), which can be translated as 'Not by words but by herbs!' In the contemporary context, this mnemonic rhyme referred not to herbs as such but to the practice of paying more attention to physical symptoms, or more broadly, pointed out the experimental character of a qualified medical inquiry. This disposition translated the Melanchthon's principle of *experientia universalis* into procedures of medical observation, and the message 'Non verbis sed HERBIS' was essentially close to the later motto of the Royal Society of London: *nullius in verba*.

Travelling the *Wanderstrassen* across Europe, Stammbücher helped cultivating experienced collective perception by attracting attention to significant details in interpreting medical *historiae*, processing individual experiences into medical ontologies, and transforming the relations of intellectual trust into institutional links. My paper will trace the cross-disciplinary transfer of values between humanist scholarly networking and experimental medical discourse, also noting the amplifying cultural context of interactions, as Stammbücher featured sophisticated 'paper technologies', including folded portraits with witty verses, drawings of animals, plants and instruments, views and maps of cities.

History of Medicine Seminars

Seminars are on **Tuesdays from 5.00 to 6.30pm in Seminar Room 1**. Tea and biscuits are available from 4.40pm. All welcome!

History of Modern Medicine and Biology

Organised by Nick Hopwood and Mary Brazelton.

- 19 January **Chris Manias (KCL)**
The lost beasts: international palaeontology and the evolution of the mammals, 1880–1950
- 9 February **Tatjana Buklijas (Liggins Institute and Central European University)**
The maternal-fetal relationship since 1900
- 1 March **Sally Sheard (University of Liverpool)**
Shortening hospital stays: clinico-economic dialogues in the 20th century

Early Science and Medicine

Organised by Lauren Kassell, Valentina Pugliano and Gabriella Zuccolin.

- 26 January **Liana Saif (University of Oxford)**
Humours, spirits and souls: aetiology and therapeutics in medieval Islam
NOTE: This seminar will start an hour earlier than usual, at 4pm (tea from 3.40)
- 16 February **Emilie Savage-Smith (University of Oxford)**
A literary history of medicine: the world's earliest history of medicine, composed in Syria by the physician and poet Ibn Abi Usaybi'ah (d. 1270)
- 8 March **Gabriele Ferrario (Taylor-Schechter Genizah Unit, Cambridge)**
Graeco-Arabic science in medieval Jewish culture: evidence from the Cambridge Genizah collections

Generation to Reproduction

These seminars are funded by our Wellcome Trust strategic award in the history of medicine. Organised by Lauren Kassell and Nick Hopwood.

- 2 February **Lisa Malich (Humboldt-Universität zu Berlin)**
Of women and birds: the nesting instinct in pregnancy in the 20th century
- 23 February **Ahmed Ragab (Harvard University)**
The seed you need: generation, reproduction and female orgasm in medieval Islamic medicine

CamPoS

CamPoS (Cambridge Philosophy of Science) is a network of academics and students working in the philosophy of science in various parts of the University of Cambridge, including the Department of History and Philosophy of Science and the Faculty of Philosophy. The Wednesday afternoon seminar series features current research by CamPoS members as well as visitors to Cambridge and scholars based in nearby institutions. If you are interested in presenting in the series, please contact Brian Pitts (jbp25). If you have any queries or suggestions for other activities that CamPoS could undertake, please contact Huw Price, Jeremy Butterfield or Hasok Chang.

Seminars are held on **Wednesdays, 1.00–2.30pm in Seminar Room 2.**

- | | |
|-------------|--|
| 20 January | Natalja Deng (Divinity, Cambridge)
Does time seem to pass? |
| 27 January | Huw Price (Philosophy, Cambridge)
CSER and the Leverhulme CFI: how, what and where next |
| 3 February | Emily Adlam (DAMTP, Cambridge)
The problem of confirmation in the Everett interpretation |
| 10 February | Eran Tal (HPS, Cambridge)
Measurement error and the problem of quantity individuation |
| 17 February | Juha Saatsi (University of Leeds)
Explanatory abstractions |
| 24 February | Ruth Hibbert (University of Kent)
Entangled histories: enactivism, representationalism and Frederic Bartlett |
| 2 March | Alex Broadbent (University of Johannesburg)
Prediction and medicine |
| 9 March | Nic Teh (University of Notre Dame)
Capacities, fundamentalism and schematic unification |

HPS History Workshop

Need help writing a tricky part of your argument? Need some fresh ideas and references? Or simply want to see how your early-career colleagues approach the writing process? The History Workshop is an informal setting to discuss our written works-in-progress on any area of the history of science, technology and medicine, and share feedback. A draft PhD chapter, article or conference paper will be circulated by email before each meeting. We'll then discuss it together over tea and biscuits at 5pm on alternate Wednesdays in Seminar Room 1.

Contact Andreas Sommer and/or Seb Falk if you are interested in sharing your work in this forum, or would like to be added to the mailing list.

HPS Philosophy Workshop

Would you like to get feedback on your work-in-progress in a friendly and supportive atmosphere? Texts will be circulated one week in advance and discussed over tea and biscuits in Seminar Room 1 on alternate Wednesdays, 5–6pm. Share a draft of your MPhil essay, PhD chapter, potential article, or any research-in-progress in the philosophy of science, broadly construed.

Organised by Hardy Schilgen and Stijn Conix.

Philosophy of Psychology Reading Group

We meet on Thursdays, 11am–12noon in Seminar Room 1 (except for the meeting on 14 January, which will be in the Board Room). Organised by Ali Boyle and Sarah Marks.

- 14 January Thomas Suddendorf, Michael C. Corballis, 2007, 'The evolution of foresight: What is mental time travel, and is it unique to humans?', *Behavioral and Brain Sciences*, 30, pp. 299–313.
- 21 January T. Suddendorf, D.R. Addis, M.C. Corballis, 2009, 'Mental time travel and the shaping of the human mind', *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364(1521), pp. 1317–1324.
- 28 January N.S. Clayton, J. Russell, A. Dickinson, 2009, 'Are animals stuck in time or are they chronesthetic creatures?', *Topics in Cognitive Science*, 1, pp. 59–71.
- 4 February N.S. Clayton, J. Russell, 2009, 'Looking for episodic memory in animals and young children: prospects for a new minimalism', *Neuropsychologia*, 47(11), pp. 2330–40.
- 11 February Sarah Malanowski (forthcoming) 'Is episodic memory uniquely human? Evaluating the episodic-like memory research program', *Synthese*, pp. 1–23.
- 18 February Teresa McCormack, 2001, 'Attributing episodic memory to animals and children', in Christoph Hoerl & Teresa McCormack (eds), *Time & Memory: Issues in Philosophy and Psychology*, pp. 285–314.
- 25 February Dorothea Debus, 2014, '"Mental time travel": remembering the past, imagining the future, and the particularity of events', *Review of Philosophy and Psychology*, 5(3), pp. 333–350.
- 3 March Christoph Hoerl, 2014, 'Remembering events and remembering looks', *Review of Philosophy and Psychology*, 5(3), pp. 351–372.

History and Theory Reading Group

Meetings take place every other **Friday, 11am–12.30pm in the Board Room**. Organised by Matthew Drage (mnd24). All welcome!

Deleuze: Difference and Repetition

For this term's History and Theory we will be reading four selections from Gilles Deleuze's foundational philosophical work on time, representation, difference and the virtual, his 1968 doctoral thesis *Difference and Repetition* – along with some supporting readings in sessions 2 and 3.

15 January: **Introduction**

Gilles Deleuze, Paul Patton tr., *Difference and Repetition* (New York: Columbia University Press, 1994), Introduction: 'Repetition and Difference', pp. 1–28

29 January: **Difference**

Gilles Deleuze, Paul Patton tr., *Difference and Repetition* (New York: Columbia University Press, 1994), selection from Ch. 1: 'Difference in Itself', pp. 28–42

with

Elizabeth Grosz, *The Nick of Time: The Politics and Evolution of the Untimely* (Sydney: Allen & Unwin, 1994), Chapter 7: 'Bergsonian Difference', pp. 155–185

12 February: **Repetition**

Gilles Deleuze, Paul Patton tr., *Difference and Repetition* (New York: Columbia University Press, 1994), selection from ch. 2: 'Repetition for Itself', pp. 70–96

with

Henri Bergson, F. L. Pogson tr., *Time and Free Will: An Essay on the Immediate Data of Consciousness* (London: Allen & Unwin, 1910), selection from ch. 2: 'The Multiplicity of Conscious States, The Idea of Duration', pp. 85–104

26 February: **The Image of Thought**

Gilles Deleuze, Paul Patton tr., *Difference and Repetition* (New York: Columbia University Press, 1994), ch. 3: 'The Image of Thought', pp. 129–167

Nature and Culture Reading Group

Meetings take place on **Tuesdays, 1–2pm, in Seminar Room 1**. Please direct any queries to Samuel Murison.

This term's reading group will focus on the topic of evolution and ethics, including evolutionary debunking arguments, evolution and teleological ethics, environmental ethics and the ethics of human enhancement.

19 January Street, S., 2006, 'A Darwinian Dilemma for Realist Theories of Value', *Philosophical Studies* 127: 109–166.

Introduced by Tim Lewens

26 January Copp, D., 2008, 'Darwinian Skepticism about Moral Realism', *Philosophical Issues* 18: 186–206.

Mogensen, A., forthcoming, 'Do evolutionary debunking arguments rest on a mistake about evolutionary explanations?', *Philosophical Studies*.

Introduced by Adrian Boutel

- 2 February Foot, P., 2001, *Natural Goodness*, ch. 2 'Natural Norms', ch. 3 'The Transition to Human Beings' and ch. 5, 'Human Goodness'.
Introduced by Christopher Clarke
- 9 February Fitzpatrick, W. *Teleology and the Norms of Nature*, ch. 6 'Welfare and Natural Teleology'.
Lott, M., 2012, 'Have Elephant Seals Refuted Aristotle? Nature, Function, and Moral Goodness', *Journal of Moral Philosophy* 9: 1–23.
- 16 February Chubb, I., 2010, 'The Role of Humility and Intrinsic Goods in Preserving Endangered Species', *Environmental Ethics* 32: 165–182.
- 23 February Nolt, J., 2006, 'The Move from Good to Ought in Environmental Ethics', *Environmental Ethics* 28 (4): 355–374.
- 1 March Harris, J., 2009, 'Enhancements are a Moral Obligation' and Juengst, E., 2009, 'What's Taxonomy Got to Do With It? Human Rights, Species Integrity and Science Policy' in Savulescu, J. and Bostrom, N. eds., *Human Enhancement*.
- 8 March Groll, D. and Lott, M., 2015, 'Is There a Role for "Human Nature" in Debates About Human Enhancement?', *Philosophy* 90: 623–651.

Philosophy and History of Physics Reading Group

Organised by Daniel Mitchell, Hasok Chang and Jeremy Butterfield.

The topic of this term's meetings is mathematical representation in physics. We will concentrate on the long 19th century and consider such developments as algebraic functions, the vector calculus, the quantity calculus, and dimensional analysis, from philosophical and historical perspectives. We are particularly interested in learning how historical circumstances led to the introduction of these mathematical formalisms into physics; the impact this had on physical concepts; and what philosophical issues arose.

The group will meet weekly between **4pm and 6pm on Tuesdays in the Board Room** beginning on 19 January.

The programme is as follows:

- 19 January Sybil de Clark, 'The emergence of dimensional analysis in the nineteenth century. From a qualitative to a quantitative concept of homogeneity', paper under review.
- 26 January Luca Mari and Alessandro Giordani, 'Modelling measurement: error and uncertainty', in Marcel Boumans, Gioria Hon, and Arthur C. Peterson (eds) *Error and Uncertainty in Scientific Practice* (Pickering and Chatto, 2014), ch. 4.
- 2 February Hans Niels Jahnke and Michael Otte, 'Origins of the program of "Arithmetization of mathematics"', in Herbert Mehrtens, Henk Bos, and Ivo Schneider (eds), *Social History of Nineteenth Century Mathematics* (Birkhäuser, 1981),

- pp. 21–50 [Don't be fooled by the title of the volume: there is as much philosophy and technical argument here as social history].
- 9 February Brian Ellis, *Basic Concepts of Measurement* (CUP, 1966), ch. 2 'The Concept of a Quantity' and ch. 10 'The Physical Concept of Number'.
- 16 February TBC from *Social History of Nineteenth Century Mathematics* (Birkhäuser, 1981).
- 23 February Alisa Bokulich, 'Maxwell, Helmholtz, and the Unreasonable Effectiveness of the Method of Physical Analogy', *Studies in History and Philosophy of Science*, 50 (2015), pp. 28–37.
- 1 March Daniel Jon Mitchell, 'What's Nu? Maxwell's Electrical Units Argument for the Electromagnetic Theory of Light Re-examined', draft paper.
- 8 March Harry Collins, 'Mathematical Understanding and the Physical Sciences', *Studies in History and Philosophy of Science*, 38 (2007), pp. 667–85.

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin (including beginners) are very welcome. We meet on **Fridays, 4.00–5.30pm in the Board Room**, to translate and discuss a text from the history of science, technology or medicine. If a primary source is giving you grief, we'd love to help you make sense of it over tea and biscuits! Thus we provide a free translation service for the Department, and a means for members to brush up their skills.

Arabic Therapy

The Arabic Therapy group meets every Tuesday, from 3.00 to 4.30pm, in Room P19.

We are an informal group for beginners and more experienced learners who want to improve their Arabic language. Each week we spend a little time discussing some light grammar, before reading through a text together. For more information, or to be added to the mailing list, please contact Seb Falk.

Greek Therapy

Greek Therapy meets every Wednesday during term time in the Board Room from 5.30 to 7pm.

We are an informal group for beginners and for experienced readers of Greek seeking to brush up their skills – all levels are welcome. Sessions usually involve a basic grammar session at the beginning followed by reading through a more advanced text. We will be reading Lucian's *Philosophies for Sale* this term.

For more information or to be added to the mailing list, please email Liz Smith.



Katrin Maydom, Liz Smith, Sarah Bull

Easter Term 2016

Seminars

Departmental Seminars

Seminars are held on Thursdays from 3.30 to 5pm in Seminar Room 2. There is tea beforehand from 3pm in Seminar Room 1.

Organised by Mary Brazelton and Marta Halina.

Abstracts

28 April **Vera Keller (University of Oregon)**

The science of wishing: Francis Bacon and the magical optative

Bacon's optative, or a wish for presumed impossible things in the realm of natural magic, is not his best remembered legacy. Few subsequent readers (besides Robert Boyle) retained the notion, and already in the eighteenth century, Bacon's editor Peter Shaw replaced the strange term 'optative' with a then more familiar Baconian wish, the *desideratum*. Despite their current obscurity, optatives appear in numerous works throughout Bacon's career and at the very height of his epistemic ambitions. Understanding Bacon's cunning use of optatives will help offer a new interpretation of his significance as a whole – one that does not consist in empiricism or experiment, but in the study of the non-extant and the pursuit of the impossible.

5 May **Cathy Gere (University of California, San Diego)**

Two sovereign masters: pain, pleasure and utility from Bentham to Skinner

This talk surveys the history of the Anglo-American 'utilitarian self', the idea that human behaviour is governed by pain avoidance and pleasure seeking. This concept of human motivation and purpose brings psychology, physiology, economics, political science and ethics together in one seamless whole, united under the banner of utility. The origins of the utilitarian self lie in the British reaction to the American and French revolutions, but its life extended into twentieth-century behaviourist psychology. This presentation will sketch a line of intellectual descent connecting Bentham and Malthus in the 1790s, to Alexander Bain, Charles Darwin and Herbert Spencer in the Victorian Age, to Edward Thorndike and B.F. Skinner in twentieth-century America. It will pay particular attention to the period in the mid-nineteenth century when the political, historical and ethical assumptions underwriting the utilitarian self were absorbed into evolutionary theory.

12 May **C. Kenneth Waters (University of Calgary)**

Why genetics succeeds: an epistemology of scientific practice

What accounts for the spectacular success of contemporary genetics and allied sciences? The usual explanation of scientific success in mature science assumes that investigation is based on a core theory that grasps the fundamentals underlying the domain being investigated. I am developing an alternative explanation that draws attention to concrete descriptive knowledge, procedural knowledge, and research strategies. These elements are integrated with modest theoretical knowledge to form what I call an investigative matrix. According to this practice-centered epistemology, an investigative matrix can be used to systematically investigate phenomena that are not explained, even potentially explained, by the modest theoretical knowledge upon which the research depends.

19 May Twenty-First Annual Hans Rausing Lecture – McCrum Lecture Theatre at 4.30pm

Sherry Turkle (Massachusetts Institute of Technology)

Reclaiming conversation: our new silent spring in a digital age

Twentieth Century Think Tank

The Twentieth Century Think Tank offers broad coverage of 20th- and 21st-century topics in the history, philosophy and sociology of science, technology and medicine. The regular programme of papers and discussions takes place on Thursdays over lunch.

Think Tank meetings are held on **Thursdays, 1–2pm in Seminar Room 2**. All welcome!

Organised by Richard Staley, Jesse Olszynko-Gryn and Mary Brazelton.

28 April **Daniel Cardoso Llach (Carnegie Mellon University/Cambridge)**

Builders of the vision

Modes of design structured by digital media such as simulations, numerically controlled machines and digital networks elicit increasingly collective, digitally mediated and distributed processes. Daniel Cardoso Llach will situate this contemporary condition by offering an intellectual genealogy of twentieth century computational design systems linking postwar anxieties and cybernetic utopias with contemporary discourses about design in architecture and other fields. Reflecting on the material and social histories of the US Air Force-funded numerical control and Computer-Aided Design projects at MIT, the lecture will shed light onto present design technologies, casting them critically as cultural infrastructures—not merely tools—shaping new forms of representing, organizing and imagining the built environment.

12 May **Serge Reubi (Humboldt University, Berlin/Cambridge)**

Unveiling the world? Aerial photographs and the social sciences in interwar France

Aerial photography is almost as old as photography itself. However, unlike photography, it was only scarcely used as a scientific tool before 1914. In the limited field of social sciences and humanities, it was not used at all except in archaeology or cartography. A decade later, the picture has changed: not only have scholars of most disciplines started to experiment with it, but the uses of aerial photographs have changed and raise new issues. What was until then used mainly for illustrating purposes (or sometimes to accelerate the process of sketching), is now believed to be a means to unveil essential but hidden features of the observed world.

To examine this 'rhetoric of unveiling', my paper will focus on the uses of aerial photography by French social scientists of the interwar period. There are valuable reasons for this. After World War I, in France more than in any other European country, social scientists were extremely interested by this new tool: while elsewhere the uses of air photography were limited to one or two disciplines, generally archaeology and geography, in France most disciplines tried at one point or another to make use of this tool. The curiosity it raised was broad, and spread relatively fast. This all makes of French social scientists uses of air photograph a compact but diversified object.

Rooted in what Ginzburg has coined 'evidential paradigm', the rapid success of mechanically produced images from above also tells us a lot about the way we consider scientists and scientific activities. Indeed, in many writings about aerial photography produced in the 1920s and 1930s, these photographs are believed to unveil the world, and this seems to be possible, partly because the scientist's subjectivity has vanished. It is therefore fruitful to examine this rhetoric of unveiling through the lens of Lorraine Daston and Peter Galison's concepts of epistemic virtues and scholar's selves. First, it will be highly profitable to follow how proponents of aerial photographs defend their new tool, through the categories of truth-to-nature, mechanical objectivity, and the trained-eye, in order to understand how they understand legitimate scientific practices and legitimate scientists; second, it will be of some interest to apply Daston's and Galison's framework to the social sciences, which are left behind in their 2007 objectivity in order to test its validity outside of the natural sciences.

To achieve this, I will confront their hypotheses to the ways aerial photographs are mobilized in the French social sciences and will show that the narrative of aerial photographs unveiling the truth thanks to a vanishing scientist is opposed to the practice of a vivid and legitimate subjectivity. Hence my paper will be divided in three parts. First, I briefly expose the quick, wide, and short success of aerial photography in the French social sciences. Second, founding on these examples, I present three variations of these entangled rhetorics of unveiling and objectivity: the palimpsest, the structure, and the reality. Finally, I focus on the writing practices of social scientists and will concentrate on the articulation of pictures and captions to demonstrate how the supposedly expelled subjectivity of the scholar finds its way back in their work.

19 May

Aileen Fyfe (University of St Andrews)

The pre-history of peer review: refereeing practices at the Royal Society

Historians of scientific communication routinely assume that, even though the term 'peer review' is a product of the 1960s, the essentials of the practice have been around since the first scientific journal, in 1665. My team's research on the history of the Philosophical Transactions suggests that this origin-myth is obscuring the rather interesting history of how refereeing practices did in fact develop in the nineteenth century. They emerged in the specific context of the learned society, and until the mid-twentieth century, refereeing was not widely used at other journals (which relied on editors to make decisions). I will discuss the variety of forms that early refereeing took, and the surprisingly different purposes it served, and look forward to a discussion about what changed in the twentieth century!

Coffee with Scientists

The aim of this group is to explore and enhance the interface between HPS and science. Though many of us in HPS engage closely with science and scientists, we could benefit from more explicit discussions about the relationship between HPS and science itself, and from more opportunities for HPS-scholars and scientists to help each other's work.

During Easter Term 2016 we will continue to meet on **Fridays, 3.30–5.00pm in Seminar Room 2.**

22 April

Steve Oliver (Professor of Systems Biology and Biochemistry; Director of the Cambridge Systems Biology Centre)

Data-driven versus hypothesis-driven science

29 April

Alecia Carter (Research Fellow, Churchill College and Department of Zoology)

How should scientists quantify academic value?

6 May

Murray Shanahan (Professor of Cognitive Robotics, Imperial College London)

The technological singularity: superintelligent machines and the future of humanity

13 May

Jenni Sidey (Research Associate, Department of Engineering)

How to study fire

Cabinet of Natural History

This research seminar is concerned with all aspects of the history of natural history and the field and environmental sciences. The regular programme of papers and discussions takes place over lunch on Mondays. In addition, the Cabinet organises a beginning-of-year fungus hunt and

occasional expeditions to sites of historical and natural historical interest, and holds an end-of-year garden party.

Seminars are held on **Mondays at 1pm in Seminar Room 1**. You are welcome to bring your lunch with you.

Organised by Katrina Maydom.

2 May **Leslie Atzmon (Eastern Michigan University)**
Intelligible design: the origin and visualization of species

This talk is based on the premise that design thinking was key to Darwin formulating evolutionary theory. Design thinking – the invariably messy and uncontrolled time-based visual ideation process – helped Darwin shape his revolutionary ideas about evolution. Designers don't just make things; they work to formulate outcomes that both embody and communicate abstract ideas. In *The Reflective Practitioner: How Professionals Think in Action*, philosopher Donald Schön chronicles how designers work through processes of 'reflection-in-action' in which thinking and making and the environment in which design happens are integrated. Schön describes 'on-the-spot' visual experiments where the materials the designer produces and uses (rough models, sketches, drawings) 'talk back', often in surprising ways, and where the 'naming and framing of the specific problematic or puzzling design situation are important activities'. Schön's portrait of design thinking corresponds to Darwin's thinking that can be followed in his sketches.

Darwin sketched 'tree-of-life' diagrams to help him determine the nature of evolutionary processes. He used sketching, information visualization, and graphic representation as mechanisms for both externalizing his thoughts while he refined them and for communicating his ideas to the public. In this talk, I analyze how Darwin used rough 'thinking' sketches as a brainstorming method. I then discuss the diagram he published in *The Origin of Species* as an evolutionary infographic whose communicative effectiveness was delimited by his visual vocabulary of 19th-century tree diagrams. I next discuss how Darwin's ideas presaged new information structures that were established in the 20th and 21st centuries. Finally, I investigate how contemporary evolutionary infographics, which developed from Darwin's ideas, have changed in response to new information in the field of molecular evolution.

Sources:

Binder, Thomas, Giorgio de Michelis, Pelle Ehn, Giulio Jacucci, Per Linde, and Ina Wagner. 2011. *Design Things*. Cambridge: MIT Press.

9 May **Sebastian Kroupa (HPS, Cambridge)**
Georg Joseph Kamel (1661–1706): a Jesuit pharmacist in Manila at the borderlines of erudition and empiricism

When sent as a pharmacist to the Philippines in 1688, the Bohemian Jesuit Georg Joseph Kamel turned to the local nature to identify resources which he could use in his practice. Due to his growing expertise, Kamel soon entered into correspondence with European intellectuals, namely two members of the Royal Society: the apothecary James Petiver and the naturalist John Ray. Involvement within this network allowed Kamel to deliver his reports of Philippine nature to Europe, where – thanks to his English friends – these accounts appeared in print. In this paper, I will discuss these texts and consider Kamel's strategies and ambitions in writing his works. Unlike other Jesuit apothecaries, who typically produced easy-to-follow medical handbooks for local use, Kamel's approach to classification and description of plants clearly points to his scholarly ambitions and his efforts to enter into contemporary European intellectual circles. In presenting his findings and convincing his audience of the credibility of his accounts, then, Kamel drew on both erudite and empirical knowledge. I will suggest that this attitude stemmed directly from his Jesuit training which, on the one hand, was rooted in textual traditions and canonical texts accepted by the Church, but on the other, fostered active, practical and empirical methods in conjunction with the high esteem for mundane labour, utility and individual initiative. These aspects of Kamel's work, strikingly in accord with Baconian philosophy adopted by the Royal Society, must have facilitated his exchange with its members.

16 May **Chris Hunt (University of Warwick)**

Antiquities, past, and present: the Tradescant Collection and its rarities

My paper will explore the phenomena of early modern collecting, focusing on the Cabinet of Curiosities owned by the Tradescant family now housed in the Ashmolean Museum. Paying attention to the antiquities in the collection, this paper explores early modern ways of seeing in relation to these artefacts, as well as how these objects influenced ideas of identity. Beyond this, the paper will touch on the relationship between antiquities and relics; they share common qualities and could be seen as similar objects despite the differing historic and religious properties of each, and as such were often viewed in lights.

The paper uses the collection of the Tradescant family, as well as its inventory produced by John Tradescant the Younger in the 17th century to explore ideas of antiquity, past, and present, and how these artefacts from the past actively shaped ideas of English identity in the period. This paper does not use grand narratives of nation building or a comprehensive, shared idea of England, but aims to reconstruct views of heritage and nature in view of objects from the distant past. The nature of Wunderkammern will be discussed here, with the order of things they possessed relating to the ordering of early modern cosmology and ideas of the world.

Attention will be given to ideas of history in the 16th and 17th centuries, Cabinets of Curiosities and collections more widely, and the Tradescant collection in particular to discuss how antiquities and artefacts interacted with texts to form ideas of English identity and heritage in the 17th century.

23 May **Viktoria von Hoffmann (University of Liège / University of Cambridge)**
The anatomy of touch: nature, knowledge and technologies of touch in the Renaissance

In the last few decades, promising new approaches to the study of the senses and to the body have shed new light on how people in the past experienced their lives, as much as on the ways in which knowledge about self and the world was being shaped, negotiated and transformed. Although all the senses could contribute to these discussions, scholars have predominantly focused on sight and visual cultures, leaving other potentially fruitful avenues unexplored. Touch, especially, has received little attention in historical research, where it has been reduced to a history of sexuality, leaving its other dimensions unexamined. Yet this sense, considered the defining sense of human nature, raises important questions regarding the part played by the lower senses in knowledge production, as well as in society and culture at large.

Sources concerning Renaissance anatomy provide a significant lens through which to examine the part played by touch in the early modern study of Nature, as evidenced by the practice of dissections, which engaged the body, the skin and the hand of the anatomists, in their attempt to unveil the truths hidden inside the body. Using theoretical writings (anatomical textbooks) as well as sources more closely linked to daily practices (such as university notes of medical students), this paper seeks to explore the technologies of touch that were displayed in 16th-century anatomical practices and discourses, with the aim of highlighting the epistemological value of the sense of touch in early modern inquiries about Nature and the human body.

Special events

31 May **Excursion to Audley End House and Gardens**

Mia Jackson, PhD candidate at Queen Mary and Curator of Collections for Audley End and Wrest Park, will present 'The Natural History Collections at Audley End, Essex' followed by a private viewing of the collections. Departure from Cambridge by coach at 10am and returning that afternoon. Spaces are limited. Please RSVP to Katrina Maydom (km633).

17 June **Annual Garden Party in the Caius Fellows' Garden (1–3pm)**

Charissa Varma, University of Cambridge, will present 'Science in the Garden: Charles Darwin and his Children'.

CamPoS

CamPoS (Cambridge Philosophy of Science) is a network of academics and students working in the philosophy of science in various parts of the University of Cambridge, including the Department of History and Philosophy of Science and the Faculty of Philosophy. The

Wednesday afternoon seminar series features current research by CamPoS members as well as visitors to Cambridge and scholars based in nearby institutions.

Further details of the composition and activities of CamPoS

Seminars are held on **Wednesdays, 1.00–2.30pm in Seminar Room 2.**

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|----------|--|
| 27 April | David Crawford (HPS, Cambridge)
Hierarchical transition modes of biological systems are evolvable |
| 4 May | Daniel Mitchell (HPS, Cambridge)
What's nu? Maxwell's electrical metrology and the electromagnetic theory of light reappraised |
| 11 May | Ken Waters (University of Calgary)
No general structure |
| 25 May | Alex Blum (Max Planck Institute for the History of Science)
The inconsistency of quantum electrodynamics: a history |

Cambridge Masterclass in Philosophy of Physics

Saturday 14 May at Trinity College

Speakers: N P Landsman (Nijmegen), Fred Muller (Rotterdam), Owen Maroney (Oxford)

Topic: Measurement, Emergence and the Classical-Quantum Interface

Registration: £5 on the day in cash for beverages

HPS History Workshop

Need help writing a tricky part of your argument? Need some fresh ideas and references? Or simply want to see how your early-career colleagues approach the writing process? The History Workshop is an informal setting to discuss our written works-in-progress on any area of the history of science, technology and medicine, and share feedback. A draft PhD chapter, article or conference paper will be circulated by email before each meeting. We'll then discuss it together over tea and biscuits at **5pm on alternate Wednesdays in Seminar Room 1.**

Contact Andreas Sommer and/or Seb Falk if you are interested in sharing your work in this forum, or would like to be added to the mailing list.

HPS Philosophy Workshop

Would you like to get feedback on your work-in-progress in a friendly and supportive atmosphere? Texts will be circulated one week in advance and discussed over tea and biscuits in Seminar Room 1 on **alternate Wednesdays, 5–6pm.** Share a draft of your MPhil essay, PhD

chapter, potential article, or any research-in-progress in the philosophy of science, broadly construed.

Organised by Hardy Schilgen and Stijn Conix.

Philosophy of Psychology Reading Group

We meet on **Thursdays, 11am–12noon in Seminar Room 1** (except for the meeting on 5 May, which will be in Seminar Room 2). Organised by Shahar Avin and Marta Halina.

Introductory reading: Tim Urban (2015) 'The AI Revolution: The Road to Superintelligence' Part I and Part II.

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|----------|---|
| 28 April | Murray Shanahan (2015) Chapters 1 and 4 in <i>The Technological Singularity</i> . Cambridge: MIT Press. |
| 5 May | Murray Shanahan (2015) Chapters 5 and 7 in <i>The Technological Singularity</i> . Cambridge: MIT Press. |
| 12 May | Steve Grand (2003) . Chapters 2–4, Chapter 12 in <i>Growing Up With Lucy: How To Build An Android In Twenty Easy Steps</i> . London: Weidenfeld & Nicolson. |
| 19 May | Shane Legg and Marcus Hutter (2007) 'Universal Intelligence: A Definition of Machine Intelligence'. |
| 26 May | Clark Glymour, Richard Scheines, Peter Spirtes, and Kevin Kelly (1987) Chapters 1 and 3 in <i>Discovering Causal Structure: Artificial Intelligence, Philosophy of Science, and Statistical Modeling</i> . London: Academic Press. |

History and Theory Reading Group

Deleuze: Difference and Repetition, Continued

For this term's History and Theory we will continue to read Gilles Deleuze's foundational philosophical work on time, representation, difference and the virtual: his 1968 doctoral thesis, *Difference and Repetition*.

The group will proceed 'continental style', working through the book paragraph by paragraph. Doing some reading beforehand could help, but please feel free just to turn up unprepared.

We will meet on alternate **Fridays in the Board Room at HPS, 11am – 12.30pm**.

Text:

Gilles Deleuze, Paul Patton tr., *Difference and Repetition* (New York: Columbia University Press, 1994)

Meeting dates:

Friday 29 April, 11am – 12.30pm

Friday 13 May, 11am – 12.30pm

Friday 27 May, 11am – 12.30pm

Friday 10 June, 11am – 12.30pm

Philosophy and History of Physics Reading Group

Organised by Jeremy Butterfield, Hasok Chang and Daniel Mitchell.

The Philosophy and History of Physics reading group will meet from 4.00pm to 6.00pm in the Board Room on three Tuesdays: 26 April, 3 May and 17 May (we will skip 10 May to enable attendance at Hasok Chang's Wilkins-Bernal-Medawar Prize Lecture, at the Royal Society).

The first two meetings will focus on philosophy of physics, to prepare for a one-day conference on the work of Klaas Landsman, on Saturday 14 May at Trinity College.

- 26 April** Jeremy Butterfield will introduce the first two papers by Landsman:
- (i) A flea on Schroedinger's Cat
 - (ii) Spontaneous symmetry-breaking in quantum systems: emergence or reduction?
- 3 May** We will discuss the third paper by Landsman:
- (iii) Bohrification: from classical concepts to commutative algebras
- 17 May** Visiting speaker on the history of physics, TBC

Science and Literature Reading Group

Frogs

The Science and Literature Reading Group returns for Easter Term 2016 with a series of meetings themed around frogs. The four sessions will explore various literary manifestations of frogs from the seventeenth to the twentieth centuries, and from pond-dwelling tadpole to taxidermied specimen.

Fortnightly meetings will take place in the Newnham Grange Seminar Room at Darwin College, on **Monday evenings from 7.30–9pm**. All are welcome! Organised by Melanie Keene (Homerton) and Charissa Varma (Darwin). For further information please see our blog.

- 2 May** Natural historical frogs
Edward Topsell, 'of FROGS', in *The History of Four-Footed Beasts and Serpents* (1658), pp. 718–726
- 16 May** Experimental frogs
W.T. Sedgwick, 'On Variations of Reflex-Excitability in the Frog, Induced by Changes of Temperature', in *Studies from the Biological Laboratory* (1883), pp. 385–410

- 30 May** Anthropomorphic frogs
 Hermann Ploucquet, 'The Frogs who would a-woo-ing go', in *The Comical Creatures from Wurtemberg* (1851), pp. 58–60
 Beatrix Potter, *The Tale of Jeremy Fisher* (1906)
- 13 June** Poetic frogs
 Christina Rossetti, 'A Frog's Fate' (1885)
 Robert Graves, 'The Frog and the Golden Ball' (1965)
 Seamus Heaney, 'Death of a Naturalist' (1966)

Optional additional reading

Charlotte Sleigh, *Frog* (2012)

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin (including beginners) are very welcome. We meet on **Fridays, 4.00–5.30pm in the Board Room**, to translate and discuss a text from the history of science, technology or medicine. If a primary source is giving you grief, we'd love to help you make sense of it over tea and biscuits! Thus we provide a free translation service for the Department, and a means for members to brush up their skills.

To be added to the mailing list, or to suggest a text, please contact Tillmann Taape or Natalie Lawrence.

Arabic Therapy

The Arabic Therapy group meets every **Tuesday, from 3.00 to 4.30pm, in Room P19**.

We are an informal group for beginners and more experienced learners who want to improve their Arabic language. Each week we spend a little time discussing some light grammar, before reading through a text together. For more information, or to be added to the mailing list, please contact Seb Falk.

Greek Therapy

Greek Therapy meets every **Wednesday during term time in the Board Room from 5.30 to 7pm**.

We are an informal group for beginners and for experienced readers of Greek seeking to brush up their skills – all levels are welcome. Sessions usually involve a basic grammar session at the beginning followed by reading through a more advanced text. We will be reading selections from Plato's Symposium this term.