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THE DEPARTMENT

Introduction

Welcome to the Annual Report 2016-2017 of the Department of History and Philosophy of Science. As ever this report is a summary of the events, successes, and news of the department during the academic year.

The department's year began with the sad news that Professor Mary Hesse passed away on the 2nd of October. Mary Hesse, along with Gerd Buchdal and Michael Hoskin, worked during the early years of the HPS Department's existence, and together they did immense work to turn the department into the world-class institution that it remains to this day. During her academic career, Professor Hesse worked in mathematics at the University of Leeds before becoming a philosopher of science, first at University College London and then in Cambridge, and in her retirement from academia she became an enthusiastic and accomplished historian of the local landscape and agriculture. The annual Garden Party on the 30th of June 2017 served as a day of memory for Professor Hesse's wide-ranging contributions in all of her pursuits, featuring talks from her colleagues, students, and some of the people she inspired with her work. A programme of the event is available on page 5.



In September 2017 we said goodbye to Anna Jones, who had been the librarian of the Whipple Library since 2012. We speak for everyone when we say that Anna has been an enthusiastic, brilliant, friendly, and ever-approachable librarian during her time at the department, and she leaves having overseen many positive changes to the library, as well as managing the rollout of many new University Library systems to the Whipple. We are certain that she will excel equally in the next step of her life, as a minister of the Church of England. Her replacement has big shoes to fill, and we look forward to meeting them. Anna's work in the department, along with Katharine Griffiths, Gabriella Zuccolin, Clare Matthews, and Sam Murison, were celebrated with a farewell lunch in the department on

Wednesday 19th July, which we are happy to say was attended by as many members of other Cambridge libraries as it was members of the HPS Department. Finally, the author adds a personal thankyou to Anna on behalf of every member of the department with poor library discipline for not having changed the library's 'no overdue fines' policy.

We are pleased to report that Hasok Chang has been awarded a British Academy Wolfson Research Professorship, which will provide him with funding for three years in order to work on two books, *'How does a battery work?'* and *'Realism for Realistic People'*. During this time, his teaching commitments in the department will be covered by one of the three new Teaching Associates in the coming year, Dr Matt Farr. Matt joins us from the University of Queensland. There are two other Teaching Associates joining the department in September, Dr Agnes Bolinska and Joseph Martin. Dr Bolinska joins us from the University of Wisconsin, and Dr Martin joins us from the



The new Teaching Associates (L-R): Agnes Bolinska, Matt Farr, and Joe Martin

Consortium for History of Science, Technology and Medicine in Philadelphia. These new Teaching Associates are helping to cover teaching for the staff members who are on leave in the 2017-18 academic year and beyond. We welcome them all to the department and wish them all the best.

The library and museum, as ever, are integral parts of the HPS Department. The Whipple Library's report is on page 38, with the Museum's report to follow soon.

Finally, on a less academic note, members of the administrative, museum, and academic staff went for an afternoon out paintballing during the summer vacation for staff bonding as well as to let off some steam from the academic year. Everyone agreed that it was a great day out, and we hope to do more similar events in the future, so members of staff should keep an eye on their emails!

September 2017



Staff bonding

Thanks to Dawn Kingham for proof-reading this report.

Congratulations

Richard McKay began the year in October with excellent news, when the paper that he co-authored in *Nature* dispelling the myth that a gay air steward was 'Patient Zero' of the HIV epidemic in the USA was widely reported in the news, including the BBC, Guardian, Daily Mail, Washington Post, and The Onion.

Susanne Schmidt, a PhD student in the department, was recognised for her teaching at Harvard during the Spring 2016 semester by the Derek Bok Centre for Teaching and Learning, who awarded her a Certificate of Distinction in Teaching.

Congratulations to **Nick Hopwood**, who in November was awarded the 2016 History of Science Society's Suzanne J. Levinson Prize for his book *Haeckel's Embryos: Images, Evolution, and Fraud*. The prize is awarded biennially to a book in the history of the life sciences and natural history.

In January we learned that College Fellow and HPS affiliate **Simon Mitton** received a book award from the Alfred P Sloan Foundation in New York, supporting his research into the history of geophysics from 2017 until 2019. Also in January, **James Poskett**, was appointed Assistant Professor in the History of Science and Technology at the University of Warwick, to begin in September 2017. James finished his MPhil and PhD in the department, and continued his involvement with the department during his tenure as the Adrian Research Fellow at Darwin College.

In February, **Leah Astbury** was awarded two fellowships. The first was a fellowship at the Huntingdon Library on a Molina Long Term Fellowship in the History of Medicine, which she will hold until 2018. Then she will return to Cambridge to become a Wellcome Trust Research Fellow from 2018-2021. Also in February we learned **Gabriella Zuccolin** was awarded a post-doctoral Fellowship at Villa I Tatti in Florence, Italy for the 2017-2018 academic year, where she will continue her research on the intersection of print culture, women's medicine and the role of vernacularisation in science from 1450-1600.

In March, **Valentina Pugliano** was awarded the Jerry Stannard Memorial Award 2017 for the best article in the history of pharmacy, medicinal botany, and material medica for her article "Pharmacy, Testing and the Language of Truth in Renaissance Italy", in the Bulletin of the History of Medicine. Congratulations were also due in March for **Simon Schaffer** who was presented with the Paul Bunge Prize for *The Leviathan and the Air Pump*, as well as for his outstanding lifetime achievements. The prize honours outstanding publications, in German, English or French, in the history of scientific instruments. The good news kept rolling in March as we learned that **Megan Barford** was awarded the 2017 Boydell and Brewer prize for the best doctoral dissertation in maritime history for her thesis "Naval Hydrography, Charismatic Bureaucracy and the British Military State, 1825-1855". Megan completed her PhD in the department in 2015, and currently works as the Curator of Cartography at the Royal Museums, Greenwich.

In April, **Stephen Irish**, a PhD student in the department until 2016, was awarded the 2017 Partington Prize by the Society for the History of Alchemy and Chemistry for his article "The Corundum Stone and Crystallographic Chemistry". The prize is awarded every three years for an original and unpublished essay on any aspect of the history of alchemy or chemistry.

Three MPhil students from the 2014-2015 cohort had articles published this year in the *History of the Human Sciences* that were based on their MPhil dissertations; **Connor Cummings**, **Patrick Kirkham** and **Nick Levine**. Congratulations to all of them!

Hasok Chang has been awarded a Wolfson Research Professorship by the British Academy, to fund the research and writing of his next academic book. He will be on teaching leave from the department, beginning September 2017, for a period of three years.

Congratulations to **Andrew Buskell**, whose PhD thesis “Modelling Culture” won Clare Hall’s Salje Medal for 2017. This medal is awarded for the best PhD in the Arts and Social Sciences by a member of Clare Hall.

In June we heard that **Annie Thwaite** had been given a six-month Secondment Fellowship in Humanities and Social Sciences by the Wellcome Trust, which she will be taking at the Science Museum, for a project on 'Amulets and the Material Culture of Healing'. Also in June, **Martin Rudwick**, was elected to an Honorary Fellowship at Trinity College. Congratulations to both of them.

Finally, we were delighted with the news that **Sarah Bull** gave birth to her son, Riley Gabriel Ball, on Friday 14 July.



The Cabinet Garden Party

Garden Party in Memory of Mary Hesse

To celebrate the life and career of Professor Mary Hesse, who passed away in October 2016, the Department dedicated the yearly garden party to her memory, with a programme of talks about her life and work by colleagues, old students, friends, and admirers.

The garden party was held on Friday 30th June 2017 at Peterhouse in the Lubbock Room and Peterhouse Theatre. Due to unfavourable weather the planned barbecue was taken inside to the Lubbock Room as well.

Programme

4:00pm—Tea in the Lubbock Room

4:30pm—Talks in the Peterhouse Theatre

Introduction from the chair (Hasok Chang)

Video messages: Michael Arbib and Michael Redhead

Talks: Hasok Chang, Richard Evans, Susan James, Nick Jardine, Mary Morgan,

David Papineau and Michael Power

6:30pm—Food in the Lubbock Room

The talks covered the full sweep of Mary's life and career, her relationship with the HPS Department and the students that she supervised, her involvement with Wolfson College, as well as the historical research into the local area that she undertook independently after retirement. We in the department thank all of those who presented, in person or via video, and to all those who attended. It was a touching and fitting tribute to one of the HPS Department's most significant members.



David Papineau giving his talk at the Mary Hesse Memorial event

Staff

Administrative Staff

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

Computing Staff

Mark Rogers

Library Staff

Anna Jones
Agnieszka Lanucha
Clare Matthews
Dawn Kingham

Museum Staff

Rosanna Evans
Steven Kruse
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

Dániel Margócsy
Simon Schaffer
Jim Secord
Richard Staley
Jacob Stegenga
Liba Taub

Research Fellows and Teaching Associates

Salim Al-Gailani
Leah Astbury
Andrew Buskell
Jenny Bangham
Sarah Bull
Boyd Brogan
Jo Edge
Clare Griffin
Mike Hawkins
Boris Jardine
Natalie Kaoukji
Richard McKay
Jesse Olszynko-Gryn
Sara Peres
Yvonne Martin-Portugues
Sam Murison
Rob Ralley
John Young
Gabriella Zuccolin

Affiliated Lecturers & CTOs

Patricia Fara
Marina Frasca-Spada
Sachiko Kusukawa
Deborah Thom

College Fellows

Jeremy Butterfield
Seb Falk
Peter Jones
Melanie Keene
Simon Mitton
James Poskett
Andreas Sommer

Emeritus Professors

German Berrios
Andrew Cunningham
Nick Jardine
Geoffrey Lloyd
Michael Redhead

Other UoC People who do HPS

Debby Banham
Sara Baker
Alison Bashford
Michael Bravo
Angela Breitenbach
Tim Crane
Shinjini Das
Robbie Duchinsky
Lukas Engelmann
Gabriele Ferrario
Rebecca Fleming
Sarah Franklin
Sietske Fransen
Richard Holton
Shelley Innes
Joel Isaac
Martin Johnson

Tony Lawson
Kathy Liddell
Scott Mandelbrote
Peter Mandler
Alexander Marr
Francis Neary
Brian Pitts
Huw Price
Katherine Reinhart
Sally Riordan
Richard Serjeantson
Sujit Sivasundaram
Jeff Skopek
David Sloan
Richard Smith
Emma Spary
Simon Szreter
Paul White
Daniel Wilson

Affiliated Scholars

Robert Anderson
Scott Antony
Peter Bowler
Robert Bud
Tatjana Buklijas

Margaret Carlyle
Soraya de Chadarevian
Silvia De Renzi
Katie Eagleton
Robert Gaskell
Susannah Gibson
Marion Godman
Jeremy Gray
Philippa Hardman
Richard Jennings
Gerald Kutcher
Chris Lewis
Helen Macdonald
Jianjun Mei
Jim Moore
Bence Nanay
Ayesha Nathoo
Jaume Navarro
Hannah Newton
Emma Perkin
Christopher Preston
Sadiah Qureshi
Jennifer Rampling
Martin Rudwick
Christine Salazar
Anne Secord
Charissa Varma

Kirsten Walsh
Andrew Wear
Rick Welch
Paul White
Francis Willmoth
Louise Wilson

Visitors

Sylvio Bistafa
Moa Carlsson
Laura Di Paolo
Fernando de Figueiredo
Anna Gielas
Helena Hachmann
Lily Huang
Petter Hellström
Linn Holmberg
Sara Kier Praem
Pan Longfei
Kazuyuki Takahashi
Marta Velasco Martin
Lukas Verburgt
Denis Walsh
Hanna Worliczek
Shujian Zhang

Students

PhD students

Feraz Azar
Claudia Baisini
Riana Betzler
Toby Bryant
Jenny Bulstrode
Azita Chellapoo
Stijn Conix
Charlotte Connely
Caitlin Doherty
Matthew Drage
James Hall
Sebastian De Haro
Meira Gold
Magali Krasny
Sebastian Kroupa
Katrina Maydom
Jiho Moon
Jonathan Penn
Karoliina Pulkkinen
Timothy Rees-Jones
Edwin Rose
Hardy Schilgen
Christophe Schinkus
Raphael Scholl
Susanne Schmidt
Minwoo Seo
Reuben Schiels
Tillmann Taape
Michael Thornton
Ann-Sophie Thwaite
Elina Vessonen
Christopher Wagner
Michael Wallis
William Wong
Jack Wrist
Joseph Wu
Pascal Zambito

MPhil students

Sanna Alas
Alona Bach
Nicole Bassoff
Maria Behrens
Laura Brassington
Sarah Byrne
Shuang Ning Chin
Julia Davies
Katherin Duncan
Joshua Evans
Topaz Halperin
Michael Harmon
Audrey Harnagel
Zoe Hitzig
Nina Jessen
Matthieu Kohl
Keith Leong
Ekaterina Morgunova
Julia Ostman
Emma Pask
Guy Sechrist
Anna Skulberg
Francis Smallwood
Laura Van Pelt
Alice Wang
Helen Zhao

Part III students

Joe Bonham-Carter
Joanna Drury
Daniel Farraway
Stephanie Frow
Abby Hayes
Emma O'Hare
Robin Polding
Peter Rees
Polina Sosnina

Rosanna Suppa
Paul Tao
Shona Whatford
James Whitehouse
James Livesey
Henry Warne

Part II students

Tabitha Burden
Morganna Evans
Helen Fishwick
Jennifer Frazer
Chloe Gamlin
Euan Godbold
Kathleen Gordon
Molly Hindhaugh
Ying Kin Ho
Daisy Irving-Hyman
Isaac Johnston
George Lennox
Benedict Morris
Anna Murray
Luca Nart
Emma Neville
Fabbuha Rahman
Marita Reilly
William Sears
Alexander Westin-Hardy
Katherin Wickham
Yenga Yan

BBS Early Medicine

Callum Fernando
Ella Strudley
Thomas Ingledew

BBS Modern Medicine

Chantelle Doran
Fanny Belais
Natalie Fisk
Preya Amin
Rachael Young
Vishaal Thakrar

**BBS History and Ethics
of Medicine**

Alexander Lyszkowski
Anna Edgar
Ankita Deshpande
Cameron Saunders
Evie Lindsay
Georgina Girdwood
Juliette Murphy
Natasha Chaudhury
Richard Johnson
Sohini Pawar
Victor Teh

PBS taking IB HoS

Lucy Boddington
Katharine Curran
Catalina Garcia Gajardo
Jess Grimmell
Mila Mundryova
Jess Plumbbridge
Katt Weaver

**HSPS students taking IB
HoS****PBS taking IB PoS**

Alisa Davies
Eleri Davies
Mira Nadarajah
Maisie Payne
Emma Simkin

**HSPS students taking IB
PoS****PBS students taking Part
II Modern Medicine**

Nicole Creasey
Rowan Victoria Haslam

**PBS students taking Part
II PoS**

David Bradbury
Araminta Peters-Corbett

**History Students taking
Early Medicine (P11)**

Elinor Aldersey-Williams
Rachael Clamp
Natasha Clegg
Natasha Cutler
Eric Duffelen
Maya Gordon
Jessica Lister
Megan Rees
Helena Sandford
Freya Sorrell



Tamara Hug and Marta Halina



Staff and students at the Department of History and Philosophy of Science, 2016-2017

Comings and Goings

Meira Gold, **Stephen Courtney**, **Anne-Sophie Thwaite** and **Tillman Taafe** all began as Library Invigilators in 2016. **Stephen** and **Tillman** subsequently left the department later in 2017.

Katharine Griffiths joined the department in October as a new General Assistant, splitting her time between the reception desk and the Whipple Library. She left the department in August for a new job in Italy.

Andrew Buskell returned to the department from a year at the LSE to become a new Research Associate in January. He was joined, also in January, by **Jean-Baptiste Grodwohl**.

Tillman Taafe, who completed his PhD in the department and was subsequently working on a Wellcome-funded doctoral project, left the department in July to take up a lectureship at Columbia University.

Gabriella Zuccolin left the department in August to take up a post-doctoral Fellowship at Villa I Tatti in Florence, Italy.

Toby Bryant began his new role as a General Assistant, while maintaining his old role as a Receptionist, in August.

Leah Astbury is taking a year away from the department, starting in August, to go to the Huntingdon Library in California on a Molina Long Term Fellowship in the History of Medicine, and will return in 2018.

Anna Jones, the Whipple Librarian since 2012, left the department in September. She is beginning her training, at the University of Cambridge, to be ordained as a minister in the Church of England.

Clare Matthews left the Whipple Library in September, to pursue a PhD.

Three new Teaching Associates joined this year: **Matthew Farr**, **Agnes Bolinska**, and **Joseph Martin** all began working in the department in September.

James Livesey joined the department in September as a new Graduate Secretary for the Health, Medicine and Society MPhil, which begins in 2017-18.

Roles and Responsibilities

Departmental Positions

Head of Department: Prof. Liba Taub

Departmental Administrator: Ms. Tamara Hug

Director of Graduate Studies: Prof. Nick Hopwood

MPhil Manager: Drs. Richard Staley and Stephen John

Part III Manager: Dr. Helen Curry

Part II Manager: Drs. Lauren Kassell (Michaelmas and Easter) and Dániel Margócsy

Part IB Manager: Prof. Jim Second and Dr. Jacob Stegenga

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

Dignity Officer: Prof. Hasok Chang and Prof. Liba Taub (Michaelmas) and Dr Richard Staley (Lent and Easter)

College Liaison Officer: Drs. Lauren Kassell (Michaelmas and Easter) and Anna Alexandrova (Lent)

Chair of the Monitoring Committee: Dániel Margócsy

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: Prof. Nick Hopwood

Professors and Readers: Professors Hasok Chang, Nick Hopwood, Tim Lewens, Simon Schaffer (Chair), Jim Secord, Liba Taub, and Dr 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: Drs. Anna Alexandrova, Helen Curry, Marta Halina, Stephen John, and Richard Staley

Elected Members: Drs. Mary Brazelton, Marina Frasca Spada, Dániel Margócsy and Jacob Stegenga (until end of Michaelmas Term)

Junior Members: Undergraduate: Rory Kent, Graduate: James Livesey

Philosophy Faculty Board

HPS Representative: Dr. Stephen John

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, Prof. 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: Prof. Staffan Müller-Wille (University of Exeter)



L-R: Richard Jennings, Jonny Penn, and Edwin Rose

Prizes, Projects and Honours

Student Prizes

This year's Jacob Bronowski Prize for the best overall performance in the HPS Part II course was awarded to **Emma Neville**.

The Frances Willmoth Prize for the best performance in the dissertation component of the HPS Part II course was awarded to **Luca Nart**.

The inaugural Forrester Prize, endowed in the memory of Professor John Forrester, and awarded for the best overall performance in the first half of the HPS Part III course was given to **Shona Whatford**.

The Peter Lipton Prize for the best overall performance in the HPS Part III course was awarded to **Joe Bonham-Carter**.

This year's Jennifer Redhead Prize for the best overall performance in MPhil essays was awarded to **Alona Bach**.

The Rausing Prize, awarded for the best performance in the dissertation component of the MPhil course was awarded to **Nicole Bassoff**.

Special Lectures and seminars

Wellcome Lecture

The 12th Annual Wellcome Lecture in the History of Medicine was given by **Professor Alexandra Minna Stern (University of Michigan)** on the 24th of November 2016 in the HPS Department, with the title 'Eugenic Sterilization in California: from demographic analysis to digital storytelling'.

Rausing Lecture

The 22nd Annual Hans Rausing Lecture was given by **Professor Lissa Roberts (University of Twente)** in the McCrum Lecture Theatre, Bene't Street, with the title 'A History of Failure: A chronicle of losers or key to success?'.

Seminars, Reading Groups, Graduate Workshops, and Language Groups

Research Seminars

Departmental Seminars organised by Mary Brazelton and Marta Halina

Twentieth Century Think Tank organised by Richard Staley, Mary Brazelton, Helen Curry and Susanne Schmidt

Coffee with Scientists organised by Marta Halina

Cabinet of Natural History organised by Edwin Rose

History of Modern Medicine and Biology organised by Mary Brazelton, Helen Curry and Nick Hopwood

Early Medicine organised by Lauren Kassell and Dániel Margócsy

Generation to Reproduction organised by Nick Hopwood and Lauren Kassell

CamPoS (Philosophy of Science) organised by Brian Pitts, Huw Price, Jeremy Butterfield, and Anna Alexandrova

Reading Groups

Twentieth Century Reading Group organised by Susanne Schmidt, Mary Brazelton, Helen Curry and Richard Staley

History and Theory Reading Group organised by Boris Jardine and Daniel Wilson

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

Philosophy of Medicine Reading Group organised by Tim Lewens, Stephen John, Jacob Stegenga and Anna Alexandrova

Philosophy and History of Physics Reading Group organised by Jeremy Butterfield and Richard Staley

Casebooks Therapy organised by Leah Astbury

Graduate Workshops

HPS History Workshop organised by Seb Falk

HPS Philosophy Workshop organised by Hardy Schilgen and Stijn Conix

Language Groups

LatinTherapy organised by Tillman Taape

Manchu Therapy organised by Mary Brazelton

Arabic Therapy organised by Seb Falk

Greek Therapy organised by Liz Smith

STUDENTS

Student Statistics

Undergraduates	Part IB	54
	Part II	24
	Part II BBS: Philosophy and Ethics of Medicine	11
	Part III	15
Graduates	MPhil	25
	PhD	37

Examination Results

Part II	1	12 (50%)
	2i	11 (45.83%)
	2ii	0
	3	1 (4.17%)
	Fail	0
Part II BBS: Philosophy and Ethics of Medicine	1	4 (36.36%)
	2i	7 (63.64%)
	2ii	0
	3	0
	Fail	0
Part IB	1	10 (18.52%)
	2i	22 (40.74%)
	2ii	21 (38.89%)
	3	1 (1.85%)
	Fail	0

Graduate Degrees Awarded

MPhil degrees awarded	25
Part III degrees awarded	15
PhD degrees awarded	2

Part II Essay and Dissertation Titles

Primary Source Essays

The Board of Longitude: Materials and Documents

A discussion of the claims that Jeremy Thacker did not exist and that John Arbuthnot is the most likely author of *The Longitudes Examin'd*

James Clarke – Longitude failure?

Was Jeremy Thacker's Pamphlet a Satire?

The Nautical Almanac and Mary Edwards

The Longitude Problem: John Harrison's Story

Science and Print in Colonial India

The role of the periodical press in the creation of a medical community in colonial India

Experiment and credibility in *Gleanings in Science*: the colonial engagement with Indian knowledge

What does *Gleanings in Science* reveal about British interest in Indian flora?

Malaria and medical topography in *Gleanings in Science*

The Jews of Malabar: Race, Religion, and Orientalism in *Gleanings in Science*

A Discussion of Colonial Perspectives on Race and Ethnicity in India

How are fears about French scientific ambition and the limitations of British science on the Indian subcontinent presented within *Gleanings in Science*?

Asian Women in *Gleanings in Science*: A Case Study in the History of Science, Gender And Race

What role did botanical gardens play in *Gleanings in Science*?

Lennart Nilsson's Photograph of an 18-week Fetus

The novelty of a *Life* magazine photo-essay: Nilsson's 'Drama of Life Before Birth', April 1965

Comparing "Birth of a Baby" and "Drama of Life before Birth" in *LIFE* magazine

Anti-abortionist uses of Lennart Nilsson's 'Drama' photographs

A Babe in Arms: The Influence of Nilsson's Fetal Photography Prior to Roe v Wade

Bringing the fetus to life

How and to what extent did Lennart Nilsson's *Drama of Life Before Birth* change the abortion debate?

The Role of Time-Life in the Iconicity of Nilsson's Photograph of an 18 Week Foetus

'Unprecedented'? A Reassessment of the Novelty of Nilsson's Fetal Photography

Narratives of Foetal Development: Text and Image in 'Drama', *A Child is Born*, and *Being Born*

World Conservation Strategy

How does World Conservation Strategy depict rural communities in developing countries?

The legacy of World Conservation Strategy: A case study of Australia

What is the role of ideas on justice in the World Conservation Strategy?

Navigating the Nature-Culture Divide in the World Conservation Strategy

How are different portrayals of the value of nature used in *World Conservation Strategy* to create a persuasive argument for the importance of conservation to development?

Duhem's Aim and Structure of Physical Theory

Was Duhem wrong about the nature of mathematics?

Duhem's apparent contradiction

Does Duhem's theory of underdetermination present a threat to scientific epistemology?

Can Duhem's concern with explanation articulate a defensible claim that he was a realist?

A Structural Realist Interpretation of Pierre Duhem's Philosophy of Science

Doha Declaration and Novartis Ruling

The definition of innovation and the risks of one too narrow in medicine

Reported history in the *Novartis* ruling

The Doha Declaration in Postcolonial Perspective

DSM-5

Cultural Factors in the DSM-5 Revision Process: a case study of the elimination of Asperger's

DSM-5 and medicalisation in psychiatry

When Asperger's Disorder Came Out

Is the DSM-5's definition of dissociative identity disorder consistent with the notion that there is more than one 'person' within one physical body?

BED and Medicalization

DSM-5 and the depression epidemic

Is Internet Gaming Disorder a Mental Illness? An Analysis of the DSM-5

Could Over-Eating be a Mental Disorder in DSM-5?

Pre-menstrual Dysphoric Disorder and the DSM-5: The Nature of the Debate Reviewed

An 'Imperfect Fit': DSM-5 and Inductive Risk in Medicine and Law

"ADHD cannot be defined as a mental disorder under Murphy's objectivist view, which we ought to adopt"

Premenstrual Dysphoric Disorder in DSM-5: An Unexpected Lack of Controversy

Dissertations

A History of the Association of Radical Midwives: 1976-1993

'Jazz, single-use syringes and AIDS' – representations of HIV/AIDS in *Literaturnaya Gazeta* in the late 1980s

Women's Participation in the Campaign for Nuclear Disarmament in Britain, 1958-1968

Permissible non-voluntary killing: is there a difference between the ethics of abortion and euthanasia?

Black women and maternity services in 1980s Britain: Experiential knowledge and women's health activism

Age, Gender, and Religion in Childhood Illness in Early Modern England, 1550-1790

Geolocation and the history of cartography: how advances in technology have redefined the map

Guinea Pig Zero and Phase I clinical trials: How a zine reframed volunteers as workers

Climate Change Denialism in the UK

Mathematics, astronomy, and women in late-Victorian Britain

Roderick O'Flaherty: Scholarship and Debate in Early Modern Ireland

The Discovery of Kala-Azar in Colonial India: Neglecting a Tropical Disease

Vaccination and Surveillance of Rubella in Postwar Britain: The National Congenital Rubella Surveillance Programme 1971-1988

British Aviation and the Sound Barrier

The Response of the British Media to the 1970s Infant-Formula Controversy

Innovation & Annihilation: British Nuclear Iconography, 1945-1965

Feminist Epistemology and Intersectionality

Does the measurement problem bring us insight into the nature of consciousness within a quantum system?

On the Limitations of the Borstal System

The History of PTSD in 1980s and 1990s Britain

Scottish Merchants, Chinese Railways: Jardine Matheson and the Construction of the "Woosung Road" in Late Nineteenth-Century China

MPhil Essay and Dissertation Titles

Sanna Alas

Essays

Emergence of translation research in the US cancer establishment, 1965-1996 (supervised by Nick Hopwood)

Unpacking boxes in British maritime history (18th-19th century) (supervised by Josh Nall)

'Give us your tired, mostly healthy masses': the immigrant medical exam in post-war United States (supervised by Mary Brazelton)

Dissertation

Pedagogy and translation of didactic verse in scientific/medical texts to and from the Islamic world (9th-12th century) (supervised by Gabriele Ferrario and Liba Taub)

Alona Bach

Essays

'Consider the mosses of the field': emotions, aesthetics, and theology in Victorian popular literature on moss in Britain (supervised by Jim Secord)

The public sphere: Roger Long's Uranium in context (supervised by Liba Taub and Josh Nall)

'Boys will be boys': gender, plug sockets, and electrical safety in the interwar British home (supervised by Jesse Olszynko-Gryn)

Dissertation

Watt makes a utopia? Staging domestic electricity in interwar Britain (supervised by Helen Curry)

Nicole Bassoff

Essays

Value conversions in health planning: from the PAHO/CENDES Method (1965) to Selective Primary Health Care (1979) (supervised by Mary Brazelton)

Citing the future: imagining genetic discrimination in Gattaca and the Genetic Information Non-Discrimination Act (supervised by Helen Curry)

Origins and continuity of English-language debates about disease eponyms, 1880–1940 (supervised by Nick Hopwood)

Dissertation

Rhetorics of rarity in the promises and projects of American genomics, 1990-2016 (supervised by Nick Hopwood)

Maria Behrens

Essays

On laws in the social sciences (supervised by Anna Alexandrova)

The ideal of value freedom in the risk society: comparing Lacey and Beck (supervised by Stephen John)

Cooperation between humans and animals: what is the benefit of proving mankind's superiority? (supervised by Tim Lewens)

Dissertation

Algorithmic profiling of humans: on reassessing Hacking's indifferent and interactive kinds (supervised by Stephen John)

Laura Brassington

Essays

Reading science and class in Victorian Manchester (supervised by Jim Secord)

Contextualizing photographs of Ghanaian Community Health Nursing, 1950-1966 (supervised by Nick Hopwood)

From patient to practitioner: re-identifying Emily Shore in *The Journal of her life* (supervised by Tim Lewens)

Dissertation

Corresponding conviction: the establishment of authority in the letters of James Croll (supervised by Anne Secord)

Sarah Byrne

Essays

Menstruation, fertility and recipe books in Early Modern England, c.1500-1700 (supervised by Lauren Kassell)

'A nobile knowynge of nature': physiognomic knowledge and the English elite, c.1400-1500 (supervised by Gabriella Zuccolin)

Inyangas and their European patients: the 'problem' of medical pluralism in Natal, 1891-1932 (supervised by Mary Brazelton)

Dissertation

Experience and wound care in late medieval English surgery, 1300-1500 (supervised by Dániel Margócsy)

Shuan Chin

Essays

To what extent has the development of acid-base theories met the criteria for scientific realism? (supervised by Hasok Chang)

The emergence of the burette and pipette: 1780-1860 (supervised by Simon Schaffer)

Southeast Asian haze: the moral responsibility of individual consumers (supervised by Stephen John)

Dissertation

Entanglement of explanation and prediction in organic chemistry reaction mechanisms (supervised by Marta Halina)

Julia Davies

Essays

Women, the NHS, and 'the right to be sterilised' in 1970s Britain (supervised by Lauren Kassell)

Mitochondrial donation: who's afraid of three-parent babies? (supervised by Tim Lewens)

Choosing Gardasil: is there an obligation to vaccinate against HPV? (supervised by Stephen John)

Dissertation

'Mothers and babies with real problems': defining complicated pregnancies in 1950s to 1980s Britain (supervised by Nick Hopwood)

Katherine Duncan

Essays

Reduction and emergence in Effective Quantum Field Theories (supervised by Jeremy Butterfield)

Teaching philosophy in physics: British quantum mechanics textbooks, 1928-1975 (supervised by Richard Staley)

The Moonshot Briton and the media: Francis Bacon's hydrogen-oxygen fuel cell (supervised by Josh Nall)

Dissertation

Between research and pedagogy: conceptual change in quantum information science (supervised by Richard Staley)

Joshua Evans

Essays

Ex Una Plures: the tense gap between domestication research and experimental evolution (supervised by Helen Curry)

Mystical mycomania: claims for a psychotropic ergot potion in the Eleusinian Mysteries of ancient Greece (supervised by Nick Hopwood)

Always under construction: 'scaffolds' and the heteronomy of reproduction (supervised by Tim Lewens)

Dissertation

Found land or made land? Indigenous cultivation and the politics of conservation in the Pacific Northwest of North America, 1778–2017 (supervised by Helen Curry)

Topaz Halperin

Essays

The impact of taxonomic inflation on comparative studies in evolutionary ecology (supervised by Nick Jardine)

Mathematical models and robustness analyses as a means to corroborate hypotheses in evolution (supervised by Tim Lewens)

Jewish agronomy in Ottoman Palestine in the beginning of the 20th century (supervised by Helen Curry)

Dissertation

Biological altruism revisited (supervised by Tim Lewens)

Michael Harmon

Essays

The myths behind the mist: narratives of technology and imperialism at the Victoria Falls Bridge
(supervised by James Poskett)

Through the lighting-glass: reassessing the incandescent light bulb's acceptance into the British
home (supervised by Jim Secord)

An American's field guide to the boffin: tracing the evolution of an archetypal British antihero
(supervised by Patricia Fara)

Dissertation

The style of elements: a personal history and synthetic philosophy of organic chemistry (supervised
by Richard Staley)

Audrey Harnagel

Essays

Is communication among scientists good for science? (supervised by Anna Alexandrova)

Bringing epistemology back into social epistemology (supervised by Stephen John)

The innovation game: management practices for fostering innovation, 1960–present (supervised by
Helen Curry)

Dissertation

Social epistemology meets science policy: a model driven proposal to test science funding strategies
(supervised by Shahar Avin and Stephen John)

Zoë Hitzig

Essays

Technocratic targeting and the subordination of values (supervised by Anna Alexandrova)

Economist as craftsman in the FCC's incentive auction (supervised by Anna Alexandrova)

The epistemic value of pre-analysis plans (supervised by Jacob Stegenga)

Dissertation

Bridging the 'normative gap': mechanism design and social justice (supervised by Stephen John)

Nina Toudal Jessen

Essays

Forestry for the future – how cameralist values entered forestry in late 18th century Germany (supervised by Dániel Margócsy)

Forest maps in the making: naturalism and map making (supervised by Simon Schaffer)

'Tina the Computer is polite and tolerant': the introduction of computers in British farming, 1971–1983 (supervised by Helen Curry)

Dissertation

Flying high: IAAC and the promotion of aeroplanes in agriculture, 1959–1975 (supervised by Helen Curry)

Matthieu Kohl

Essays

The air and its ways: Napier Shaw and the geostrophic state of the atmosphere (supervised by Hasok Chang)

The normal and the disturbance – a meteorological perspective (supervised by Simon Schaffer)

Fluid mechanical discontinuities – Max Planck Institute for Flow Research in Göttingen (supervised by Richard Staley)

Dissertation

Gabriel Guilbert – a weather forecaster from Caen (supervised by Richard Staley)

Keith Leong

Essays

Do cognitive biases undermine or support intellectual virtue? (supervised by Marta Halina)

Leonard Darwin's contribution to eugenic science in Britain (supervised by Jim Secord)

The authority of science in the Sokal hoax and today's culture wars (supervised by Nick Jardine)

Dissertation

Can and should moral realism survive evolutionary ethics? (supervised by Tim Lewens)

Katya Morgunova

Essays

Manufacturing diversity: what the images in Krasheninnikov's 'Description of the Land of Kamchatka' (1755) reveal about early Russian ethnography (supervised by Dániel Margócsy)

Culture and modularity of mind: how cross-cultural differences can shape our understanding of the subsystems of human minds (supervised by Marta Halina)

Medical assessment of child adoptability in the United Kingdom, c. 1958–1980 (supervised by Nick Hopwood)

Dissertation

Great apes and the role of observation in the 18th century (supervised by Dániel Margócsy)

Julia Ostmann

Essays

William James and some omissions of integrative pluralism (supervised by Hasok Chang)

Farmers, academics, antiquarians and the museum: building bodies of knowledge from a human skeleton (supervised by Jim Secord)

Why we shouldn't critique the biomedical model of psychiatry (supervised by Anna Alexandrova)

Dissertation

Skins, skeletons, show-cases and the science of life: organising Cambridge's bird room at the turn of the 20th century (supervised by Boris Jardine)

Emma Pask

Essays

The problem with mutualism (supervised by Tim Lewens)

Communicating phantom limb pain: x-ray films in orthopaedic surgery in postwar Britain (supervised by Nick Hopwood)

Hive mind? A distributed cognition model of pollination (supervised by Marta Halina)

Dissertation

Individuality in the lab and in the field: an updated account of Thomas Pradeu's continuity theory of immunology (supervised by Tim Lewens)

Guy Sechrist

Essays

Collaborative healers: pregnant-patients and their midwives in Richard Napier's casebooks (supervised by Lauren Kassell)

'False measures': 17th-century English gauging instruments (supervised by Boris Jardine)

Closed curiosity cabinets and sheltered gardens: the re-appropriation of barrels for transporting and preserving natural history (supervised by Simon Schaffer)

Dissertation

Materials of exchange: state knowledge, natural history, and the use of barrels in transporting specimens in early modern England (supervised by Dániel Margócsy)

Anna Skulberg

Essays

Visualizing the optical illusions of gravitation: simulations of black holes in visual representations (supervised by Simon Schaffer)

Visualizing an inference: the Illustris simulation in science communication and the ontology of dark matter (supervised by Richard Staley)

Enacting scientific cognitivism: nature aesthetics and data visualizations in NASA's Eyes on the Earth (supervised by Helen Curry)

Dissertation

Building around a black hole: materiality and embodiment in visual representations of black holes, c.1965-2017 (supervised by Richard Staley)

Francis Smallwood

Essays

The role of replicators in selection processes (supervised by Tim Lewens)

The socio-cognitive bases of linguistic communication and the evolution of language (supervised by Marta Halina)

How possibly explanation and explanatory pluralism (supervised by Adrian Currie)

Dissertation

Evolution, morality and the genesis of moral judgement (supervised by Tim Lewens)

Laura Van Pelt

Essays

The limits of rationality as a fundamental and regulative ideal in science and science education
(supervised by Hasok Chang)

The applicability of the situationist objection to Miranda Fricker's virtue of testimonial justice
(supervised by Stephen John)

Can a theory-neutral measurement of well-being be obtained via either the evidential view as
proposed by Hausman and McPherson or the 'markers' proposal by Taylor? (supervised by
Anna Alexandrova)

Dissertation

Science and expertise versus the public – a case study and reflections on the case of government
nutrition advice (supervised by Stephen John)

Alice Wang

Essays

Flournoy, unfashionable metaphysics and the persuasion of Freudian psychoanalysis (supervised by
Andreas Sommer)

Reproductive health through the eyes of women missionaries in Republican China: 1900-1949
(supervised by Mary Brazelton)

Helmholtz and Mach: historical hearing, aesthetics and cultural evolution (supervised by Richard
Staley)

Dissertation

A Korean astronomical screen at the Whipple Museum: parsing a composite cosmography
(supervised by Liba Taub and Mary Brazelton)

Helen Zhao

Essays

Science and values: two kinds of inquiry (supervised by Hasok Chang)

Causation in biochemistry: a case study (supervised by Jeremy Butterfield)

Counterfactuals in history (supervised by Anna Alexandrova)

Dissertation

Functions, genes and the ENCODE controversy (supervised by Tim Lewens)

Part III Essay and Dissertation Titles

Joe Bonham-Carter

Essays

Otto Neurath's welfare economics (supervised by Anna Alexandrova)

The reception of David Hartley's *Observations on Man* (supervised by Simon Schaffer)

Dissertation

The reception of Erasmus Darwin's *Phytologia* (supervised by Patricia Fara)

Jo Drury

Essays

Children on parade: a historical perspective on the ethnology of children in Victorian Britain
(supervised by Richard Staley)

A bug's life: histories of human-insect interactions in 19th and 20th-century science and medicine
(supervised by Helen Curry)

Dissertation

The new Silent Spring? Debating the role of neonicotinoids in Colony Collapse Disorder
(supervised by Helen Curry)

Daniel Farraway

Essays

Joseph Wright of Derby's 'An Experiment on a Bird in the Air Pump' and its social significance
(supervised by Simon Schaffer)

Contextualising Darwinian caricatures (supervised by Jim Secord)

Dissertation

Painting the Enlightenment: redefining the 'Age of Reason' through Joseph Wright of Derby's
audiences (supervised by Patricia Fara)

Steph Frow

Essays

A reappraisal of women in Cambridge science: the Balfour Biological Laboratory for women and
William Bateson's circle (supervised by Helen Curry)

A critical review of extant literature on United States of America vs Karl Brandt et al., the Nazi
Doctors' Trial at Nuremberg, 1946-7 (supervised by Mary Brazelton)

Dissertation

Joseph Needham and allegations of biological warfare in the Korean War, 1951-3 (supervised by
Mary Brazelton)

Abby Hayes

Essays

In defence of psychiatric disorders as mechanistic property clusters kinds (supervised by Marta
Halina)

Gender ideology in biology (supervised by Anna Alexandrova)

Dissertation

The role of a feminist critique in scientific and medical approaches to menstruation (supervised by
Jacob Stegenga)

James Livesey

Essays

It's a wonderful life! Disability, well-being, and deciding what is important (supervised by Tim
Lewens)

Autism and gender: the cultural context of neurodevelopmental assessment and science (supervised by Robbie Duschinsky)

Dissertation

The paradigm of neurodiversity and understanding 'brain difference' in autism (supervised by Marta Halina)

Emma O'Hare

Essays

Examining the role of open access in theories of science and the public (supervised by Stephen John)

Medical electricity during the rise of electrification (supervised by Richard Staley)

Dissertation

Physics demonstration apparatus in textbooks and trade literature (supervised by Liba Taub)

Robin Polding

Filming science effectively for teaching and television: William Lawrence Bragg at the Royal Institution, 1959-67 (supervised by Jesse Olszynko-Gryn)

How have scholars sought to understand the weather and climate of 17th and 18th-century Britain and why is this useful? (supervised by Richard Staley)

Dissertation

Catching colds in 17th and 18th century Britain: humourism, anatomy and everyday life (supervised by Dániel Margócsy)

Peter Rees

Essays

Philip Henry Gosse in Jamaica: knowledge, status and truth to nature (supervised by Jim Secord)

The planning versus freedom ideological conflict: John Desmond Bernal and Michael Polanyi's polemical interactions over planning in science (supervised by Richard Staley)

Dissertation

C.S. Lewis, science and society (supervised by Nick Jardine)

Polina Sosina

Essays

Purified preferences and well-being (supervised by Anna Alexandrova)

Tools for transforming the world: the role of technology in international development (supervised by Helen Curry)

Dissertation

Is the Hamilton Depression Rating Scale a good measuring instrument for research into depressive disorders? (supervised by Jacob Stegenga)

Rosanna Suppa

Essays

The Steinach method of rejuvenation in the British press during the early 1920s (supervised by Nick Hopwood)

The brain death debate: perspectives through the second half of the 20th century (supervised by Salim Al-Gailani)

Dissertation

Top-down vs bottom-up: integrating the response from Gay Men Fighting AIDS into the media and governmental 'de-gaying' of AIDS in 1980s Britain (supervised by Jesse Olszynko-Gryn)

Paul Tao

Essays

Evaluating the role of values in social psychology through the application of Kitcher's concept of well-ordered science (supervised by Marta Halina)

Appealing to mechanisms when making causal inferences in medicine (supervised by Jacob Stegenga)

Dissertation

Making causal inferences in medicine: statistical vs. mechanistic approaches (supervised by Jacob Stegenga)

Henry Warne

Essays

J.B.S. Haldane: a conflicted scientist? (supervised by Helen Curry)

Was male infertility invisible between 1870 and 1960? (supervised by Nick Hopwood)

Dissertation

The visibility of male 'sterility' in British medicine, 1870-1930 (supervised by Nick Hopwood)

Shona Whatford

Essays

'The finest and most perfect specimen in the world': the Pevensey Whale as a 'popular' and 'scientific' object, 1865-c.1900 (supervised by Boris Jardine)

Bath as a space of health tourism in the 18th century (supervised by Emma Spary)

Dissertation

Spa consumers in 18th-century England: tourism, writing and advice (supervised by Emma Spary)

James Whitehouse

Essays

Chemistry, orbitals and pragmatic realism (supervised by Hasok Chang)

For and against mechanisms: what should the role of mechanistic reasoning be when making causal claims in biomedicine? (supervised by Jacob Stegenga)

Dissertation

The use of mechanistic evidence for causal inference in biomedicine (supervised by Jacob Stegenga)



PhD Theses

Awarded

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)



**WHIPPLE
LIBRARY**



**UNIVERSITY OF
CAMBRIDGE**

Department of History and
Philosophy of Science

THE LIBRARY



2016-2017 has been a year of comings and goings, both in terms of our collections and staff. We said a fond farewell to Anna Jones at the beginning of August 2017. She became Whipple Librarian in March 2012 and has overseen so many positive changes here. Students and staff from HPS, as well as staff in the wider library community, will sorely miss her. We all wish her luck with her new adventure away from the world of libraries as she trains for ordination in the Church of England.

We saw some changes to our team of evening and lunchtime invigilators. Tillmann Taape continued on the team from last year but sadly left in the early part of 2017. Stephen Courtney joined the team at the start of the academic year and also departed for pastures new at the start of July. We welcomed Katharine Griffiths to our team for a few hours each day, thanks to the Department's generosity. She took up the post of Departmental General Assistant in October 2016 and spent her allocated library time working on the front desk and on various other projects. These included the weeding exercise and cataloguing a special collections acquisition. Katharine left us at the start of August and is now enjoying her life in Italy. Toby Bryant, who took over Katharine's role as a General Assistant in the department and library, joined us in August. Clare Matthews left the library at the end of September to embark on a PhD, and James Livesey became our new library assistant shortly afterwards. A big thank you to them all.

In the wider Cambridge library community, we welcomed Dr Jessica Gardner to the post of University Librarian & Director of Library Services from April 2017. She has been very keen to meet library staff across the University and Anna Jones took up the opportunity to do this. We hope she enjoys her new position at Cambridge and look forward to working with her.

We not only said goodbye to staff but also to parts of our collection. A weeding exercise took place in which a number of duplicate copies in the history of philosophy and modern philosophy of science (sections F-H and IA-K in our classification scheme) were withdrawn. We also removed a few large reference works that are now available in electronic form.

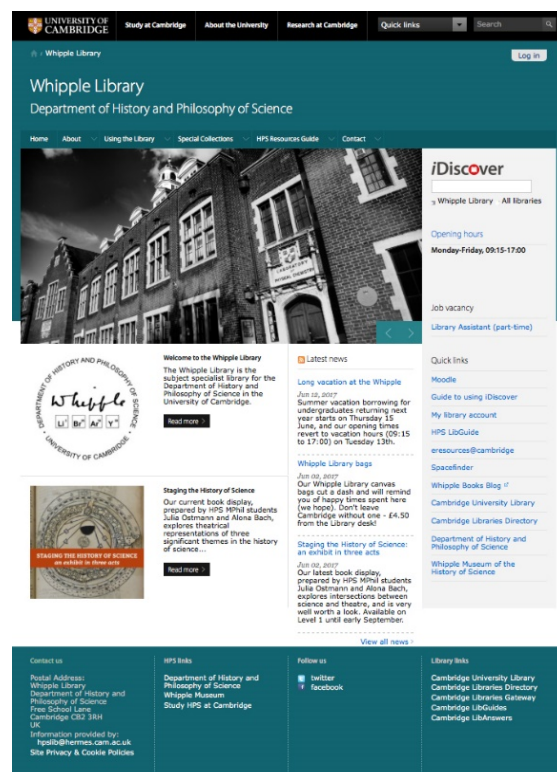
We have had our special collections enlarged with donations from Martin Rudwick and purchases from Jim Secord (see the collections section for more details).

The Whipple launched its new website in January 2017. It uses Falcon, the University's Content Management System, and was meticulously planned in the months previous to its launch by library staff. The website aims to provide a highly usable access point to everything that our library users

need, including links to Moodle, iDiscover, LibGuides, and information about our special collections. We hope that the website will continue to develop over time and if anyone has any comments, suggestions, or spots any mistakes, please let us know.

Now, a quick look to the future. January 2018 will see the introduction of a new Library Management System (staff will be overheard discussing Alma rather than Voyager). This will have an impact on the first part of 2017-18 as staff will need to attend further training additional to the sessions attended this year.

This follows on from the launch of iDiscover in September 2016, which replaced LibrarySearch, as the new way of exploring the libraries catalogues.



The new-look Whipple Library website at www.whipplelib.hps.cam.ac.uk

Collections

Our collections have grown this year with around 704 new physical items and 71 new ebooks.

On 22 March 2017 we received a large donation from Professor Martin Rudwick consisting of important items in the history of the geological sciences. Among these are Georges Cuvier's *Recherches sur les ossements fossiles de quadrupedes*, several editions of Charles Lyell's *Principles of geology*, and Martin Lister's monumental volume of copper-plate engravings of shells, the *Historiae sive synopsis methodicae conchyliorum*. These have greatly enriched our collections in earth sciences and a selection of items will feature in the Library's contribution to Open Cambridge in September.

We also received various books from Professor Jim Secord over the past year. These have included Jane Loudon's *The young naturalist*, Thomas Squire's *A popular grammar of the elements of astronomy*, Richard Newton's *Nature's mighty wonders*, and Eliza Brightwen *Inmates of my house and garden*. All of these date from the 19th century and therefore have become wonderful additions to our collections in this area. We also purchased yet another Reverend J.G. Wood book, this time a 3rd edition of *Common objects of the microscope*, published in 1949 and re-written by W.J. Ferrier.

In addition to books, the acquisition of a collection of pamphlets from the late 19th and early 20th centuries, once belonging to the Board of Education Library, has enhanced our holdings in the history of science education in Britain. We also brought Dawn a new cataloguing challenge in the form of around 100 ornithological postcards produced by the British Museum (Natural History) in the 1920s and 1930s

(<https://whipplelib.wordpress.com/2017/04/05/postcards-the-rda-challenge/>)



Staffing

Whipple Librarian: Anna Jones

Library Assistants: Dawn Kingham & Clare Matthews

Invigilators: Stephen Courtney, Meira Gold, Aga Lanucha, Tillman Taape, Annie Thwaite

Training & professional development

All permanent members of staff have attended Falcon training to enable them to edit the website so it can be developed and kept up-to-date. They have also attended demonstrations of the incoming Library Management System, Alma, with the Librarian attending user testing sessions as well. As staff in the UL and Affiliated Libraries are migrating over to Outlook for their email and calendar system, Whipple staff went to brief sessions which described the migration process and allowed those of us who had not used Outlook Exchange before to have a basic demonstration. The Libraries@Cambridge conference took place in January 2017. Clare and Anna attended this event, which asked “Are you a Library Superhero?”, and benefitted from a variety of sessions, including on emergency planning, knowledge management, conservation, and how to cope when things don’t go quite as expected.

Staff have also continued to keep their health and safety training current by attending Evacuation Chair and Stair Climber Refresher courses. We have taken part in online training too, which all University staff are encouraged to do at the start of each academic year, involving fire safety and diversity.

Anna attended a number of training courses over the year, including “Mapping your Workflow” and “Effective Teams”, run by the Library in Training Team. She also attended meetings about Open Access and Scholarly Communications. She continued to be involved in Journal Co-ordination, the

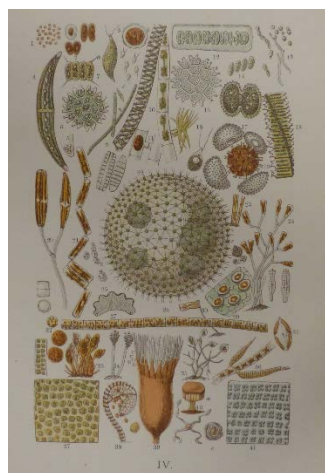
E-book group, attended meetings of the UL Events and Outreach Committee, co-organised sessions on Image Copyright and Planning Research Trips (part of combined SHSS & SAH graduate training series), and prepared material on working with special collections (print & MS) for Graduate showcase (March 2017).

Dawn has mainly concentrated on cataloguing this year, by attending the forum RDA: 3 Years Later, a lecture on BibFrame and the training course Specialist Cataloguing-Maps, Music and Kits. She also attended a Webinar in July about OpenAccess.

Clare attended sessions of the Historic Libraries Forum Annual Conference on “Impact: new audiences for historic collections” in November 2016.

Katharine attended a course entitled Software skills for Librarians, which consisted of four sessions in April 2017.

User Education



Science in Print

It was another successful year for Science in Print, with a total of 13 participants. The Michaelmas term saw Roger Gaskell and Anna Jones running 4 sessions on book production in the hand press period, which included a trip to the University Library's Historical Printing and Rare Books Rooms. The Lent term saw sessions run by Drs. Sarah Bull and James Poskett on book production in the 19th and 20th centuries. These sessions allow graduate students and post-docs in HPS and other subjects to gain some hands-on experience of examining and handling books. The experience also generated a blog post from Anna Gielas, where she has reviewed the sessions from Lent term (<https://whipplelib.wordpress.com/2017/07/14/reflections-on-science-in-print-ii/>).

Induction tours

These ran as normal at the start of the academic year. There were general tours and more focused ones aimed at specific student cohorts. All tours give incomers a chance to have a look round the library and an introduction to the services that we offer. We also provided introductions to the

library on a one-to-one basis when required. These usually took place when new student or academic visitors joined the Department.

Outreach & Public Events

Displays

We have had a nice range of book displays in the special cases on Level one. These have been “Writing Science: interpreters, educators, scholars” (November 2016-April 2017), which exhibited material on a wide range of topics by women who were scholars, educators and interpreters of scientific information from the mid-18th to the early-20th centuries, and “...it is not difficult to define a Bird” (April-June 2017), featuring the British Museum postcards and books relating to ornithology.

Our final display of the year “Staging the History of Science: an exhibit in three acts” was prepared by Julia Ostmann and Alona Bach, two of the Department’s MPhil students. The display explores theatrical representations of three significant themes in the history of science - Astronomy, Newtonianism and Radioactivity - by juxtaposing theatrical scripts and memorabilia alongside texts from the Whipple’s special collections that expound the related scientific ideas. The display was launched at the beginning of June with a special evening event featuring staged readings from some of the plays.

Online versions of our book displays can be seen on our website:
<http://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays>

In September 2016 our theme for Open Cambridge was space travel, and the Old Library saw a display of works dating from the 17th to the 20th century, covering globes and orreries, studies of the sun, moon and planets, and exploring ideas of life on Mars and interplanetary travel. For the Science Festival in March 2017, Clare also represented the Library with a display of some lesser known items in our collections at the “Why is this here?” event, and with a selection of microscopy books for a family activity day, themed “Customised and Invented”, both held in the Whipple Museum.





Above and previous page: photos from the 'Staging the History of Science' launch

Schools sessions and visits

Clare and Anna continued to work with the Museum Learning Co-ordinator, Rosanna Evans, to deliver a number of sessions of the now well-developed “Medicine and Anatomy through time” and “Darwin, Evolution and the *The Origin of Species*” workshops. Clare also hosted a session on “Women in Astronomy” for students visiting from Kutztown University, Pennsylvania, in January 2017. Anna welcomed the Graduate Trainees from Cambridge libraries on their annual visit to the Whipple in March, and in July, hosted a group for a “Tea and Talk” session in the Museum on Robert Whipple as a collector.

Blog

Our blog has continued to grow over the year. Although a little behind schedule, we completed the A-Z posts focusing on items from the special collections in December 2016, providing a nice starting point to delve into our collections. Other posts have discussed the cataloguing of the new acquisition of postcards produced by the British Museum, books displayed at the 1951 Festival of Britain and the collection of science education pamphlets. Two posts were related to the work of Robert Fludd: our recent acquisition of his *Philosophia Moysaica*, and Fludd’s influence on Robert Hooke.

INDIVIDUALS

Annual Reports of Members of the Department

Anna Alexandrova



This year I enjoyed giving a new lecture course called Philosophy of Economics. It was available to students across four tripos (HPS, Economics, Philosophy, and Human, Social, and Political Sciences). Along with Stephen John I continued to direct the Limits of Numerical Grant at CRASSH. We also started a new project “Values and the Science of Intelligence” at the Leverhulme Centre For Future of Intelligence. The members of the European Philosophy of Science Association elected me as member of the Steering Committee; I have also been elected as Member of Council of the Royal Institute of Philosophy.

Publications

Books

A Philosophy for the Science of Well-being, New York: Oxford University Press, 2017.

Articles in journals

“Is Well-being Measureable After All?” *Public Health Ethics* 10 (2): 129-137.

Lectures, seminars and conferences

February 2017

“What scientists know about well-being”, Trinity College Dublin Philosophy Department Colloquium and University of Edinburgh Philosophy of Science Series, February 2017.

March 2017

“Well-being and Expertise”, Erasmus Institute of Philosophy and Economics 20th anniversary conference, March 2017, keynote speaker.

May 2017

“Knowledge(s) about well-being”, Stockholm University Happiness, Virtue, and Meaning Workshop, May 2017.

July 2017

“Building a Theory of Child Well-Being”, What Constitutes a Good Outcome in Child Mental Health? Anna Freud Centre Event, London, July 3rd 2017.

September 2017

“Are social scientists experts on values?” Keynote Address, European Network for the Philosophy of the Social Sciences (ENPOSS) 2017 conference (Poland, Cracow, 20-22 September).

Public Engagement and Impact

Writings

Forum For European Philosophy, 24th Oct 2016, “Value-Added Science: Anna Alexandrova on value judgments and measurement of well-being” <http://blogs.lse.ac.uk/theforum/value-added-science/?platform=hootsuite>

Interviews

Mental_Elf (Andre Tomlin of National Elf Service), July 3rd 2017, “Towards a Theory of Child Well-being: Podcast Interview with Anna Alexandrova” https://twitter.com/Mental_Elf/status/881912348419776512

Yuga Portal, 15th Nov 2016, “Philosopher Anna Alexandrova on the moral problems of AI” (in Russian) <https://www.yuga.ru/articles/society/7665.html>

RBC Kuban, Dec 14th 2016, “Philosopher from Cambridge: The rich are generally happier than the poor” (in Russian) <http://kuban.rbc.ru/krasnodar/interview/15/12/2016/585247619a7947cd598dd329>

Consultancy work

Wellbeing Committee Member of the IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems

Salim Al-Gailani

In July 2017 Salim joined the steering committee of the AHRC Birth Risks in Historical Perspective Research Network.

Publications

Articles in journals

“The ‘Ice Age’ of Anatomy and Obstetrics: Hand and Eye in the Promotion of Frozen Sections around 1900”, *Bulletin of the History of Medicine* 90 (2016): 611

Lectures, seminars and conferences

November 2016

“Vitamins on Trial: Folic Acid as a Technology of Reproduction and Prevention” (seminar paper presented at the Department of History and Ethics of Medicine, University of Heidelberg, 15 November 2016)

January 2017

“Risky Pregnancies Before Primodos: Teratology, Clinical Genetics and Fetal Surveillance in the UK and West Germany” (paper presented at the Contested History of Hormone Pregnancy Tests Workshop, University of Cambridge, 27 January 2017)

February 2017

“Vitamins on Trial: Folic Acid as a Technology of Public Health (seminar paper presented at the Royal College of Physicians and Surgeons of Glasgow, 14 February 2017)

May 2017

“Capturing the Womb: Pregnancy Surveillance in Early Twentieth-Century Britain” (paper presented at the Policing Pregnancy Conference, Canterbury Christ Church University, 18 May 2017)

June 2017

“Teratology in Edinburgh c.1900” (papers presented at a workshop on the history of genetics and reproductive sciences in Edinburgh, University of Edinburgh, 27 June 2017)

July 2017

“Linking Up Expectant Mothers with Antenatal Care: Public Health and Perceptions of Risk in Pregnancy in Britain, 1914-1936” (paper presented at the AHRC Risks in Childbirth in Historical Perspective Network Workshop, University of Brighton, July 7, 2017)

Jenny Bangham

During 2016-17, Jenny was in the first year of her 3-year Wellcome Trust Medical Humanities Fellowship. She collected oral history interviews and archival material on research trips in the UK and the US. Jenny also completed a book manuscript based on her previous project, provisionally called *Blood Relations*, which she submitted to a publisher for review.

Publications

Articles in journals

‘Bermuda 2.0: reflections from Santa Cruz’, *GigaScience*, 5, 1–4. (2016), with Reardon, J., Ankeny, R.A., Darling, K. W., Hilgartner, S., Maxson Jones, K., Shapiro, B., Stevens, H. A., and The Genomic Open workshop group.

Edited books

(with J. Kaplan) *Invisibility and Labour in the Human Sciences* (Max Planck Institute for the History of Science preprint, October 2016)

Lectures, seminars and conferences

October 2016

‘Infrastructures, instruments and methods for making human variation’, (invited paper for workshop ‘Many Methods, One Biology?’ Center for Advanced Studies, Ludwig-Maximilians Universität München, 20-22nd October, 2016)

November 2016

‘FlyBase, paper and the internet: Community tools for genetics’ (invited research colloquium, Department of History of Science (Prof. Anke Te Heesen), Humboldt University, Berlin, 16th November 2016).

March 2017

‘Data, flies and curators’ (invited departmental seminar, Department of History, Kings College London, 29 March 2017)

May 2017

‘The history of the body as political history’ (invited departmental seminar, Department of History, University of Southern Denmark, Odense, Denmark, 15th May 2017.)

‘The body as politics’ (graduate seminar, Department of History, University of Southern Denmark, Odense, Denmark, 16th May 2017.)

July 2017

Commentary for panel 'Paper Figures: Media Technologies and Scientific Subjectivities' (at BSHS annual conference, 8th July 2017)

Commentary (by proxy) for panel 'Gatekeepers, informants and the undisciplined labor of scientific knowledge production' (at ICHST 2017 Symposium, Rio de Janeiro, Brazil, 26th July 2017).

Boyd Brogan

In October 2017 I began a non-stipendiary Junior Research Fellowship at Wolfson College, Cambridge. I also became the secretary of the Wolfson College Humanities Society, which organises weekly talks by distinguished humanities scholars during each term.

I continued as organiser of the termly HPS reading group 'Early Science and Medicine Work-in-Progress', which forms part of the HPS graduate training program.

Publications

Reviews

Review of Robert Matz, ed., *Two Early Modern Marriage Sermons* (Routledge, 2017). *Renaissance Studies* online edition ('early view') 23/02/2017

Lectures, seminars and conferences

February 2017

Chaired a talk by Professor Gordon Johnson on 'Scholarly publication in the seventeenth century: Oxford, Cambridge and the "learned press"', Wolfson College Humanities Society, Cambridge, 7 Feb. 2017.

Chaired a talk by Dr Ornit Shani, 'The origins of India's democracy: making universal franchise in the world's largest democracy', Wolfson College Humanities Society, Cambridge, 14 Feb. 2017.

May 2017

'Gender, sexuality and medicine in early modern exorcism'. Paper presented at the Wolfson College Humanities Society, Cambridge, May 23rd 2017.

Participant in 'The Embodied Senses' symposium at Folger Shakespeare Library, Washington D.C., 25-27 May 2017. Competitive entry; awarded fee waiver.

June 2017

Attended conference 'Powerful Emotions / Emotions and Power, c.400-1850, University of York, 28-29 June 2017.

Public Engagement and Impact

The Wolfson College Humanities Society events listed above (February and May 2017) were all advertised for, and open to, the general public.

Sarah Bull

2016/2017 was a relatively quiet academic year for me, during which I primarily focused on writing related to my Wellcome-funded research project on Victorian medical publishing. In addition to this and giving the talks detailed below, I enjoyed collaborating with the University Library to organize a fourth session for the seminar on science in print in the nineteenth and early twentieth centuries that I taught for the second time with James Poskett and Anna Jones in Lent term; supervising for Part II, Papers 3 and 4; and sitting on the Whipple Library Committee.

Publications

Articles in journals

“Reading, Writing, and Publishing an Obscene Canon: The Archival Logic of the Secret Museum, c. 1860 — c. 1900.” *Book History* 20 (2017): 226-257.

Lectures, seminars and conferences

December 2016

“Reading Sexual Advice in the Age of Mass Print: The Sexual Knowledge Business in Victorian Britain.” (Invited talk for 19th Century Research Unit Lecture Series, Anglia Ruskin University, Cambridge, UK, December 9, 2016)

February 2017

“Rethinking the Source in the Nineteenth Century: Book Presentation and Circulation, Mirrors of Nature, and ‘Interdisciplinary’ Methods of Sexual Scholarship.” (Invited talk for Interdisciplinary Histories conference organized by the Rethinking Sexology Project at the University of Exeter, Exeter, UK, February 13 - 14, 2017)

April 2017

“Sex Ed by the Numbers: What Classified Advertisements Can Tell Us About How and What Victorians Learned About Sex.” (Paper presented at the Victorian Studies Association of the Western United States/Victorian Studies Association of Western Canada Joint Conference, “Victorian Education,” April 28-29, 2017)

May 2017

“Zombie Handbooks, Preserved Specimens: Victorian Sexual Advice and British Cultures of Reprinting.” (Paper presented at the North American Victorian Studies Association/ Australian Victorian Studies Association Supernumerary Conference in Florence, Italy. May 17 – 20, 2017).

Public Engagement and Impact

“The Medical Book in the Nineteenth Century: From Manuscript Casebooks to Mass Plagiarism.” (Hands-on public workshop at Cambridge University Library. Organized in collaboration with the Cambridge Centre for Material Texts and Cambridge University Library Rare Books. Run March 6, 2017)

Andrew Buskell

Andrew returned to the department in January 2017 as part of the Templeton funded project: ‘Putting the Extended Evolutionary Synthesis to the Test’. In June, he was awarded the 2016 Salje Medal for best PhD in the Arts and Social Sciences from Clare Hall, Cambridge.

Publications

Articles in journals:

“What are cultural attractors?” *Biology and Philosophy* 32 (2017): 377-394

Reviews

“Andy Clark, Surfing Uncertainty: Prediction, Action, and the Embodied Mind”. *British Journal for the Philosophy of Science* (2017)

Lectures, seminars and conferences

November 2015

“Why Us? The Puzzle of Hominin Cognition and the Deep Origins of Human Culture” (paper presented at *London School of Economics Weekend Workshop* held at the Cumberland Lodge)

December 2016

“Explaining with Cultural Attractor Theory” (paper presented at *New Directions in the Evolutionary Social Sciences*, conference held at CRASSH, Cambridge)

March 2017

“Ecological Factors of Attraction and Causal Explanation in Cultural Evolution” (paper presented at *CamPos* seminar, held at the University of Cambridge)

July 2017

“Causes of Cultural Diversity” (paper presented at the annual *British Society for the Philosophy of Science* conference held in Edinburgh)

Soraya de Chadarevian

Soraya de Chadarevian is the recipient of an NSF Scholars Award for the project *Heredity under the Microscope: A History of Human Chromosomes* (2015-2018). In the summer of 2017, she spent a month as a fellow at the Institute for Advanced Studies in the Humanities of the University of Edinburgh.

Publications

Articles in journals

“Whose Turn? Chromosome Research and the Study of the Human Genome,” *Journal of the History of Biology*. Published online July 2017. DOI 10.1007/s10739-017-9486-7

“It is not enough, in order to understand the book of nature, to turn over the pages looking at the pictures. Painful though it may be, it will be necessary to learn to read the text’: visual evidence in the life sciences, c. 1960,” in *Traces*, ed. B. Bock von Wülfingen, *Bildwelten des Wissens* 13 (2017): 57-67 (German: *Spuren*, 2017, pp. 48-56).

Chapters in books

“Ode to the Ice Bucket,” in *Cryopolitics: Frozen Life in a Melting World*, ed. Joanna Radin and Emma Kowal (Cambridge, MA: MIT Press, 2017), 83-88.

Lectures, seminars and conferences

November 2016

'Imagining the science archives of the future: a more active role for historians?' Paper presented at the session: Science Archives and Science Historians in the 21st Century, History of Science Society Annual Meeting Atlanta.

"'As astonishing as a picture of the back of the moon': chromosomes and the study of human heredity", seminar talk, Mississippi State University.

'Things and data in recent biology', paper presented at the conference Histories of Data and the Database, Huntington Library. Co-organizer of conference.

December 2016

'Normalization and the search for variation in the human genome,' paper presented at workshop Southern Oceanic Topologies and Genealogies: Genetic Explorations of the Pacific and Australasia, University of Sydney.

March 2017

'Radioactive diet: food, metabolism and the environment, c. 1960,' paper presented at workshop Risk on the Table: Food, Health, and Environmental Exposures, Princeton University.

April 2017

'Of chromosomes and DNA', paper presented at ISG Fellows' meeting, UCLA.

June 2017

'Michael Court Brown and the establishment of human genetics in Edinburgh,' paper presented at workshop: The history of genetics in Edinburgh, Institute for Advanced Studies in the Humanities, University of Edinburgh. Co-organizer of workshop.

July 2017

"'... more exciting than the back of the moon': chromosomes and the study of human heredity,' paper presented at Fellows' meeting, Institute for Advanced Studies in the Humanities, University of Edinburgh

'Human chromosomes and the expansion of genetic technologies,' paper presented at session Global perspectives on Genetics: Past and Present, ISHSSP meeting, Sao Paulo, Brazil.

'Special journal issues and electronic publishing,' paper presented at symposium 21st Century Challenges for History of Science and History of Medicine Journals, 25th International Congress of History of Science and Technology, Rio de Janeiro, Brazil.

Hasok Chang

The academic 2016-17 year was a period primarily focused on research, with the Lent and Easter Terms taken as sabbatical leave.

In professional service, I continued to focus 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 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 History and Philosophy of Science and Technology (IUHPST). In other service, I have continued on the governing Council of the Society for History of Alchemy and Chemistry, also agreeing to serve as Deputy Chairman of the Society from 2017. For most of this academic year I have also served as the Acting Chair of the Management Committee for the Lakatos Award in the Philosophy of Science.



During the Michaelmas Term I carried out a full load of lecturing and supervising, and throughout the academic year I continued to look after a large number of PhD students. I continued with organising the Coffee with Scientists seminar group in Michaelmas Term, before handing over to Marta Halina when I went on sabbatical. My collaborative agreement with the Department of Chemistry continues, and was renewed for another 3 years in August 2016. I remain a Fellow of Clare Hall, and I also continued my service as the external DoS for HPS at St Catharine’s College.

Publications

Articles in journals

“Pluralism versus Periodization” (comments on Frans van Lunteren), *Isis* 107 (2016): 789–792.

“Pragmatic Realism,” *Revista de Humanidades de Valparaíso* 4(2) (2016): 107–122.

“Who Cares About the History of Science?” (2015 Wilkins–Bernal–Medawar Lecture), *Notes and Records: The Royal Society Journal of the History of Science* 71 (2017): 91–107.

Chapters in books

“Foresight in Scientific Method” (text of the Darwin College Lecture delivered on 8 February 2013), in *Foresight*, ed. Lawrence W. Sherman and David Allan Feller (Cambridge: Cambridge University Press, 2016), 82–100.

“History and Philosophy of Science in the Service of Scientific Pluralism” (pamphlet containing the text of the 2013 Fernando Gil International Prize Lecture, delivered on 20 March 2014) (Lisbon: Fundação Calouste Gulbenkian and Fundação para a Ciência e a Tecnologia, 2016), 47pp.

“Operationalism: Old Lessons and New Challenges”, in *Reasoning in Measurement*, ed. Nicola Mößner and Alfred Nordmann (London and New York: Routledge, 2017), 25–38.

“Epistemic Iteration and Natural Kinds: Realism and Pluralism in ‘Taxonomy,’” and “Comments on [Kathryn Tabb and Kenneth F. Schaffner’s] ‘Causal Pathways, Random Walks, and Tortuous Paths: Moving from the Descriptive to the Etiological in Psychiatry,’” in *Philosophical Issues in Psychiatry IV: Classification of Psychiatric Illnesses*, ed. Kenneth S. Kendler and Josef Parnas, (Oxford: Oxford University Press, 2017), 229–245, and 361–365.

“Prospects for an Integrated History and Philosophy of Composition,” in *Logic, Methodology and Philosophy of Science – Proceedings of the 15th International Congress*, ed. Hannes Leitgeb, Ilkka Niiniluoto, Päivi Seppälä and Elliott Sober (London: College Publications, 2017), 215–231.

Lectures, seminars and conferences

October 2016

“How Science Learns About Unobservable Entities” (Faraday Research Seminar, The Faraday Institute, Cambridge, October 25, 2016)

November 2016

“Batteries and Energy Conservation: The Emergence of a Technoscientific System in the Early 19th Century” (paper presented at the History of Science Society Annual Meeting, Atlanta, Georgia, November 5, 2016)

January 2017

“Pragmatist Coherence as the Source of Truth and Reality” (paper presented at the Aristotelian Society, London, January 9, 2017)

“과학과 인문학은 이질적인 것인가? [Are the Sciences and the Humanities Alien from Each Other?]” (seminar at Kyung Hee University, Seoul, January 18, 2017)

“Who Cares about the History of Science? The Case of Voltaic Batteries” (presentation at the Stokes Society, Pembroke College, University of Cambridge, January 25, 2017)

February 2017

“Pragmatist Coherence as the Source of Truth and Reality” (CamPoS seminar, Department of History and Philosophy of Science, University of Cambridge, February 15, 2017)

“Who Cares about the History of Science? The Case of Voltaic Batteries” (colloquium at the Department of Physics, University of Bristol, February 27, 2017)

March 2017

“Pragmatist Realism: Philosophy, History and Science,” workshop consisting of 4 public lectures, 6 seminars and 1 laboratory practice session (Institute of Philosophy and Semiotics, University of Tartu, March 6–9, 2017)

“Natural Kinds and Epistemic Iteration in Chemistry” (paper presented at Laboratoire SPHERE, Université Paris 7 – Paris Diderot, March 16, 2017)

April 2017

“Is There Room for Pluralism in Science?” (lecture for the Franke Program in Science and the Humanities, Yale University, New Haven, April 17, 2017)

“Evidence and Context” (contribution at the conference “Evidence: An Interdisciplinary Conversation about Knowing and Certainty” at Columbia University, New York, April 22, 2017)

“The History of Mavericks in Science” (paper presented at the conference “Risk & the Culture of Science” at the Centre for the Study of Existential Risk, University of Cambridge, April 29, 2017)

May 2017

“The Philosophy of Active Scientific Knowledge,” workshop consisting of 5 discussion sessions (2017 All-London HPS Workshops, at the London School of Economics, May 2, 9, 16, 23 and June 26, 2017)

“If You Can Spray Phlogiston, Is It Real? A Pragmatist Conception of Reality” (Popper Seminar, London School of Economics, May 9, 2017)

June 2017

“Is There Room for Pluralism in Science?” (seminar at the Department of Economics, School of Oriental and African Study, University of London, June 12, 2017)

“Batteries, Technoscience, and Pragmatist Epistemology” (paper presented at the UK Integrated HPS Workshop, University of Nottingham, June 22, 2017)

July 2017

“Complementary Science: How History and Philosophy of Science Can Enhance Scientific Knowledge” (colloquium at IHPST, Paris, July 3, 2017)

“Pragmatism, Technoscience and Chemistry” (plenary lecture at the annual conference of the International Society for the Philosophy of Chemistry, Laboratoire SPHERE, Université Paris 7 – Paris Diderot, July 5, 2017)

“What Is The Point of Pragmatism?” (keynote address at the British Undergraduate Philosophy Society & British Journal for Undergraduate Philosophy Summer Conference, Wolfson College, University of Cambridge, July 8, 2017)

“The Global and the Local: Political Reflections on Scientific Methodology” (plenary presentation at the 25th International Congress of History of Science and Technology, Rio de Janeiro, July 24, 2017)

“The Plurality of Systems in Nineteenth-Century Battery Science” (paper presented at the 25th International Congress of History of Science and Technology, Rio de Janeiro, July 27, 2017)

August 2017

“A Tale of Two Batteries” (paper presented at the conference “History of Science PUC-SP: 20 Years,” São Paulo, August 1, 2017)

“The Significance of Quotidian Truth” (keynote address at the conference “Quo Vadis Selective Scientific Realism?”, Durham University, August 5, 2017)

“What History Tells Us About the Nature of Chemistry” (keynote lecture at the 11th International Conference on the History of Chemistry, Trondheim, Norway, August 29, 2017)

September 2017

“Beyond Truth-as-Correspondence: Realism for Realistic People” (keynote lecture at the conference “Real Science/Scientific Realism: New Directions in Understanding How Science Really Works”, University of Leeds, September 19–20, 2017)

Public Engagement and Impact

“겪는 것과 아는 것: 인간의 경험과 과학지식 [Experiencing and Knowing: Human Experience and Scientific Knowledge]” (public lecture at Kyung Hee University, Seoul, January 17, 2017)

“History of Science: Why Care? The Case of Voltaic Batteries” (presentation at the Vitenskapsteoretisk Forum (VitForum), Trondheim, Norway, Aug 27, 2017)

“Pluralism in Science” (keynote address to the 1st conference of the Association of Korean Doctoral Scholars in the United Kingdom, at University College London, September 30, 2017).

Helen Anne Curry

This year I served as Part III Manager and Part IB Senior Examiner, and continued in my roles as Director of Studies in HPS for Churchill College (where I am a Fellow) and HPS representative on the NST Management Committee. I am particularly proud of having organized the first-ever series of HPS IA lectures in Lent, with several intrepid HPS teaching officers volunteering to be guinea pigs for this new teaching endeavor. My first book, *Evolution Made to Order: Plant Breeding and Technological Innovation in Twentieth-century America*, was published in November 2016, and I was delighted to have a book launch at the Whipple Museum in celebration. I was involved in co-organizing a two-part, international, interdisciplinary conference series on “Biodiversity and Its Histories,” which took place in March and April 2017, at CRAASH, University of Cambridge

(March), and the University of Columbia and New York Botanical Garden (April). With the support of a Seed Award from the Wellcome Trust and the invaluable input and assistance of postdoctoral researcher Sara Peres, I pushed forward with the research project “Seeds for Survival: A Global History of Seed Banking.” As part of our quest to assemble the materials and knowledge needed for launching a major research initiative on this topic, we visited six seed collections of varying age, scope, and aim: the Commonwealth Potato Collection (Dundee, UK), the genebank of the John Innes Center (Norwich, UK), the Heritage Seed Library of Garden Organic (Ryton, UK), the United States National Laboratory for Genetic Resources Preservation (Denver, Colorado, USA), the seed bank at Navdanya Biodiversity Conservation Farm (Doon Valley, Uttarakhand, India), and the maize and wheat genebanks of the International Center for the Improvement of Maize and Wheat (El Batán, Mexico). We also hosted an international workshop on the history and sociology of genetic resources conservation at HPS in June 2017, which brought together established and junior scholars currently working in this area for two days of lively discussion and debate.

Publications

Books

Evolution Made to Order: Plant Breeding and Technological Innovation in Twentieth-Century America (Chicago: University of Chicago Press, 2016).

Articles in journals

“Breeding Uniformity and Banking Diversity: The Genescapes of Industrial Agriculture, 1935–1970,” *Global Environment* 10, no. 1 (April 2017): 83–113, special issue on “Manufacturing Landscapes: Nature and Technology in Environmental History,” ed. Helmuth Trischler and Don Worster.

“From Working Collections to the World Germplasm Project: Agricultural Modernization and Genetic Conservation at the Rockefeller Foundation,” *History and Philosophy of the Life Sciences* 39, no. 5 (June 2017), special issue on “New Perspectives in the History of the Twentieth Century Life Sciences,” ed. Karin Nickelsen and Robert Meunier.

Reviews

“Extension and Experiment: The Politics of Modern Agricultural Science,” essay review of Sigrid Schmalzer, *Red Revolution, Green Revolution: Scientific Farming in Socialist China* (Chicago: University of Chicago Press, 2016) and Tiago Saraiva, *Fascist Pigs: Technoscientific Organisms and the History of Fascism* (Cambridge: MIT Press, 2016), *Studies in History and Philosophy of Biological and Biomedical Sciences* 63 (June 2017): 80–84.

Lectures, seminars and conferences

November 2016

“From the World Germplasm Project to the Global Seed Vault: Agricultural Modernization and Genetic Conservation at the Rockefeller Foundation,” History of Science Society Meeting, Atlanta, Georgia, November 3–6.

February 2017

“Biology as Technology: An Unexpected History of Innovation in Living Things,” Seminar in the History of Science, Medicine, and Technology, University of Oxford, 27 February.

March 2017

“From the World Germplasm Project to the Global Seed Vault: Agricultural Modernization and Genetic Conservation at the Rockefeller Foundation,” Needham Research Institute, Cambridge, UK, 8 March.

“Garden Variety Diversity: Heirloom Seed Saving in Britain and the United States,” at the workshop “Biodiversity and Its Histories,” Centre for Research in the Arts, Social Sciences, and Humanities, University of Cambridge, 24–25 March.

April 2017

“Garden Variety Diversity: Heirloom Seed Saving in Britain and the United States,” at the workshop “Biodiversity and Its Histories,” Columbia University, 24–25 April.

June 2017

“Garden Variety Diversity: Heirloom Seed Saving in Britain and the United States,” at the workshop “Seeds for Survival: The History and Practice of Seed Banking,” Department of History and Philosophy of Science, University of Cambridge, 26–27 June.

July 2017

“Seeds of Contention: The Rockefeller Foundation, the UN Food and Agriculture Organization and the International Conservation of Crop Diversity, 1960–1975,” at the workshop “Embedding Cultural Brokers: Institutionalisation and Impact in the Arts, Sciences and Economy,” University of Konstanz, 6–7 July.

Public Engagement and Impact

Scientist collaborator, SEED virtual reality game development, with All Seeing Eye in preparation for “Developing Beyond” competition sponsored by Wellcome Trust and Epic Games, February 2017–present

Moderator, “Churchill and Nuclear Weapons: From the A-Bomb to the H-Bomb,” Public discussion, Churchill Archives Centre, 15 November 2016.

Presenter, “Biology as Technology,” Café Synthétique (Cambridge Synthetic Biology Meetup), Cambridge, UK, 20 February 2017.

Interview on 99% Invisible Podcast, "Atom in the Garden of Eden," Episode 248, released 21 February 2017. <http://99percentinvisible.org/episode/atom-garden-eden/>

Panelist, "Hacking Biology Through Time and Space," Cambridge Science Festival, 15 March 2017.

Interview on New Books Network podcast, 8 May 2017. <http://newbooksnetwork.com/helen-anne-curry-evolution-made-to-order-plant-breeding-and-technological-innovation-in-twentieth-century-america-u-chicago-press-2016/>

"Endangered Crops: Industrial Agriculture and the Biodiversity Crisis," Annual Harvard Dinner, Emmanuel College, Cambridge, UK, 24 June 2017.

Sebastian De Haro

Sebastian won the essay contest "Space and Time After Quantum Gravity" of the project Beyond Spacetime, jointly held between the University of Illinois at Chicago and the University of Geneva. The title of his essay was "Spacetime and Physical Equivalence". The prize includes a monetary award and a visit to the University of Illinois at Chicago to give a talk.

Publications

Articles in journals

De Haro, S., Teh, N., Butterfield, J.N., (2016). "On the relation between dualities and gauge symmetries", *Philosophy of Science*, 83 (5), pp. 1059–1069.

De Haro, S., Mayerson, D., Butterfield, J.N. (2016). "Conceptual Aspects of Gauge/Gravity Duality", *Foundations of Physics*, 46 (11), pp.1381-1425.

De Haro, S. (2017). "Dualities and Emergent Gravity: Gauge/Gravity Duality", *Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics*, special issue on Dualities, Rickles, D. and Castellani, E. (eds.), August 2017. doi:10.1016/j.shpsb.2015.08.004.

De Haro, S., Teh, N., Butterfield, J.N. (2017). "Comparing Dualities and Gauge Symmetries". *Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics*, special issue on Dualities, Rickles, D. and Castellani, E. (eds.), August 2017. doi: 10.1016/j.shpsb.2016.03.001.

De Haro, S. (2016). "On Artigas and Analytic Philosophy". *Scientia et Fides*, 4 (2), pp. 215-243.

Lectures, seminars and conferences

November 2016

'Symmetry and Equivalence', *Seminar Philosophy of Physics*, Utrecht University.

January 2017

‘Emergence and Reduction in Physics’, *19th International Interdisciplinary Seminar*, London.

April 2017

‘On the Emergence of Time in Quantum Gravity’, *The Continuum in the Foundations of Mathematics and Physics*, Institute for Logic, Language and Computation, University of Amsterdam.

May 2017

‘On the History and Philosophy of the Black Hole Information Paradox’, Seven Pines Symposium, Minnesota, USA.

June 2017

‘Interpreting and Understanding Theories without a Spacetime’, Faculty of Philosophy seminar, Universitat Autònoma de Barcelona.

July 2017

‘On the Emergence of Space, Illustrated by Random Matrix Models’, *Probing the spacetime fabric: from concepts to phenomenology*, Trieste.

‘Dualities and Symmetries’, *Symmetries in Physics*, joint talk with Jeremy Butterfield, Hannover.

August 2017

‘Duality, Equivalence, and Emergence’, symposium ‘Duality, equivalence and emergence’, *European Congress of Analytic Philosophy*, Munich.

Public Engagement and Impact

‘Changing Views on Space, Time and Spacetime’, joint presentation with F.A. Muller, *Philosophy Festival Drift (Wijzerig Festival Drift)*, 13 May 2017, Amsterdam.

Dr Patricia Fara

I am the President of the British Society for the History of Science and President of the Antiquarian Horological Society.

Publications

Articles in journals

“Object Lessons,” *Isis* 107 (2016): 785

Chapters in books

“Women who Made mathematics Count: Emilie du Châtelet and Mary Somerville,” in *Mathematics: How it Shaped our World*, ed. David Rooney (London: Science Museum, 2016), 178

“Scientists and Suffragettes: Women in Britain during World War One” in *Technology, Commercialisation and Gender: A Global Perspective*, ed. Pooran Wynarczyk and Marina Ranga (Springer, 2017)

Reviews

Review of *The Tide: The Science and Stories Behind the Greatest Force on Earth*, by Hugh Aldersey-Williams. *Sierra* magazine, Sep 2016 (<http://www.sierraclub.org/sierra/green-life/art-and-science-tidology>)

“A Different Account of Difference,” review of *Until Darwin, Science, Human Variety and the Origins of Race*, by B Ricardo Brown. *Science & Education* 15 (2016):5

“Invisible killer,” review of *Pale Rider: The Spanish Flu of 1918 and How it Changed the World*, by Laura Spinney. *BBC History*, July 2017, 70

Lectures, seminars and conferences

October 2016

“A Lab of one’s Own: Science and Suffrage in World War One” (paper presented to Peterhouse Beard Society, Cambridge)

December 2016

“Voting for Science: Women at Work in World War One” (paper presented at UCL weekly seminar)

January 2017

“Poetry, politics & progress: ‘The Loves of the Triangles’” (paper presented at National Portrait Gallery workshop on Joseph Banks)

February 2017

“A Lab of One’s Own: Science and Suffrage in World War One” (lecture at Cambridge Philosophical Society)

May 2017

“A Lab of One’s Own: Science and Suffrage in World War One” (University of Brighton postgraduate conference keynote address)

June 2017

“Royal Company of Adventurers into Africa” (paper presented at Science Museum workshop)

July 2017

“The Past as a Work in Progress” (Presidential Address at BSHS conference, York)

September 2017

“A Lab of One’s Own: Science and Suffrage in World War One” (University of Leeds, keynote address at 50th anniversary conference)

Public Engagement and Impact

“1966: CCTV,” in *New Scientist*, 19 Nov 2016: 37

“Marie Curie: Mother of Radiotherapy,” in *BBC History Story of Medicine* (March 2017): 101

October 2016

“Forum on Marie Curie” (BBC World Service)

“Minerva Scientifica” (musical performance at Science Museum Lates)

“The Trials and Triangulations of Erasmus Darwin” (Lecture at the Lichfield Lunarcy conference)

“Different Stories” (talk on women in science, St George’s Hospital)

Four talks to school children on women in science

“Women in Science: Does Gender Matter?” (lecture at Bath Science Festival)

“Scientists, Soldiers and Suffragettes: Women Abroad in World War One” (talk at Venice Circolo)

“A Lab of One’s Own: Science and Suffrage in World War One” (talk to Cambridge Statistical Group)

“Botanical Boudices and Scientific Soldiers: Struggles Past and Present” (annual John Innes lecture)

“Hooke’s *Micrographia*” (Public lecture for a charity, Cambridge)

“Marie Skłodowska Curie” (talk to Probus group, London)

“Sugar Tongs and the Slave Trade” (Brussels, LUNA event at Bozar)

“Celebrating Marie Curie” (talk at Cheltenham Science Festival, reported in *The Guardian* at

<https://www.theguardian.com/money/2017/jun/07/keep-women-in-academia-by-providing-childcare-cambridge-university-historian-urges-universities>)

“Women in Science: Does Gender Matter?” (Talk at Thorney Heritage Museum festival)

“Expanding Horizons: Science, Suffrage and Equality” (Science Plenary, Cambridge Summer Schools)

“Battling for Equality: Science and Suffrage in World War One (Interdisciplinary Plenary, Cambridge Summer Schools)

“Making a Difference” (after-dinner talk to SIBF conference, Cambridge)

Jean-Baptiste Grodwohl

Publications

Articles in journals

The following papers were published under my previous affiliation at the Federal University of Bahia, Brazil:

‘Modeling Social Evolution, 1964–1973’. *Historical Studies of the Natural Sciences* 47 (2017), 1-41.

“The Theory was Beautiful Indeed”: Rise, Fall and Circulation of Maximizing Methods in Population Genetics (1930–1980). *Journal of the History of Biology*, 50 (2017) : 571-608

Lectures, seminars and conferences

March 2017.

‘Animal behavior after the Modern Synthesis’, *Behavioral Ecology Group Seminar*, Department of Zoology, University of Cambridge.

September 2017

‘Selection and Recombination in Population Genetics: from Mendelian genetics to molecular evolution’, *National History of Genomics Program Series*, National Institute of Health, Bethesda (United States).

Nick Hopwood

At the beginning of the year, Nick Hopwood was promoted to Professor. He continued as director of graduate studies and chair of the degree committee and chaired the HPS Board in Easter Term; he also served on the AHRC DTP Studentship Selection Board and on prize committees for the *Journal of the History of Biology* and *Medical History* and joined the advisory board of a project on the Blechschmidt human embryological collection at the University of Göttingen. He managed our Wellcome strategic award in the history of medicine on ‘Generation to Reproduction’ and (with coeditors Rebecca Flemming and Lauren Kassell) submitted the large manuscript of *Reproduction: Antiquity to the Present Day* to Cambridge University Press for publication in 2018. His *Haeckel’s Embryos: Images, Evolution, and Fraud* (Chicago, 2015) won the 2016 Suzanne J. Levinson Prize of the History of Science Society for a book in the history of the life sciences and natural history published in the previous four years.

Publications

Articles in journals

“Kreatives Kopieren: Ernst Haeckels Embryonenbilder,” *Lendemains: Études comparées sur la France* 41, no. 162/3 (2016): 12–44.

Lectures, seminars and conferences

October 2016

“Haeckel’s Embryos: Images, Evolution and Fraud” (open lecture, Centre for Global Health Histories, University of York, October 20, 2016)

November 2016

“A History of Vitalism in Biology” (talk at “Geography and Neo-vitalism” workshop, Department of Geography, University of Cambridge, November 23, 2016)

December 2016

“Haeckel’s ‘So-called Diagrams or Schematic Figures’” (talk at conference, “Diagrammatic: Beyond Inscription,” CRASSH, University of Cambridge, December 2, 2016)

“Disciplinary Identities and Work Practices in Embryology” (talk at workshop, “New Styles of Thought and Practice in Early 20th-Century Biology: Epistemologies and Politics,” Ruhr University, Bochum, December 5, 2016)

March 2017

“Proof and Publicity in Claims to Human in Vitro Fertilization” (talk at colloquium, “The Sciences in Historical, Philosophical, and Cultural Contexts,” University of Vienna, March 22, 2017)

June 2017

Cycles of Life (with Janet Browne, Christiane Groeben, Staffan Müller-Wille and Stazione Zoologica Anton Dohrn co-organized the week-long Fifteenth Ischia Summer School on the History of the Life Sciences, Ischia, Italy, with support from Wellcome Trust, National Science Foundation and *History and Philosophy of the Life Sciences*, June 24 – July 1, 2017)

“Cycles of Life” (introduction to the theme at *Cycles of Life*, Ischia Summer School, June 25, 2017)

Public Engagement and Impact

“Ludwik Fleck’s Thought Styles” (talk at TEDx salon, Baroosh, Cambridge, October 19, 2016)

“Noisy Embryos: From the Bane of Embryology to Indicators of the Anthropocene” (talk, with Deborah Robinson and Simon Rundle, to open the exhibition “Noisy Embryos,” Anglia Ruskin University, Cambridge, March 16, 2017)

“Haeckels Embryonenbilder: Fälschungsvorwurf und Welterfolg” (lecture to the Gesellschaft naturforschender Freunde zu Berlin, September 19, 2017)

Boris Jardine

In March 2017 Boris Jardine entered the second year of his 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 major new online digital archive relating to the site, and a book on the history and fate of scientific collections in Victorian Cambridge.

Publications

Articles in journals

“State of the Field: Paper Tools,” *Studies in History and Philosophy of Science* 64 (August, 2017), 1–11

“Gestural Knowledge? Humfrey Cole’s Ingenuity Revisited,” *Bulletin of the Scientific Instrument Society* 134 (September, 2017), 44–45

(with J Nall and J Hyslop) “More than Mensing? Revisiting the Question of Fake Scientific Instruments,” *Bulletin of the Scientific Instrument Society* 132 (March, 2017), 22–29

Reviews

Review of *The Pulse of Modernism: Physiological Aesthetics in Fin-de-Siècle Europe*, by R M Brain, *Isis* 107 (2016), 867–868

Lectures, seminars and conferences

November 2016

“‘A noble instrument for instruction’: Assembling International Collections in the Cambridge Zoological Museum, 1866–1910” (paper presented at the conference ‘Working on Things. On the Social, Political, Economic History of Collected Objects’, Berlin, 21–22 November 2016)

December 2016

“The Life Mathematick: John Speidell, his son Euclid, and the Teaching of Practical Geometry, 1605–1702” (paper presented at the research workshop ‘Teaching mathematics in the early modern world’, Oxford, 15–16 December 2016)

March 2017

“Natural History and the Antiquarian” (paper presented at the seminar Cabinet of Natural History, Department of History and Philosophy of Science, University of Cambridge, 27 March 2017)

April 2017

“It’s only a paper rule? William Oughtred, Elias Allen, and the Invention of the Slide Rule” (paper presented at the British Society for the History of Mathematics annual conference, York, 6–7 April 2017, ‘Beyond the Academy. The Practice of Mathematics from the Renaissance to the Nineteenth Century’)

June 2017

“‘A Dark and Sordid Muddle’: The New Museums Site in Cambridge and the Problem of Lost and Radically Altered Scientific Buildings” (paper presented at Universeum Network Meeting XVIII, Belgrade, 8–10 June 2017, ‘Mobility of University Heritage’)

“The Museum in the Lab: Historical Practice in the Experimental Sciences at Cambridge, 1874–1936” (paper presented at the Forschungskolloquium zur Geschichte des Wissens, Lehrstuhl für Wissenschaftsgeschichte, Prof. Dr Anke te Heesen, Institut für Geschichtswissenschaften, Humboldt Universität zu Berlin, 14 June 2017)

Public Engagement and Impact

“The Bone Collectors: Assembling the ‘New Museums’ in Victorian Cambridge” (public lecture at the Whipple Museum of the History of Science, for the Cambridge Science Festival, 16 March 2017)

Guided tour of the exhibition ‘Curious Objects’ at Cambridge University Library, 21 April 2017

Guided tour of the exhibition ‘Why Is This Here?’ at the Whipple Museum of the History of Science, 22 April 2017

Report on the historic importance of the buildings on the Downing Site, Cambridge, commissioned by Historic England, delivered April 2017

Nicholas Jardine

Nick has continued with lecturing, graduate supervision, and helping with the organisation of seminars and workshops, including the Cabinet of Natural History, Latin Therapy, and Aims and Methods of Histories of the Sciences. He is currently working on the so-called “ontological turn” in science and technology studies, and continues to write up 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.

Lectures, seminars and conferences

Commentary on Serafina Cuomo, “Mathematical Traditions in Ancient Greece and Rome” (Science in the Forest, Science in the Past, Cambridge, May 31–June 1, 2017)

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 for the final year and first year graduate students in the University of Cambridge, Department of Physics.



Publications

Edited works

(With David Bennett) *Successful Careers Beyond the Lab*, Cambridge University Press. June 2017.

Articles in journals

‘25 years of science ethics at Cambridge’ *SGR Newsletter* Issue 44, Winter 2016, p. 13

Lectures, seminars and conferences

February 2017

“Ethics in Physics” two workshops on ethical issues that arise in the practical applications of physics research, Cavendish Laboratory, Cambridge, February 16 & 23, 2016

March 2017

“Ethics in Physics” two workshops on ethical issues that arise in the conduct of physics research, Cavendish Laboratory, Cambridge, March 2 & 9, 2016

June 2017

Speaker and Panellist on “Artificial Intelligence: Ethics, Risks, and Opportunities” at the 14th Annual Technology Ventures Conference of the Cambridge University Technology and Enterprise Club.

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

This year, I started work on two new research projects – one, jointly with Anna Alexandrova, on “Science, Value, and the Future of Intelligence” as part of the Leverhulme Centre for the Future of Intelligence, and one on “Ethics and Epistemology of Early Detection” (funded by the Cambridge Cancer Centre).

Publications

Articles in journals

“From social values to p-values: the social epistemology of the Intergovernmental Panel on Climate Change” *Journal of Applied Philosophy* 34 (2):157-171

Lectures, seminars and conferences

October 2016

“Science, Truth and Dictatorship: wishful speaking or wishful thinking?” (CAMPOS workshop, HPS Cambridge)

January 2017

“Early Detection of cancer will do more harm than good” (Early Detection Programme Annual Symposium, Cambridge Cancer Centre)

March 2017

“Reasonable Doubt: practitioners’ perspectives” (“From Reasonable Doubt to Undue Scepticism” conference, Birbeck College)

May 2017

“Lies, damn’d lies and statistics” (Applied Social Sciences Research Group Annual Lecture, Department of Public Health and Primary Care, University of Cambridge)

Public Engagement and Impact

March 2017

“Citizen Science” (Talk and discussion at Forum for European Philosophy, LSE)

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

Chapters in books

“*Dinosaurs Don’t Die: The Crystal Palace Monsters in Children’s Literature, 1854-2001,*” in *After 1851: The Material and Visual Cultures of the Crystal Palace at Sydenham*, ed. Kate Nichols and Sarah Victoria Turner (Manchester: Manchester University Press, 2017), 159-178.

Article in magazine

“‘She Sells Sea-Shells’: Mary Anning and the History of Science for Children”, *Viewpoint: Magazine of the British Society for the History of Science* **111** (October 2016), 11-12.

Lectures, seminars and conferences

November 2016

“Heads, Shoulders, Knees, and Toes: Embodied Anatomy for Children in the Nineteenth and Early Twentieth Centuries” (paper presented at Homerton College Research Seminar, 1 November, 2017)

April 2017

“Even the Parodies: Sayers, Satire, and the History of Children's Literature and Science” (paper presented as part of a roundtable discussion on Children's Literature and Science at the annual meeting of the British Society for Literature and Science, Bristol, April 6-8, 2017)

May 2017

“Alice's Adventures Under Glass” (paper presented at the Lewis Carroll: Logic and Philosophy conference, London, May 26, 2017)

July 2017

“‘How I Made a Kaleidoscope’: Homemade Scientific Instruments and Juvenile Periodicals in Late Nineteenth-Century Britain” (paper presented at the annual meeting of the British Society for the History of Science, York, July 8-9, 2017)

August 2017

“Science in Wonderland” (lectures to Homerton International Programme students, August 10 and 31, 2017)

Gerald Kutcher

I am currently serving on four doctoral committees in the Department of History, Binghamton University.

I received a Jean-Pierre Mileur Faculty Development Fund Grant for 2016 from Binghamton University for archival research and writing on a book project with the working title *Failing Forward: A History of Contested Developments in Cancer Research*.

I am currently working on a commissioned review of the book *Toxic Exposures: Mustard Gas and the Health Consequences of WWII in the United States*, by Susan L. Smith, for the *Bulletin for the History of Medicine*.

Publications

Articles in journals

“Geoffrey Keynes’ TwoFold Vision: Medical Savant-Connoisseur and Literary Bibliographer,” *Journal of the History of Medicine and Allied Sciences* 71 (2016): 377

Chapters in books

“Treatment Plan Evaluation,” in *Kahn’s Treatment Planning in Radiation Oncology, 4th Edition*, edited by Faiz Kahn, et al. (Philadelphia: Wolters Kluwer Publishers, 2016), 377.

Reviews

“Cancer on Trial,” review of *Cancer on Trial*, by Peter Keating and Alberto Cambrosio, *Journal of the History of Medicine and Allied Sciences* 71(2015): 109.

Lectures, seminars and conferences

July 2017

“Chemotherapy with Lead for Uterine Cancer: A Controversial Failure,” (paper presented at the annual meeting of the British Society for the History of Science, York, UK, July, 6-9, 2017)

Simon Mitton

In 2015–2016 the direction of my research changed from looking up, the history of astronomy, to looking down, the history of the geochemistry and geophysics of the solid Earth. A seed grant of \$10,000 from the Alfred P. Sloan Foundation in New York City, enabled the initial research of the feasibility of writing an academic book on the history of understanding the role and properties of the element carbon in deep Earth. The research is being conducted through the Deep Carbon Observatory, an international network of 1000 professional scientists in 42 countries.

Publications

Books

(With J. Ostriker) *Heart of Darkness: Unlocking the mysteries of the invisible universe* (Princeton University Press, 2015)

Edited books

(With D. Southwood) *Magnetospheric Plasma Physics: The impact of Jim Dungey’s research* (Springer, 2015)

Articles in journals

“Fred Hoyle’s birth centennial” *Astronomy and Geophysics*, 56 (2015): 6–14

(With C. O’Raifeartaigh) Einstein’s cosmology review of 1933: a new perspective on the Einstein-de Sitter model of the cosmos, *European Physical Journal – History*, 40 (2015), 301–336.

Public Engagement and Impact

Guest Lecturer, Fred. Olsen *Balmoral*, January 2016. Five public lectures on the history of astronomy.

Jesse Olszynko-Gryn

Historical consultant and contributor: “Primodos: The secret drug scandal”, a Sky News documentary about hormone pregnancy tests (screened on television and in the House of Commons, 21 March 2017); “Necessity is the mother of invention,” *Mother: A Podcast* (published online, May 25 2017).

Publications

Edited works

(with Patrick Ellis and Caitjan Gainty) “Reproduction on film,” a special issue of *British Journal for the History of Science* 50 (2017), forthcoming in Sept.

Articles in journals

“The feminist appropriation of pregnancy testing in 1970s Britain,” *Women’s History Review*, published online: 11 July 2017, <http://dx.doi.org/10.1080/09612025.2017.1346869>.

“Thin blue lines: Clearblue and the drama of pregnancy testing in British cinema and television,” *British Journal for the History of Science* 50 (2017), forthcoming in Sept.

(with Patrick Ellis) “A machine for recreating life”: an introduction to reproduction on film,” *British Journal for the History of Science*, 50 (2017), forthcoming in Sept.

Lectures, seminars and conferences

November 2016

“From patients to consumers: A history of pregnancy testing in Britain” (seminar at Science, Technology and Innovation Studies (STIS), University of Edinburgh, 7 Nov. 2016)

January 2017

“From patients to consumers: A history of pregnancy testing in Britain” (seminar at L’École des hautes études en sciences sociales (EHESS), Paris, France)

April 2017

“Water under the bridge? A historical argument for regulatory failure in the case of HPTs,” (paper presented at a meeting of the MHRA Expert Working Group Inquiry into hormone pregnancy tests, Parliament, London)

Public Engagement and Impact

“Risky hormones, birth defects and the business of pregnancy testing, Part II” (guest blog post), *Perceptions of Pregnancy*, published online 12 Dec. 2017.

“Risky hormones, birth defects and the business of pregnancy testing, Part I” (guest blog post),

Perceptions of Pregnancy, published online 22 Nov. 2017.

“Reproduction on film: An evening of silent shorts and live music” (public lecture with film screenings and discussion at the Canterbury Festival, 24 Oct. 2016.

“The contentious history of pregnancy test drugs: Will science find its own path to the truth?” (opinion article), *History & Policy*, published online 18 Oct. 2016.

“Primodos was a revolutionary oral pregnancy test. But was it safe?” (guest blog post), *The Guardian*, published online 13 Oct. 2016.

Sara Peres

Doctorate awarded by UCL on 29th of April 2017. Matching funding award from the Isaac Newton Trust, Cambridge for a 3-year Leverhulme Early Career Fellowship (bid to the Leverhulme was not successful). Member of the organising committee for the first Joint Meeting of Red EsCTS and Portuguese STS Network (Lisbon, Portugal, 7-9 June 2017). Co-organiser of the Seeds for Survival workshop (HPS, Cambridge, 25-26 June 2017). Research Assistant (fixed term) post on the project ‘Acting in an uncertain world: mapping public health responses to the Zika epidemic in Brazil’ (PI: Javier Lezaun) at the University of Oxford from May to August 2017. Honorary Research Associate post at UCL STS from 17th of July 2017.

Lectures, seminars and conferences

January 2017

“Preparing for Doomsday: vulnerability and the contemporary history of genebanking, 1970-2008.” (paper presented at the Cabinet of Natural History Seminar, Cambridge, UK, January 30th, 2017)

February 2017

“Preparing for Doomsday: vulnerability and the contemporary history of genebanking, 1970-2008.” (paper presented at the Understanding Material Loss Conference, Birmingham, UK, February 17-18, 2017)

June 2017

“Living in disciplinary borderlands: exploring the weedy side of STS.” (paper presented at Lost in Translation? Joint meeting of the Spanish and Portuguese STS Networks, Lisbon, Portugal, June 7-9, 2017)

‘Freezers, bases, and a ‘catalyst’: the conservation activities of the International Board on Plant Genetic Resources, 1974-1984’. (introduction of pre-circulated manuscript for discussion at the Seeds for Survival workshop, Cambridge, June 26-27, 2017).

James Poskett

James Poskett is the Adrian Research Fellow at Darwin College, University of Cambridge. He works broadly on the global history of science, empire and print from 1750 to the present day. In September 2017 he will join the University of Warwick as Assistant Professor in the History of Science and Technology.

Publications

Articles in journals

“Phrenology, Correspondence, and the Global Politics of Reform, 1815–1848”, *The Historical Journal*, 2 (2017).

Reviews

“Review: Sebastian Conrad, *What is Global History?* (Princeton, NJ, 2016)”, *Itinerario*, 40 (2016).

Lectures, seminars and conferences

November 2016

“Materials of the Mind: Phrenology and the Making of a Global Science, 1815–1920” (paper presented at the History of Science Society Conference, Atlanta, Georgia, United States, November 4, 2017).

July 2017

‘Reading Colonial Photography: the Publication and Reception of *A Phrenologist Amongst the Todas* (1873)’ (paper presented at ‘The British Society for the History of Science Conference, University of York, UK, July 7, 2017)

Public Engagement and Impact

‘The People of India: Anthropology and Visual Culture, 1800-1945’, Book Exhibition at Cambridge University Library, 1 August – 31 August 2017.

Jennifer Rampling

I was appointed Johanna and Alfred Hurley *61 P76 P82 P86 University Preceptor in History at Princeton, and spent a year’s leave in Cambridge as a Conversations Fellow at CRASSH and a Visiting Fellow at Clare Hall. With Peter Murray Jones, I finished work on *Alchemy and Medicine from Antiquity to the Enlightenment*, an edited collection of sixteen essays. I joined the editorial board of *Isis*, and continued as Editor of *Ambix* and co-general editor (with Lawrence Principe) of the series *Sources of Alchemy and Chemistry*. I was co-PI (with Tony Grafton) of ‘The Winthrop Family on the Page,’ a digital project involving Princeton graduate students that launched in September. I took language courses in Arabic and Sumerian.

Publications

Online editions

(with Richard Calis, Frederic Clark, Christian Flow, Anthony Grafton, and Madeline McMahon), *The Winthrop Family on the Page: A Database of Annotations in the Books of the Winthrop Family* (Center for Digital Humanities, Princeton University, 2017)

Articles in books

‘Alchemical Traditions,’ in *The Voynich Manuscript*, ed. Ray Clemens (New Haven: Yale University Press, 2016), 45-51.

Articles in journals

‘English Alchemy before Newton: An Experimental History’ (2016 Allen Debus Lecture). *Circumscribere: International Journal for the History of Science*, 18 (2016): 1-11.

Reviews

‘The Englishing of Medieval Alchemy.’ Essay review of Peter Grund, ‘Misticall Wordes and Names Infinite’: An Edition and Study of Humfrey Lock’s Treatise on Alchemy; Jonathan Hughes, *The Rise of Alchemy in the Fourteenth Century*; and Anke Timmermann, *Verse and Transmutation*, in *Ambix*, 63 (2016): 268-72.

Lectures, seminars and conferences

October 2016

‘The Conversion of Matter: Alchemical Image-Making in Early Modern England’ (Director’s WIP Seminar, CRASSH, Cambridge, 24 October 2016).

November 2016

‘Depicting (Al)chemical Change’ (*Epistemic Images in Early Modern Germany and its Neighbours*, CRASSH, Cambridge, 10–11 November 2016).

‘Reproducibility and the Language of Alchemy’ (*Philosophy and History of Open Science*, University of Helsinki, 30 November–1 December 2016).

February 2017

‘When Alchemy Goes Wrong: Tracing Transmutation in Pre-Reformation England’ (Clare Hall Colloquium, Cambridge, 6 February 2017).

‘Prior Convictions: Alchemy and Fraud in English Religious Houses’ (EMPHASIS, School of Advanced Study, London, 11 February 2017).

April 2017

‘Alchemy in the Time of Henry VIII: Tracing Communities of Practitioners’ (*Scientiae: Early Modern Disciplines of Knowing*, Padua, April 2017).

May 2017

‘When a Stone is not a Stone: Doing Alchemy with Plants and Animals’ (Cabinet of Natural History, HPS, Cambridge, 1 May 2017).

‘Medieval Alchemical Scrolls’ (Cambridge Bibliophiles, Peterhouse, 3 May 2017).

‘Spirited Matter and Ingenious Nature: Accounting for Chemical Change in Early Modern England’ (*Ingenuity in the Making: Materials and Techniques in Early Modern Europe*, CRASSH, Cambridge).

‘The Prison Writings of Edward Kelley: English Alchemy in Poland and Bohemia’ (*Libraries, Scholarship, and Science at the Crossroads: From Nicholas Copernicus to John Dee, 1490–1610*, Tischner European University, Kraków, 21–24 May 2017).

July 2017

‘Picturing Alchemical Change’ (British Society for the History of Science Annual Meeting, University of York, 6–9 July 2017).

‘Reading Alchemically: Early Modern Guides to Impossible Practices’ (International Congress on the History of Science and Technology, Rio de Janeiro, 23–29 July 2017).

August 2017

‘The Alchemical World of Early Tudor England’ (Twentieth-Anniversary Colloquium, Centre Simão Mathias for Studies in History of Science (CESIMA), Pontifical Catholic University of São Paulo, Brazil, 31 July-1 August 2017).

Martin J. S. Rudwick

In July 2017 I was elected an Honorary Fellow of Trinity College (I was a student and then a Junior Research Fellow at the College, 1950-60).

Publications

Articles in journals

“Functional morphology in paleobiology: origins of the method of ‘paradigms,’” *Journal of the History of Biology* 50 (2017), 44pp. (DOI 10.1007/s10739-017-9478-7)

Simon Schaffer

In 2016-17 Simon Schaffer chaired the Board of History and Philosophy of Science and the Faculty Senior Academic Promotions Committee. He served on the Management Committee of the Scott Polar Research Institute and the Advisory Board of the Science Museum, London. 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 February 2017 he gave the Enid Porter Memorial Lecture at the Museum of Cambridge and in May 2017 he delivered the International Keynote Lecture at the Canadian Society for History and Philosophy of Science, Toronto, and the first Alison Winter Memorial Lecture at the University of Chicago. In 2017 he was awarded the Paul Bunge prize by the German Chemical Society.

Publications

Edited works

The Material Cultures of Enlightenment Arts and Sciences (Basingstoke: Palgrave Macmillan, 2016), co-edited with Adriana Craciun.

Political Histories of Technoscience (Durham: Duke University Press, 2017), co-edited with David Serlin and Jennifer Tucker (*Radical History Review* no. 127).

Aesthetics of Universal Knowledge (Basingstoke: Palgrave Macmillan, 2017), co-edited with John Tresch and Pasquale Gagliardi.

Articles in journals

“Oriental Metrology and the Politics of Antiquity in Nineteenth-century Survey Sciences,” *Science in Context* 30 (2017): 173-212.

Chapters in books

“Artificial Curiosities and Travelling Instruments,” in *Artefacts of Encounter*, ed. Nicholas Thomas, Julie Adams, Billie Lythberg, Maia Nuku and Amiria Salmond (Dunedin: Otago University Press, 2016), 56-67.

Lectures, seminars and conferences

October 2017

“Cybernetics, Unknowability and Politics”, discussant on paper by Andrew Pickering, Cybernetics and Society, CRASSH Cambridge, October 18, 2016.

“In Waking Hours”, discussant on film by Katrien and Sarah Vanagt, CRASSH Cambridge, October 21, 2016.

February 2017

“British Orientalism and the Exactitude of Indian Sciences”, Oxford Seminar in the History of Exact Sciences, All Souls, February 15, 2017.

May 2017

“The Survey Sciences in the Nineteenth Century”, conference co-organiser, University of Glasgow, May 4-5, 2017, and presenter of “Patriarchal Pendulums and the Equipment of Survey Sciences”.

“The Silent Trade: Measurement and Materiality in Cultures of Knowledge”, Canadian Society for History and Philosophy of Science, Ryerson University, May 27, 2017.

“Time Machines and Memory Devices: Powers of Mind and Modern Histories”, Alison Winter Memorial Lecture, Nicholson Center for British Studies, University of Chicago, May 30, 2017.

September 2017

“What is the Body of the Body Politic?”, conference co-organiser, Fondazione Giorgio Cini, Venice, September 12-15, 2017.

Public Engagement and Impact

“Clockwork Automata”, *Cambridge Sick Children’s Trust*, January 24, 2017

“Why Trust Public Science?”, *University of the Third Age*, Cambridge, February 1, 2017

“Science and Architecture in Victorian Cambridge”, Enid Porter Memorial Lecture, *Cambridge History Festival*, February 9, 2017

“The Rise of the Robots”, *BBC Radio 4*, February 13, 2017,
<http://www.bbc.co.uk/programmes/b08crvz3>

“The Politics of Science Objects in the Modern World”, *Science Museum*, London, May 10, 2017

Anne Secord

Publications

Edited works

Introduction and editorial notes, *The Correspondence of Charles Darwin*, vol. 24 (Cambridge: Cambridge University Press, 2016)

Lectures, seminars and conferences

March 2017

“Gilbert White’s interconnected world” (paper presented at the conference on ‘Biodiversity and its histories’, CRASSH, University of Cambridge, March 24–25, 2017)

April 2017

Commentator at ‘Science in the 19th Century Periodical’ Workshop (York University, Toronto, April 7–8, 2017)

May 2017



“A Lancashire artisan abroad: George Caley as Joseph Banks’s collector” (Workshop on ‘Provincial Collectors Global Opportunities’, University of Aberdeen, May 5, 2017)

Jim Secord

I returned this year to teaching after last year’s long sabbatical leave. A highlight was the appearance of volume 24 of the Darwin Correspondence, and work on *Worlds of Natural History* (co-edited with Helen Curry, Nick Jardine and Emma Spary), which went off to

Cambridge University Press in the early summer. I've also made progress on other writing, served as chair of the Dingle Prize Committee for the British Society for the History of Science, and been involved with the forthcoming celebrations of the 200th anniversary of the Cambridge Philosophical Society, founded in 1819.

Publications

Edited works

(with F. Burkhardt and the Darwin Correspondence Project) *The Correspondence of Charles Darwin*, 1876, vol. 24 (Cambridge: Cambridge University Press, 2016).

Lectures, seminars and conferences

November 2016

'Objects in Transit: Commodities and Communication', *Working on Things: On the Social, Political and Economic History of Collected Objects*, Humboldt University and Natural History Museum, Berlin

March 2017

Commentary on Lorraine Daston, 'What does Science have to do with Modernity', CRASSH lecture, University of Cambridge

March 2017

Closing comments, *Biodiversity and its Histories*, CRASSH and Darwin Correspondence Project. University of Cambridge

April 2017

Concluding commentary, *Science in the c19th Periodical Workshop*, York University, Toronto, Canada

Jacob Stegenga

My first book will be published at the end of the year. My second book is now under review with several publishers.

Publications

Articles in journals

“Robustness and Independent Evidence,” *Philosophy of Science* 84 (2017): 414-435

“Hollow Hunt for Harms,” *Perspectives on Science* 24 (2016): 481-504

“Three Criteria for Consensus Conferences,” *Foundations of Science* (2016) 21: 35-49

“Population Pluralism and Natural Selection,” *British Journal for the Philosophy of Science* (2016) 67: 1-29

Chapters in books

“Measuring Harms” in *Routledge Companion to Philosophy of Medicine*, ed., Solomon, Simon, and Kincaid, (Routledge, 2017), 342-352

“New Directions in Philosophy of Medicine” in *Bloomsbury Companion to Contemporary Philosophy of Medicine*, ed., Marcum (Bloomsbury, 2017), 343-367

“Drug Regulation and the Inductive Risk Calculus” in *Exploring Inductive Risk*, ed., Elliott and Richards, (Oxford University Press 2017)

Lectures, seminars and conferences

November 2016

“Medical Nihilism” (paper presented at Annual Peter Sowerby Lecture in Philosophy of Medicine, London, UK)

February 2017

“Bayesian Mechanista” (paper presented at workshop titled Drug Safety, Probabilistic Causal Inference, and Evidence Amalgamation, Munich, Germany)

“Bayesian Mechanista” (paper presented at colloquium, University of Edinburgh Contemporary Debates in Philosophy of Science, Edinburgh, UK)

April 2017

“Population Pluralism and Multispecies Evolution” (paper presented at conference titled Species in the Age of Discordance, Salt Lake City, USA)

“Three Arguments for Absolute Outcome Measures” (paper presented at annual conference of American Philosophical Association, Pacific Division, Seattle, USA)

“Three Arguments for Absolute Outcome Measures” (paper presented at University of Vienna, Vienna, Austria)

“Three Arguments for Absolute Outcome Measures” (paper presented at Lingnan University, Hong Kong)

“Three Arguments for Absolute Outcome Measures” (University of Sydney, Sydney, Australia)

“Three Arguments for Absolute Outcome Measures” (paper presented at biannual conference of Philosophy of Science Association, Atlanta, USA)

May 2017

“Bayesian Mechanista” (paper presented at workshop titled Philosophical Perspectives on Evidence-Based Policy, Copenhagen, Denmark)

“Medical Nihilism” (paper presented at Bar Ilan University STS Colloquium, Ramat Gan, Israel)

“The Epistemic Wrongs of Stereotypes” (paper presented at Tel Aviv University, Safra Center for Ethics, Tel Aviv, Israel)

Public Engagement and Impact

“Is Earlier Necessarily Better? Philosophical Issues Surrounding Cancer Screening” Panel at University of Cambridge Festival of Ideas, Cambridge, UK

Liba Taub

During 2016-17, I served as Head of Department, as well as Director and Curator of the Whipple Museum of the History of Science. I was elected a Vice President (one of three) of the International Academy of the History of Science and also Assessor of the Division of History of Science and Technology of the International Union of the History and Philosophy of Science. I am a Fellow of Newnham College, where I am Director of Studies in HPS; I am also Director of Studies at Trinity Hall. I continue to serve on numerous University and College committees.

Publications

Books

Science Writing in Greco-Roman Antiquity (Key Themes in Ancient History series) (Cambridge: Cambridge University Press, 2017)

Chapters in books

'Archiving Scientific Ideas in Greco-Roman Antiquity', in *Science in the Archives: Pasts, Presents, Futures*, ed. Lorraine Daston (Chicago: University of Chicago Press, 2017), 113-135.

'wind', in *The Oxford Classical Dictionary*. Ed. Sander M. Goldberg (New York: Oxford University Press, 2017).

‘Selling by the Book: British Scientific Trade Literature after 1800’ (with Joshua Nall), in *How Scientific Instruments Have Changed Hands*, A.D. Morrison-Low, Paolo Brenni and Sara Schechner (eds) (Leiden: Brill, 2017), 21-42.

Rick Welch

Rick Welch is Emeritus Dean of Arts and Sciences 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. He is currently working on a book project, entailing a historical perspective on the Western conception of “life” that consists of a philological study of “words for life” (under contract with Peter Lang International Academic Publisher).

Lectures, seminars and conferences

July 2017

Invited member of the teaching faculty at a five-day summer school on “Creative Cognition: Evolutions, Processes, and Applications,” held at Central European University, Budapest, Hungary, 3-7 July 2017.

John Young

I have continued my editorial work on the Casebooks Project’s online edition of the papers of Simon Forman and Richard Napier (<http://www.magicandmedicine.hps.cam.ac.uk/>). I have also made a number of refinements to the project’s Transcription Guidelines, of which I am principal author, and contributed to website maintenance and development.

Publications

Edited works

Checked transcriptions of vols. 38, 42 (with Robert Ralley), 43, 44, 46, 48 and 52 of Napier’s casebooks for online release.

Lectures, seminars and conferences

With Leah Astbury and Lauren Kassell, I have co-led a number of sessions of ‘Casebooks Therapy’, informal seminars offering guidance to graduate and post-graduate students in Cambridge on

deciphering and interpreting Forman's and Napier's handwriting and terminology. Lauren Kassell and I also ran a one-off public session in London on 8 April 2017 as part of the CASEBOOKS event at Ambika P3.

Public Engagement and Impact

The exhibition 'CASEBOOKS: Six contemporary artists and an extraordinary medical archive', Ambika P3, London, 17 March to 23 April 2017, was quite a success. While I was not involved in curating this, I attended the opening and together with Michael Hawkins and Lauren Kassell created a shortly-to-be-released webpage on our site documenting it.

SEMINAR PROGRAMMES

Michaelmas Term 2016

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.

- 13 October** **Robbie Duschinsky and Sophie Reijman (Public Health and Primary Care, Cambridge)**
'Patterning within the disturbance of coherence': the practical work of measuring and classifying infant disorganised attachment

'Disorganised attachment' (Main and Solomon 1990) is a classification made of infant-caregiver relationships in the Ainsworth Strange Situation, and is among the most influential assessments of infant mental health. It is made on the basis of observations of out-of-context, unexpected, or anomalous behaviours shown by an infant on reunion with their caregiver after a brief separation. This classification has received a high degree of interest, from researchers, clinicians and social workers, as well as policy makers. Disorganised attachment has primarily been understood through the lens of the Hesse and Main's concept of 'fright without solution', taken to mean that an infant experiences a conflict between a desire to approach and flee from a parent who frightens them. This talk draws from a wider project, funded by an Investigator Award from the Wellcome Trust, studying debates around disorganised infant attachment and their implications for clinicians and social workers. The specific focus of the paper will be on the practical work of measuring and classifying infant-caregiver attachment relationships, drawing on interviews, archival research, and participant observation. The paper will reflect particularly on the significance of sharp disparities found between conventional, circulating accounts of disorganised attachment and coders' practical theories of behaviour and relationship processes.

- 20 October** **Harry Collins (Cardiff University)**
Some sociological aspects of the detection of gravitational waves

What is the sociologist, who has spent years demonstrating the interpretative flexibility of claims to have detected gravitational waves, to make of a detection that no-one will question? And where did the confidence in that detection come from – not quite where you think!

- 27 October** **Emma Tobin (UCL)**
Mechanisms and natural kinds

In the classification literature, there has been much discussion of the no-overlap principle, which allows a categorical distinction between natural kinds from a realist perspective. However, cases

of crosscutting natural kinds in scientific practice provide a serious challenge to the no-overlap principle (Khalidi, 1998, Dupre 1993, Tobin 2010). The HPC view of natural kinds has emerged in order to accommodate the fuzzy boundaries we associate with clusters of properties, by the introduction of a homeostatic regulating mechanism. Craver (2009) claims that there is a difficulty in deciding where a particular mechanism begins and another ends. The strategy of lumping and splitting is designed in order to accommodate the no overlap principle; namely if you find that a single cluster of properties is regulated by more than one mechanism, then because there can be no overlap between mechanisms, then we must split the natural clusters. However, a closer analysis of dynamic mechanisms in scientific practice reveal that the overlap problem re-emerges with the strategy of lumping and splitting in that there is an assumption that once a mechanism is found to be responsible for a property cluster, that this is sufficient for delineating the boundaries of that cluster. Scientific practice reveals that there might be multiple causal routes that could result in a similar functional output. Moreover, there might be different kinds of mechanisms, which produce the same property cluster and depending on which one we are using, the decision to lump or split may be different. The paper concludes with some observations about the implications for the classification of mechanisms and to the additional question as to whether mechanisms are themselves natural kinds.

10 November **Giovanna Colombetti (University of Exeter)**
Embodied and situated moods

There is a certain tendency, among affective neuroscientists, to present the brain as the physical basis, or 'core machinery', of moods (sometimes even to claim that moods are 'in the brain'). In my talk I will criticise this brain-centric view of moods. Empirical evidence shows that brain activity not only modulates, but is in turn continuously modulated by, physical activity taking place in other parts of the organism (such as the endocrine and the immune system). It is therefore not clear why the core machinery of moods ought to be restricted to the brain. I propose, accordingly, that moods are best conceived as embodied rather than just 'embrained', i.e., their physical basis should be enlarged so as to comprise not just brain but also bodily activity. Second, I emphasise that moods are situated in the world. By this I do not just mean that moods are influenced by the world (an uncontroversial claim), but that they are complexly interrelated with it, in at least three different ways: i) they are shaped by cultural values and norms, ii) they are materially and intersubjectively 'scaffolded', and iii) they can even come to 'experientially incorporate' parts of the world, i.e., include the experience of parts of the world as parts of oneself.

17 November **Richard Powell (University of Oxford)**
The hubris of youth? Oxford, Cambridge and the Arctic, c.1920–1940

During the interwar period, the Universities of Oxford and Cambridge sent successive expeditions to the Arctic, mainly focusing on Nordauslandet (North East Land in the Svalbard archipelago) and Greenland. These expeditions have been rather neglected by historians, save for some celebratory work by former protagonists. This paper investigates some of their legacies, both in terms of their scientific contribution and in their impacts on particular Inuit communities. It focuses specifically on psychological experiments conducted on the people of Illorsuit in the late 1930s. In investigating this, some of these expeditionary activities complicate a number of historiographical assumptions about the nature of Greenlandic governance, the role of universities in the field sciences and the wider development of the disciplines of Arctic study.

This discussion also provides for heuristic reflection in recent attempts to de-colonise the curriculum at both universities.

24 November **Twelfth Cambridge Wellcome Lecture in the History of Medicine**
Alexandra Minna Stern (University of Michigan)
Eugenic sterilization in California: from demographic analysis to digital storytelling

From 1909 to 1979, California sterilized more than 20,000 patients in state homes and hospitals. This lecture draws from new interdisciplinary research into the history of sterilization, presenting both overarching demographic trends that illustrate the intersectional racial, gender, and diagnostic biases of compulsory reproductive surgery, and the experiences of people whose lives were irrevocably changed by this medical intervention. These new findings are drawn from a dataset that I and my team created after digitizing more than 50,000 microfilm documents that had been long forgotten in the file cabinets of state agencies in Sacramento, California. This lecture asks how an in-depth interdisciplinary study of patterns and experiences of sterilization confirms and challenges historical understandings of eugenics, and highlights the value of epidemiological and demographic methods in historical analysis. The presentation also provides an overview of the digital archive we are creating that will feature data visualization and digital storytelling.

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, Mary Brazelton, Helen Curry and Susanne Schmidt.

This term we explore a variety of perspectives on global studies and histories of science and technology, and Think Tank presentations will be complemented by readings on related topics in the [Twentieth Century Reading Group](#), which meets on alternate Thursdays.

6 October **Sloan Mahone (University of Oxford)**
Images as artefacts: film, photography and repatriation in Kenya

This discussion focuses on the conceptual and methodological issues at play when working with images from the past. Utilising a photographic case study from East Africa, we consider historical context, provenance, and intent. A series of photographs taken or obtained by Canadian psychiatrist Edward L. Margetts in Kenya in the 1950s allow for a broad discussion of what photographs mean; for the photographer, the viewer, and most poignantly, the

photographic subjects. We will work through a set of images of the ancient surgical practice of trepanning the skull which was still being performed controversially in the 1950s in one region of Kenya. The traditional practice, often extreme in its medical outcomes, was filmed, photographed and even immortalized in soap stone carvings. The wildly divergent uses and interpretations of one set of images prompts us to ask questions about the use, re-use and misuse of images over time.

Suggested reading: Sloan Mahone, "'Hat-on, Hat-off': Trauma and Trepanation in Kisii, western Kenya', *Journal of Eastern African Studies*, 2014.

20 October **Matei Candea (Social Anthropology, Cambridge)**
Comparative uncertainties: comparing comparisons in anthropology and animal behaviour science

Much has been made in recent years of the way in which anthropological confrontations with alterity can generate productive conceptual uncertainty. This methodological device can be thought of as a type of 'frontal' comparison in which a 'them' position is confronted to an 'us' position. This paper contrasts frontal comparison with lateral comparisons, in which different cases are laid side by side. Frontal and lateral comparisons produce different and complementary dynamics of conceptual uncertainty and productive doubt. This anthropological pair is in turn compared with and read through two different ways of managing uncertainty in a different discipline: the study of animal behaviour.

27 October **David Munns (John Jay College)**
A controlled environment: phytotrons, Cold War life science, and the making of the experimental plant

My talk tells of the quest to gain scientific and technological mastery over the environment in the life sciences. Because living things are a product of their genes and their environments, alongside the famed discovery of genes there was the simultaneous discovery of the biological environment. To experiment on the biological environment plant scientists built wonders of twentieth century life science and environmental engineering: now forgotten laboratories called 'phytotrons'. To create phytotrons, biologists became technologists because to learn about plants and animals meant learning about the technological systems that replicated and monitored their development. In the Cold War they revealed the shape of the environment, the limits of growth and development, and the limits of control over complex systems. There is no better time to remember the science of the biological environment amid the challenge of climate change. When Los Angeles choked on smog in the 1940s, city officials turned to the new phytotron at Caltech for answers. Experiments proved the harmful effects of smog on plants and people which lead to the initial efforts to curb air pollution. Now, a half century later, the phytotron's successors called biotrons and ecotrons are discovering connections between life and a changing environment. I can only hint at the larger history of 'trons' that replicated the worldview of the Cold War era in both phytotrons, biotrons, climatrons, and ecotrons as well as in cyclotrons, cosmotrons, and bevatrons. Indeed, from the alatron to the zootron, the history of science since 1945 is a world of trons.

17 November **Shinjini Das (CRASSH, Cambridge)**
A science in translation: homoeopathy in colonial Bengal

Over the years, robust and divergent strands of South Asian scholarship have studied the relationship between science, medicine and colonialism. The translation of western medical texts into South Asian vernacular languages under the patronage of the colonial state has received considerable attention. What has not been explored adequately, however, is the participation of Indians themselves in processes of scientific translation. As an instance of a western science that the colonial state attempted to censor, the popular practices of translation around homoeopathy provide a distinct narrative of western science's colonial reception. This paper traces the efforts of some late nineteenth-century Indian pharmaceutical-firms to translate homoeopathy for a vernacular Bengali audience. It explores the domestication and indigenisation of homoeopathy, with its roots in Germany, in Bengal, through such acts of scientific translation. The paper shows that at one level translation reified the power and superiority of western science and language (mostly English) as global and universal categories. Simultaneously, these Bengali translations contested the universal status of western science by reinterpreting homoeopathy as profane, local and indigenous to Bengal.

Hanna Lucia Worliczek (University of Vienna)

1 December Imaging the cytoskeleton – re-defining a biological entity with fluorescent antibodies

This paper traces a substantial visual and epistemic change in cell biology research in the early 1970s, initiated by the adoption of fluorescence microscopy, using antibodies for labelling proteins, from diagnostic research on viral and bacterial pathogens. With the first paper applying this method to cytoskeleton research, published 1974 in the Proceedings of the National Academy of Sciences of the USA, a new kind of visual evidence got established in a field, which until then was dominated by electron microscopy as the most important imaging technique. As I will show, the application and establishment of fluorescence microscopy not only re-defined the cytoskeleton as a biological entity of similar importance as other already well-described organelles like the nucleus, the Golgi apparatus or the endoplasmic reticulum. It furthermore facilitated a new iconography of the cell and a significant epistemic change: it was now possible to stain proteins specifically in fixed cells, allowing the visualization of the molecular architecture of various cell components in situ. Based on manuscripts, published articles and textbooks, editorial archives, papers of the American Society for Cell Biology, as well as interviews with researchers, technology developers and editors, I aim to reconstruct and understand how a new kind of image could be established as central evidence for findings and hypotheses and how the associated visual knowledge shaped the field of cell biology.

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 Michaelmas Term 2016 we will continue to meet on **Fridays, 3.30–5.00pm in Seminar Room 2**. Further information and reading materials will be distributed through the email list of the group; please contact Hasok Chang (hc372) if you would like to be included on the list.

- 7 October** **Peter Woodford (Faculty of Divinity) and Arik Kershenbaum (Department of Zoology)**
A philosopher among the scientists: a dialogue on the evolution of cooperation and cognition
- 21 October** **David Teplow (Professor of Neurology and Director of Biopolymer Laboratory, David Geffen School of Medicine, University of California, Los Angeles)**
The black hole of philosophy of science: how the light of understanding is captured by natural kinds
- 18 November** **Elizabeth Murchison, Annabelle Bates, Andrea Strakova (Department of Veterinary Medicine), and David Feller (Research Operations Office)**
The history of canine transmissible cancers

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 Edwin Rose (edr24).

- 10 October** **Matthew Wale (University of Leicester)**
'Why do entomologists want a weekly newspaper?': periodicals and the practice of nineteenth-century natural history

'Why do entomologists want a weekly newspaper?' was a question posed by the first issue of the *Entomologist's Weekly Intelligencer* in April 1856. Established and edited by the eminent entomologist Henry Tibbats Stainton, this was the first weekly periodical dedicated to the study of insects. Stainton pointed to the advantages of such a publication, citing speed and efficiency of communication, surpassing the slower and more laborious task of personal correspondence. To this end, the bulk of the *Intelligencer's* contents consisted of notes and observations received

from a host of insect collectors around the country, establishing an entomological community unprecedented in size and scope. The nineteenth century saw a rapid increase in the number of periodicals dedicated to the varying branches of natural history, and this paper will seek to address the wider implications of this through detailed study of the *Intelligencer*. It will draw upon Stainton's extensive correspondence archive, in addition to the periodical itself, in order to demonstrate the complex relationship between the periodical and the practice of natural history, focusing on such activities as field work, collecting and correspondence. Particular attention will be given to the ways in which such periodicals allowed for much wider participation in the creation and circulation of scientific knowledge, with Stainton himself actively encouraging the pursuit of entomology amongst the working-classes.

17 October **Jessica Ratcliff (Cornell University and Yale-NUS College)**
The natural history of the Napoleonic Wars: collecting at the East India Company c. 1798–1820

At the turn of the nineteenth century, at its headquarters in the City of London, the East India Company established a new museum. By mid-century, the museum at India House had grown to contain one of Europe's most extensive collections of the natural history, arts and sciences of Asia. This talk uses the museum's early natural history collections to explore the material relationship between scientific practice and imperial conflict. I will first describe some of the ways in which the Asian theatres of the Revolutionary and Napoleonic Wars would shape the scope and scale of the East India Company's collections. I will then consider one particular case: the British invasion of Dutch Java (1811) the collecting activities of Thomas Horsfield and Stamford Raffles, and the uses to which those Javanese collections were put. Such cases raise the question of how and why the practices of war came to encompass natural history surveys during this period. I will conclude by offering a few tentative answers to that question.

24 October Annual Fungus Hunt

31 October **Jordan Goodman (UCL)**
After Cook: Joseph Banks and his travelling natures, 1787–1810

The death of Captain James Cook in February 1779 deprived Britain of one of its finest navigators but the voyage continued. For Joseph Banks, the voyage of the *Resolution* and the *Discovery*, in which he had a part, was the beginning of a new relationship with the Admiralty and a new chapter in the history of botanical knowledge.

Banks never went to sea again after 1773. For the rest of his life the sea was at the heart of what he loved to do most. From 1778, when he was elected President of the Royal Society, Banks intervened in all of the Admiralty voyages of exploration making them his kind of scientific project: he selected vital personnel, including gardeners, botanists and artists; he wrote out instructions for commanders; and most importantly, he changed the architecture of the ships by commandeering space, by turning them into 'floating gardens', moving plants from one part of the world to the other, and supplying King George III's Royal Gardens at Kew with exotic plants unique in Europe. But it wasn't just Admiralty ships that saw the visible hand of Banks. In 1798, the East India Company agreed to let Banks use one of their ships to move plants between Kew and Calcutta, an unprecedented and successful project. With similar techniques, Banks moved plants between Kew and Canton from 1803 and 1810.

This paper on the world of Banks and his travelling natures will draw on two Admiralty voyages and one East India Company voyage.

7 November **David Harris Sacks (Reed College)**
Learning to know: the educations of Richard Hakluyt and Thomas Harriot

Richard Hakluyt (1552?–1616), cosmographer and clergyman, and Thomas Harriot (1560–1621), ethnographer, mathematician, natural philosopher and polymath, were explorers and discoverers in their era's newly-opened territories of study. Both were consumers of learning and producers of knowledge and both sought the truth insofar as human reason could grasp it. Both also contributed to the formation of what we know as modern science with its distinctive ethos of debate and proof. This paper focuses on their educations and experiences, mainly in Oxford, as they began their careers of inquiry into the 'Book of Nature'. Along with considering the role played by humanist learning in shaping their studies of the natural world, attention will be given to Oxford's conflicted religious and cultural climate relates and how it relates to their goals, which Hakluyt defined as 'the certain and full discovery of the world'. For Hakluyt the 'world' was the earth as divinely created. For Harriot, who contributed to a diversity of fields, the 'world' was the universe, a new usage in the period, which took in the heavens as well as the earth. Both men shared an eirenic religious outlook, encouraged by their experiences in Oxford as well as their teachers, and both came to understand their studies of nature to represent a realm of intellectual peace where doubts could be overcome, disagreements could be reconciled, and it would be possible to know the truth with certainty using the senses as well as reason.

14 November **Anja-Silvia Goeing (Visiting Fellow, Harvard University)**
Conrad Gessner, the Zurich Lectorium, and the study of physics and medicine in the early modern world

Conrad Gessner's approach towards the world and mankind was centred on his preoccupation with the human soul, an object of study that had challenged classical writers such as Aristotle and Galen, and which remained as important in post-Reformation debate. Writing commentaries on Aristotle's *De Anima* (On the Soul) was part of early-modern physics education at university and formed the preparatory step for studying medicine. I will use the case study of Gessner's commentary on *De Anima* to explore how Gessner's readers prioritised *De Anima*'s information. Gessner's intention was to provide the students of philosophy and medicine with the most current and comprehensive thinking, whether in physics or in medicine. His readers' responses raise questions about evolving discussions in physics and medicine, and Gessner's part in helping these develop.

21 November **Lisa Skogh (Victoria & Albert Museum)**
The mine as a subterranean Kunstkammer

Similar to how the princely gardens and its collections should be seen as an outdoor extension of the Kunstkammer, so could also the princely mines be interpreted. They all formed part of the over-all concept of an early modern elite setting where the mines were central in its association to the display of power, knowledge and rulership. This paper will present the connection between collecting and mining represented in the Kunstkammer from the perspective of the learned male ruler as well as his learned consort. Material wealth provided not only the possibility

to create a Kunstkammer it directly influenced how the mineral resources were reflected in the patronage, hence it played a crucial role as an economic platform. As such, the idea of the mines as a subterranean Kunstkammer opens up different areas of collecting and sources of knowledge not the least in reference to the early modern Fürstin as a patron and collector.

28 November **Daniel Simpson (Royal Holloway, University of London)**
Ethnographic collecting and the despotism of Joseph Banks

While Joseph Banks is generally thought to have been an effective scientific patron, things were not always so. In 1784, several disaffected members of the Royal Society printed a remarkably angry pamphlet which accused Banks, their president, of numerous acts of 'despotic' behaviour quite unwarranted in a man who, in their opinion, possessed only 'puny pretensions' to his position. While Banks might make 'a very good Clerk', they offered, 'the man who is to fill the place of President, should be something more'.

In this talk, I explore such thinking on Banks' very particular brand of scientific patronage in terms of its impact upon the development of a subject which he did not much like. Although an avid collector of artificial curiosities on board the first expedition of Captain Cook, there is little evidence that Banks encouraged the subsequent development of object collecting as a subset of natural history, or as a means of colonial knowledge; in fact, he seems to have done much to frustrate the all-embracing mode of natural historical enquiry in which such study found legitimacy. By focusing in particular upon Banks' relationship and correspondence with colonial officials and scientific elites in late eighteenth-century Australia (the continent, perhaps, in which he was most invested), I argue that the nascent ethnographic studies favoured by imperial administrators as well as amateur explorers were gradually undermined by the enduring appeal of collecting according to the Banksian hierarchy. Our understanding of early Aboriginal Australia, I conclude, has never quite recovered.



History of Modern Medicine and Biology

Organised by Mary Brazelton, Helen Anne Curry and Nick Hopwood.

- 11 October** **Claas Kirchhelle (University of Oxford)**
The Colindale typers: bacteriophage and the British Public Health Laboratory Service
- 8 November** **Ed Juler (Newcastle University)**
The life of forms: biology and modernist sculpture
- 29 November** **Susanne Schmidt (HPS, Cambridge)**
The anti-feminist construction of the 'midlife crisis'

Early Medicine

Organised by Lauren Kassell and Dániel Margócsy.

- 25 October** **Anna Winterbottom (University of Sussex)**
The foreigner's disease: global perspectives on syphilis in early modernity
- 15 November** **Pierre-Etienne Stockland (Columbia University)**
From *Petite Chimie* to industrial chemistry: insecticides in France from the Old Regime to the Industrial Revolution (1750–1830)
- 22 November** **Dániel Margócsy (HPS, Cambridge)**
Reading Vesalius 700 times: the problem of generation and the reception history of *De humani corporis fabrica*

Generation to Reproduction

These seminars are funded by our [Wellcome Trust strategic award in the history of medicine](#).
Organised by Nick Hopwood and Lauren Kassell.

- 18 October** **Aya Homei (University of Manchester)**
Bringing together family planning and parasite control: Cold War collaborations between Japan and South Korea

1 November Leah Astbury (HPS, Cambridge, and TORCH, Oxford)
Making pregnancy public in seventeenth-century England

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 Anna Alexandrova.

Seminars are held on **Wednesdays, 1.00–2.30pm in Seminar Room 2.**

[Further details of the composition and activities of CamPoS](#)

12 October Georgina Statham (Philosophy, Cambridge)
Using organic chemistry to probe the limits of interventionism

19 October Arif Ahmed (Philosophy, Cambridge)
Belief and statistical evidence

26 October Johanna Thoma (LSE)
Risk aversion and the long run

9 November *Cancelled*

16 November James Weatherall (University of California, Irvine)
What makes econophysics distinctive?

23 November Kirsten Walsh (University of Nottingham)
Newton's laws and epistemic amplification

30 November Stephan Hartmann (LMU, Munich)
Assessing scientific theories

Cambridge Masterclass in Philosophy of Physics

Saturday 12 November, Trinity College

'Structure and Equivalence in Physical Theories', with James Weatherall, Adam Caulton and Eleanor Knox

Aims and Methods of Histories of the Sciences

Organised by Nick Jardine, Hasok Chang and Cristina Chimisso; Mondays 11am–12.30pm, weekly from 24 October (6 sessions)

These six graduate seminars will consider aspects of the history, aims, methods and current problems of the history of science. In the first NJ will give an overview of the formation of history of science as a discipline. Then HC and NJ will debate the problems of anachronism faced by historians of science. Subsequent meetings will address the historiography of the French historian of chemistry Hélène Metzger (Cristina Chimisso, Open University), the uses of case-studies in the history of science (HC), the roles of sympathy and antipathy in historical biographies (NJ), and approaches to the history of cross-cultural communication in the sciences (NJ).

Those participating in these seminars are likely to find interesting the meetings of the [History and Theory Reading Group](#).

24 October

Nick Jardine: The formation of history of science

This first session will start with a sketch the ways in which history of science became established as a discipline. There will then be an overview of some of the main approaches that have dominated the field over the past century: positivist narratives of scientific progress, social histories of the sciences, cultural histories, and global histories.

Readings:

- On the formation of history of science as an academic discipline:
 - A. Thackray, 'History of science', in Durbin (ed.), *A guide to the culture of science, technology and medicine* (New York, 1980).
 - A. Mayer, 'Setting up a discipline: conflicting agendas of the Cambridge History of Science Committee, 1936–1950', *Studies in History and Philosophy of Science*, 31 (2000), 665–685.
- Specimens of divergent approaches to the history of science:
 - A standard 'positivist' history of science: C. Singer, *A short history of scientific ideas* (Oxford, 1959).
 - A standard social(ist) history: J. D. Bernal, *Science in history* (London, 1954).
 - Social construction of science (SSK) and actor network theory (ANT): D. Bloor, *Knowledge and social imagery* (London, 1976); S. Shapin and S. Schaffer, *Leviathan and the air pump* (Princeton, 1985); B. Latour, *Science in action* (Milton Keynes, 1987).
 - Cultural and global histories of science: M. Biagioli, *Galileo courtier* (Chicago, 1993); P. Smith, *The business of alchemy* (Berkeley CA, 1994); S. Schaffer et al., eds,

The brokered world: Go-betweens and global intelligence, 1770–1820 (Sagamore Beach MA, 2009).

- On uses of histories of the sciences:
 - L. Graham, W. Lepeyres and P. Weingart, eds, *Functions and uses of disciplinary histories* (Dordrecht, 1983).

31 October

Hasok Chang and Nick Jardine: Anachronism

There are obvious problems with writing about the past from the perspective of the present. But can the historian escape the present completely? Can anachronism ever be put to productive uses?

Readings:

- H. Chang, 'We have never been whiggish (about phlogiston)', *Centaurus*, 51 (2009), 239–264.
- Q. Skinner, 'Meaning and understanding in the history of ideas', *History and Theory*, 8 (1969), 3–53.
- N. Jardine, 'Uses and abuses of anachronism in the history of the sciences of the sciences', *History of Science*, 38 (2000), 251–270.

7 November

Cristina Chimisso: Hélène Metzger on the methods and aims of history of science

Can the historian understand past texts just as readers who lived at the time when the texts were written did? Should this be the historian's aim? Is history of science relevant to current philosophy and science? These are some of the questions that the historian of chemistry Hélène Metzger (Chatou, France, 1889 – Auschwitz, 1944) aimed to answer. This session will discuss her innovative historiography of science.

Readings:

- Hélène Metzger, *Chemistry* [1930], transl. C. V. Michael, (West Cornwall CT, 1991), chapters 2 and 3.
- C. Chimisso, 'Hélène Metzger: The history of science between the study of mentalities and total history', *Studies in History and Philosophy of Science*, 32A (2001), 203–241.
- Moro-Abadía, Oscar, 'Beyond the Whig history interpretation of history: lessons on "presentism" from Hélène Metzger', *Studies in History and Philosophy of Science*, 39 (2008), 194–201.

14 November

Hasok Chang: Case-studies

Are historians condemned to a choice between studying particular cases without general implications and making unsound generalisations from an inevitably insufficient number of cases? How else can we learn from case-based thinking?

Readings:

- J. Forrester, 'If p, then what? Thinking in cases', *History of the Human Sciences*, 9/3 (1996), 1–25.
- H. Chang, 'Beyond case-studies: history as philosophy', in S. Mauskopf and T. Schmaltz, eds, *Integrating history and philosophy of science: Problems and prospects* (Dordrecht, 2012), 109–124.

21 November

Nick Jardine: Sympathy and antipathy in historical biographies of scientists

Many accounts of historical interpretation assign central roles to empathetic re-enactment of past agents' motivations and reasonings. This session will address, with examples, the strengths and weaknesses of sympathetic and antipathetic engagement by historians of science with their subjects.

Readings:

- N. Jardine, 'Kepler = Koestler: on empathy and genre in the history of the sciences', *Journal for the History of Astronomy*, 45/3 (2014), 271–288.
- A sympathetic biography: A. Koestler on Kepler in *The Sleepwalkers* (London, 1959).
- An antipathetic biography: G. L. Geison, *The private science of Louis Pasteur* (Princeton NJ, 1995).

28 November

Nick Jardine and Geoffrey Lloyd: Histories of cross-cultural communication in the sciences

Global circulation of scientific knowledge is a, if not the, currently fashionable field in the history of science. This session will consider some of the theoretical frameworks that have been employed in such studies. It will be suggested that the term 'global' is potentially misleading, given that many of the most significant studies have focussed on local negotiations and exchanges. In conclusion, it will be argued that the focus on communication and exchange of knowledge rather than the establishment of consensus has led to historiographical and philosophical confusion.

Readings:

- J. Secord, 'Knowledge in transit', *Isis*, 95 (2004), 654–672.
- G.E.R. Lloyd, *Disciplines in the Making*, chapter 8 'Science'.

- The vast recent literature includes articles in: S. Schaffer et al., eds, *The brokered world: Go-betweens and global intelligence, 1770–1820* (Sagamore Beach MA, 2009); *Global histories of science*, Focus, *Isis*, 101 (2010) (ed. S. Sivasundaram); *Global currents in national histories of science*, Focus, *Isis*, 104 (2013) (ed. S. McCook).

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.

Twentieth Century Reading Group

The group discusses books and papers relating to the history and historiography of 20th-century science, technology and medicine, broadly construed. We meet on **Thursdays, 1pm to 2pm in the Board Room**. Organised by Susanne Schmidt, Mary Brazelton, Helen Curry and Richard Staley.

Everyone is welcome – feel free to bring along your lunch.

In Michaelmas, we'll be reading:

13 October

Sebastian Conrad, *What is Global History?*, Princeton 2016

Chapters 4 and 10 ('Global history as a distinct approach', 'Global history for whom? The politics of global history')

With an introduction by James Poskett

3 November

Vanessa Ogle, *Global Transformation of Time, 1870–1950*, Cambridge, MA 2015

Chapters 3 and 7, and Conclusion ('From National to Uniform Time around the Globe', 'One Calendar for All')

With an introduction by Mary Augusta Brazelton

10 November

Christophe Bonneuil, *The Shock of the Anthropocene*, London 2015
Preface, and Chapters 2 and 3 ('Thinking with Gaia: Towards Environmental Humanities', 'Clio, the Earth and the Anthropocenologists', with Chapter 1, 'Welcome to the Anthropocene'
recommended for those unfamiliar with the idea of the Anthropocene)
With an introduction by Helen Curry

24 November

Michael Gordin, *Scientific Babel: How Science Was Done Before and After Global English*, Chicago 2015
Chapters 7 and 9 ('Unspeakable', 'All the Russian That's Fit to Print')
With an introduction by Jonnie Penn

History and Theory Reading Group

We meet on **alternate Fridays, 11am–12.30pm in the Board Room.**

Scholarly Practice, Style and the Digital

What has the arrival of digital and network technologies done to styles of scholarship? This question has been asked of scientific practice by historians of science – by Jon Agar, Bruno Strasser and others. But technological change affects historians just as much as it does scientists, and so we wish to extend the analysis to our own practice. Using the concept of research 'style', we will discuss texts that reflect on scholarly practice, that deal with the arrival and development of digital and networked technologies, and that combine the two. To give structure to the year's reading we will follow the life-cycle of a piece of scholarly work, looking at Research in Michaelmas, Production/Authorship in Lent, and Audience/Users in Easter.

Organised by Boris Jardine (bj210) and Daniel Wilson (dcs2).

Session 1: 14 October

C. Wright Mills, 'On Intellectual Craftsmanship', in *The Sociological Imagination* (Penguin, 1959), pp. 215–248

Markus Krajewski, 'Paper as Passion: Niklas Luhmann and His Card Index', in Lisa Gitelman (ed.), *'Raw Data' Is an Oxymoron* (MIT Press, 2013), pp. 103–120

Session 2: 28 October

Jon Agar, 'What Difference Did Computers Make?', *Social Studies of Science*, 36 (2006), pp. 869–907

Bruno J. Strasser, 'The Experimenter's Museum: GenBank, Natural History, and the Moral Economies of Biomedicine', *Isis*, 102 (2011), pp. 60–96

Session 3: 18 November

Ian Hacking, '"Style" for Historians and Philosophers', *Studies in History and Philosophy of Science*, 23 (1992), pp. 1–20

Session 4: 2 December

Carolyn Steedman, 'After the Archive', *Comparative Critical Studies*, 8 (2011), pp. 321–340

Alan Liu, 'The State of the Digital Humanities: A Report and a Critique', *Arts & Humanities in Higher Education*, 11 (2012), pp. 8–41

Science and Literature Reading Group

Meetings take place on **Monday evenings at Darwin College from 7.30–9pm**. All are welcome to join in our wide-ranging and friendly discussions! The group is organised by Melanie Keene and Charissa Varma. For recaps, further readings, news, and other updates, please visit [our blog](#).

This term the Science and Literature Reading Group is on fire. Our four themed sessions will explore flames elemental and personal, spiritual and experimental, spontaneous and accidental. As usual, we will read a diverse range of sources, including ancient philosophy, comic poetry, diary entries, experimental reports, and serialised fiction. This term an additional optional piece of scholarship/commentary has also been suggested on each reading list.

17 October: Cosmic Fire

- Patricia Curd (ed.), [A Presocratics Reader](#) (2011), chapter 5 on Heraclitus of Ephesus.
- Brooks Haxton, 'Fragments of Heraclitus', *New England Review* 22 (2001), 15–19.
- Gerard Manley Hopkins, '[That Nature is a Heraclitean Fire and of the comfort of the Resurrection](#)' (1918).
- Optional further reading:
 - '[Heraclitus](#)', Stanford Encyclopedia of Philosophy, particularly section 4, 'Cosmology'.

31 October: Sensitive Fire

- John Tyndall, '[On sounding and sensitive flames](#)', *Philosophical Magazine* 4 (1867), 92–99.
- W.F. Barrett, '[Note on "sensitive flames"](#)', *Philosophical Magazine* 4 (1867), 216–222.
- [James Clerk Maxwell], '[To the Chief Musician Upon Nablā: A Tyndallic Ode](#)', in 'The British Association Meeting at Edinburgh', *Nature* 4 (1871), 288–298, 291.
- Optional further reading:
 - Richard Noakes, '[The "bridge which is between physical and psychical research": William Fletcher Barrett, Sensitive Flames, and Spiritualism](#)', *History of Science* xlii (2004), 419–464.

14 November: Bodily Fire

- Paul Rolli, Joseph Bianchini and John Hilliard, '[An Extract...Upon the Death of the Countess...](#)', *Philosophical Transactions* 43 (1744), 447–465.
- Charles Dickens, [Bleak House](#) (1852-3), chapter XXXII, 'The Appointed Time'.
- Justus von Liebig, [Familiar Letters on Chemistry](#) (1859 4th edn), letter XXIV, 296–322.
- Optional further reading:
 - J.L. Heilbron, '[The Affair of the Countess Görnitz](#)', *Proceedings of the American Philosophical Society* 138 (1994), 284–316.

28 November: Fighting Fire

- Samuel Pepys, [Diary](#), September 1666.
- '[The Londoners Lamentation](#)'.
- R.M. Ballantyne, [Fighting the Flames](#) (1868), chapter IV, 'Tells of a Fierce Fight with the Flames'.
- Hilaire Belloc, '[Matilda: who told lies and was burned to death](#)' (1907).
- Optional further reading:
 - Robert M. Hazen and Margaret Hindle Hazen, [Keepers of the Flame: The role of fire in American culture, 1775–1925](#) (1992), chapter 4, 'Fighting Back'.

Philosophy of Medicine Reading Group

We are starting a reading group dedicated to new and old problems in philosophy of medicine. This term our focus is on inductive risk as it is manifested in healthcare and on personalized medicine. All are welcome.

Meetings take place on **Tuesdays, 1–2pm, in Seminar Room 1.**

Conveners: Tim Lewens, Stephen John, Jacob Stegenga, Anna Alexandrova

Week 1 (11 October): Inductive risk and diagnosis

Biddle, J. 'Inductive risk, epistemic risk and the overdiagnosis of disease' *Perspectives on Science* 24(2)

Week 2 (18 October): Inductive risk and population health interventions

Plutynski, A. (forthcoming) 'Safe, or Sorry? Cancer Screening and Inductive Risk' forthcoming in *Exploring Inductive Risk* (will be pre-circulated subject to author's approval)

Week 3 (25 October): Inductive risk: which consequences matter?

Scarantino, 'Inductive risk and justice in kidney allocation' *Bioethics* Volume 24 Number 8 2010 pp 421–430

Week 4 (1 November): Personalised medicine: mapping the terrain

Gamma, Alex, (forthcoming) 'Personalized and Precision Medicine' in *Routledge Companion to Philosophy of Medicine* (ed., Solomon, Simon, and Kincaid), Routledge

Week 5 (8 November): Personalised medicine: the social and the personal

Green and Vogt. 2016. 'Personalizing Medicine: Disease Prevention in silico and in socio' *Humana.Mente Journal of Philosophical Studies* 30: 105-145

Week 6 (15 November): Personalised medicine: redefining disease

Vogt, H., Hofmann, B., & Getz, L. (2016) 'Personalized medicine: evidence of normativity in its quantitative definition of health' *Theoretical Medicine and Bioethics*, 1-16.

Week 7 (22 November): Personalised medicine: inferring individual effects

Teira, David. 'Testing oncological treatments in the era of personalized medicine', in G. Boniolo & M. Nathan, eds., *Philosophy of Molecular Medicine*, Routledge, forthcoming

Week 8 (29 November): TBA

Reading to be announced

Philosophy and History of Physics Reading Group

The Philosophy and History of Physics reading group meets on **Tuesdays, 4.00pm to 6.00pm in the Board Room**. Organised by Jeremy Butterfield and Richard Staley.

The theme for the term is the history and philosophy of spacetime theories, especially relativity. This is chosen partly with a view to a one-day conference being held in Trinity College on Saturday 12 November. The main book will be the *Cambridge Companion to Einstein* (CUP), ed. M. Janssen and C. Lehner. There is University-wide access to the [ebook version](#), so Reading Group members should be able to read it online.

The proposed readings for the first few dates are as follows. We will of course adjust in the light of people's interests, especially in later weeks.

- | | |
|-------------------|---|
| 11 October | Chapters by D. Howard and J. Norton: on Einstein's philosophy of science, and on special relativity, respectively. |
| 18 October | Chapter by Janssen: on Einstein's quest for general relativity. |
| 25 October | Oliver Pooley, 'Substantivalist and relationist approaches to spacetime', in R. Batterman ed., <i>The Oxford Handbook of Philosophy of Physics</i> (OUP, 2013), and available on the Pittsburgh philosophy of science archive . |

1 November Chapters by Ryckman and Friedman (both on post-Kantian themes).

Casebooks Therapy

'Casebooks Therapy' is an informal reading group for those interested in using the [manuscripts of Simon Forman and Richard Napier](#) in their research.

The aim of the reading group is to improve the palaeography skills of those who attend, as well as to provide guidance about how to make sense of Forman's and Napier's records. No familiarity with medieval or early modern handwriting is necessary, and the group is open to all. Attendees are invited to suggest a particular page or case from the Casebooks that they have trouble reading to work through collaboratively. Participants should bring a laptop. Please email Leah Astbury (la320) if you are planning to attend.

Meetings are held on **Wednesdays, 4.30–6pm in the Department.**

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin 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, with the help of our Latin tutor, Maria Ramandi. This is an opportunity to brush up your Latin by regular practice, and if a primary source is giving you grief, we'd love to help you make sense of it over tea and biscuits!

To be added to the mailing list, or to suggest a text, please contact Tillmann Taape (tt311).

[More about Latin Therapy](#)

Manchu Therapy

The Manchu Therapy group meets **fortnightly on Tuesdays, from 3.00 to 4.00pm, in the Board Room.**

Manchu Therapy is an informal group for beginners and more experienced readers who would like to improve their skills. (See this brief description of the [Manchus and the Manchu language](#).) Every other week, we will meet to discuss grammar and read a short text together.

For more information or to be added to the mailing list, please contact Mary Brazelton.

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 Aristotle's *History of Animals* and *Generation of Animals* this term.

For more information or to be added to the mailing list, please email Liz Smith.



(L-R): Steve Kruse, Toby Bryant, Josh Nall, and Andrew Buskell

Lent Term 2017

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.

26 January **James Sumner (University of Manchester)**
Garbage in, garbage out? A history of representations of computers in popular media

A variety of recent scholarship has traced the development of popular science through print media sources, exploring how characterizations of scientific phenomena evolve through interactions between authors' agendas, audience responses, and changes in publishing culture. Studies so far have tended to focus on 19th-century cases, seeking the origins of the familiar boundaries of 'science in public'. Here I apply similar considerations to an inescapably 20th-century phenomenon: the electronic digital computer.

The vision of computers as profoundly new and world-changing endured over a paradoxically long period, from the mid-1940s to the 1980s, in newspapers, magazines and an ever-growing range of introductory books. Although some authors harnessed the blank-slate rhetoric to revolutionary social, economic or educational manifestos, the conceptual content of the literature overall was interestingly conservative, returning repeatedly to a default stock of narratives, justifications and analogies. Some of these representations originated in wider, older discourses: fears that computers would destroy white-collar jobs were an obvious reincarnation of pre-digital tensions over mechanized deskilling. Others were consciously introduced to shape expectations: industry sources promoted awareness of the GIGO principle ('garbage in, garbage out') to affirm the technology as a neutral tool, doing only and precisely what it was told. Still others seem to have persisted by default without much underpinning intent: the remorseless tendency to explain binary arithmetic, to all audiences and for all purposes, endured for half a century. Ultimately, I argue, 'computing' in the popular imagination was only to a limited degree a product of its time.

2 February **Andy Clark (University of Edinburgh)**
Only predict? Conscious experience, and the scope and limits of predictive processing

The 'predictive processing' framework shows great promise as a means of both understanding and integrating many of the core information processing strategies underlying perception, thought and action. But this leaves many questions unanswered. What, if anything, does this deeply probabilistic framework have to say about the nature of daily human experience and (indeed) the nature and possibility of conscious experience more generally? Can a story that posits prediction error minimization as cognitive bedrock accommodate the undoubted attractions of novelty and exploration? Is it falsifiable? What is the true scope of this story – can it really be a theory of 'everything cognitive'?

9 February **Tara Nummedal (Brown University)**
Emblematic alchemy: Michael Maier's *Atalanta fugiens* (1617/18)

Written by the German physician, courtier and alchemist Michael Maier, *Atalanta fugiens* (1617/18) offers its readers an alchemical interpretation of the Classical myth of Atalanta as a series of fifty emblems, each containing an image, motto and epigram (in German and Latin), an accompanying fugue (or canon) for three voices, and a Latin discourse explicating the emblem's alchemical meaning. The parts of each emblem and the 214-page quarto book as a whole are meant to work together, with the music, image and text as an interlocking guide to alchemical theory and to the production of the philosophers' stone. In this talk, I will explore the role of sight and image in Maier's alchemical epistemology and situate his book in the visual culture of early modern European alchemy.

16 February **Marion Vorms (Birkbeck, University of London)**
On reasonable doubt

Jurors in criminal trials are instructed to bring a verdict of 'guilty' if and only if they estimate that guilt has been proven *beyond a reasonable doubt* (BARD). This standard of proof raises intriguing epistemological and psychological issues, in addition to judicial ones. In this talk, I will take the juror's situation as a model for everyday reasoner and decision-maker, and try to extend the notion of reasonable doubt as a norm of reasoning and decision-making under uncertainty more generally. One important, and hard question, is how to draw a clear boundary between reasonable, and unreasonable doubts. After proposing a basic decision-theoretic account of 'reasonable doubt', I will challenge it on several grounds, which will lead me to clarify the picture of belief states and dynamics we need in order to account for this notion.

23 February **Jonathan Birch (LSE)**
Animal sentience and human values

The science of animal welfare provides an important context in which to consider the role ethical values should, or should not, play in setting appropriate burdens of proof. For example, if animals of a particular species can feel pain, but we fail to accept that they can feel pain when formulating animal welfare regulations, negative welfare consequences are likely to ensue. This has led a number of animal welfare scientists to argue that, with respect to contested invertebrate taxa such as cephalopods, decapods and cyclostomes, the precautionary principle should be applied and the burden of proof should be set intentionally low. However, this proposal has met with resistance from the biomedical research community. I offer a philosophical perspective on this controversy, and I attempt to extract some wider lessons regarding the relationship between science and values.

2 March *Seminar cancelled*

9 March **William Ashworth (University of Liverpool)**
The gifts of Athena revisited: protectionism, regulation and the British Industrial Revolution, 1700–1800

The British Industrial Revolution has long been seen as the spark for modern, global industrialisation and sustained economic growth. The emphasis of this paper is upon the British state and its fundamental role in the development of domestic manufactures, importantly, those at the heart of the country's precocious industrial trajectory over the course of the 18th century. This significantly dilutes the current popular view that it was a result of a unique rational culture and a set of favourable institutions.

16 March

Deborah Coen (Columbia University)

Climate in word and image: science and the Austrian idea

One of the most urgent challenges of climate research today is that of conceptualizing interactions across scales of space and time. In her book in progress, Deborah Coen examines how this problem was addressed in the late Habsburg Monarchy, where scientists developed an unprecedented conceptual apparatus for tracking the transfer of energy from the molecular scale to the planetary. Her presentation will offer an overview of this project. The central argument is that these innovations arose in part as a solution to a problem of representation, a problem that engaged Habsburg scientists as servants of a supranational state. The problem was to represent local differences while producing a coherent overview; that is, to do justice to the vaunted diversity of the Habsburg lands while reinforcing the impression of unity. This problem was worked out at the interface between physical and human geography, and it stimulated technical innovations across a range of media, from cartography, to landscape painting, to fiction and poetry, to mathematical physics, while also shaping political discourse. In this way, *Climate in Word and Image* writes the history of climate science as a history of scaling: the process of mediating between different systems of measurement, formal and informal, designed to apply to different slices of the phenomenal world, in order to arrive at a common standard of proportionality. A focus on scaling emphasizes not only the cognitive work of commensuration, but also the corporeal, emotional and social effort that goes into recalibrating our sense of the near in relation to the far.

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, Mary Brazelton, Helen Curry and Susanne Schmidt.

This term we will be exploring the interrelations between science and development, in conjunction with readings and discussion of this theme in the [Twentieth Century Reading Group](#), which meets on alternate Thursdays.

Simone Turchetti (University of Manchester)

2 February The greening alliance: environment, development and the North-Atlantic Treaty Organization

Scholars focussing on 20th century international development programmes have revealed how they often aligned to a diplomacy agenda (especially during the Cold War) and modernist stances underscoring the merits of science and technology in treating under-development. But NATO, the foremost defence alliance in the Western world, has so far been virtually absent from these reflections. This paper considers how, from the late 1960s and following one of its major crises, development and environmental degradation took centre-stage in debates within the alliance. And it documents attempts to mobilize its member-states to either economic assistance or environmental protection schemes. Notably both types of intervention were tied to the promotion of novel scientific research, and especially international collaborative projects. The paper concludes that while eventually NATO opted for an environmental agenda, its 'greening' was actually a political restoration project rather than a true attempt to embrace environmentalism.

Poornima Paidipaty (Faculty of History, Cambridge)

9 February 'The Grammar of the Semi-Exact Sciences': Norbert Wiener in India, 1955–1956

From September 1955 until April 1956, the MIT mathematician and father of cybernetics, Norbert Wiener spent 7 months as a visiting professor at the Indian Statistical Institute in Calcutta. According to his biographers Conway and Siegelman, his experiences in India had a profound influence on Wiener's later professional years. Yet little is known about this time period, which followed shortly on the success and acclaim of cybernetics, as a midcentury vision of techno-futurism. Between classroom lectures, Wiener spent much of his time working on a book manuscript, titled 'The Grammar of the Semi-Exact Sciences', on problems of nonlinear prediction. He promised his publisher that the book would serve as a splashy follow-up to his 1948 publication, *Cybernetics*. Though he never completed or published the book, the manuscript offers an important glimpse of Wiener's work on predictive analysis, especially when set in the context of India's rapid and uncertain postcolonial economic development.

Nayanika Mathur (University of Sussex)

2 March Disappearing big cats and multiplying man-eaters in the Indian Anthropocene

Species extinction as well as increasing levels of human-animal conflict are now widely considered two indicators of anthropic climate change. In this paper, I ethnographically locate and study these two trends in the Indian Himalaya in the context of leopards and tigers in an attempt to elaborate how climate change is experienced in a specific region of India. In the Himalaya there has been a reduction in the number of leopards and tigers over time and, at the same time, there is an ongoing perceived spike in attacks on humans by them. I describe how these two aspects are ascribed to climate change (or what could be understood to be climate change) by a range of actors. These include officials, conservationists, journalists, wildlife biologists, hunters, and villagers in the Upper Himalaya. Climate change discourse has been discussed as 'elitist and exclusive' (Beck 2012) and the absence of a wider acknowledgement of its imminence has been ascribed to a 'failure of the imagination' (Ghosh 2016). Political-psychological studies have argued the sheer enormity of the calamity that awaits us leads to

active denialism (see Runciman 2014) while other works have shown the agents that have worked towards manufacturing scepticism or misinformation (e.g. Conway and Oreskes 2012). In lieu of such an approach that bemoans the absences of a deeper environmental and climactic consciousness, I work through an ethnographic engagement with disappearing big cats and multiplying man-eaters to argue that there are, in fact, wide ranging non-elite discussions of climate change and life in the Anthropocene in the everyday. What is needed is a finer attunement to stories and narratives that do not fit either the official, scientific discourses on climate change or the mainstream conservationist/developmental accounts that seek to protect big cats.

Shen Yubin (Georgetown University)

9 March The Anthropocene seen by the Anopheles: fighting malarial mosquitoes with chemicals in modern China, 1910s–1960s

What could the human malaria-vector *Anopheles* mosquito tell us about the Anthropocene in China? This paper intends to approach the Anthropocene in China by examining the origin, development and aftermath of malarial mosquito controls with chemical pesticides from the 1910s to 1960s. With the spread of germ theory and medical entomology from the West in the 1910s, mosquitoes were transformed from annoying but insignificant blood suckers to dangerous and must-be eliminated disease-carriers. Certain western chemical pesticides were also imported to supplement traditional Chinese measures and organic insecticides. In the Nanjing decade (1928–1937) and the wartime period (1937–1945), several major chemical pesticides were experimented with in government-led campaigns against *Anopheles* mosquitoes and malaria as part of state medicine and national defense. But it was only after 1945, with the introduction of effective DDT (dichlorodiphenyltrichloroethane), that chemical pesticides began to dominate in mosquito controls. These chemicals were widely used in health campaigns in PR China during the 1950s and 1960s. I will argue the massive usage of chemical pesticides is a useful indicator of the coming of the Anthropocene in China: it not only drastically reduced the distribution and population density of the *Anopheles*, but also released toxic substances into the environment: for example, DDT residues can still be found in fishes in certain locations. In short, this paper supports the view that the Anthropocene in China began about 1950.

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.

We meet fortnightly on **Fridays, 3.30–5.00pm in Seminar Room 2**. Further information and reading materials will be distributed through the email list of the group; please contact Marta Halina (mh801) if you would like to be included on the list.

Tom McLeish (Professor of Physics, Durham University)

27 January Extracting new science from 13th century treatises by Robert Grosseteste

- 10 February **Simon Conway Morris (Professor of Palaeobiology, Department of Earth Sciences)**
Adrian Currie (Research Associate, CSER)
 Animal cognition
- 24 February **Daniel De Haan (Postdoctoral Fellow in Theology, Philosophy of Religion, and Neuroscience, Faculty of Divinity)**
 Philosophy and neuroscience
- 10 March **Karoliina Pulkkinen (PhD Student, Department of History and Philosophy of Science)**
Beth Singler (Research Associate, Faraday Institute for Science and Religion)
 HPS and documentary filmmaking

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 Edwin Rose (edr24).

- 23 January **Katrina Maydom (HPS, Cambridge)**
 Piety, diligence and learning: knowledge of American *naturalia* in Abraham Hill's commonplace books

How was knowledge of American flora constructed in early modern England? Influenced by a commitment to benefit the commonwealth and better understand God's creation, Abraham Hill (1633–1721) drew on classical and contemporary writers and reported experience to develop his knowledge of *materia medica* new to England. As a merchant, founding Fellow of the Royal Society and a Commissioner of the Board of Trade and Plantations, Hill occupied a unique position to draw on extant and commissioned sources of information about *naturalia* from the English colonies. By examining his ten volumes of little-studied commonplace books, we can gain significant insights into how he investigated nature and negotiated different authorities' knowledge claims to understand the properties of 'new world' plants.

- 30 January **Sara Peres (HPS, Cambridge)**
 Preparing for doomsday: vulnerability and the contemporary history of genebanking, 1970–2008

In January 2008, the first shipments of samples of agricultural seeds were deposited within the reinforced concrete walls of the Svalbard Global Seed Vault, in the Arctic island of Spitsbergen. This iconic repository, sometimes dubbed the 'Doomsday Vault', has a particularly interesting function as a 'safety back-up' for other existing genebank collections. Its existence therefore shows that, despite the ideas of security implicit in the 'bank' metaphor, the loss of genebanks, and of material within them, are substantial concerns of plant conservationists and policy-makers.

In this talk, I explore the contemporary history of genebanking by investigating how actors conceptualized the susceptibility of genebanks to catastrophes great and small, from conflict to lack of funding, along with proposed solutions to these risks through 'safety duplication', culminating in the establishment of the Svalbard Global Seed Vault. Concerns with the appropriate way to ensure the security of genebanks and their materials figure prominently in international policy discussions about how to organize and fund conservation, and I argue that they are important in shaping the contemporary 'global system'. The contrast between the potential vulnerability of genebanks and their remit of securing diversity makes evident that maintaining collections for the long-term involves technical, infrastructural and social challenges, and that their continued existence cannot be taken for granted. Thus, this account shows the value in being attentive to the role of concerns about vulnerability in shaping the evolution of genebanking as actors seek to ensure their continued existence.

Edwin Rose (HPS, Cambridge)

6 February The *Endeavour* journal and the natural historical working practices of Joseph Banks and Daniel Solander, 1768–1771

This paper examines the *Endeavour* journal of Joseph Banks (1743–1820) and how this manuscript diary, essentially a record of the day-to-day events which occurred during this voyage, is connected to Banks's and Daniel Solander's (1733–82) natural historical work. Throughout this diary, Banks frequently mentions the new species he and Solander collected and consistently refers to the printed works in the *Endeavour* library, showing the interconnectedness between different aspects of their collection. These printed works included their interleaved copies of Carl Linnaeus's *Species Plantarum* (1763) and *Systema Naturae* (1758), which were annotated as the voyage progressed by Hermann Spöring (1733–71), Solander's assistant. Banks and Solander's work during the *Endeavour* voyage sheds light on the emergence of professional fieldwork during the late eighteenth century and the gradual standardisation of natural historical working practices under the Linnaean system, which received an uneven reception by British naturalists at this time.

Richard Bellis (University of Leeds)

13 February Pathology and preparations at the Great Windmill Street School

Whilst William Hunter's vast collection of anatomical and pathological preparations has long been the subject of historical interest, how that collection was formed and used in the everyday work of the school has been understudied. The result is that historians have typically seen Hunter's series of lectures as being consistent in format and content across his career, and have drawn conclusions on his anatomical lectures based on this. However, a comparison of his early and late career lecture series reveals a substantial expansion in the content of the lectures. I argue

that this was the direct result of the continued collecting of preparations, with both the making of preparations and the finished objects themselves acting as flexible tools for teaching and research at the school. Furthermore, as the overall collection grew, so did the opportunity to study pathology. The retaining of diseased parts from dissections and post-mortem examinations over the course of Hunter's career, alongside his assistants' collecting, allowed a range of morbid appearances to be seen and studied by them, as well as their students. This manifested itself in two ways: lectures on disease became a distinct part of Hunter's anatomical course, and Matthew Baillie's *Morbid Anatomy* (1793) utilised the collection to draw conclusions on changes in anatomical structure brought about by disease. I argue that the content of both the lectures and work by Baillie, both distinct outputs of the school, was the result of the regular practice of the school: that of making preparations.

Ben Bradley (Charles Sturt University, NSW)

20 February Natural history or psychology? Reading expressions and being read in Darwin's science of interdependence

Charles Darwin claimed to have been the first to approach 'the highest psychical faculties of man ... exclusively from the side of natural history'. It was on grounds of his practice as a naturalist that Darwin distanced his own studies of agency from those of contemporaries who overtly styled their work as 'psychology' (Spencer, Bain). What hung on this distinction? And what was it Darwin took from studying the economy of nature that he believed to illuminate mind and behaviour? Setting out from his crucial concept of 'social animals', I aim to show that natural history meant something more and other to Darwin than evolutionary ancestry, particularly when studying human agency: namely, the here-and-now of interdependence. My case-study is of Darwin's methods for understanding the meanings of non-verbal expressions as residing in their recognition *by others*. His theory of blushing takes this form of recognition to a second level (I read you as reading me). This dynamic of higher-order or 'meta' recognition proves to be the central principle in Darwin's explanations for the pangs of conscience and for erotic attraction.

Boris Jardine (HPS, Cambridge)

27 February Natural history and the antiquarian

The second half of the nineteenth century saw the rise of the 'New Museum Idea', a widespread increase in mass-audience museums containing both large research departments and extensive public galleries. The idea was given brick-and-mortar form in Cambridge on the 'New Museums Site' – the present home of HPS and former home of a suite of museums ranging across the sciences. In seeking to understand the development of these museums, and the revolution in university education to which they were tied, it is necessary to look at (at least) three things: the nature of their collections, the professional identity of their curators, and the intellectual agenda that united them. In this talk I explore the role of antiquarianism and local history in the shaping of collections of natural specimens. Antiquarianism, I argue, acted at once as a filter through which ever-growing collections could be passed and interpreted, and a robust social identity that could justify and even mask the radical nature of the new museums.

Charlie Jarvis (Natural History Museum)

6 March James Cuninghame – 'a learned and most industrious promoter of natural philosophy'

By any standards, James Cuninghame FRS (ca. 1665–1709) led a remarkable life. A Scot trained in medicine in Leiden, he participated in four voyages bound for Asia, as a surgeon or trader, and discussed his discoveries with major figures of the time in natural philosophy in London, notably Hans Sloane, James Petiver, Leonard Plukenet and John Woodward. He narrowly escaped death in attacks on East India Company (EIC) factories in Pulo Condore (Vietnam) and Banjarmassin (Borneo), and was imprisoned in France, the Canary Islands and Cochinchina, but he never failed to be an enthusiastic and conscientious collector, acquiring specimens of both natural and artificial objects (including hundreds of pressed plants, insects and shells, and watercolours of plants by native artists), as well as items of trade interest (tea samples, china clay, a scarlet dye, maps, a Chinese compass), wherever he touched land. Although probably best known as one of the first people to bring extensive natural history collections from China (chiefly from Amoy (Xiamen) and Chusan (Zhoushan)) to Europe, Cuninghame also made collections in the Canary Islands, Ascension, St Helena, the Cape of Good Hope, Java, Malacca, Pulo Condore and Cochinchina, all of which are among the earliest that survive from many of these locations. New research is shedding light on the contexts in which Cuninghame travelled. His Amoy voyage, for example, is now known to have taken place on an interloping ship rather than one belonging to the EIC – remarkable in the context of trade with China at this time.

James Poskett (HPS, Cambridge)
13 March Reading colonial photography: the publication and reception of *A Phrenologist Amongst the Todas* (1873)

This talk follows phrenological photographs as they travelled back and forth across the imperial world. As a case study, I take the series of photographs featured in William Elliot Marshall's *A Phrenologist Amongst the Todas* (1873). The nineteen photographs in this book were originally taken in the Nilgiri Hills, in southern India. Together, the photographs and text document the phrenology of the Todas, a pastoral hill tribe living in the Nilgiris. Marshall's book circulated widely. It was read by many of the most influential evolutionary and anthropological thinkers of the late nineteenth century including Charles Darwin, E.B. Tylor, Jean Louis Armand de Quatrefages and W.H.R. Rivers. To date, historians have treated photography in India as relatively disconnected from the wider world. But as I argue in this talk, the history of photography in India needs to be understood, like the history of colonial photography more generally, as part of a global history of material exchange. It was through circulation and reception that photography and phrenology became intertwined with evolutionary thought and colonial power.

History of Medicine

Seminars are on **Tuesdays from 5.00 to 6.30pm in Seminar Room 1**. Tea and biscuits are available from 4.40pm. All welcome!

[Other History of Medicine events](#)

History of Modern Medicine and Biology

Organised by Mary Brazelton, Helen Anne Curry and Nick Hopwood.

- 24 January** **Lukas Engelmann (CRASSH, Cambridge)**
Picturing the unusual: medical photography as an 'experimental system'
- 21 February** **Steve Sturdy (University of Edinburgh)**
Genomics and the industrialisation of medical tests, 1980–2000
- 14 March** **Jeong-ran Kim (Wellcome Unit for the History of Medicine, Oxford)**
Malaria and the colonial frontier in Manchuria, 1905–1940s

Early Science and Medicine

Organised by Lauren Kassell and Dániel Margócsy.

- 31 January** *Seminar cancelled*
- 14 February** **Tillmann Taape (HPS, Cambridge)**
The craft of healing, city guilds and vernacular print: Hieronymus Brunschwig's medical manuals, c. 1500
- 7 March** **Jane Stephens Crawshaw (Oxford Brookes University)**
The state of the environment: public health and technology in Renaissance Genoa

Generation to Reproduction

These seminars are funded by our [Wellcome Trust strategic award in the history of medicine](#).
Organised by Nick Hopwood and Lauren Kassell.

- 7 February** **Tamar Novick (MPI, Berlin)**
Multispecies settlement in Palestine: the problem of infertility and the wonders of urine
- 28 February** **Zubin Mistry (University of Edinburgh)**
Childless communities: early medieval monasteries and the history of (in)fertility

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 Anna Alexandrova.

Seminars are held on **Wednesdays, 1.00–2.30pm in Seminar Room 2.**

- | | |
|--------------------|--|
| 25 January | Stephen John (HPS, Cambridge)
Wishful speaking: science, truth and dictatorship |
| 1 February | Adrian Currie (Centre for the Study of Existential Risk, Cambridge)
Why common cause explanation is not the main business of historical reconstruction |
| 8 February | Matthew Parrott (KCL)
Delusional cognition as explanation |
| 15 February | Hasok Chang (HPS, Cambridge)
Pragmatist coherence as the source of truth and reality |
| 22 February | Yang Liu (Centre for the Study of Existential Risk, Cambridge)
Towards a more realistic subjective decision theory |
| 1 March | Andrew Buskell (HPS, Cambridge)
Ecological factors of attraction and causal explanation in cultural attractor theory |
| 8 March | Christopher Austin (University of Oxford)
A biologically informed hylomorphism |
| 15 March | Remco Heesen (Philosophy, Cambridge)
Why the priority rule does not exist |

Twentieth Century Reading Group

The group discusses books and papers relating to the history and historiography of 20th-century science, technology and medicine, broadly construed. We meet on **Thursdays, 1pm to 2pm in the Board Room**. Organised by Susanne Schmidt, Mary Brazelton, Helen Curry and Richard Staley.

Everyone is welcome – feel free to bring along your lunch.

In Lent, we'll be reading:

19 January

Dana Simmons, *The Vital Minimum: Need, Science and Politics in Modern France*, Chicago 2015
Introduction, Chapters 4 & 7 ('Family, Race, 'Type', 'Science of Man')

26 January

Sigrid Schmalzer, *Red Revolution, Green Revolution: Scientific Farming in Socialist China*, Chicago 2016
Chapters 4 & 5 ('Chinese Peasants: "Experience" and "Backwardness"', 'Seeing Like a State Agent')

16 February

David Biggs, *Quagmire: Nation-Building and Nature in the Mekong Delta*, Seattle 2012
Introduction & Chapter 5 ('Modernization')

23 February

Nayanika Mathur, *Paper Tiger: Law, Bureaucracy, and the Developmental State in Himalayan India*, Cambridge 2015
Introduction, Chapters 2 & 6 ('The State Life of Law', 'The Reign of Terror of the Big Cat')

History and Theory Reading Group

We meet on **alternate Fridays, 11am–12.30pm in the Board Room.**

Scholarly Practice, Style and the Digital

What has the arrival of digital and network technologies done to styles of scholarship? This question has been asked of scientific practice by historians of science – by Jon Agar, Bruno Strasser and others. But technological change affects historians just as much as it does scientists, and so we wish to extend the analysis to our own practice. Using the concept of research 'style', we will discuss texts that reflect on scholarly practice, that deal with the arrival and development of digital and networked technologies, and that combine the two. To give structure to the year's reading we will follow the life-cycle of a piece of scholarly work, looking at Research in Michaelmas, Production/Authorship in Lent, and Audience/Users in Easter.

Organised by Boris Jardine (bj210) and Daniel Wilson (dcs2).

Session 1: 27 January

Friedrich Kittler, *Discourse Networks, 1800/1900*, trans. Michael Metteer and Chris Cullen (Stanford University Press, 1987), pp. 177–205 ('Nietzsche: Incipit Tragoedia')

Lev Manovich, '[An Archeology of a Computer Screen](#)' (1995)

Edward Tufte, '[The Cognitive Style of PowerPoint](#)' (2003)

Session 2: 10 February

Frans van Lunteren, 'Clocks to Computers: A Machine-Based "Big Picture" of the History of Modern Science', *Isis* 107 (2016), pp. 763–776

Donna J. Haraway, *Crystals, Fabrics, and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* (Yale University Press), Chapter 1, 'Paradigm and Metaphor'

Session 3: 24 February

N. Katherine Hayles, 'Virtual Bodies and Flickering Signifiers', *October* 66 (1993), pp. 69–91

N. Katherine Hayles, 'Print Is Flat, Code Is Deep: The Importance of Media-Specific Analysis', *Poetics Today* 25 (2004), pp. 67–90

Session 4: 10 March

Donna J. Haraway, *Modest_Witness@Second_Millennium.FemaleMan®_Meets_OncoMouse™* (London and New York: Routledge, 1997), selected sections TBA

Science and Literature Reading Group

This term the Science and Literature Reading Group takes to the air, as we continue our series of meetings exploring the elements. We will focus on late eighteenth- and early nineteenth-century pneumatics, from eudiometry to aeronautics, considering how air was philosophised, exploited, and consumed.

Meetings take place on **Monday evenings at Darwin College from 7.30–9pm**. Please note that this term we will be meeting in the ground floor seminar room of 1 Newnham Terrace. All are welcome to join in our wide-ranging and friendly discussions!

The group is organised by Melanie Keene and Charissa Varma. For recaps, further readings, news, and other updates, please [visit our blog](#). We have also recently joined Twitter: you can follow us [@scilitreadgrp](#).

6 February: Atmosphere

Joseph Priestley, '[Of Dephlogisticated Air, and of the constitution of the Atmosphere](#)', from *Observations on Various Kinds of Air* (1776 2nd edn), Vol. II, 29–61.

20 February: Breath

Richard Polwhele, '[The Pneumatic Revellers; An Eclogue](#)', in *Poems* (1810), Vol. V, iii–viii and 1–17.

13 March: Flight

Thomas Baldwin, [Airopaidia](#) (1786), as much as you'd like of 1–164 ('The Excursion throu' the Air'), especially 1–14, 29–59, 94–97.

Philosophy of Medicine Reading Group

This reading group is dedicated to new and old problems in philosophy of medicine. All are welcome.

Meetings take place on **Tuesdays, 1–2pm, in Seminar Room 1.**

Conveners: Tim Lewens, Stephen John, Jacob Stegenga, Anna Alexandrova

24 January

Skopek, Jeff 'The Nature of Big Data and its Implications for Privacy' (draft to be circulated – please email Jacob (jms303) for a copy)

31 January

Biddle, Justin '[Intellectual Property in the Biomedical Sciences](#)'

7 February

Kincaid, Harold (2008) 'Do We Need Theory to Study Disease?', *Perspectives in Biology and Medicine* 51

14 February

Bennett Holman '[The Fundamental Antagonism: Veritism and Commerce in Medical Practice \(1905–1920\)](#)'

21 February

Lemoine, Mael (2017) 'Animal extrapolation in preclinical studies: An analysis of the tragic case of TGN1412'

28 February

Christakis & Fowler (2007) 'The Spread of Obesity in a Large Social Network', *New England Journal of Medicine*
and

Barabási (2007) 'Network Medicine: From Obesity to the "Diseasome"', *New England Journal of Medicine*

7 March

Lippert-Rasmussen, K. 'When group measures of health should matter' in Eyal (et al) eds, *Inequalities in Health*

14 March

Sreenivasan, G. (2009) 'Ethics and Epidemiology: Residual Health Inequalities', *Public Health Ethics* (2009) 2 (3): 244–249

Philosophy and History of Physics Reading Group

The Philosophy and History of Physics reading group meets on **Tuesdays, 4.00pm to 6.00pm in the Board Room**. Organised by Jeremy Butterfield and Richard Staley.

The theme of the term is Black Holes. We will begin on 24 January with a historical study of singularity theorems by John Earman and continue on 31 January and 7 February with a survey article by Erik Curiel, on singularities, black holes and gravitational thermodynamics. Readings are available from Richard Staley (raws1) and Jeremy Butterfield (jb56), and later meetings will address group interests.

24 January

Earman, John. 1999. 'The Penrose-Hawking singularity theorems: History and implications'. In *The Expanding Worlds of General Relativity*, edited by Hubert Goenner, Jürgen Renn, Jim Ritter and Tilman Sauer, 235–267. Boston: Birkhäuser.

31 January and 7 February

Curiel, Erik. Forthcoming. 'Singularities, black holes and gravitational thermodynamics'. In the *Stanford Encyclopaedia of Philosophy*.

Casebooks Therapy

Organiser: Leah Astbury

Sponsor and tutor: Lauren Kassell

'Casebooks Therapy' is an informal reading group for those interested in using the [manuscripts of Simon Forman and Richard Napier](#) in their research.

The aim of the reading group is to improve the palaeography skills of those who attend, as well as to provide guidance about how to make sense of Forman's and Napier's records. No familiarity with medieval or early modern handwriting is necessary, and the group is open to all. Attendees are invited to suggest a particular page or case from the Casebooks that they have trouble reading to work through collaboratively. Participants should bring a laptop. Please email Leah Astbury (la320) if you are planning to attend.

Meetings are held on **Wednesdays, 4.30–6pm in the Department.**

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin 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, with the help of our Latin tutor, Maria Ramandi. This is an opportunity to brush up your Latin by regular practice, and if a primary source is giving you grief, we'd love to help you make sense of it over tea and biscuits!

To be added to the mailing list, or to suggest a text, please contact Tillmann Taafe (tt311).

[More about Latin Therapy](#)

Manchu Therapy

The Manchu Therapy group meets **fortnightly on Tuesdays, from 3.00 to 4.00pm, in the Board Room.**

Manchu Therapy is an informal group for beginners and more experienced readers who would like to improve their skills. (See this brief description of the [Manchus and the Manchu language](#).) Every other week, we will meet to discuss grammar and read a short text together.

For more information or to be added to the mailing list, please contact Mary Brazelton.

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 Aristotle's *History of Animals* and *Generation of Animals* this term.

For more information or to be added to the mailing list, please email Liz Smith.

Easter Term 2017

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.

4 May **Heather Douglas (University of Waterloo)**
The materials for trust-building in expertise

The need for expertise is undisputed in today's complex society, but what expertise is, how to identify it, and how to build trust in it is hotly contested. Some philosophers presume that experts should be trusted and provide cursory means of assessment. Other philosophers argue that only experts can identify other experts, and thus we can do nothing but trust experts and hope for the best. Still other philosophers rightly point out that experts have failed some groups of people (and been part of past injustices), so trust is something that must be earned. This debate takes place against a backdrop of an increasing rejection of expertise in Western democracies, and thus addressing these issues takes on some urgency. In this talk, I will argue that expertise consists of a fluency of judgement in a complex terrain. While such fluency cannot be transferred to non-experts quickly or easily (we cannot all become experts in everything), expertise can and should be assessed by non-experts. I will articulate plausible bases for assessment experts by non-experts, and argue that crucial trust-building materials are to be found among them.

11 May [Twenty-Second Annual Hans Rausing Lecture](#)
Lissa Roberts (University of Twente)
The history of failure: a chronicle of losers or key to success?
McCrum Lecture Theatre, Bene't Street, at 4.30pm

18 May **Henry Cowles (Yale University)**
Scientific habits circa 1900

In the decades around 1900, habits were scientific. Psychologists saw mental habits as the intersection of an evolutionary past and an experimental future, while neurologists thought that habit signaled the mind's bodily roots. This talk explores the consequences of this attention to habit in the emerging human sciences, including the idea that science itself was (or could be) habitual. The sciences of habit helped recast the scope of scientific thinking and the reach of moral judgement, as issues of choice, willpower and belonging were naturalized in new ways.

25 May **Lydia Patton (Virginia Tech)**
Frogs in space: physiological research into metric relationships and laws of nature

A surprising amount of research into theories of space and time in the nineteenth century

involved experiments done on frogs' reactions to stimuli. William James and Hugo Munsterberg performed classic such experiments, but there was a much broader group involved. Those who cited the research and used it in their discussions of spatial relationships, and of the relationship between physiological and metric space, include Henri Poincaré and Ernst Mach. Hermann von Helmholtz used experiments on frogs to establish a number of his most important results, including the claim that sensations are not propagated instantaneously but take time to propagate along a nerve. Helmholtz used other experiments on frogs to argue against the existence of a vital force, a key element of his proof of the conservation of force (energy), and a turning point in nineteenth-century physiology and medicine. Frogs mediated between the physiological and the metric: in theories of space and movement, and in theories of metabolism, energy and sensation. The formulation of well-known scientific laws during this time sprang from physiological as well as physical reasoning, and the domain of application of those laws extended to living bodies as well as to inert physical masses. Philosophers who argued that spatiotemporal relationships are fundamental to all sciences, like Cassirer and arguably Poincaré, were drawing on this history in part. The history of amphibious research forms part of the background to accounts of scientific law, like Wigner's and Mach's, that draw on evolution, perception and consciousness, including Wigner's controversial argument that consciousness collapses the wave function.

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, Mary Brazelton, Helen Curry and Susanne Schmidt.

Lena Springer (Needham Research Institute)

4 May Shifting formats, changing priorities in the modern Chinese materia medica genre: from Zhao Yuhuang's single items to drugs in acupuncture channels

Materia medica are a written genre which has a long cultural history in Chinese. It has continuously integrated vernacular names for medicinal materials and drugs from orally transmitted practice. Furthermore, in the twentieth century, a fundamental shift occurred in modern science when 'old' and 'new' studies were combined in China to list single items of materia medica as an esteemed contribution to world science. Journal articles and early reference works serve as material in Lena Springer's talk to demonstrate how broad the range of options for selected content in the scientific entries was during the Republican period until the 1930s. A second change took place when the craze for particularly Chinese medicine drugs in the 1950s added another layer to the political claims and meanings attached to the materia medica entries: now scientists and historians regarded the well-tried Chinese drugs as a promising model for world revolution. As a model for ethnic development anywhere, the previously disregarded Chinese theory, of acupuncture channels for instance, returned into the scientific literature.

Ruth Wainman (University of Kent)

11 May Listening to scientists' stories: using the British Library's 'An Oral History of British Science' archive

The British Library's 'An Oral History of British Science' (OHBS) was created in 2009 to address the dearth of oral history archives dedicated to capturing the personal experiences of British scientists. This paper examines the implications of using an oral history archive to write about scientists' identities during my doctoral research and for historians of science more generally. The advantages of using life history interviews from the archive to explore scientists' narratives are situated within the longer historiographical trajectories of the 'history from below' approach of oral history and the 'great men' foundations of history of science. In addition, this article reflects on the process of using a recent oral history archive that has not only allowed for an almost unprecedented access into the personal and working lives of recent scientists but also afforded a greater insight into the creation and aims of the OHBS itself.

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.

We meet fortnightly on **Fridays, 3.30–5.00pm in Seminar Room 2**. Further information and reading materials will be distributed through the email list of the group; please contact Marta Halina (mh801) if you would like to be included on the list.

5 May **Fumiya Iida (University Lecturer in Mechatronics, Machine Intelligence Laboratory, Cambridge)**
Biologically inspired robotics

19 May **Alison Gopnik (Professor of Psychology, University of California, Berkeley)**
Life history and learning

Cabinet of Natural History

1 May **Jennifer M. Rampling (Princeton University)**
When a stone is not a stone: doing alchemy with plants and animals

The pseudo-Aristotelian *Secret of Secrets* was a popular source of alchemical knowledge in medieval Europe, with its mysterious reference to 'a stone that is not a stone' – a substance which was simultaneously animal, vegetable and mineral. Over the centuries, alchemists picked over this trope as they sought to explain how substances from the different kingdoms of nature

were able to interact. For instance, ingredients that were apparently incompatible on philosophical grounds – such as gold, eggshells and spirit of wine – might in practice combine to create interesting effects, and to raise alchemical hopes. This talk will trace some attempts to solve theoretical and practical problems in multi-species alchemy, such as how to induce minerals to 'grow' like plants, or how to dissolve gold in vegetable solvents. Above all, how could alchemists persuade patrons to invest in such techniques?

8 May Mark Wormald (Pembroke College, Cambridge)
Poetic electrons: Ted Hughes and the mayfly

In 1981, the artist Leonard Baskin wrote to the poet Ted Hughes with a list of fifteen projected poems about insects that would feature in their next collaboration. It began with 'The Mayfly'. A poem with that title appeared in *London Magazine* in 1983, but was never collected. The central poem in *Flowers and Insects* (1986) which Baskin illustrated, 'Saint's Island', incorporates several phrases and insights first used in 'The Mayfly'. And in 1993 Hughes published 'The Mayfly is Frail', in a revised text of his collection *River* (first published in 1983).

This paper describes Hughes's education in the mayfly. Like its subject, it had a long and hidden larval stage, but took memorable flight in a fishing trip to Ireland in May 1982, which ended at Saint's Island on Lough Ree. Two remarkable prose accounts of this trip are among Hughes' papers in the British Library. Between them they shape a visionary narrative, beginning with an Oxford tutorial in entomology from his son Nicholas, and detailing Hughes's attempts, in the company of a group of fanatical Irish fishermen, to catch lough trout on imitations of its dun, or Green Drake, and spinner, or Spent. The poetry that emerged from this experience is faithful to these circumstances but also transcends them, offering a powerful vision of ecological interconnection not just to lovers of poetry but to all those concerned for the health of our rivers and lakes.

15 May Christina Skott (History, Cambridge)
Clas Fredrik Hornstedt, the 'last Linnaean' in the East Indies, 1783–4

In the early 1780s members of the circle of amateur naturalists in Batavia sometimes referred to as the 'East-Indies Enlightenment' sought to appoint a curator for the collections of the newly founded *Bataviaasch Genootschap van Kunsten en Wetenschappen*. It was not far-fetched to turn to Sweden, as the society looked for a naturalist trained in Linnaean method and nomenclature. The man eventually sent out to Java was Clas Fredrik Hornstedt, a student of Carl Peter Thunberg, himself one of the most prominent students of Linnaeus. Hornstedt would spend little over a year in Java. Returning to Sweden in 1786 he brought with him vast collections, not only of animals, plants and minerals, but also *materia medica*, ethnographica and manuscripts, as well as extensive journals and annotations.

This paper uses Hornstedt's collecting endeavour in the East-Indies to make observations on the status of science in Sweden in the generation after the death of Linnaeus. It is argued that the Linnaean ambition to record and list everything with boundless scientific detail here was extended to geography, history, literature, thus contributing to the empirical knowledge of eighteenth-century Java and its inhabitants. But Hornstedt has also been seen as the last travelling Linnaean, and the fate of his collections shows that this particular form of knowledge

gathering and collecting was increasingly becoming unfashionable in Sweden.

22 May Ken McNamara (Sedgwick Museum, Cambridge)

Exploring John Woodward's scientific writing in his catalogues of fossils (1728, 1729)

The 9,600 specimens that form the geological collection of Dr John Woodward (1667–1728) were, in part, bequeathed to the University of Cambridge. Of the four cabinets that housed his collection, the two not bequeathed were purchased by the University from Woodward's executors, thus keeping the collection intact. Woodward was meticulous in detailing the provenance of his specimens, whether collected by himself or donated by others. This he did in a number of hand-written catalogues which are housed today in the Sedgwick Museum's archives. These catalogues, subsequently published in two volumes after Woodward's death, are not merely lists of specimens. They contain many of Woodward's ideas on geology, mineralogy and palaeontology. Although he is best remembered for his contentious *An Essay toward a Natural History of the Earth*... published in 1695, the catalogues contain a wealth of observations and interpretations of the geological world by Woodward that were, in many cases, hundreds of years ahead of their time. Along with a discussion of his classification of rocks and minerals, and hierarchical classification of fossilised organic remains, I will examine a number of his insightful interpretations based on his collection, especially in palaeoecology and taphonomy, showing that Woodward deserves to be credited with being one of the first scientific geologists.

30 May Cabinet Trip to the Natural History Museum, London

We will be visiting a selection of historical collections in the Botany Department, Earth Sciences Department, Entomology Department and the Library and Archives. Due to the size of the rooms in the Museum, only a maximum of 20 participants can be accommodated. More details will follow shortly.

James Delbourgo (Rutgers University)

5 June Ten things you always wanted to know about Hans Sloane, founder of the British Museum... but were afraid to ask

In 1759 the British Museum opened its doors for the first time – the first free national public museum in the world. But how did it come into being? This talk is based on a new biography of its founder, Hans Sloane, which recounts the story behind the museum's creation. Born in Northern Ireland in 1660, Sloane amassed a fortune as a London society physician, becoming a member of the Whig establishment and president of the Royal Society and Royal College of Physicians. His wealth and contacts enabled him to assemble an encyclopedic collection of specimens and objects – the most famous cabinet of curiosities of its time. For Sloane, collecting a world of objects meant collecting a world of people. His marriage to a Jamaican sugar heiress gave him access to both planters and African slaves, from whom he collected a variety of objects. He then established a network of agents to supply artifacts from China, India, North America, the Caribbean and beyond: plants and animals, books and manuscripts, a 'shoe made of human skin', the head of an Arctic walrus, slaves' banjos, magical amulets, Buddhist shrines, copies of the Qur'ān and more – nothing was off limits to Sloane's curiosity and fortune. The overlooked story of one of the Enlightenment's most controversial luminaries offers a fresh perspective on the entanglement of scientific discovery and imperialism in the eighteenth century

and the heritage of today's global museums.

Cabinet Garden Party, [Finella, Queen's Road](#)
16 June **Sujit Sivasundaram (History, Cambridge)**
The oils of Empire and the banks of the Irrawaddy

CamPoS

3 May **Tushar Menon (University of Oxford)**
Affine balance: algebraic spacetime functionalism as a guide to identifying spacetime

10 May **Catherine Kendig (Michigan State University)**
How can we homologize holobionts, and whose lineage matters?

17 May **Alison Gopnik (University of California, Berkeley)**
The Theory Theory 2.0: Bayesian models, causal inference and cognitive development

24 May **Lydia Patton (Virginia Tech)**
Listening to the chirps: how do the LIGO results test general relativity?

Twentieth Century Reading Group

In Lent, we'll be reading:

19 January

Dana Simmons, *The Vital Minimum: Need, Science and Politics in Modern France*, Chicago 2015
Introduction, Chapters 4 & 7 ('Family, Race, Type', 'Science of Man')

26 January

Sigrid Schmalzer, *Red Revolution, Green Revolution: Scientific Farming in Socialist China*, Chicago 2016
Chapters 4 & 5 ('Chinese Peasants: "Experience" and "Backwardness"', 'Seeing Like a State Agent')

16 February

David Biggs, *Quagmire: Nation-Building and Nature in the Mekong Delta*, Seattle 2012
Introduction & Chapter 5 ('Modernization')

23 February

Nayanika Mathur, *Paper Tiger: Law, Bureaucracy, and the Developmental State in Himalayan India*, Cambridge 2015
Introduction, Chapters 2 & 6 ('The State Life of Law', 'The Reign of Terror of the Big Cat')

History and Theory Reading Group

Scholarly Practice, Style and the Digital

What has the arrival of digital and network technologies done to styles of scholarship? This question has been asked of scientific practice by historians of science – by Jon Agar, Bruno Strasser and others. But technological change affects historians just as much as it does scientists, and so we wish to extend the analysis to our own practice. Using the concept of research 'style', we will discuss texts that reflect on scholarly practice, that deal with the arrival and development of digital and networked technologies, and that combine the two. To give structure to the year's reading we will follow the life-cycle of a piece of scholarly work, looking at Research in Michaelmas, Production/Authorship in Lent, and Audience/Users in Easter.

Organised by Boris Jardine (bj210) and Daniel Wilson (dcs2).

Lent Term: Production/Authorship

Session 1: 27 January

Friedrich Kittler, *Discourse Networks, 1800/1900*, trans. Michael Metteer and Chris Cullen (Stanford University Press, 1987), pp. 177–205 ('Nietzsche: Incipit Tragoedia')

Lev Manovich, ['An Archeology of a Computer Screen'](#) (1995)

Edward Tufte, ['The Cognitive Style of PowerPoint'](#) (2003)

Session 2: 10 February

Frans van Lunteren, 'Clocks to Computers: A Machine-Based "Big Picture" of the History of Modern Science', *Isis* 107 (2016), pp. 763–776

Donna J. Haraway, *Crystals, Fabrics, and Fields: Metaphors of Organicism in Twentieth-Century Developmental Biology* (Yale University Press), Chapter 1, 'Paradigm and Metaphor'

Session 3: 24 February

N. Katherine Hayles, 'Virtual Bodies and Flickering Signifiers', *October* 66 (1993), pp. 69–91

N. Katherine Hayles, 'Print Is Flat, Code Is Deep: The Importance of Media-Specific Analysis', *Poetics Today* 25 (2004), pp. 67–90

Session 4: 10 March

Donna J. Haraway, *Modest_Witness@Second_Millennium.FemaleMan®_Meets_OncoMouse™* (London and New York: Routledge, 1997), selected sections TBA

Science and Literature Reading Group

Easter Term 2017 – Water

In Easter Term our exploration of the four elements reaches the water. Appropriately enough for this most protean of substances, we will engage with several forms of media: a poem, a short story, a play, and two essays. In very different ways, these works comment on the relationships between literature and water: experiencing and analysing, surviving and following, cherishing and chronicling its varied appearances as river, rain, ice, and sea.

We will meet at Darwin College in the ground floor seminar room at 1 Newnham Terrace from 7.30–9pm (last meeting location tbc).

All are welcome to join us, whether new or old members of the group! The group is organised by Melanie Keene and Charissa Varma.

Follow us on Twitter [@scilitreadgrp](#) or look at [our blog](#) for full news and updates.

8 May – River

- [Alice Oswald, *Dart* \(2002\)](#). Also in several College and University libraries.

22 May – Rain

- Ray Bradbury, 'Death-By-Rain', *Planet Stories* (1950). Republished as 'The Long Rain' in several collections of his short stories, or contact MK for a copy.

5 June – Ice

- [Wilkie Collins, *The Frozen Deep* \(written 1856, published 1866\)](#).

26 June – Sea

- R.L. Carson, 'Undersea', *Atlantic Monthly* (1937), 322–325; and 'The Edge of the Sea', address to the American Association for the Advancement of Science (1953). Republished in Linda Lear (ed.), *Lost Woods: The Discovered Writing of Rachel Carson* (1999), or contact MK for a copy.

Philosophy of Medicine Reading Group

This reading group is dedicated to new and old problems in philosophy of medicine. All are welcome.

Meetings take place on **Tuesdays, 1–2pm, in Seminar Room 1.**

Conveners: Tim Lewens, Stephen John, Jacob Stegenga, Anna Alexandrova

2 May

Ian Hacking, 2010, 'Pathological withdrawal of refugee children seeking asylum in Sweden', *Studies in History and Philosophy of Biological and Biomedical Sciences*

9 May

Stephen John, 'Lies, damn'd lies and statistics: is it possible to communicate risk accurately?' (to be circulated, please email Jacob (jms303) for copy)

16 May

Joseph Wu, 'Health inequalities and cancer screening' (to be circulated, please email Jacob (jms303) for copy)

23 May

Eric Meslin, 'TBD' (to be circulated, please email Jacob (jms303) for copy)

30 May

Kirstin Borgerson, 'Evidence-based alternative medicine?'

6 June

Jeff McMahan, 'The metaphysics of brain death'

13 June

Jeremy Howick, 'The relativity of "placebos": defending a modified version of Grünbaum's definition', *Synthese*

Philosophy and History of Physics Reading Group

The Philosophy and History of Physics reading group meets on **Tuesdays, 4.00pm to 6.00pm in the Board Room.** Organised by Jeremy Butterfield and Richard Staley.

The theme of the term is Black Holes. We will begin on 24 January with a historical study of singularity theorems by John Earman and continue on 31 January and 7 February with a survey article by Erik Curiel, on singularities, black holes and gravitational thermodynamics. Readings

are available from Richard Staley (raws1) and Jeremy Butterfield (jb56), and later meetings will address group interests.

24 January

Earman, John. 1999. 'The Penrose-Hawking singularity theorems: History and implications'. In *The Expanding Worlds of General Relativity*, edited by Hubert Goenner, Jürgen Renn, Jim Ritter and Tilman Sauer, 235–267. Boston: Birkhäuser.

31 January and 7 February

Curiel, Erik. Forthcoming. 'Singularities, black holes and gravitational thermodynamics'. In the *Stanford Encyclopaedia of Philosophy*.