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The Department

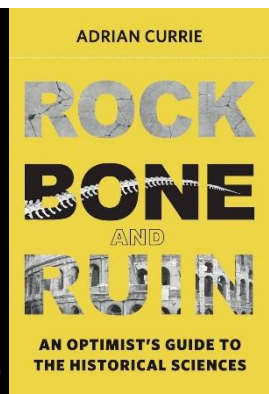
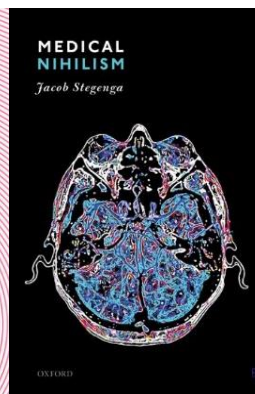
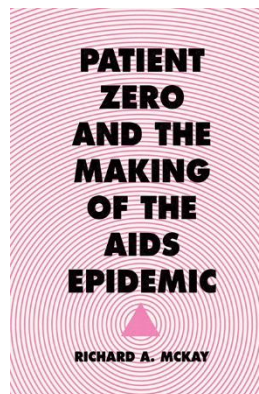
Introduction

Perhaps the most significant departmental news for the year was the introduction of a new MPhil in Health, Medicine and Society, run in collaboration with the Departments of Social Anthropology and Sociology. This programme gives students a uniquely interdisciplinary approach to teaching and research in the social, ethical and historical analysis of health and medicine, and students are offered the opportunity to work with academic staff from across all of the departments involved. The first year cohort comprised 11 students and it is intended that the intake will be larger in forthcoming years. Students choose three essay titles from a large list compiled by the course organisers, as well as writing a dissertation. New prizes, the Habib Prize and the Forrester Prize, have also been established for the highest overall performance in the essay component and dissertation respectively.

This year we welcomed a new Whipple Librarian to the department, Jack Dixon. Jack started in January 2017, joining us from the Taylor Library at Corpus Christi, where he was the assistant librarian. The full library report for the year is on page 30.

The Whipple Museum closed towards the end of summer for major repair work and renovations, and will be closed through until the beginning of 2019. New skylights will be installed in the main gallery, and the carpet tile floor is being replaced with wood-effect luxury vinyl in a style sympathetic to the building. This will make the main gallery a much more attractive and welcoming space for future visitors. The Museum's report for the year is on page 35.

The Museum was used a lot this year for departmental events; as we hosted a number of book launches by HPS staff as well as friends and associates of the department. In February, we had the launch for Richard McKay's *Patient Zero and the Making of the AIDS Epidemic*, which focuses on the life of Gaetan Dugas to explore the early history of the epidemic, refuting the myth



that he was the North American 'Patient Zero'. In May, we hosted the launch of Adrian Currie's *Rock, Bone and Ruin: An Optimist's Guide to the Historical Sciences*, which argues that we ought to be optimistic about the success of geology, palaeontology and archaeology, despite their working with 'mere traces of the past' for evidence. This was followed later in May with the launch of Jacob Stegenga's *Medical Nihilism*, which combines careful discussion of biomedical research and practice with thorough philosophical analysis to make the striking argument that we shouldn't have high confidence in the success of medical interventions. We hope that our academics keep up their industrious pace and that we'll have more book launches to celebrate in the refurbished main gallery in the future.

In February we were excited to learn that Simon Schaffer had been awarded the annual Dan David Prize, a major international prize for lifetime intellectual achievement and innovation. The categories for the prize are 'Past', 'Present', and 'Future', and this year the field chosen for 'Past' was the history of science. In the prize committee's words, Simon was awarded the prize for 'transforming our understanding of science in history by consistently targeting key issues, and probing the limits of current debate'.

This year the department also ran the first PhD Student Reunion, for which there is a short report and some photos on page 5.

Annual HPS Fungus Hunt, King's Forest, 23 October 2017

As told by Nick Jardine

This was our 27th HPS Annual Fungus Hunt, and the 12th to forage in the King's Forest.

The weather was clement, and the expedition was well attended, with 25 (including dogs and children). Thanks to those who brought cars—happily there were just enough spaces to take everyone who signed up. Special thanks also to the eager and sharp-eyed children, responsible for finding the really interesting small fungi. Identifying them has cost a dozen or so hours.

Alas, edible ones were sparse: just a couple of Pine Ceps, *Boletus badius*, found by Shelley and eaten by me, and some old and moldy Red Cracking Boletes, *Xerocomellus cisalpinus*! However, we found plenty of uncommon fungi, no less than six of them being species not recorded on our previous visits. Among the new finds were two species of Pinkgill, *Entoloma longistriatum* and *Entoloma incanum*. The latter is a beauty, with cap yellowish, stem blue-green and gills pink. In some of the books it is given the name Mousepee Pinkgill on account of its smell, which other books describe as of burnt horn—not much help if one isn't a mouse-sniffer or horn-burner. Its odour reminded me of roast chestnuts. Other good finds included the Dewdrop Dapperling, *Chamaemyces fracidus*, and a species of heathland Navel, *Omphalina griseopallida*.



Congratulations

This year we were excited to learn that two members of academic staff are being promoted; **Lauren Kassell** has been promoted to a Professorship, and **Anna Alexandrova**, has been promoted to a readership. These are both excellent news for the Department, and we wish them the best with their future endeavours.

In February, we learned that digital media company All Seeing Eye, in collaboration with **Helen Curry**, won the Wellcome Trust's *Developing Beyond* challenge for their virtual reality videogame 'Seed', which allows players to engineer and create plant seeds which then grow procedurally. The challenge paired videogame developers with academics to create an entertaining and immersive game that explored themes in the sciences.

In April, **Leah Astbury** was awarded a non-stipendiary Junior Research Fellowship at Darwin College, which she will hold concurrently with a three year Wellcome Trust Research Fellowship on Marriage and Compatibility in Early Modern England. We also learned in April that **Jack Wright** was appointed a Postdoctoral Research Associate at CRASH on the ERC funded project, 'Qualitative and Quantitative Social Science: Unifying the Logic of Causal Inference?', which he will start at the conclusion of his PhD in December 2018.

Boyd Brogan was appointed to a two year fellowship at the Centre for Future Health Research at the University of York, a post that he will take up in October 2018. This post will allow him to build on his work on early modern chastity diseases, a field on which he has already worked in the HPS Department as part of the Casebooks Project and with a Wellcome Trust Humanities Fellowship.

Eesha Khare, an MPhil student in the department, was awarded the 'Best 5 Minute Talk' prize by the Trinity Research Forum, the college at which she was a student. Her talk, based on her HPS Dissertation, was titled 'The Shape of Motion: Influence of Airplanes on Automobile Shape Design'.

In June we learned that **Andrew Buskell** was offered a Leverhulme Early Career Fellowship. Andrew returned to the HPS Department last year after a year teaching at LSE; he was previously in the department as a PhD student.

Jenny Bangham was awarded a Wellcome University Award at Queen Mary University of London in August for her project 'Encountering genes: Postwar genetic counselling in the UK and Ireland', which she will take up at the end of her current research fellowship at the beginning of March 2020.

Finally, we were delighted to say hello to three HPS babies during this academic year. In October 2017, **Susannah Gibson** and **Seb Falk** sent us news of the birth of **Oisín**. In January 2018 **Milena Ivanova** and **Matt Farr** announced the birth of **Cailyn**. Finally, in April 2018, **Jenny Bangham** and **Boris Jardine** announced the birth of **Avery**. Congratulations to all.

HPS PhD Student Reunion 2018

This year the department held the first ever HPS PhD Graduate Reunion, inviting our PhD graduates to Cambridge for two days of events at Peterhouse and in the HPS Department.

Monday 2nd July

At Peterhouse Deer Park and Lubbock Rooms

12:30-14:00

Garden Party, Deer Park

14:00-15:30

Talks, Lubbock Lecture Theatre

15:30-16:00

Tea

16:00-17:00

Talks, Lubbock Theatre

18:00-20:00

Reception, Whipple Museum

Tuesday 3rd July

10:00

Tea and coffee, HPS Department

10:30-11:30

HPS Quiz

11:45-15:00

A choice of:

Punting to Grantchester Meadows,
with a picnic lunch

Free time to explore Cambridge

15:00

End

Attendees, as well as present staff and students, agreed that the reunion was a success and the department is planning to organise another PhD graduate reunion in the future. Thanks to everyone who attended, and to everyone in the department who helped with the running of the event.

HPS PhD Student Reunion 2018



Staff and Affiliates

Administrative Staff

Tamara Hug
Agnieszka Lanucha
Louisa Russell
David Thompson
Toby Bryant
James Livesey
Lukasz Hernik

Computing Staff

Mark Rogers

Library Staff

Jack Dixon
Agnieszka Lanucha
James Livesey
Dawn Kingham

Museum Staff

Rosanna Evans
Steven Kruse
Jenny Mathiasson
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

Teaching Associates

Salim Al-Gailani
Agnes Bolinska
Matt Farr
Joe Martin

Research Fellows

Leah Astbury
Boyd Brogan
Sarah Bull
Andrew Buskell
Jo Edge
Jean-Baptiste Grodwohl
Mike Hawkins
Boris Jardine
Natalie Kaoukji
Richard McKay
Rune Nyrop
Jesse Olszynko-Gryn
Yvonne Martin-Portugues
Rob Ralley
John Young

Affiliated Lecturers & CTOs

Patricia Fara
Marina Frasca-Spada
Sachiko Kusakawa
Deborah Thom

College Fellows

Jeremy Butterfield
Seb Falk
Peter Jones
Melanie Keene
Simon Mitton
Valentina Pugliano
Andreas Sommer
Charu Singh

Emeritus Professors

German Berrios
Andrew Cunningham
Nick Jardine
Geoffrey Lloyd
Michael Redhead

Other UoC People who do HPS

Shahar Avin
Debby Banham
Sara Baker
Michael Bravo
Angela Breitenbach
Gabriele Badano
Adam Caulton

Chris Clarke
Adrian Currie
Shinjini Das
Robbie Duschinsky
Gabriele Ferrario
Rebecca Flemming
Sarah Franklin
Sietske Fransen
Richard Holton
Shelley Innes
Joel Isaac
Martin Johnson
Tony Lawson
Kathy Liddell
Scott Mandelbrote
Peter Mandler
Alexander Marr
Jianjun Mei
Francis Neary
Alison Pearn
Brian Pitts
Huw Price
Katherine Reinhart
Sally Riordan
Richard Serjeantson
Sujit Sivasundaram
Jeff Skopek
David Sloan
Richard Smith
Emma Spary
Simon Szreter
Daniel Wilson
Louise Wilson

Affiliated Scholars

Robert Anderson
Siva Arumugam
Peter Bowler
Robert Bud
Margaret Carlyle
Soraya de Chadarevian
Silvia De Renzi
Katie Eagleton
Roger Gaskell
Susannah Gibson
Sonia Horn
Milena Ivanova
Richard Jennings
Gerald Kutcher
Chris Lewis

Jim Moore
Bence Nanay
Jaume Navarro
Emma Perkins
Sadiah Qureshi

Jennifer Rampling
Martin Rudwick
Christine Salazar
Anne Secord
Charissa Varma

Kirsten Walsh
Rick Welch
Paul White

Visitors and Students

Visitors

David Aron
Jan Baedke
Julie De Ganck
Steven Denison
Petter Hellström
Linn Holmberg
Elaheh Kheirandish
Huacheng Li
Wenjing Li
Xiaoxia Li
Jean-Pierre Llored
Dejan Lukic
Catarina Madruga
Adam Mezes
Fernando Pompeu
Jan Potters
Sarah Scheidmantel
Caterina Schurch
Sophie Veigl
Pierce Williams
Yuan Yuan

PhD students

Claudia Baisini
Laura Brassington
Gregory Bridgman
Jules Brown
Tyler Brunet
Jenny Bulstrode
Eoin Carter
Azita Chellappoo
Stijn Conix
Charlotte Connelly
Caitlin Doherty
Matthew Drage
Adrian Erasmus
Angela Gui
James Hall
Sebastian De Haro
Meira Gold
Sebastian Kroupa
Katrina Maydom

Zinhle Mncube
Erlend Owesen
Daniel Ott
Jonathan Penn
Karoliina Pulkkinen
Peter Rees
Timothy Rees-Jones
Edwin Rose
Hardy Schilgen
Christophe Schinckus
Raphael Scholl
Susanne Schmidt
Guy Sechrist
Reuben Shiels
Anna Skulberg
Hamed Tabatabaei Ghomei
Michael Thornton
Ann-Sophie Thwaite
Elina Vessonen
Bob Vos
Michelle Wallis
Elise Williams
William Wong
Jack Wright
Joseph Wu
Jia Yu
Pascal Zambito

MPhil students

Ossama Abu-Halawa
Alexander Bjornson
Deniz Cataltepe
Genevieve Caulfield
Konstantinos
Chatzigeorgiou
Vassili Christodoulou
Katie Cohen
Rhianna Elliott
Ayesha Evans
Vincent Femia
Rachel Fong
Evan Garnick
Matthew Green

Arthur Harris
Yijie Huang
Oscar Kent-Egan
Eesha Khare
Hamidah Mahmud
Julian Menzel
Daniel Muller
Emma Neville
Margaret Panetta
Howard Parchment
Rosalind Rei
Hannah Resnick
Christian Ruhl
Elizabeth Seger
John Stowell
Alex Westin-Hardy
Jack Wright
Hehua Xia

Part III students

Nadia Blackshaw
Tabitha Burden
Jack Congdon
Jonathan Cooper
Helen Fishwick
Shanna Hart
Daisy Irving-Hyman
William Sears
Robert Shearme
Yenga Yan

HMS MPhil

Sally Butler
Francesca De Rosa
Ranana Dine
Bethan Flaherty
Heqing Huang
Angela Madira
Lucy Morgan
Elliott Reichardt
Calum Smith
Ben Teasdale

Allan Wang

Part II Students

Amin Abdelhamid
Anna Barkemeyer
Khuram Chaudhry
Henry Clifford
Michael Davin
Grace Eapen
Hamish Evans
Michael Gibson
Gianamar Giovanetti-Singh
Beth Greenwood
Alice Hayler
Ruth Harvey
Nadya Kelly
Rory Kent
Gaelan Komen
Sophia Luu
Tom Mumby
Lizzy O'Brien
Sara Rasul
Rebeka Reti
Alex Ridley
Tara Slade
Will Smart
Eddie Spence
Vicky Tavernor
Ramnik Uppal
James Winter
Alvin Wong
Hannah Yogasundram

BBS Early Medicine

Madeleine Knightley

BBS Modern Medicine

Emily Bedborough
Nicola Elliott
Jane Grant
Fang Lin
Honor Pollard
Cara Woods

BBS PEM

Rowan Beckett
Petros Beeley
Maggie Belcher
Kate Gargan
Sophia Kakarala
Jennifer Shuttleworth
Rhys Thomson
Victoria Walker

PBS taking IB HoS

Laura Green
Sophia Rogerson
Olivia Rowe
Bushra Zafar
Nikolay Zhelyazkov

HSPS taking IB HoS

Belen Bale
Katelyn Nash
Aisling Murray
Todd Gillespie

PBS taking IB PoS

Stephanie Ashbridge
Issaac Barkway
Nicole Bazarova

Sophie Lowe
Jali Packer
Ainoa Thaka Galdor
Josefina Weinerova

HSPS taking IB PoS

PBS taking BBS 114

Katt Weaver

PBS taking Part II Paper 5

Oxana Grosseck
Oliver Smith

HSPS taking Part II Paper 5

HSPS Taking Part II Paper 6

Minnie Crampton
Tirion Rees Davis

History Students taking BBS Early Medicine

Alexandra Barnett
Meghan Curran
Sally Dickens
Imogen Granger
Martha Homfray-Cooper
Katriona King
Nadine Maji
Robert Martin
Ella Sbaraini
Sally Scrivener



Staff and students of the HPS Department, 2017-18

Comings and Goings

Boyd Brogan left us in September 2018 after being appointed to a two-year fellowship at the Centre for Future Health Research at the University of York.

Our new Whipple Librarian, **Jack Dixon**, started in January 2018; he was previously working as Assistant Librarian at the Taylor Library, Corpus Christi College

Lukasz Hernik became our new cleaner after **Maria Iljuczonek** left in September 2017 after six years with the Department

James Livesey, one of our previous MPhil students, started as Graduate Secretary for the HMS MPhil course at the beginning of September 2017 and then took up the post of Library Assistant at the end of September in the same year

Sara Marques Mano Ivo Peres left the Department in September 2017 when Helen Curry's project, Seeds for Survival: A Global History of Seed Banking, ended.

Daniel Ott and **Elise Williams** joined the Library as Invigilators in Lent 2018. Daniel left in August 2018

Rosanna Evans resigned as Museum Technician in September 2018 to start a PhD part-time, however she will continue in her role as the Museum's Learning Coordinator.

At the end of the 2017-18 academic year, we said goodbye to the Casebooks team: **Mike Hawkins** (Technical Director), **John Young** (Senior Editor), **Jo Edge** and **Yvonne Martin-Portugues** (Assistant Editors). All had contributed immensely to the project, led by Lauren Kassell, which ran for eight years.



Roles and Responsibilities

Departmental Positions

Head of Department: Liba Taub

Departmental Administrator: Tamara Hug

Director of Graduate Studies: Nick Hopwood (Michaelmas & Easter), Simon Schaffer and Mary Brazelton (Lent)

MPhil Managers: Jacob Stegenga and Mary Brazelton (HPS), Lauren Kassell (HMS)

Part III Manager: Anna Alexandrova (Michaelmas & Lent), Richard Staley (Easter)

Part II Manager: Dániel Margócsy

Part IB Manager: Simon Schaffer

Staff Development Officers: Liba Taub (academic staff) and Tamara Hug (support staff)

Dignity Officers: Liba Taub and Richard Staley

College Liason Officer: Lauren Kassell

Chair of the Monitoring Committee: Dániel Margócsy

Graduate Training Officer: Joe Martin

HPS Board and Degree Committee

Chair of the HPS Board Committee: Simon Schaffer

Chair of the HPS Degree Committee: Nick Hopwood, Simon Schaffer (Lent)

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

Curator and Director of the Whipple Museum: Liba Taub

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

Librarian: Jack Dixon

General Board Members: Prof. Richard Holton, Dr. Rebecca Flemming, Dr Paulina Sliwa

Co-options: Anna Alexandrova (Michaelmas & Lent), Mary Brazelton, Stephen John (Michaelmas), Richard Staley (Michaelmas & Easter), Jacob Stegenga, Dániel Margócsy

Elected Members: Marina Frasca-Spada

Junior Members:

Philosophy Faculty Board Representative: Jacob Stegenga

Examiners

NST Part IB History and Philosophy of Science

Senior Examiner: Jacob Stegenga

Examiners: Matt Farr, Jenny Bangham, Tim Lewens, Nick Hopwood, Natalie Kaoukji

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

Senior Examiners: Richard Staley, Anna Alexandrova (Lent)

Examiners: Nick Jardine, Agnes Bolinska, Dániel Margócsy, Salim Al-Gailani, Joe Martin

External Examiner: Rachel Cooper
(University of Lancaster)

MPhil/Part III in History and Philosophy of Science and Medicine

Senior Examiner: Lauren Kassell

Examiners: Mary Brazelton, Jacob Stegenga, Dániel Margócsy, Nick Hopwood (Michaelmas & Easter) and Simon Schaffer (standing in, Lent), Matt Farr, Richard Staley (Michaelmas & Easter) Anna Alexandrova (standing in, Lent)

External Examiner: Staffan Müller-Wille
(University of Exeter)

MPhil in Health Medicine and Society

Senior Examiner: Mary Brazelton

Examiners: Anna Alexandrova (Michaelmas & Lent), Tim Lewens (Easter), Maryon McDonald (Social Anthropology), Darin Weinberg (Sociology)

External Examiner: Andrew Webster
(University of York)



Prizes, Projects and Honours

Student Prizes

Bronowski Prize (Part II) – Best Performance on the HPS Part II Exams

Gianamar Giovannetti-Singh (Trinity Hall) *and* Nadya Kelly (Gonville and Caius)

Rausing Prize – Best Dissertation Performance in the MPhil in History and Philosophy of Science and Medicine

Julian Menzel (Clare)

Willmoth Prize – Best Dissertation Performance in HPS Part II

Rory Kent (Trinity Hall), Ruth Harvey (Magdalene), *and* Sophia Luu (Clare)

Habib Prize – Best Overall Performance in the Essay Component of the MPhil in Health Medicine and Society

Elliot Reichardt (Girton)

Bronowski Prize (Part III) – Best Performance on the First Half of the HPS Part III Course

Jonathan Cooper (Pembroke)

Forrester Prize – Best Dissertation Performance in the MPhil in Health Medicine and Society

Elliot Reichardt (Girton)

Jennifer Redhead Prize – Best Overall Performance in the Essay Component of the MPhil in History and Philosophy of Science and Medicine

Arthur Harris (Christ's)

Anita McConnell Prize – Outstanding Performance on an Essay or Dissertation Based on an Object in the Whipple Collection

Tabitha Burden (Newnham) *for* 'Characterising collections: on the preservation of old scientific apparatus at the Cavendish Laboratory and the Whipple Museum, Cambridge' (Part III Dissertation)

Hannah Resnick (Murray Edwards) *for* '(Un)folding proteins: Courtauld's chemical models, British industrial fibre development and the search for the alpha-helix' (HPSM MPhil Essay)

Matthew Green (Peterhouse) *for* 'Chicken heads and Punnett squares: Reginald Punnett and the use of visualizations in early genetics, Cambridge, 1900-1935' (HPSM MPhil Essay)

Seminars and Special Lectures

Wellcome Lecture

The 13th Annual Wellcome Lecture in the History of Medicine was given by **Professor Alisha Rankin (Tufts University)** on the 1st of March 2018 in the HPS Department, with the title 'Poison trials, panaceas and proof: debates about testing and testimony in early modern European medicine'.

Rausing Lecture

The 23rd Annual Hans Rausing Lecture was given by **Andreas Malm (Lund University)** on the 17th of May 2018 in the McCrum Lecture Theatre, Bene't Street, with the title 'Steamroll all the Brutes: Coal, Steam and British Imperialism in Mid-Nineteenth Century Levant and West Africa'.

Seminars, Reading Groups, Graduate Workshops, and Language Groups

Research Seminars

Departmental Seminars

organised by Agnes Bolinska

Twentieth Century Think

Tank organised by Richard Staley, Mary Brazelton, Joe Martin, and Jesse Olszynko-Gryn

Cabinet of Natural History

organised by Sebastian Kroupa

AD HOC (History of

Chemistry) organised by Karoliina Pulkkinen

Early Science and

Medicine organised by Lauren Kassell and Dániel Margócsy

History of Modern Medicine and Biology

organised by Mary Brazelton and Nick Hopwood

Generation to

Reproduction organised by

Nick Hopwood and Lauren Kassell

CamPOS organised by Huw Price, Jeremy Butterfield, and Anna Alexandrova

Graduate Seminars

Aims and Methods of Histories of Sciences

organised by Nick Jardine, Geoffrey Lloyd, Hasok Chang and Cristina Chimisso

Science in Print: Book

Production in the Hand Press Period organised by Roger Gaskell and Dawn Kingham

Reading Groups

Philosophy of Biology

Reading Group organised by Azita Chellappoo and William Wong

Twentieth Century

Reading Group organised by Mary Brazelton, Joe Martin and Richard Staley

The Intersection of

Gender, Race and Disability of Philosophy of Science organised by Azita Chellappoo

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 Richard Staley and Jeremy Butterfield

Casebooks Therapy

organised by Lauren Kassell

Language Groups

Latin Therapy organised by Boyd Brogan

Greek Therapy organised by Liz Smit

Student Statistics

Student Numbers

Undergraduates	Part IB	69
	Part II	28
	Part II BBS: Philosophy and Ethics of Medicine	8
	Part III	10
Graduates	HPSM MPhil	31
	HMS MPhil	11
	PhD	46

Examination Results

Part IB	Average mark	62.5
Part II	1	16
	2i	10
	2ii	2
	3	0
	Fail	0
Part II BBS Philosophy and Ethics of Medicine	1	2
	2i	6
	2ii	0
	3	0
	Fail	0
Part III	1	5
	2i	2
	2ii	3

3	0
Fail	0

Graduate Degrees Awarded

HPSM MPhil degrees awarded	31
HMS MPhil degrees awarded	11
Part III degrees awarded	10
PhD degrees awarded	4

Part II Essay and Dissertation Titles

Primary Source Essays

Franz Boas, *The Mind of a Primitive Man*

On the Jew and the Primitive – silence and writing in the relations between science and literature

Franz Boas, geography, and *The Mind of a Primitive Man*

How does Boas challenge the idea of a racial hierarchy in the 1938 edition of *The Mind of a Primitive Man*?

Civilization and culture in Franz Boas' *The Mind of Primitive Man*: an analysis of word use

How does Boas assess the link between language, culture and individual cognitive expression in *The Mind of Primitive Man*?

Franz Boas and the 'fetters of tradition': double identities in *The Mind of Primitive Man*

Evolution of cultural evolution: painting Franz Boas as an antievolutionist and transitional figure in the move away from cultural evolutionism in the early 20th century

Weaving between art and artefact: Boas' definitions of art as spontaneous cultural forms

An analysis of Franz Boas' scientific and political agenda and how this manifests itself in *The Mind of Primitive Man*

Compare and contrast the discussion of race and intelligence in *The Mind of Primitive Man* (Boas, 1938) and *The Bell Curve* (Hernstein and Murray, 1994)

The exemplification of Boas' *The Mind of Primitive Man* through the rise of jazz

To what extent do Boas and Galton hold concurrent views on race, heredity, intelligence and psychology?

What can a comparison between the writings of Franz Boas and G. Stanley Hall on the mental characteristics of primitive people illustrate about the relationship between anthropology and psychology in the early 20th century? Comparing *The Mind of Primitive Man* with *Adolescence Volume II*

How does Boas confront the contradiction in scientifically arguing against classification?

Boas' methodology in *The Mind of Primitive Man*: using the Middle East and 'Mohammedans' as examples to aid the discussion of immigrations

The Stanford School

A defence of epistemic pluralism

Nancy Cartwright's entity and capacity realism

Dupré, feminist epistemology and epistemic virtues: a new means of evaluating scientific theories

Realism through validation: do Hacking's arguments for seeing through a microscope represent examples of a wider justification for realism about unobservable entities?

In *The Disunity of Science*, is Dupré successful in arguing against methodological unity?

Is Dupré justified in dismissing the unity of science?

Agnosticism between universalism and Cartwright's patchwork of laws

An exploration into the descriptive limitations and normative applications of John Dupré's epistemic virtues

Are the three facets of Cartwright's philosophy consistent?

Manipulation – a theory-laden criterion

Reichenbach's *The Direction of Time*

Are the laws of physics time-symmetric?

The time direction of entropy increase and Hans Reichenbach's hypothesis of the branch structure

'[T]he theory of relativity has not contributed to the problem of time direction.' Was Reichenbach right to omit considerations of relativity from *The Direction of Time*?

What are the differences between 'reductionist' and 'non-reductionist' accounts of time direction?

Is next week really later than tomorrow?

Supertime direction – a new distinction between direction and order

Discovery and Visual Culture: The *Nova Reperta* of Johannes Stradanus

From silk to sugar: relating the depictions of agriculture in Johannes Stradanus' *Nova Reperta* to the economic fortunes of late 16th-century Florence

Absolutism vs. individualism reflected in 16th-century European works on inventions and trades

What role does humanist imagery play in Stradanus' *Astrolabium* in the *Nova Reperta*, and what does this tell us about the message he wishes to convey?

Space and visual organisation in Stradanus's *Nova Reperta*

'Someone to be negotiated with, rather than something to be deployed': the human relationship with the horse in Stradanus's *Nova Reperta*

Navigation of Earth – God's domain

A comparative study between Giovanni Stradanus and Theodor De Bry's presentations of the New World through their prints

Galenism, Paracelsus and New World drugs: Johannes Stradanus and Guaiacum

Comparing Johannes Stradanus' *Nova Reperta* and Polydore Vergil's *De Inventoribus Rerum*

Medical Reports of the Chinese Imperial Maritime Customs Service

Obstetric interventions of foreign physicians facing protracted labour in the late Qing, as recorded in the medical reports of the Imperial Maritime Customs Service

How did attitudes towards quarantines compare to actual practices of quarantine in 19th-century China?

Leprosy: an infectious disease?

Did Wong Fun play a role as an intermediary between European and Chinese medicine, and how did his identity shape his work for the Imperial Maritime Customs Service?

Why did Manson include illustrations in his medical reports for the Imperial Maritime Customs Service?

How did IMCS doctors, particularly Alexander Jamieson, shape the discussions of obstetrics and midwifery in 19th-century China?

The medicalisation of suicide in the Chinese Maritime Customs Medical Reports

Depictions of war in the medical reports of the Chinese Imperial Maritime Customs Service

What can the Medical Reports of the Chinese Imperial Maritime Customs Service show about the Western physicians' attitudes towards local perspectives of syphilis in 19th-century China

What reasons did the Imperial Maritime Customs Service Reports give to explain resistance to vaccination and what did this imply about the relationship between the Chinese and Westerners?

How did the meteorological data and the discussions of public health infrastructure in China achieve the aims of the Chinese Maritime Customs Service and what does this tell us about Western imperialism?

The Macy Conferences Transactions, 1949-1953

To what extent does Cybernetics: the Macy Conferences, 1949-1953 provide evidence for the marginalisation of women from the history of cybernetics?

Tracking information in the mind: how reductionist philosophy exposed dissent in the Macy Conferences, 1949-1953

Stuck in the trap of misinterpretations: a comparison between what cybernetics meant for academics and how it was covered in the media

To what extent did the cybernetics conference presentation by Ralph W. Gerard in 1950 change the way the neurone was understood?

How useful was analogy in the Macy conferences?

Part II Dissertation Titles

X-ray films in motion – the case of Robert Janker and his controversial films

The role of the Chilean experience in shaping the primary healthcare movement within international public health

Do films do philosophy? AI in the movies

Realism and string theoretic dualities

Sick cell anaemia: a British disease?

The dual-use dilemma in biomedical research

What role did Michele Ruggieri's *Atlante della Cina* play in Jesuit cartography and natural history in early modern China?

Optics, perspective and art

Does quantum mechanics need interpretation?

A study of industrial climate scepticism in late 20th-century America

Who nose best? Expertise in the material culture of scent

What is the role of science and technology in developing countries?

'Getting the message across': the history of genetic counselling and the Pakistani Muslim community in Britain

The feminist views of the NHS in the 1970s and 1980s; with a focus on abortion law reform

A recent history of male contraception

Ethical problems concerning the treatment of obese patients

What problems does quantum mechanics pose for scientific realism?

Fake news and the communication of climate knowledge through online media

A history of obstetric ultrasound: the reception to visualising the foetus



HMS MPhil, HPSM MPhil and Part III Essay and Dissertation Titles

HPSM MPhil Essay and Dissertation Titles

Ossama Abu-Halawa

Rights, consent and the use of health information

Machine learning in medicine: decision trees, eliminative induction, and causal relevance

The case for looping effects: an inquiry of interactive (human) and indifferent (natural) kinds

Dissertation: On medicalization and disease (supervised by Jacob Stegenga)

Alexander Bjornson

What was Charles Darwin's view of human nature?

Does the Anthropocene require the writing of a new kind of history?

Do new trends in evolutionary psychology give a sufficient account of human nature?

Dissertation: Causes of death and conditions for knowledge: reading the body at the intersection of law, medicine and natural philosophy in 17th-century legal trials (supervised by Lauren Kassell)

Deniz Cataltepe

The rise to visibility of tuberous sclerosis in the United States, 1968–1986

The practicality of quality of life questionnaires in cancer clinical trials

Demanding the freedom to choose their bread: the British Housewives' League and the campaign for better bread, 1946 to 1965

Dissertation: Beyond the first breath: hyaline membrane disease and the construction of the neonatal patient in the United States, 1959–75

(supervised by Salim Al-Gailani)

Genevieve Caulfield

Johannes Kepler (1571–1630): optics and theology

Bodies and violence: a case study of the 1641 Irish Rising

Wollaston hypsometers vs. mountain barometers in 19th-century surveying

Dissertation: The virtuous eye: perspectiva and the Octagon at Ely Cathedral (supervised by Richard Oosterhoff)

Konstantinos Chatzigeorgiou

Metaphysics, science and history in E.A. Burtt and R.G. Collingwood

A reappraisal of Smart's 'materialist metaphysics'

Koyré and Drake on the cognitive significance of Galileo's metaphysics

Dissertation: Chomsky's historical criticism of physicalism: motivations, historical accuracy and philosophical prospects (supervised by Matt Farr)

Vassili Christodoulou

So long and thanks for all the fish: John Lilly and science fiction

The herd mentality: BSE, MMR and the politics of proof

Can an app a day keep the doctor away?
Investigating digital therapeutics

Dissertation: A new and curious treatise upon the paradoxical proclivities of Dr James Graham: or, immortality and orgasm in the Age of Enlightenment (supervised by Simon Schaffer)

Kate Cohen

The intramedical transplantation debate: reevaluating the kidney shortage in 1970s Britain

Birth, circulation, death: twilight sleep's journey through the American press

'American Jezebel': Anne Hutchinson and the myth of the midwife-witch

Dissertation: Reframing 'reform' eugenics: the 1936 depopulation panic and the shifting policies of the British Eugenics Society (supervised by Nick Hopwood)

Rhianna Elliott

Menstruation and the moon: sexual difference, astrology and medicine in 17th-century medical manuals

Reconstructing natural knowledge: gender and genre in closet books, 1650–1700

Agent of empire: the authority and attribution of knowledge in Robert Swinhoe's ornithological work in China, 1855–1876

Dissertation: The doctrine of critical days: astrological medicine in 17th-century England (supervised by Lauren Kassell)

Ayesha Evans

Inconsistency, uncertainty and risk: how the shortcomings of evidence-based medicine are detrimental to providing the best patient care

The overdiagnosis of major depressive disorder and how value judgements and

pragmatism influence the demarcation between mental disorder and normality

How teleological semantics shape representation in scientific explanations and encourage misconstrued conceptions of the nature of biological mechanisms

Dissertation: The rationality of alternative medicine (supervised by Jacob Stegenga)

Vincent Femia

A sympathetic solution: Robert Fludd and a musical defense of the weapon salve

Building a global network: the World Day Program as a web of international science

From totality to reality: Mabel Loomis Todd and the hierarchy of emotions in solar eclipse observation

Dissertation: Forecasting doom: scientific prophets, the emotional regime of science, and the accommodated uncertainty of United States congressional testimony, 1963–88 (supervised by Richard Staley)

Rachel Fong

Van Fraassen's response to the no miracles argument and the demand for the explanation for the success of science

Disambiguating the EBM+ thesis: a proposition for a stronger formulation of evidence of mechanisms in EBM+

Is naturalism still defensible in the social sciences?

Dissertation: The significance of science and human flourishing: a humanitarian solution to the problem of scientific significance (supervised by Rune Nyrup)

Evan Garnick

Journalism, testimony and moral progress

Non-epistemic values and scientific classification

Towards a pragmatist theory of disease

Dissertation: On cultural explanation (supervised by Jacob Stegenga)

Matthew Green

Elie Metchnikoff's sour milk therapy, 1900–1920: New York newspapers as sites of medical authority

A defense of soft paternalism in public health communication in the case of pre-exposure prophylaxis (PrEP) for HIV

Chicken heads and Punnett square: Reginald Punnett and the use of visualizations in early genetics, Cambridge, 1900–1935

Dissertation: Polar bear science and climate change denial: insights from a representational analysis of scientific, popular scientific, and online media (supervised by Richard Staley)

Arthur Harris

Analogical explanation via language and diagrams in the Peripatetic Mechanical Problems

The Quinean argument for scientific realism

'New diseases' and sectarian debate in Hellenistic and Roman medicine

Dissertation: 'The knowledge of antiquity and the pursuit of new discoveries' in Edward Sherburne's *The Sphere of Marcus Manilius Made an English Poem: with Annotations and an Astronomical Appendix* (1675) (supervised by Liba Taub)

Yijie Huang

The marginalisation of female practitioners within the 17th-century English household through the lens of Willis's Oxford Casebook

A view from Peking's streets: drinking water, wells and hygiene in late 19th-century Beijing

Distilling craft and knowledge: distillation in early modern English households

Dissertation: Sensible touch: pulse taking, manual knowledge and learned authority in English medicine, c.1650–c.1700 (supervised by Lauren Kassell)

Oscar Kent-Egan

St George and the pterodactyl: the Crystal Palace monsters and British identity, 1838–1873

Thomas Molyneux, Hans Sloane and understandings of giants at the Royal Society, 1694–1728

E-meters in early Scientology: a contested spiritual technology, 1950–1966

Dissertation: Isaac Van Amburgh 'the brute tamer': spectacle, education and natural history in Britain, 1825–72 (supervised by Paul White)

Eesha Khare

British public response to 1970s acid rain debates through the lens of lichen

Should libel have a place in science? Community norms and legal philosophy to address the internal criticism and diversity tension

Philosophy of scientific knowledge produced in secrecy: the case of DARPA

Dissertation: The shape of motion: the influence of aeronautics on automobile aerodynamic design (supervised by Joe Martin)

Hamidah Mahmud

Career opportunity for whom? The Dufferin Fund's approach to traditional midwifery in British India, 1880–1920

Hinojosos' Suma y Recopilación de Cirugía: 16th-century Mexico City's vernacular medical guide

Human objects of Other Lands: adapting nature study to the British imperial curriculum

Dissertation: Reincarnation and reinterpretation: the story of the Karman cannula (supervised by Jesse Olszynko-Gryn)

Julian Menzel

Manhattan Project compartmentalization and prewar physics

Wheeler's Bohr

Aesthetics and the practice of theoretical physics

Dissertation: Interacting fields: Kenneth Wilson and American theoretical physics, 1970–80 (supervised by Richard Staley)

Daniel Muller

Wound treatment in World War I: the invention and uses of Bipp

Amyotrophic lateral sclerosis: autonomy and end-of-life decisions

The Black Death and religion: the English ecclesiastical and lay response to pestilence

Dissertation: 'To serve the people': Chinese medical diplomacy in Africa during the Cold War (supervised by Mary Brazelton)

Emma Neville

Empowerment, knowledge and deception in online health support groups

Epistemic injustice and mental illness

'Is there something wrong with me?': mental health, medicalisation and meaning-making in children's literature

Dissertation: 'Feminist angst': defending a place for gender in sex-based medicine (supervised by Jacob Stegenga)

Margaret Panetta

'The best baby picture of the Universe ever taken': precision, mapping and empirical evidence in the growth of modern cosmology

Using the forest to see the trees: the explanatory value of idealized protein models in microscopy

Collecting, pleasure and botanical practice in Victorian wildflower books

Dissertation: Observatories, data and cosmological conflict in public controversy over the Thirty Meter Telescope (supervised by Simon Schaffer)

Victor Parchment

Beyond known and unknown

Cybernetics as idea and institution: research-disciplinary divides in a 20th-century science

Representational intentionalism: misrepresentation and misinterpretation in scientific modelling

Dissertation: The meeting of medical minds and mental machines: a primer on the new philosophy of clinical expert systems (supervised by Tim Lewens)

Rosalind Rei

What's in a world? Possible worlds as instrument and object in postwar US philosophy and economics

Measurement and value in Restoration credit schemes

Natural economy and the over-fishing concept: early 19th-century debates on variability in herring catch

Dissertation: Lineages of the company state: genealogical reasoning in William Jones' colonial sciences (supervised by Simon Schaffer)

Hannah Resnick

(Un)folded proteins: Courtaulds chemical models, British industrial fibre development and the search for the alpha-helix

Personal narratives and controlled studies: evidence and authority in the 1970s British debate over induced labour

On (or off) the cutting edge: vivisection and physiological education at Girton College, 1877–1898

Dissertation: Making scientific women: practical chemistry instruction for women at Cambridge, 1890–1916 (supervised by Liba Taub and Josh Nall)

Christian Ruhl

'They laugh at vs for such as wee bring': global networks and geography in Sir Thomas Roe's embassy to the Mughal Empire

Atoms for peace and profit: radioisotope distribution, research reactor proliferation, and US private industry

'The argument, perhaps, appears clearer when applied to China': Malthus, China and the science of population

Dissertation: Dealing arms and making knowledge: the work of Cornelis Drebbel and maritime grand strategy in the 17th century (supervised by Dániel Margócsy)

Elizabeth Seger

A climate of resistance: building a democratic government's obligation to fund climate science despite contrary public priorities

Transparency triage: prioritizing types of transparency in AI-user interaction for the purpose of grounding user trust

Into the abyss: narratives in black hole popularization and pedagogy

Dissertation: Evidence for existential risk: identifying effective and appropriate sources of evidence for the analysis of uncertain, low-probability, high-impact risks (supervised by Agnes Bolinska)

John Stowell

The life and afterlife of Bateson's chickens: pedagogical objects in the construction of the Cambridge Mendelian research program, 1900–1910

Teleology and prior actuality in Aristotle's theory of spontaneous generation – a new reading

Indexicality and the pragmatics of representation – a critical reading of Bas van Fraassen's Scientific Representation

Dissertation: On the causal interpretation of the Price equation in cultural evolutionary theory (supervised by Tim Lewens)

Alex Westin-Hardy

The 1881 International Sanitary Conference and the limitations of international disease notification

Institutional success and practical failure: how the International Atomic Energy Agency established a global network of plant mutation breeding programmes

Intellectual property rights and biomedical research: reframing the debate

Dissertation: Science at the Cape: Andrew Smith, the institutionalisation of science, and

the South African Quarterly Journal
(supervised by Simon Schaffer)

Jack Wright

Special status: do rare diseases deserve
higher cost-effectiveness thresholds?

The role of judgments in choosing a fixed
effect or random effects model for meta-
analysis

Differential diagnosis and emerging infectious
diseases

Dissertation: Mechanism 'completeness' and
the problem of extrapolation (supervised by
Jacob Stegena)

Hehua Xia

An analysis on Poincaré's acceptance of the
atoms

A battle on two fronts: the theory-practice
duality in Monge's descriptive geometry and
French naval architecture

Did Coulomb 'discover' the inverse square law
with his electric torsion balance experiment?

Dissertation: Precision measurement in the
French metric reform: a study of Borda's
repeating circle (supervised by Richard Staley)

Part III Essay and Dissertation Titles

Nadia Blackshaw

Slaying a beautiful hypothesis with an ugly
fact: an analysis of the use of beauty in
science

Branching, probability and personal identity in
the many-worlds interpretation

Dissertation: The minds behind the madness:
analysing the many minds interpretation of
quantum mechanics (supervised by Matt Farr)

Tabitha Burden

Collecting habits and valuable antique
scientific instruments: what can annotated
sales catalogues tell us?

Friction in medical epistemology

Dissertation: Characterising collections: on the
preservation of old scientific apparatus at the
Cavendish Laboratory and the Whipple
Museum, Cambridge (supervised by Boris
Jardine)

Jack Congdon

Scientific forestry, enclosure and the collapse
of forest law, c.1800: a case study of Alice Holt
Forest

'Forcing taxonomies': the classificatory legacy
of 19th-century sexology on the historiography
of male homosexuality

Dissertation: The 'effeminate' man: 19th-
century sexology and the conflation of
homosexuality and effeminacy (supervised by
Sarah Bull)

Jonathan Cooper

Joseph Massie and the 'Science of
Commerce'

Natural analogy in English economic thought,
1622–1672

Dissertation: Metallurgy, agronomy and
utopianism: Gabriel Plattes's discovery of
infinite treasure, 1639–44 (supervised by Felix
Waldmann)

Helen Fishwick

Individuality in pregnancy and the need for a new abortion debate

Kraepelin the multitasker: balancing knowledge and care in psychiatry

Dissertation: Pragmatism in psychiatric nosology: towards a greater focus on the practical impacts of diagnostic categories (supervised by Anna Alexandrova and Tim Lewens)

Shanna Hart

Sense and reason: resolving the issue of consonance in the late Middle Ages

Environmentalism in the 18th century

Dissertation: Of mammoths and men: contextual understandings of species extinction in the Age of Revolution (supervised by Dániel Margócsy)

Daisy Irving-Hyman

Operationalising the capability approach: a futile endeavour?

Space, science and gender in late-19th and early-20th century Britain

Dissertation: The Balfour Laboratory: a case study in gender, space and science in late-19th and early-20th century Britain (supervised by Simon Schaffer)

Will Sears

A discussion of the revenue surveys of colonial India

A discussion of the influence and reputation of Alexander von Humboldt in Britain in the 19th century

Dissertation: The natural philosophy of Thomas Hobbes (supervised by Joseph Martin)

Rob Shearme

On the metaphysics of de-extinction

Man and mammoth – a critical literature review of the ethics of mammoth de-extinction

Dissertation: Ontogeny recapitulating phylogeny (supervised by Adrian Currie)

Yenga Yan

Institutionalising science in post-war Britain: a case study of Churchill College, Cambridge, 1950–1966

A review of scholarship on sugar refining technology in late 19th-century China

Dissertation: Sugar imperialism in the late Qing: Jardine Matheson and the China Sugar Refining Company, 1867–1928

HMS MPhil Essay Titles

(Questions answered by MPhil students shown below, with the number of students answering each question shown in brackets.)

Assess changes and continuities in the history of the medical encounter (2)

‘What counts as real illness is a matter of politics not science.’ Discuss. (2)

Should we seek to reduce health inequalities? (1)

Is medical paternalism always problematic? (1)

Does the disease/illness dichotomy once promoted by Kleinman have any analytical usefulness? (1)

What historical changes produced the clinical trial as we know it today? (1)

What, if anything, do informed consent requirements protect or promote? (1)

Critically evaluate the link between health and social inequality with respect to one of the following variables: class, race, gender. (1)

What is the relationship between the ethics of care and paternalism? (1)

Is social marginality better understood as a cause or as a characteristic of mental disorder? (1)

How would you characterize the connection between colonial medicine and global health? (2)

Wealth inequalities cause health inequalities; therefore, as long as wealth inequalities are just, so, too, are any health inequalities. Discuss. (1)

What are the consequences of the medicalisation of food and eating for human health? (2)

Must physicians respect patients' autonomy? (1)

What was at stake in ancient debates about male and female contribution to offspring? (1)

Was pre-modern childbirth "natural"? (1)

'Food is a system of communication, a body of images, a protocol of usages, situations and behaviours' (Barthes) – Discuss in relation to a public health intervention targeting diet. (1)

'The universal, culture-free body is itself a cultural artefact'. Discuss. (1)

'Focusing on users and use rather than on engineers and design would enable historians to go beyond histories of men inventing and mastering technology' (Nelly Oudshoorn and Trevor Pinch, 2003). Discuss with reference to reproductive technologies. (1)

(How) can surrogacy be carried out in agreement with reproductive justice? (1)

What are the benefits and harms of screening programmes? (1)

Is white bread a health food? (2)

To what extent does 23andme exemplify Srnicek's model of a new form of 'platform capitalism'? (1)

Where and when did global health originate: tracing the development of public and global health iconography through Venetian plague art (1)

Biotechnology is a neoliberal science. Discuss. (1)

Give a brief explanation of the relationship between sanitary science and Chinese weisheng (1)

What factors have affected changes in the practice of sperm donation over time? (1)

How might Jason Moore's notion of capitalism as 'world ecology' help to explain growing rates of overconsumption and overweight around the world? (1)

HMS MPhil Dissertation Titles

Sally Butler

The Story of *H. pylori*: An Ethnographic Approach

Francesca DeRosa

"Engineering a "normal" child: Prostheses for thalidomide children in England, 1962-1974"

Ranana Dine

Jewish and Catholic Law on the Burial and Mourning of Suicides in the 20th Century

Bethan Flaherty

Should the social stigma of obesity be used as a policy tool to tackle the obesity 'epidemic'?

Heqing Huang

Tension in the doctor-patient relationship in China: The underlying causes, its nature, and how it has changed in recent years

Angela Madira

Ethics and efficacy of current mammalian models in laboratories

Lucy Morgan

Feelings, Figures, and Family Planning: British Egg Donors' Experiences of Fertility Screening

Elliott Reichardt

Cancer Overdiagnosis: An Ethnographic Examination in Biomedical and Clinical Literature

Calum Smith

From the 'War on Drugs' to family loss: an ethnographic examination of changing narratives concerning drugs.

Allan Wang

The ethics of neuro-enhancement: the relationship between emerging neuro-technologies and distributive justice

PhD Theses

Awarded

Carl Fisher for 'Early Darwinian Commemoration in Britain, 1882-1914'

Susanne Schmidt for 'The midlife crisis, gender, and social science in the United States, 1970-2000'

Stijn Conix for 'Radical pluralism, ontological underdetermination, and the role of values in species classification'

Christophe Schinkus for 'When Physics Became Undisciplined: An Essay on Econophysics'



**WHIPPLE
LIBRARY**



**UNIVERSITY OF
CAMBRIDGE**
Department of History and
Philosophy of Science

2017-18 has been an eventful year in the Whipple Library. After bidding a very fond farewell to Anna Jones in August, Dawn Kingham stepped up as Acting Whipple Librarian for Michaelmas term, pending the appointment of a new Librarian. In September we said goodbye to Clare Matthews, who left us to pursue a PhD in *Classical culture and the industrial city: Birmingham, Manchester and Liverpool and the art of Greece and Rome* at the University of Birmingham. Clare had worked within the library for 2 ½ years, initially as Library Assistant and then moving to a role as Special Collections Assistant, and her contributions to the library will live on in the many blog posts and virtual exhibitions on the Library website.

Between August and December we welcomed Toby Bryant for four afternoons a week as General Assistant, through the generosity of the department.

James Livesey also joined the Library in September, working two days a week as Library assistant, as well as continuing his work as HMS Module co-ordinator.

We were fortunate to have many of our lunchtime and evening invigilators continue from the previous academic year, and the ongoing stalwarts of Meira Gold, Aga Lanucha, Jack Tavener and Annie Thwaite, were aided by Daniel Ott and Elise Williams in Lent and Easter terms.

Finally Jack Dixon was appointed as the new Whipple Librarian and arrived in January. Jack was previously Assistant Librarian at Corpus Christi College (so didn't have far to move), and before that had a number of roles in the University Library. Jack would like to express his thanks to the existing library staff who maintained excellent service levels during the 'interregnum', and also to the Department and the wider HPS community as a whole for being so welcoming.

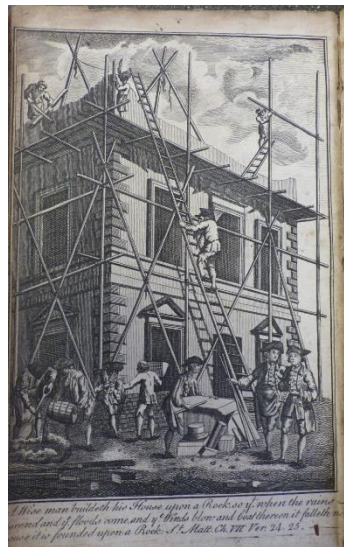
January also saw the long anticipated launch of the new Library Management System, known as *Alma*. Preparation for the Library Management System switchover was a large scale multi-stage project which had been ongoing for over two years, and, like all major projects, was not without its hiccups and teething problems along the way. Due to the dedication of Whipple Library staff throughout the run up and training periods, however, the transition went smoothly and service disruption was kept to an absolute minimum. The launch of Alma is not the end, however. The LMS will continue to evolve and grow with the needs of the Cambridge scholarly community. The first addition to the LMS went live in July and was the Cambridge Library Patron System (known as CLiPS), which enables simplified management of library users details and permissions. A number of future evolutions of Alma are currently being considered, some of the most exciting being the potential addition of dedicated reading list management and referencing software.

Collections

The collection has continued to develop over the last year. Purchasing continued (though at a reduced pace) through Michaelmas term, and accelerated throughout Lent and Easter to ensure

2 items have been added to the Whipple library special collections in the last year, and both were blogged about in detail. They were;

<https://whipplelib.wordpress.com/2017/11/22/latest-accession-mrs-lees-taxidermy/>



Leadbeater's *The Gentleman and Tradesperson's Compleat Assistant; or, the Whole art of Measuring and estimating, made Easy. In three parts.* 3rd ed. 1770.

Common Sparrow.

Staffing

Library staff:

Whipple Librarian: Jack Dixon

Library Assistants: Dawn Kingham, James Livesey

Invigilators: Meira Gold, Aga Launcha, Jack Tavener, Annie Thwaite, Daniel Ott, Elise Williams.

Training & professional development

All permanent members of staff attended Strategic Priorities working groups organised by the UL. This was a fantastic opportunity to have our voices heard in the wider Cambridge library community and has fed back into the Strategic Drivers for Change document currently being finalised and shortly to go before the University Library Syndicate for approval. This major policy document will set the strategic direction of the University Libraries for some years to come. Dawn, James and Jack had the opportunity for a tour around the brand new Library Storage Facility in Ely. This enormous facility will open up new possibilities for storage of low-and-no-usage material across the Cambridge Library landscape, and we hope to be able to take advantage of this in future. The LSF has conservation grade air protected by 3 layers of airlock, 106 km of 11 meter high shelves built to VNA (Very Narrow Aisle!) standard, and is being filled at a rate of 12 tonnes (about 400 linear meters) per week.

All permanent staff also attended All Staff Briefings by the University Librarian, Jess Gardener, in January, as well as the ever popular Evacuation Chair and Stair Climber Refresher courses, and completed the yearly online fire safety and diversity training.

Not content with stepping up as Acting Librarian during the summer and Michaelmas Term, and leading the way with blog updates, Dawn attended training offered by the Office of Scholarly Communication and became a Research Skills Ambassador.

James complemented his existing skills by training as a Mental Health First Aider, and also volunteered to run tours around the University Library's 'Tall Towers' exhibition, becoming one of the only members of staff of an affiliated library to do so.

Jack had a busy program of training and induction on arrival, and also attended the Cambridge Information Literacy Conference in June, and is regularly attending the Public Programming Working Group based in the main UL.

User Education

Science in Print

Science in Print ran during Michaelmas term, but was unfortunately affected by the industrial action in Lent. During the Michaelmas term session Roger Gaskell ran 4 sessions on book production in the hand press period. Attendees were able to gain valuable experience of handling Special Collections material.

Induction Tours

Induction tours took place at the start of the academic year as usual. These welcome incoming staff and students into the library space and provide a useful introduction to the services which we offer.

Tours were also arranged for arriving Visiting Scholars throughout the year, and on a one to one basis on request.

Outreach and Public Events.

Displays

Three displays took place in the Library this academic year, as usual accompanied by virtual displays online.

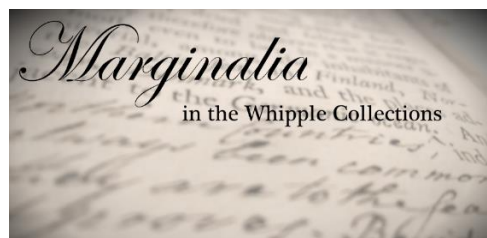
Exploring Deep History (September 2017 – February 2018)



Clare Matthews curated this display which was inspired by a generous donation of books and prints from Professor Martin Rudwick, affiliate of the Department of HPS and leading expert in the history of the earth sciences. His donation to the Whipple has greatly enriched our geological collections and includes a number of important 19th century works. From the interpretation of fossil finds, to studies of geological strata, maps and artistic illustrations, the items on view here reflect the unearthing of the “deep history” of our world, and the recognition that this history was far longer and more complex than previously imagined.

<https://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays/exploring-deep-history/exploring-deep-history>

Marginalia (February – July 2018)



Curated by James Livesey with input from Toby Bryant, this display included a selection of books from the library’s special collections that have, at one time or another, been subjected to notes, annotations, or other such inscriptions by their previous owners.

Books attract annotations for many reasons. The author might be marking up their own book for future editions; the interested reader highlighting passages of interest or making notes to refer back to; the less-interested reader venting their opinions – via comments, scribbles, or doodles. The books that were included in this display have been marked up by people both known and unknown, for a variety of reasons. Where the provenance is known we have indicated this, but often the interest lies in the types of markings and comments made, and not specifically in their author.

<https://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays/marginalia/marginalia>

Personifying Plague (July 2018 – October 2018)



Personifying Plague:

Visualizations of the Plague

in Western Medical History

This exhibition was curated by Ranana Dine, student on the MPhil in Health, Medicine and Society 2017-18, with support from the staff of the Whipple Library. For more than a millennium the disease commonly called the plague has terrorized, frightened and fascinated people around the globe. The plague has always been a horrifying disease and until the advent of antibiotics in the twentieth century it had an extremely high fatality rate. Throughout its long and terrifying history the plague has been visualized differently, depending on its context and victims. This exhibit focuses on three ways the plague has been imagined in the West, based on materials from the Whipple Library collection as well as other libraries in Cambridge.

<https://www.whipplelib.hps.cam.ac.uk/special/exhibitions-and-displays/personifying-plague>

School sessions and visits

Working with Museum Learning Co-ordinator Rosanna Evans, the library contributed again to delivering the 'Medicine and Anatomy through time' and 'Darwin, Evolution and *The Origin of Species*' workshops to several visiting school groups. Jack also arranged a successful day visit of gifted and talented Year 9 students to the Parker, Whipple and University Libraries. The library also hosted visits for staff from Churchill College Archives Centre, the Social and Political Science Library, Anglia Ruskin University Library, the Haddon Library and the University Library. We also hosted a student from Parkside Academy, Francesca, for a week's Work Experience in July, and visits from interns from the UL and Parker Libraries.

The Museum



Over the last year, the Whipple Museum has seen an enormous amount of gallery redevelopment and change. *Astronomy and Empire* was the first exhibition to be installed in our new Special Exhibition Gallery, plenty of changes have been made in store and the Main Gallery was completely deinstalled in preparation for essential building works to take place.



Exhibitions

Astronomy and Empire

***Astronomy & Empire* was the first exhibition to be staged in the Whipple Museum's newly refurbished Special Exhibition Gallery and opened on October 2nd 2017. It explores the tangled history of science and the British Empire through the instruments, tools, and practices of those sent around the globe to observe, survey, navigate, and chart on behalf of Imperial interests.**

The British Empire was built on scientific labour. Precision instruments made in London, charts published by the Royal Observatory, chronometers set to Greenwich time: all of these material tools and many others were essential for the navigation of Britain's ships to far flung corners of the globe. On foreign soil, astronomers, surveyors, and geographers worked side by side with administrators and the military during British efforts to discover, conquer, settle, and manage new colonies. Once established, the imperial world also served as a crucial field site for numerous astronomical enterprises, from the periodic observation of eclipses to the establishment of major new observatories.

This exhibition uses the rich collections of the Whipple Museum and the University of Cambridge's Institute of Astronomy to exhibit and critique these sciences of empire. It displays the instruments at the heart of colonial rule, exploring how these material tools were deployed, used, traded, and received in often remote locations, as part of strenuous efforts to secure and further British dominion. And it attempts to recover the human stories that underpin these enterprises, on both sides of the Imperial encounter.

Thematic displays evoke the often rough and always challenging work of precision science conducted in the field and aboard ship. They ask how the instruments crucial for these practices were transported, calibrated, used, and exchanged. And they draw attention to the human actors—some very visible in the historical record, many others nearly invisible—who made these enterprises work. Using numerous direct quotes from those tangled up with astronomy and empire, the exhibition explores the many different types of labour and power that made observations count between the 18th century and the end of Empire.

This project was also incorporated into the University of Cambridge Museums outreach and engagement programme, *India Unboxed*, which included a range of public events, including curator of the exhibition Joshua Nall presenting a Facebook Live broadcast discussing the exhibition.

We are very grateful to the Institute of Astronomy, the Museum of Archaeology and Anthropology, The Royal Astronomical Society, and Simon Schaffer (HPS) for kindly lending us objects for inclusion in this exhibition.

The Whipple Museum of the History of Science would also like to acknowledge the generous assistance of the following people and institutions during the preparation of *Astronomy & Empire*:

Malavika Anderson	Danika Parikh
Philip Bond	Sian Prosser
Mary Brazelton	Nicky Reeves
Toby Bryant	Louisa Russell
Jenny Bulstrode	Simon Schaffer
Charlotte Connelly	Jonathan Settle
Chris Cornell	Tom Simpson
Katrina Dean	Sujit Sivasundaram
Joe Delaney	Richard Staley
Matthew Edwards	Giles Tillotson
Mark Elliot	Mrinalini Venkateswaran
Jim Fairs	Richard White
Lachlan Fleetwood	Andrew Wilcox
Rachel Hand	Kirstie Williams
Tabitha Hayman	The Fitzwilliam Museum
Anita Herle	The Master and Fellows of St. John's College, Cambridge
Tamara Hug	Arts Council England (ACE)
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Agnieszka Lanucha	The National Film and Sound Archive of Australia
Adam Lister	The PRISM fund, ACE
James Livesey	The Syndics of Cambridge University Library
Matt Lowe	

The University Museum of Zoology

University of Cambridge Estate Management

Special Projects

Gallery and Store Developments

Main Gallery

The window-frames of the skylights within the Main Gallery are rotten and need to be replaced. This has been a long-standing issue which Estate Management has now been given permission and resources to address. In order for the works to take place, the Museum closed to the public on 4th July 2018. The gallery was completely de-installed of objects and the display cases have been boarded in to protect them. In addition to these works, there are funds for other repairs and improvements. In the Main Gallery, we will be fitting UV filters to the new skylights, replacing the lighting, installing secondary double-glazing to the large window and also re-flooring the gallery. In addition, the sky lights in the Upper Gallery will be replaced. We are taking the opportunity to re-floor the Learning and Special Exhibition Galleries and to install a new public toilet in the Learning Gallery.

Stores

Following a successful bid to the Capital Equipment Fund, we purchased new plan chests to store our flat material in a more environmentally sound manner. The re-packing of the plan chests has begun and this has also given us the opportunity to store some objects in a way which better suits their size and material.

To facilitate the Main Gallery de-installation, we moved our collection of Trade Literature temporarily and installed eight new storage cabinets throughout our storage areas.

Other Developments

Engaging Collections Online

Following the joint-award in 2016 of Designated Development Funding from Arts Council England, the Museum of Archaeology and Anthropology and the Whipple are continuing to work on producing an online Research Portal. This project will allow online access to the Whipple Museum's database for the first time, and provide researchers with immediate access to images as well as extensive information on the collection and trade literature.

Teaching and Research

Departmental Teaching

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

Student Essays and Theses

Genevieve Caulfield, 'Wollaston Hypsometers vs. Mountain Barometers in Nineteenth-Century Surveying'.

Hannah Resnick, '(Un)Folding Proteins: Courtaulds Chemical Models, British Industrial Fiber Development, and the Search for the α -Helix'.

Matthew Green, 'Chicken Heads & Punnett Squares: Reginald Punnett and the Role of Visualization in Early Genetics Research, Cambridge, 1900–1930'.

Tabitha Burden, 'Collecting Habits and Valuable Antique Scientific Instruments:

What can annotated sales catalogues tell us?'

Object-based teaching

'Researching in Museums' session

In November Josh Nall, Jenny Bulstrode, and Boris Jardine delivered a graduate training session on 'Researching in Museums' for the new cohort of Part III and MPhil students. The session was held in the New Gallery and used objects from the collection.

Use of Museum objects in other lectures and seminars

In November, the New Gallery played host to Joe Martin's primary source seminar on cybernetics, which included the opportunity for Part II students to investigate the Museum's two chassis from EDSAC II.

In November, the New Gallery hosted Simon Schaffer's MPhil 'Masterclass' on 'Materiality and scientific instruments', which also included a follow-up handling session for self-nominated students.

In December, the Museum hosted an object-based session of the Cabinet of Natural History, led by Brian Ford and based around the Museum's rich collection of simple microscopes.

In December, Joshua Nall led a tour and discussion of *Astronomy & Empire* for MPhil students taking the Cambridge University Archaeological Heritage and Museums course.

In February, Boris Jardine and Joshua Nall delivered an object-based teaching seminar for Part Ib students from the English Faculty, as part of their study into the impact of science upon literature in the late 17th and early 18th centuries.

In March, Museum objects were used in a Part II lecture given by Daniel Margocy on timekeeping and the enlightenment.

In May, Joshua Nall ran a tour and seminar discussion in the Museum for the History Faculty Part II paper on 'The History of Collecting'.

Summer teaching with objects

In July, Joshua Nall gave an object-based lecture on 'The Moving Image in Victorian Popular Culture' for the University of Cambridge Institute of Continuing Education Art and Visual Culture Summer Programme.

In August, Josh taught a class on 'Astronomy, Instruments, and Empire' at the Centre for the History and Philosophy of Physics Summer School: "History of Physics: Scientific Instruments and Environmental Physics".

Research workshops

In October the Museum hosted a 3-day workshop, 'How Collections End: Objects, Meaning and Loss in Laboratories and Museums', organised by Leverhulme Trust-funded post-doctoral researcher Boris Jardine. The interdisciplinary workshop brought together scholars of museums and laboratories working with a range of different kinds of scientific collections. Participants included scholars from Brazil, Denmark, Australia, Scotland, England, Australia and the U.S.A.

In December, the Museum hosted a meeting between the University of Cambridge Museums and six Leibniz-Gemeinschaft Research Institutions, sponsored by the DAAD Cambridge Research Hub for German Studies. The workshop examined the question 'Is it Real? Historical Authenticity in Collections and Museums'. This marked the beginning of ongoing collaboration; a second meeting is planned for April 2019, as well as museum exchanges for curators.

Staff Research

In January, Joshua Nall gave a talk, 'Escape to Mars: Capitalist fantasies of planetary habitation, c. 1900 / c. 2018', at the "Habitability seminar", Centre for Exoplanets and Habitability, University of Warwick.

In January, Joshua Nall gave a talk, 'Escape to Mars?: Victorian and modern narratives of a dying planet', at the Peterhouse Theory Group, Peterhouse College, Cambridge.

In June Joshua Nall gave a talk, 'Collectors, forgers, and curators: Scientific instruments and the foundation of history of science in Cambridge', at the workshop "Objects and the formation of (disciplinary) knowledge in universities and beyond (18th and 19th centuries)", Historic Observatory, Universität Göttingen.

In June Joshua Nall gave a talk, "A cultural accessory to modern research"? The Whipple Museum of the History of Science as a research collection – past, present, and future', at the 'Engaging 21st Century Researchers' workshop, McDonald Institute for Archaeological Research, University of Cambridge.

Josh Nall published two articles relating to his research:

Joshua Nall, 'Finding the Fakes: How to Spot Forgeries Lurking in Collections of Historic Scientific Instruments', *Chemistry World*, Vol. 15 (no. 2, Feb. 2018): 71.

Joshua Nall, "Certainly Made by Ramsden": The Long History of the Whipple Museum's Dividing Engine', *Bulletin of the Scientific Instrument Society*, No. 137 (June 2018): 40-43.

Steve Kruse published a book chapter based on his MA dissertation:

Steven Kruse, 'Difficult Thresholds: Negotiating Shared and Embedded Entrances', in: *Museum Thresholds: The Design and Media of Arrival*, edited by Ross Parry, Ruth Page, Alex Moseley (Routledge, 2018): 153-171.

In April, Liba Taub's paper on 'What is a Scientific Instrument, Now?' was presented to the 2018 Gordon Cain Conference at the Science History Institute, Philadelphia, ['Where to Put It All? Some Thoughts about Collections, Museums, and History'](#); this will be published as part of a special issue of the Journal of the History of Collections.

Formal and Lifelong Learning

Our Learning Co-ordinator, Rosanna Evans, has continued teaching schools as well as organizing family and adult events and outreach over the last year.

Over Michaelmas term, Rosanna supported Activate, a Cambridge based Arts-project co-led by the City Council and various arts organisations in Cambridge, creating and delivering content for several sessions on the history of cartography, surveying, and astronomy - all related to our Special Exhibition Astronomy and Empire. In the summer term, their performance, 'The Museum of Maps', featured astrolabes, star charts and navigation. Rosanna continued to welcome school and Widening Participation groups into the Museum until the closure, with our joint GCSE and A Level sessions with the Whipple Library continuing to prove popular.

The year's events provided interactions with broader audiences and increased visitor numbers. In January, the Whipple was one of four museums participating in the first Cambridge Climate Hack, spearheaded by Charlotte Connelly and the Polar Museum. With huge thanks to Richard Staley, who helped lead an intro session, a group of innovators, creators, digital artists and museum educators installed an interactive activity in the Whipple and got people thinking about how museums can provoke discussions about climate change science and sustainability, really demonstrating the power of having new input in curation and engagement opportunities. Our Cam Late 'Science and Magic' sold out, and the Naked Scientists came to get an exciting preview of our joint event with the Whipple Library, 'Mind Your Head: Phrenology at the Whipple'. Over the summer, Rosanna was kindly hosted by colleagues across the University of Cambridge Museums for Summer at the Museums, and tripled the number of interactions we've had over any summer. Two events were particularly exciting: the

collaboration with the Fitzwilliam Museum and Digital Maker, Katy Marshall, which led 8-12 year olds creating their own digital compass alethiometer, inspired by the ADC production of Philip Pullman's *His Dark Materials* and the Whipple collections, as a part of Fitz Family Art Week, and a joint event with the other UCM Science Museums and Botanical Garden that crossed venues and genres to teach forensic skills and solve crimes.

The Handling Collection project continued, and several acquisitions were made; this has enhanced the quality of our object-led teaching and activities outside of the Museum. Thanks to the Museum of Technology, we have acquired 5 objects relating to Cambridge industry and that can immediately be used in sessions. Rosanna and our Handling Collection Project Assistant, Jenny Williams, visited a Scientific Instruments Fair in order to make acquisitions and we also have a new host of Victorian Optical Toys. Jenny additionally updated some of our Adventure bags to simplify them and reflect changes in the galleries. We have additionally been working with Graeme Durant from Makespace in order to create a portable table orrery made of family-friendly materials with visible mechanism to use in our Earth and Space sessions and to take out to schools.

As a part of a bigger project to improve accessibility to the Whipple collection, Rosanna has continued to take Museum objects to patients undergoing kidney dialysis and has jointly led two tours for people with visual impairments with Jennifer Williams, the Education Assistant at MAA, one of which was featured on BBC Look East. Following an Access Review funded by the UCM, work began to create more opportunities within the Museum for families and visitors with additional needs.

Blog posts

The Whipple Museum: Past and Future

<https://www.museums.cam.ac.uk/blog/2018/06/05/the-whipple-museum-past-and-future/>

Her Story: Eliza Brightwen's Bible Album

<https://www.museums.cam.ac.uk/blog/2018/03/29/her-story-eliza-brightwens-bible-album/>

Crate expectations: curating as a collaborative endeavour

<https://www.museums.cam.ac.uk/blog/2018/01/18/crate-expectations-curating-as-a-collaborative-endeavour/>

India Unboxed: Astronomy and Empire

<https://www.museums.cam.ac.uk/blog/2017/10/10/india-unboxed-astronomy-and-empire/>

Outreach Events

Festival of Ideas

Can Machines Think?

On Wednesday 18th October, Marta Halina's talk explored what is unique about the human mind and whether we can build machines that match or exceed our abilities.

Fakes, Mistakes and Mystery at the Whipple

On Thursday 19th October, we trialled an interactive crime-solving event based on research conducted by Boris Jardine, Josh Nall and James Hyslop that traced fake objects in the Whipple Collection back to their dealers. Josh Nall also gave a talk about the process of unearthing fakes in the collection.

Astronomy and Empire: Curator talk

Joshua Nall, on Friday 20th October, led a tour of our first Special Exhibition, *Astronomy and Empire*.

Imposter!!

Detectives were joined by families on Monday 23rd October to hunt out fakes on display throughout the Museum before creating their own forged scientific instrument using embossing foil.

Festival of Light

At the Botanical Gardens on Wednesday 25th October, the Whipple joined other University of Cambridge Museums with activities themed around Diwali as a part of *India Unboxed*, inviting families to make a Nakshatra lantern, and learn more about historical Indian astronomy and astrology.

Mothers Who Make

On the 16th January, the Whipple hosted the first Cambridge meeting of Mothers Who Make, a group designed to welcome mothers and their children and encourage creative practices and collaboration.

Climate Hack

From Friday 19th - Sunday 21st January, the Whipple joined three other museums as a part of a Climate Hack, organised by the Polar Museum. Teams of makers, creators and educators were

invited into the museums to create interactive activities that provoked audiences to consider contemporary issues related to climate change.

Twilight at the Museums

On the evening of the 13th February, the Museum turned off its ordinary lights and the Junction provided projection and theatrical lighting for an 'Eclipse Expedition' theme, which invited families to locate tools needed for an expedition. The Museum welcomed 979 visitors over the event's three hours!

Science Festival

Astronomy and Empire: late opening

On Wednesday 14th March, the Whipple kept its doors open until 8pm and visitors enjoyed a glass of wine whilst visiting our special exhibition.

Stargazers around the World

Inspired by our exhibition *Astronomy and Empire*, on Saturday 17th March, visitors joined explorers at the Whipple for family hunts and activities that travelled far and wide.

Astronomy and Empire: Curator talk

On Wednesday 21st March, curator Dr. Joshua Nall spoke about our newest special exhibition, *Astronomy and Empire*, the first exhibition to inhabit our newly refurbished Special Exhibition Gallery.

Science and Magic

On the 29th March, visitors enjoyed an evening of jaw-dropping trickery and slight-of-hand inspired by the Whipple Museum's collection of historic scientific instruments and models.

Festival of Education: Marketplace

Rosanna joined Learning Officers from across the University of Cambridge Museums at Homerton College on the 9th June for a marketplace stall demonstrating our offer to teachers.

Pacific Tours

On the 26th June and 25th July, Jenny Williams and Rosanna Evans led handling sessions and audio descriptive tours of *Astronomy and Empire* at the Whipple Museum as well as the new Pacific cases at the Museum of Archaeology and Anthropology for people with visual impairments.

Summer at the Museums

Arbury Primary School Fair

On the 29th June we visited Arbury School Fair to make models of celestial motions.

Big Weekend: Make and Create Tent

On the 14th July, we joined the University of Cambridge Museums' Make and Create Tent, making models of different celestial motions – examining eclipses, planetary transits and orbits.

Brain storm

We joined the Sedgwick Museum on the 26th July to explore different types of brain and how we understand them. Visitors made their own thinking cap and model brain.

Digital Dark Materials at Fitz Family Art Week

For the first week of August, summer visitors joined us for pop-up workshops at The Fitzwilliam Museum: making their own moving, digitally-enhanced alethiometer, inspired by the ADC production of *His Dark Materials* and the Whipple's exciting collections.

Time-travelling Scientists

On the 6th August, visitors stepped back in time to find out about science in ancient Greece and Rome. How did they build impressive buildings? How did they cure their illnesses? And how did they make sense of the stars?

Science Detectives

On the 18th August, young people joined the Whipple, the Museum of Zoology, the Polar Museum, the Sedgwick Museum and the Botanical Gardens to hone their scientific skills in preparation for a forensic investigation at the Botanic Gardens.

Whipple Wildlife

At the Museum of Zoology, on the 21st August, the Whipple used past zoologists' tried and tested techniques to help visitors hone their investigative skills so they can get a better look at animals and specimens.

All at Sea

On the 30th August, with help from the Whipple Museum visitors learned how people from across the world navigated the oceans, using a compass to explore the Museum and play a Pacific-themed trading game. They then had the opportunity to make their own bean map to take home.

Open Cambridge

Mind your head: Phrenology at the Whipple

The Whipple Library hosted a special display of Museum and Library pamphlets, books, models and ephemera relating to phrenology on 14th September. Guides created by work experience student Jack Campbell helped visitors form their own phrenological diagnosis.

Other Events

Special Exhibition opening

On 17th October, 5pm to 7pm, the Museum hosted an opening event for *Astronomy & Empire*, the first exhibition in the Whipple Museum's newly refurbished Special Exhibition Gallery.

Book-launch for *Patient Zero and the Making of the AIDS Epidemic*

Richard McKay's first book, *Patient Zero and the Making of the AIDS Epidemic*, was launched in the Whipple Museum on Friday 16th February.

Book-launch for *Rock, Bone and Ruin*

From 5-7 pm on Thursday 10th May, the Museum hosted a book launch for *Rock, Bone and Ruin: An Optimist's Guide to the Historical Sciences* by Adrian Currie.

Book-launch for *Medical Nihilism*

The Museum hosted Jacob Stegenga's book-launch for *Medical Nihilism* on Friday 25th May.

Memorial event for Frances Willmoth

On Tuesday 26 June, there was a gathering in the Learning Gallery to share memories of Frances Willmoth, a longstanding friend and supporter of the Whipple Museum.

Two short talks on work related to Frances' own interests and scholarship were offered by Emma Perkins and Arthur Harris.

Special Visits

In February, Josh Nall and Boris Jardine lead a tour and handling study session in the Museum for members of the Scientific Instrument Society. Details of the tour and an account of the Museum's displays and collection were subsequently written up by Jonathan Maxwell in No. 137 of the *Bulletin of the Scientific Instrument Society*, pp.35-39.

In April, Joshua Nall lead a tour for members of the International Map Collectors Society.

In April, members of the Directorate Admin team of the Science Museum, London, visited the Whipple Museum for a tour and to discuss with Josh Nall the Whipple's approach to interpreting and displaying the material culture of science.

In May, Josh Nall hosted researchers from the Royal Holloway research project 'The Mobile Museum: Economic Botany in Circulation'.

Television, Radio and Magazine Appearances

On 8th November, Joshua Nall gave an interview and tour of *Astronomy & Empire* for Cambridge TV, a spot that was then broadcast on local BBC news.

On 16th July, Rosanna Evans and Jenny Williams's tour for people with visual impairment was broadcast on BBC Look East.

On the 13th September, Rosanna Evans and Jack Dixon were interviewed by Georgia Mills for the *Naked Scientists* radio segment on the BBC Cambridge Breakfast show.

Grants and Donations

Connecting Collections

Rosanna Evans received a Strategic Enablement Grant of £5,000 to support her education and outreach activities throughout the year. The Museum also received £500 funding to allow us to be open on occasional weekends throughout the year, and £500 to support workforce development and attendance at conferences. The Museum is grateful to Arts Council England for this funding, provided through their Major Partner Museum Programme.

Whipple Museum of the History of Science Conservation Fund

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

Other Donations

We thank the Ann D Foundation for their continuing contributions.

Staff News

The Museum hosted four work experience students on the 27th and 28th June as well as the 4th and 5th July as a part of the UCM work experience weeks. We also hosted Jack Campbell for a week of work experience at the end of August.

In February, Christina Rozeik joined the Whipple for five months as Temporary Collection Assistant to help with re-packing the collection.

In February, Jenny Williams left the role of Handling Collection Assistant. She assisted Rosanna on a project that tracked and improved the standard of the objects used for teaching and activities as a part of public engagement and teaching in the Museum.

From July to November, Matthew Green joined the Museum as Summer Intern after completing his MPhil in History and Philosophy of Science. He catalogued the Dillon Weston materials and made great progress on the accessioning backlog.

In September, Rosanna Evans left her part-time role as Collections Assistant and took up a PhD with the University of Leeds and the Science Museum; she continues as our part-time Learning Coordinator.

In November, Joshua Nall took up the Chair of the Astronomical Heritage Committee of the Royal Astronomical Society.

Training

26th October 2018

Cheap and Easy Digital Learning (run by SHARE)

Rosanna Evans attended this workshop focusing on construction and practical methods to integrate low-cost digital techniques into museums' learning offers.

31st October

Museums, Health and Wellbeing training (run by the National Alliance for Museums, Health and Wellbeing)

Rosanna Evans attended the second part of this training course, which shared practical advice for establishing partnerships with health organisations, preparing meaningful offers to facilitate wellbeing, and help create supportive work environments.

10th January

Raspberry Pi and Digital Engagement training (run by SHARE)

Rosanna Evans attended this training at the Centre for Computing History which introduced participants to the possibilities for using Raspberry Pi as a part of museum interactive and learning opportunities.

1st-2nd February 2018

First Aid at Work requalification

Claire Wallace attended this course which renewed her First Aid at Work qualification for another three years.

19th February 2018

Introduction to Evaluating Science Communication & Public Engagement

Rosanna Evans attended this day-long introduction to logic models and evaluation techniques focused on science-specific activities.

3rd May

Volunteer Makers training

Rosanna Evans attended this half day of training to use new online system Volunteer Makers, which the University of Cambridge Museums hope to introduce in 2019.

12th – 13th June 2018

Managing Indoor Climate Risks

Steve Kruse attended this two-day workshop which focused on the practice of risk-based decision making to optimize the management of indoor climate conditions for collections and buildings. During the two days the participants learnt about the most current research in managing indoor climate risks and were guided through the process of decision making, from identifying climate risks for collections to the development of climate control strategies.

29th May 2018

Project Management in Conservation & Collections Care: Intermediate Course

Building on the basic course attended in late 2016, Steve Kruse took part in this session, which explored the practical application of the principles of project management to conservation and collections care. The participants worked on case studies, used tools and implemented techniques that will help them to run small and mid-sized projects efficiently.

9th July 2018

Behaviour training (run by Artswork)

Rosanna Evans attended this day of training aimed at introducing techniques for managing difficult behaviour in museum environments.

Loans

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

Loans in

Institute of Astronomy, University of Cambridge

21st July 2017-August 2019

E579.1 A3 – Worth mirror in packing box

E579.2 1936 Solar Eclipse large-format plates in wooden box

E579.3 1898 Eclipse – original negatives in small wooden tray

Institute of Astronomy, University of Cambridge

22nd August 2017- August 2019

E582.1 Coelostat mirror no.3

E582.2 Mount for equatorial telescope

Institute of Astronomy, University of Cambridge

29th August 2017- August 2019

E583.1 J. Foldingham, *Madras observatory papers* (1827)

E583.2 W. Wales, *Astronomical observations...in the Southern Hemisphere* (1788)

E583.3 Three boxes of eclipse negatives (HIN 547-549)

E583.4 Three photographs of the 1898 eclipse expedition to Pulgnon, India (EX/2)

E583.5 Two bound volumes of sun photographs taken in India (HIN 451)

Professor Simon Schaffer, Department of History & Philosophy of Science, Cambridge

8th September 2017- August 2019

E585 Tibetan prayer wheel

Museum of Archaeology and Anthropology, Cambridge

29th September 2017-4th July 2018

E586.1 D1914.37 – Shell Trumpet, first Cook voyage, Society Islands

E586.2 1922.373 – Pantochronometer, UK

E586.3 2017.26 – Palm Leaf Almanac, India

E586.4 Z 5962 – Tattooing Instrument, Samoa

E586.5 Z 29400 – Cast Otaheite Medal, UK

Royal Astronomical Society, London

29th September 2017- August 2019

E587 Sextant in box – previously belonged to Capt. James Cook

Loans out

University Library, Cambridge

Landscapes Below, 20th November 2017 – 3rd April 2018

Wh. 1503 Wollaston-type Goniometer, by Cary, circa 1820

Wh. 1581 Wooden Geological Models of Sedimentary Strata, by Sopwith, circa 1841

Department of Chemical Engineering and Biotechnology, University of Cambridge

Small display for official opening of new building, 24th April 2018

Wh.6081 Bacon Fuel Cell

Presentation Plaque

Copy of review lecture “The Development and Practical Application of Fuel Cells”

The British Library, London

James Cook’s Voyages, 18th April-31st August 2018

Wh.1837 Reflecting Telescope (Gregorian), by James Short, circa 1760

The Ashmolean Museum, Oxford

Spellbound: Magic, Ritual and Witchcraft, 15th August 2018 – January 2019

Wh.0336 Ptolemaic Armillary Sphere, 15th century

Outreach Loans Out

Fitzwilliam Museum, Cambridge

Filming event, October 2017

HC53 Zoetropes and picture strips

Coleridge Community College, Cambridge

Activate Session, November 2017

HC18 Urania's Mirror

HC125 "Oriental" Astrolabe

Unaccessioned Astrolabe

Unaccessioned Astrolabe back

Unaccessioned Celestial Globe fragment

Coton Primary School, Coton

Teaching Session, 12th March 2018

HC68 Electro-medical device

HC134 Macaura's Pulsocon

Kidney Dialysis Unit, Addenbrooke's Hospital, Cambridge

Handling Session, 24th April 2018

HC18 Urania's Mirror

HC112 Consul the Educated Monkey

HC125 "Oriental" Astrolabe

HC129 Telescope

HC132.1 Stereoscopic Viewer (+ 2 cards)

Kettle's Yard, University of Cambridge

Summer at the Museums event, August 2018

HC07 Set of 20 weights in brass

Museum of Archaeology and Anthropology, University of Cambridge

Science Detectives, August 2018

HC23 Simple Microscope

HC24 Compound Microscope

New Acquisitions

Wh.6642	Portable sundial, attributed to Richard Glynne, English, c.1720
Wh.6643	Sector, brass, 11", by Elias Allen, English, c.1615
Wh.6644	Horary quadrant, paper-on-wood, by Henry Sutton, c. 1658
Wh.6645	Molecular model kit, by Framework, U.S.A., c. 1965
Wh.6646	Sterephographs of the Deutsches Museum, 207 photos in three slip cases, by Alfred Krauth and Deutscher Stereo-Bild Verlag, German, c. 1920
Wh.6647	Fossil collection, displayed in a book-shaped box, by Vaclav Fric, Austro-Hungarian, c. 1870
Wh. 6648	Henley's electrometer, by George Adams (Jnr.), English, c. 1780
Wh.6649	Wedgewood pyrometer, by Dumotiez, French, late 18 th century
Wh.6650	Pyrometer, Watkins and Hill, English, early 19 th century
Wh.6651	Gauger's slide rule, Everard type, English, c. 1820. Used by Excise Officer Frederick E. Dash
Wh.6652	Mercury thermometer (Fahrenheit and Reaumur), by George Adams, English, c. 1800
Wh.6653	Compendium with tide computer and calendar disks, attributed to Charles Whitwell, English, late 16 th century
Wh.6654	Sector, brass, attributed to Elias Allen, English, early 17 th century
Wh.6655	Terrestrial orbit calendars, by Emile Kraft, French, c. 1940
Wh.6656	Microscope, No. 25, by F. W. Schiek, German, mid 19 th century. Used by Dr. Martin Barry and with bound volume of the works of Barry, Scottish, mid-19 th century
Wh.6657	Coffee table with botanical drawings on tiles, by Dr W. A. R. Dillon Weston, English, mid-20 th century
Wh.6658.1	Ceramic tile with drawing of lettuce with tip-burn, no. 1 of 38, by Dr W. A. R. Dillon Weston, English, mid-20 th century
Wh.6658.2	Ceramic tile with drawing of lettuce, no. 2 of 38, by Dr W. A. R. Dillon Weston, English, mid-20 th century
Wh.6658.3	Ceramic tile with drawing of mildewed lettuce, no. 3 of 38, by Dr W. A. R. Dillon Weston, English, mid-20 th century
Wh.6658.4	Ceramic tile with drawing of a spotted brassica leaf, no. 4 of 38, by Dr W. A. R. Dillon Weston, English, mid-20 th century
Wh.6658.5	Ceramic tile with drawing of a chard leaf, no. 5 of 38, by Dr W. A. R. Dillon Weston, English, mid-20 th century

- Wh.6658.6 Ceramic tile with drawing of infected (fava bean?) leaves, no. 6 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.7 Ceramic tile with drawings of infected celery, no. 7 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.8 Ceramic tile with drawings of celery root, no. 8 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh. 6658.9 Ceramic tile with drawing of infected celery, no. 9 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.10 Ceramic tile with drawing of an infected root, no. 10 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.11 Ceramic tile with drawing of an infected sugar beet, no. 11 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh. 6658.12 Ceramic tile with drawing of an infected carrot, no. 12 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.13 Ceramic tile with drawing of an infected onion, no. 13 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.14 Ceramic tile with drawing of an infected potato, no. 14 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.15 Ceramic tile with drawings of infected potatoes, no.15 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.16 Ceramic tile with drawings of infected potatoes, no. 16 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.17 Ceramic tile with drawings of damaged potatoes, no. 17 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.18 Ceramic tile with drawing of an infected tree section, no. 18 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.19 Ceramic tile with drawing of an infected tree section, no. 19 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.20 Ceramic tile with drawing of an infected blackberry branch, no. 20 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.21 Ceramic tile with drawing of an infected blackberry branch, no. 21 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.22 Ceramic tile with drawings of infected raspberry branch, no. 22 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.23 Ceramic tile with drawings of an infected branch section, no. 23 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.24 Ceramic tile with drawings of infected wheat, no. 24 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century

- Wh.6658.25 Ceramic tile with drawing of an asparagus shoot, no. 25 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.26 Ceramic tile with drawings of mildewed spinach, no. 26 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.27 Ceramic tile with drawing of an infected apple plant, no. 27 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.28 Ceramic tile with drawing of an infected apple, no. 28 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.29 Ceramic tile with drawing of an infected iris (?) leaf, no. 29 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.30 Ceramic tile with drawings of infected tomatoes, no. 30 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.31 Ceramic tile with drawings of infected gladiolus bulbs, no. 31 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.32 Ceramic tile with drawings of infected gladiolus bulbs, no. 32 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.33 Ceramic tile with drawings of infected plants (?), no. 33 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.34 Ceramic tile with drawing of soil cross-section with roots, no. 34 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.35 Ceramic tile with drawing of soil cross-section with roots, no. 35 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.36 Ceramic tile with photographs of infected sugar beet, no. 36 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.37 Ceramic tile with photograph of infected sugar beet (?), no. 37 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6658.38 Ceramic tile with photograph of an infected sugar beet leaf, no. 38 of 38, by Dr W. A. R. Dillon Weston, English, mid-20th century
- Wh.6659 Chemistry set, Merit No. 2, by J. & L. Randall, English, c. 1962
- Wh.6660 Chemistry set, Lott's Chemistry Outfit No. 1, by Lott's Bricks, English, early 20th century
- Wh.6661 Chemistry set, Gilbert Chemistry Outfit, by A. C. Gilbert Co., U.S.A., c. 1936
- Wh.6662.1 Folder of 19 paintings/drawings labelled "Asparagus", no. 1 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.2 Folder of 23 paintings/drawings labelled "Barley", no. 2 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.3 Folder of 29 paintings/drawings labelled "Beans", no. 3 of 35, by Dr W. A. R. Dillon Weston, English, 1930s

- Wh.6662.4 Folder of 7 paintings/drawings labelled "Carrot", no. 4 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.5 Folder of 45 paintings/drawings labelled "Clover", no. 5 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.6 Folder of 14 paintings, drawings & photographs labelled "Currant, Blackberry, Loganberry", no. 6 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.7 Folder of 13 paintings/drawings labelled "Gooseberry", no. 7 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.8 Folder of 23 paintings/drawings labelled "Lettuce", no. 8 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.9 Folder of 14 paintings/drawings labelled "Mint Rust" no. 9 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.10 Folder of 46 paintings/drawings labelled "Oats", no. 10 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.11 Folder of 18 paintings/drawings labelled "Onion", no. 11 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.12 Folder of 12 paintings/drawings labelled "Parsnip and Celery", no. 12 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.13 Folder of 11 paintings/drawings labelled "Peas", no. 13 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.14 Folder of 53 paintings, drawings & photographs labelled "Potato various diseases", no. 14 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.15 Folder of 25 paintings, drawings & photographs labelled "Potato various notes", no. 15 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.16 Folder of 9 paintings/drawings labelled "Strawberry", no. 16 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.17 Folder of 10 paintings/drawings labelled "Swede", no. 17 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.18 Folder of 5 paintings/drawings labelled "Tomato", no. 18 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.19 Folder of 49 paintings/drawings labelled "Wheat", no. 19 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.20 Folder of 31 paintings/drawings labelled "Vegetables", no. 20 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.21 Folder of 46 paintings, drawings & photographs labelled "Sugar Beet", no. 21 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.22 Folder of 57 paintings/drawings labelled "Sugar Beet", no. 22 of 35, by Dr W. A. R. Dillon Weston, English, 1930s

- Wh.6662.23 Folder of 43 paintings, drawings and photographs labelled "Sugar Beet Pests", no. 23 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.24 Folder of 32 paintings/drawings labelled "Sugar Beet Deficiency Diseases", no. 24 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.25 Folder of 25 paintings/drawings labelled "Trees", no. 25 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.26 Folder of 42 paintings, drawings and photographs labelled "Fruit Trees", no. 26 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.27 Folder of 13 paintings, drawings and photographs labelled "Silver leaf", no. 27 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.28 Folder of 14 paintings/drawings labelled "Apple scab", no. 28 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.29 Folder of 36 paintings, drawings and paper models labelled "Apple scab", no. 29 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.30 Folder of 28 paintings, drawings and photographs labelled "Apple Various Disorders", no. 30 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.31 Folder of 32 paintings/drawings labelled "Pear Scab", no. 31 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.32 Folder of 25 paintings, drawings & photographs labelled "Flowers (I)", no. 32 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.33 Folder of 36 paintings, drawings & photographs labelled "Flowers (II)", no. 33 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.34 Folder of 7 paintings/drawings, unlabelled (mostly grasses), no. 34 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.35 Folder of 12 paintings/drawings, labelled "Miscellaneous", no. 35 of 35, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6662.36 Envelope of loose drawings and associated ephemera, by Dr W. A. R. Dillon Weston, English, 1930s
- Wh.6663 Chemistry set, Merit Chemistry Outfit, by J. & L. Randall Ltd., English, c.1954
- Wh.6664 Chemistry set, No. 2, by A. C. Gilbert Co., U.S.A., c. 1936
- Wh.6665 Microscope set for children, Gilbert Microscope no. 21, by A. C. Gilbert Co., U.S.A., c.1948
- Wh.6666 Advertisement for chemistry sets by Chemcraft, from Popular Mechanics Magazine, U.S.A., c. 1929
- Wh.6667 Level & angle indicator, by Fletcher & Sinclair, English, late 19th century
- Wh.6668 Miniature crystal radio receiver, "vest-pocket" size, by Radiax Ltd., English, early 20th century

Wh.6669	Double-convex lens filled with clear liquid (water?) mounted on a stand
Wh.6670	Pocket microscope with slides, "Midgard" model, German, early 20 th century
Wh.6671	Polarising toy with Nicol prism, German, early 20 th century
Wh.6672 century	Compound microscope, "Improved" model, by W. and S. Jones, English, early 19 th
Wh.6673	Microscope slide preparation rotating stage, with prepared specimens, 19 th century
Wh.6674	Simple microscope with multi-chamber base containing various seeds, 19 th century
Wh.6675	Joly photometer, c. 1900
Wh.6676 1930s	Hobby instrument set for children, "100" outfit, made by Construments, English,
Wh.6677	Replica of a Leeuwenhoek simple microscope, 18 th century
Wh.6678	Anaglyph spectacles, by Redheffer & Co., c. 1900
Wh.6679	Photomicrographic camera and microscope, by F. Davidson and Co., English, c.1920
Wh.6680	Orrery with tellurion, by Parkes and Hadley, English, c. 1910
Wh.6681	Microscope, simple binocular type, by R. & J. Beck, English, c.1875
Wh.6682	Compound microscope, "Student" type, by Beck, English, c. 1930
Wh.6683	Two pocket lenses, 19 th century
Wh.6684 1774	Microscope slide preparation set, in case with royal cypher of Queen Charlotte, c.
Wh.6685	Visibility meter, designed by Ernest Gold, by Casella, English, 1943
Wh.6686	Microscope slide preparation/mounting set, by R. & J. Beck, English, c. 1875
Wh.6687	Double pillar compound microscope in box, French, late 19 th century
Wh.6688	Centrifuge, hand-cranked, sold by Andrew H. Baird, Scottish, c. 1900
Wh.6689 U.S.A., c.1969	Children's chemistry manual, <i>Exploring Chemistry</i> , with order form, by Skilcraft,
Wh.6690 c. 1933	Children's chemistry experiment book, <i>Experiment book no. 1</i> , by Chemcraft, U.S.A.,
Wh.6691	Comparison microscope eyepiece attachment, by Beck, English, 20 th century
Wh.6692	Tourmaline tongs, device for polarising light, 19 th century
Wh.6693.1	Crookes tube, paddlewheel type, 20 th century
Wh.6693.2	Geissler tube, 20 th century
Wh.6694	Magazine advertisement, 'Scientific Wonders for Boys and Girls', including Gilbert chemistry sets, U.S.A., 1948

- Wh.6695 Surface tension apparatus, by the Cambridge Instrument Company, English, c. 1953
- Wh.6696 Husun Star Globe, celestial globe to aid navigation, by H. Hughes & Son, English, 1920
- Wh.6697 Compound microscope, No. 1 Stand, by Powell & Lealand, English, 1884
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- HC125 Replica astrolabe after Diya'al Din Muhammad's 1647 astrolabe, by Hemisferium, Spanish, early 21st century
- HC126 Surgical silk cord, by Down Bros., English, early 20th century
- HC127 Replica astrolabe after Johann Richter's 1591 astrolabe, late 20th century
- HC128 Replica planispheric astrolabe by Hemisferium, early 21st century
- HC129 Handheld 4-drawer refracting telescope by G. Willson of London, early 19th century
- HC130 Circular slide rule ('Fowler's Magnum') by Fowler & Co, 20th century
- HC131 Universal equinoctial ring dial, by Michael Kala, Austrian, early 21st century
- HC132.1 Stereoscope (1 of 2) by Underwood & Underwood, early 20th century
- HC132.2 Stereoscope (2 of 2) by Underwood & Underwood, early 20th century
- HC133 Napier's bones, late 20th century
- HC134 'Macaura's Pulsocon'; 'blood circulator' vibrating massage medical device, by British Appliances Manufacturing Company; English, c. early 20th century
- HC135 Moon Globe, 15cm, by Sky and Telescope, U.S.A., c.2018

Annual Reports of Members of the Department

Anna Alexandrova

With my first book *A Philosophy for the Science of Well-being* (OUP) appearing in print last summer, I was busy writing blog posts and giving talks about it. I am grateful for the book launch in October at the Whipple Museum and for the Author Meets Critics session at the Pacific APA in San Diego California in March. Stephen John and I have completed the project *Limits of the Numerical* at CRSSH and started working on an eponymous edited volume. My role at the Leverhulme Centre for Future of Intelligence now includes directing the programme on *Philosophy and Ethics of AI*, as part of which I have been working on a report for Nuffield Foundation on the ethical implications of algorithms, data, and AI. At the department I especially enjoyed running the CamPoS speaker series, looking after this year's Part III students, and continuing to teach philosophy of social science to students of several tripos, including HPS, Economics, Philosophy, and Human Social and Political Sciences.

Publications

Articles in journals

Anna Alexandrova; Can the Science of Well-Being Be Objective?, *The British Journal for the Philosophy of Science*, Volume 69, Issue 2, 1 June 2018, Pages 421–445, <https://doi.org/10.1093/bjps/axw027>

Online

Reddit Philosophy Ask Me Anything, https://www.reddit.com/r/philosophy/comments/7vfoyh/i_am_anna_alexandrova_philosopher_of_science/, over 33,000 views

Brains Blog Books Series, four posts on *A Philosophy for the Science of Well-being* <http://philosophyofbrains.com/category/books/>

[anna-alexandrova-a-philosophy-for-the-science-of-well-being](#), December 2017

"Does anyone know what mental health is?" Oxford University Press Blog, October 7th 2017 <https://blog.oup.com/2017/10/mental-health-philosophy/?prclt=calojqnb>

"The Meaning of It All (with Anna Alexandrova)" Black Goat podcast Oct 4th 2017 <http://www.theblackgoatpodcast.com/posts/the-meaning-of-it-all-with-anna-alexandrova/>

"Anna Alexandrova's A Philosophy For The Science of Well-being", Sept 20th 2017 <http://page99test.blogspot.com/2017/09/anna-alexandrovas-philosophy-for.html>

"Who is the expert on your well-being" Oxford University Blog, Sept 15 2017 <https://blog.oup.com/2017/09/well-being-experts-philosophy/>

Interview with Voice of Islam London Radio, "Anger and happiness", August 21st 2017

Lectures, seminars and conferences

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).

October 2017

"Who to trust about healthcare?" Festival of Ideas Panel.

February 2018

Comments on Kate Raworth's *Donut Economics*, Murray Edwards On The Edge Series.

“Separating Hype from Truth in Science of Well-being” Cambridge Society for Economic Pluralism.

“Defining mental Health”, Popper Seminar, LSE, February 2018.

“What (not) to trust in the science of well-being”, University of Geneva.

March 2018

Author Meets Critics, Pacific Division of the Americal Philosophical Association

April 2018

“How to build an ethics: lessons for mathematics from other fields” First Workshop on Ethics in Mathematics, Cambridge

June 2018

“Ethical Principles for human kinds”, Plenary session, British Society for Philosophy of Science, Oxford

Grants and Honours:

“Best of 2017” in Oxford Philosophy Journals for “Is Well-being Measurable Afterall?”

PI on *Expertise Under Pressure*, a four year collaborative project at the Centre for Humanities and Social Change, CRASSH Cambridge.

Salim Al-Gailani

In 2018 Salim was appointed as a Bye-Fellow at St Edmund’s College, where he is also Director of Studies in HPS.

Publications

Articles in books

“Antenatal affairs”: maternal marking and the medical management of pregnancy in Britain around 1900’, in U. Helduser and B. Dohm

(eds), *Imaginationen des Ungeborenen/Imagining the Unborn* (Heidelberg: Winter-Verlag, 2018), 153–172

Articles in journals

‘Drawing back the curtain: natural childbirth on screen in 1950s Britain’, *British Journal for the History of Science* 50 (2017), 473–493

Lectures, seminars and conferences

March 2018

‘Hospital birth’, *University of Groningen Honours College Winterschool on the History of Reproduction*, Clare College, University of Cambridge

July 2018

‘Risky Pregnancies: Teratology and Clinical Genetics in Postwar Britain and West Germany’, *Society for the Social History of Medicine Conference*, University of Liverpool

Leah Astbury

From August 2017 to August 2018 I was the Molina Fellow in History of Medicine and Allied Sciences at the Huntington Library, San Marino, California. In this post I conducted archival research for my project to be conducted as a Wellcome Postdoctoral Fellow at the Department of History & Philosophy of Science and continued preparing a monograph provisionally titled *Breeding Bodies: Childbirth, Health and the Family in Early Modern England*. I returned to the Department September 2018 to take up my Fellowship.

Publications

Articles in books

Leah Astbury, “Ordering the Infant”: Caring for Newborns in Seventeenth-Century England’, in S. Cavallo and T. Storey (eds.), *Conserving*

Health in Early Modern Culture. Bodies and Environments in Italy and England (Manchester University Press, 2017).

Articles in journals

Leah Astbury, 'Being Well, Looking Ill: Childbirth and the Return to Health in Seventeenth-Century England', *Social History of Medicine*, 30/1 (2017), 500-519.

Online

Curated and transcribed cases from The Casebooks Project on 'Bad Marriages', 'Can beget no child' and 'Childbirth and after': <https://casebooks.wordpress.com/>, Published online 1 January 2019.

Jenny Bangham

During 2017-18, Jenny was in the second 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 Europe. In October 2017 she co-organised the international workshop 'How Collections End: Objects, Meaning and Loss in Laboratories and Museums,' with Boris Jardine (HPS) and Emma Kowal (Deakin University, Melbourne), held in the Whipple Museum. Jenny, Boris and Emma are editing the workshop papers for the 2019 issue of *BJHS Themes*. In July 2018 Jenny was awarded a Wellcome University Award at Queen Mary University of London for her future project, 'Encountering genes: Postwar genetic counselling in the UK and Ireland', which she will begin in March 2020. From March to October 2018 Jenny was on parental leave with her baby daughter, Avery.

Publications

Articles in journals

'Sommer, Marianne. *History Within: The Science, Culture and Politics of Bones, Organisms and Molecules*, The University of

Chicago Press, 2016. Pp. viii + 544', Book review, *Gesnerus*, 75: 1 (2018), pp. 151-2.

Lectures, seminars and conferences

October 2017

'When stock centres end: Fruit flies, collections and curators', at workshop 'How Collections End: Objects, Meaning and Loss in Laboratories and Museums', Whipple Museum, 24th-26th October 2017.

Debby Banham

I was absolutely thrilled at the beginning of July to be honoured (on the occasion of my 65th birthday) with three sessions of papers and a slap-up dinner at the International Medieval Congress, University of Leeds. Among the speakers were former Latin Therapists Drs Christine Voth (who organised the whole bash) and Conan Doyle.

Publications

Articles in books

'Insular agricultures: comparisons, contrasts, connections', in Mary Clayton, Alice Jorgenson and Juliet Mullins (ed.), *England, Ireland and the Insular World: Textual and Material Connections in the Early Middle Ages* (Arizona Center for Medieval and Renaissance Studies, 2017), 29-40

Lectures, seminars and conferences

November 2017

'The Early English Bread project', Food History Seminar, Institute of Historical Research, University of London

February 2018

'Bread in early England: making and meaning', Anglo-Saxon, Norse and Celtic Research Seminar, University of Cambridge

April 2018

'Women's work and the domestic sphere in Anglo-Saxon England', *The Anglo-Saxons at Home*, Manchester Centre for Anglo-Saxon Studies, University of Manchester

May 2018

'What did Beowulf eat? Food and farming in Anglo-Saxon England', Beowulf Festival, Woodbridge, Suffolk

June 2018

'Women's work and the body in early medieval England', Wilhelm Levison Workshop, Durham University

July 2018

'Memory and mimicry: the transmission of practical skills in early medieval England', International Medieval Congress, University of Leeds.

Agnes Bolinska

Publications

Articles in journals

Bolinska, A. (2018) 'Synthetic versus analytic approaches to protein and DNA structure determination', *Biology and Philosophy* 33: 26.

Lectures, seminars and conferences

March 2018

'Understanding function through multiple models of protein structure: barriers to integration' (with Gandier, J-A.) at Models & Simulations 8, University of North Carolina

May 2018

'Towards an explication of scientific representation' at Workshop on Representation in Science, Charles University, Prague

Understanding function through multiple models of protein structure: barriers to integration' (with Gandier, J-A.) at Cambridge Philosophy of Science Seminar, University of Cambridge

Mary Augusta Brazelton

Activities included co-organization of a series of events associated with the Decolonize movement in Easter term, as well as participation in the week-long China in a Global WWII Summer Institute at CRASSH; a podcast series on the exhibition "Astronomy and Empire" in the Whipple Museum; and "The Political and the Colonial in Science" (with Professors Simon Schaffer and Richard Friend), a session hosted by the Cambridge UCU Teach-Outs series in March. Other planned activities, including a lecture and a panel discussion at the Whipple for the Science Festival, both in March, were cancelled due to the UCU industrial action.

Publications

Articles in books

"1949年至1985年—收归国有之后的北京协和医院" [Peking Union Medical College after nationalization, 1949-85], in *The PUMC Legacy*, edited by Mary Bullock and Jiang Yuhong. Beijing: PUMC Press, 2018.

Reviews

Review of *Red Revolution, Green Revolution: Scientific Farming in Socialist China* by Sigrid Schmalzer in *Journal of Asian Studies* 76, no. 4 (2017): 4-5. doi: 10.1017/S0021911817001012.

Lectures, seminars and conferences

August 2018

Guest Lecturer, Cheung Kong Graduate School of Business EMBA Programme, Møller Institute, Churchill College, Cambridge

July 2018

Invited commentator, "Population and Reproduction in Japan: From the Perspective of Global History," workshop in Kyoto, sponsored by Wellcome Trust, Ritsumeikan University, and Sasakawa Foundation.

May 2018

"Fighting plagues in southwest China: A case study in the history of science," invited lecture at Cavendish Laboratory, University of Cambridge.

May 2018

"Mass immunization, medical diplomacy, and global health in modern East Asia, 1945-75," Seminar on Comparative Histories of Asia, Institute for Historical Research, London.

April 2018

"Engineering Health: Mass Immunization in China's Wartime Hinterland, 1937-45," Departmental Seminar, Centre for History and Philosophy of Science, University of Leeds.

March 2018

"Patriotic hygiene and mass immunization in the early People's Republic of China," Annual Meeting of the Association for Asian Studies, Washington, DC.

November 2017

"Negotiating immunity: Mass vaccination in modern China and East Asia, 1945-75," Seminar at Centre for History in Public Health, London School of Hygiene and Tropical Medicine.

November 2017

"The Politics of Mass Immunization in the Early People's Republic of China," talk at "Vaccines: Values, Present and Past," workshop at Uppsala University.

July 2017

"Mass vaccination and immunological research," talk at Summer School on China in a Global WWII, CRASSH, University of Cambridge.

Andrew Buskell

This year I continued to work as part of the large project "Putting the Extended Evolutionary Synthesis to the Test." As part of this project, I organised a two-day workshop—held at the department in May—entitled *United Fronts: Unity, Organisation, and Syntheses in the Life Sciences*, which brought together an international group of philosophers, scientists, historians, and social scientists. Also in May, I was awarded a Leverhulme Early Career Fellowship from the Leverhulme Trust to pursue a project entitled "Counting Cultures: The Metaphysics of Cultural Individuality", which I will take up at HPS in the spring of 2019.

Publications

Articles in journals

"Cultural Attractor Theory and Explanation." *Philosophy, Theory, and Practice in Biology*, 9(13) (2017): 1 – 20

"Beyond Brain Size: Uncovering the Neural Correlates of Behavioral and Cognitive Specialization." *Comparative Cognition & Behavior Reviews*, 13 (2018): 55 – 90. (With Logan, CJ, S Avin, N Boogert, FR Cross, A Currie, S Jelbert, D Lukas, R Mares, AF Navarette, S Shigeno, and SH Montgomery).

"Ingredients for Understanding Brain and Behavioral Evolution: Ecology, Phylogeny, and Mechanism." *Comparative Cognition & Behavior Reviews*, 13 (2018): 99 – 104. (With

SH Montgomery, A Currie, D Lukas, N Boogert, FR Cross, S Jelbert, S Avin, R Mares, AF Navarrete, S Shigeno, and CJ Logan)

Reviews

“Forces, Friction, and Fractionation: Denis Walsh’s *Organisms, Agency and Evolution*.” *Biology and Philosophy*, 32(6) (2017): 1341-1353



Lectures, seminars and conferences

November 2017

“Synthesising Arguments and the Extended Evolutionary Synthesis.” Evolutionary Ecology Seminar, Lund University

May 2018

“Cognitive Gadgets and Creative Cultural Evolution.” Centre for Cultural Evolution, University of Stockholm

“Synthesising Arguments and the Extended Evolutionary Synthesis.” at the workshop “United Fronts: Unity, Organisation, and Syntheses in the Life Sciences”, University of Cambridge

July 2018

“Cognitive Gadgets and Cognitive Constraints.” British Society for the Philosophy of Science Annual Meeting, University of Oxford

“Cognitive Gadgets and Creative Cultural Evolution.” at the workshop “Author Meets

Critics: Cecilia Heyes’ *Cognitive Gadgets*”, Australian National University

September 2018

“Cultures as Species.” Departmental Seminar, Australian National University

Hasok Chang

The academic 2017–18 year was a period focused primarily on research, being the first of my three years of research leave as a British Academy Wolfson Research Professor.

In the Department, while not doing undergraduate teaching or master’s supervisions, I have continued to look after a large number of PhD students. I have resumed the overall coordination of the Coffee with Scientists seminar group. My collaborative agreement with the Department of Chemistry for experimental work continues, having been renewed for 3 years in August 2016. I also organised and delivered (with Adrian Currie) a special course of HPS lectures for graduate students and postdocs in Chemistry. I remain a Fellow of Clare Hall.

In professional service, I continued to focus on the cause of integrated history and philosophy of science. I have finished a 3-year term as the Chair of the Committee for Integrated HPS in the summer of 2018 (and oversaw the group’s 7th international conference in Hannover in July 2018), and maintained a key role in the UK Integrated HPS Network (which held its annual meeting in June 2018 at UCL). I have continued chairing the history–philosophy Joint Commission of the International Union of History and Philosophy of Science and Technology (IUHPST). From 2017, I have also served as a member of the Governing Board of the Philosophy of Science Association, and as the Deputy Chairman of the Society for History of Alchemy and Chemistry.

Publications

Articles in books

'Kelvin's absolute temperature and its measurement' in M Cooper and J Grozier (eds) *Precise Dimensions: A History of Units from 1791–2018* (Institute of Physics Publishing, 2017), 5/1–5/23.

'Is pluralism compatible with scientific realism?' in J Saatsi (ed) *The Routledge Handbook of Scientific Realism* (Routledge, 2018), 176–186.

Articles in journals

'Operational coherence as the source of truth', *Proceedings of the Aristotelian Society* 117 (2017), 103–122.

(with K Ruthenberg) 'Acidity: modes of characterization and quantification', *Studies in History and Philosophy of Science* 65/66 (2017), 121–131.

'What history tells us about the distinct nature of chemistry', *Ambix* 64 (2017), 360–374.

'Realism for realistic people', *Spontaneous Generations: A Journal for the History and Philosophy of Science* 9:1 (2018), 31–34.

(with V J Vieland) 'No evidence amalgamation without evidence measurement', *Synthese* (published online in January 2018).

Reviews

Review of R E Auxier, D R Anderson and L E Hahn (eds.), *The Philosophy of Hilary Putnam*, in *Philosophical Review* 127 (2018), 240–247.

Lectures, seminars and conferences

November 2017

'Beyond truth-as-correspondence: realism for realistic people', *Philosophy of Physics Seminar*, University of Oxford, 16 November 2017

'Science and practical knowledge', *CSH/Philosophy Colloquium*, University of Bern, 23 November 2017

December 2017

'The mutual relation between science and technology: the case of the Voltaic battery' (in Korean), *The Association of Korean Scientists and Engineers in Cambridge*, 1 December 2017

'Philosophy of active scientific knowledge', *Launch of the British Academy – Wolfson Research Professorships*, The British Academy, 4 December 2017

'Electrical batteries: technoscience in the 19th century', *Science Studies Colloquium*, University of Oslo, 6 December 2017

January 2018

'What can we learn from the history of science?', *Leicester Literary and Philosophical Society*, 8 January 2018

'American Pragmatism: The Origins & Future (Lecture 1. The origins of pragmatism; Lecture 2. Pragmatism as thorough empiricism)', *CORE: Initiative for College of Humanities' Research and Education*, Hanyang University, Seoul, 18–19 January 2018

February 2018

'Who cares about the history of science? The case of Voltaic batteries', *Gallery Talk*, Gabriele Possanner Institut für interdisziplinäre Forschung, Vienna, 26 February 2018

'Is pluralism compatible with scientific realism?', *DK Program Seminar*, University of Vienna, 28 February 2018

March 2018

'Who cares about the history of science?', *The Danby Society*, Downing College, Cambridge, 9 March 2018

'Quantification: the case of temperature', *Bucharest Colloquium in Early Modern Science*, 15 March 2018

'Pragmatist lessons for the historiography of scientific practices', *Bucharest Graduate Conference on HPS*, 16 March 2018

April 2018

'Beyond truth-as-correspondence: realism for realistic people', LOGOS Colloquium, Barcelona, 4 April 2018

'Pragmatism as thorough-going empiricism', Universitat Autònoma de Barcelona, 5 April 2018

Discussion of 'Is pluralism compatible with scientific realism?', Gent–Brussels Seminars in Logic, History and Philosophy of Science, 19 April 2018

May 2018

'Pragmatism and philosophy of science', DK-Kolloquium, University of Vienna, 2 May 2018

'Measurement', 'Realism', and 'Reductionism', Philosophy for Chemists, Department of Chemistry, University of Cambridge, 8, 15 and 22 May 2018

'Using history of science for pluralist philosophy and science', Quatrième Journées d'études: Epistemologie historique et les désunités des science, Paris, 26 May 2018

June 2018

'How to build real entities: a new pragmatist foundation for scientific realism', 3rd European Pragmatism Conference, Helsinki, 13 June 2018

July 2018

'Operational coherence as the effective harmony of actions', Society for Philosophy of Science in Practice Biennial Conference, Ghent, 2 July 2018

'Humanism and science', Ewha–Luce International Seminar (ELIS): Expanding Horizons, Ewha Womans [sic] University, Seoul, 11 July 2018

'Philosophy of science in the age of artificial intelligence: humanism and pragmatism' (in Korean), 2018 Annual Conference of the Korean Society for the Philosophy of Science, Korean National University of Education, 12 July 2018

'Why tomorrow's leaders need historical and philosophical perspectives on science' (in

Korean), The 26th Distinguished Lecture, Daegu–Gyeongbuk Institute of Science and Technology (DGIST), 13 July 2018

September 2018

'Pragmatist epistemology for the historiography of technoscience', part of the symposium on 'What is it We are Talking about When We Talk about the History of Science?', European Society for the History of Science Annual Conference, UCL, 15 September 2018

Helen Anne Curry

I spent the academic year in residence at the Swedish Collegium for Advanced Study in Uppsala, Sweden, as part of my CRASSH ProFutura Scientia Fellowship (2017–2020) and was a visiting fellow at the Humanities Research Centre at the Australian National University in Canberra from July to September. My project for both of these periods was to continue work on my book *Endangered Maize*, which offers a history of efforts to gather and conserve the biological diversity of this critical global crop. As consultant to the digital design firm All Seeing Eye, I participated in the creation of a virtual reality experience, SEED, which enables players to tinker with plants as amateur breeders. Several components of the game were inspired by moments in the history of amateur breeding (an earlier focus of my research). In February 2018 the game took the \$150,000 first prize at "Developing Beyond," a competition sponsored by Wellcome Trust and Epic Games.

Publications

Reviews

Review of Tore C. Olsson, *Agrarian Crossings: Reformers and the Remaking of the US and Mexican Countryside* (Princeton: Princeton University Press, 2017), *Agricultural History* 92, no. 2 (Spring 2018): 283–285.

Lectures, seminars and conferences

October 2017

"From Bean Collection to Seed Bank: Transformations in Heirloom Vegetable Conservation and the Fate of Burt Berrier's Beans," at the workshop "How Collections End," University of Cambridge.

November 2017

"Biology as Technology: An Unexpected History of Innovation in Living Things," Department of History of Science and Ideas, Uppsala University, Sweden.

February 2018

"From Mandan Maize to Pioneer Hi-Bred: 'Indian Corn', Industrial Corn, and the Specter of Extinction," Swedish Collegium for Advanced Study, Uppsala, Sweden.

April 2018

"Endangered Maize: Indigenous Corn, Industrial Agriculture, and the Specter of Extinction," Seminar on Environmental and Agricultural History, Massachusetts Institute of Technology, Cambridge, Mass., USA.

August 2018

"Endangered Maize: Indigenous Corn, Industrial Agriculture, and the Specter of Extinction," History and Philosophy of Science Seminar, University of Melbourne, Australia.

"The Many Lives of Mandan Maize: The Appropriation, Circulation, and Cultivation of Native American Corn Varieties in the US Northwest and Beyond," Society for the Social Studies of Science Meeting, Sydney, Australia.

September 2018

"Seed Banks or Seed Morgues? Salvaging Crop Diversity from the Seed Bank," Humanities Research Centre, Australian National University, Canberra.

Matt Farr

Publications

Articles in journals

'Causation and time reversal', *British Journal for the Philosophy of Science*, Online first (June 2018), DOI: <https://doi.org/10.1093/bjps/axx025>

Lectures, seminars and conferences

November 2017

'Explaining Temporal Qualia', *Philosophy Departmental Seminar*, University of Bristol

'Explaining Temporal Qualia', *Serious Metaphysics Group*, Faculty of Philosophy, University of Cambridge

April 2018

'The C Theory of Time', *Sigma Club*, Department of Philosophy, Logic and Scientific Method, London School of Economics and Political Science

May 2018

'The C Theory of Time', *Philosophy of Physics Seminar*, Faculty of Philosophy, University of Oxford



Marta Halina

This year I was on research leave as Director of the “Kinds of Intelligence” project at the Leverhulme Centre for the Future of Intelligence. This project draws on work in psychology, neuroscience, philosophy, computer science, and cognitive robotics to further develop and critically assess notions of intelligence in AI research. In May 2018, I was awarded a grant from the Templeton World Charity Foundation to expand this project to the topic of “creative intelligence” with Adrian Currie. Two postdocs, Henry Shevlin and Karina Vold, began working on the Kinds of Intelligence project this year, and I was excited to welcome two PhD students, Erlend Owesen and Daniel Ott, to the Department. In professional service, I served on the Programme Committee for the British Society for the Philosophy of Science in the spring, and within Cambridge, sat on the Executive Group for the Leverhulme Centre for the Future of Intelligence

Publications

Articles in journals

“The Goal of Ape Pointing” (with Katja Liebal and Michael Tomasello), *PLOS ONE* 13(4):e0195182 (2018): 1-19.

Articles in books

“What Apes Know About Seeing,” in *Routledge Handbook of Philosophy of Animal Minds*, eds. Kristin Andrews and Jacob Beck (New York, NY: Routledge, 2017): 238-246.

“Mechanistic Explanation and its Limits,” in *Routledge Handbook of Mechanisms and Mechanical Philosophy*, eds. Stuart Glennan and Phyllis Illari (New York, NY: Routledge, 2017): 213-224.

Reviews and commentaries

“Octopuses as Conscious Exotica,” Essay Review of “Other Minds: The Octopus and the Evolution of Intelligent Life” by Peter Godfrey-Smith, *Studies in History and Philosophy of*

Biological and Biomedical Sciences 67 (2018): 28-31.

“Domains of Generality” (with Andrew Buskell), Commentary on Burkart et al. “The Evolution of General Intelligence,” *Behavioural and Brain Sciences* 40 (2017): 28.



Lectures, seminars and conferences

December 2017

“Evidence and Values in Comparative Psychology,” Cognitive Science Program, Indiana University, Bloomington.

April 2018

“Insightful AI,” meeting of The Mind Network: A Network for Philosophy of Mind and Cognitive Science, University of Edinburgh

June 2018

“Varieties of Mind Conference,” Co-organised with Henry Shevlin and Karina Vold with support from the Leverhulme Centre for the Future of Intelligence. A four-day conference bringing together leading researchers in psychology, animal cognition, artificial intelligence, and philosophy of mind.

July 2018

“Insightful AI,” as part of the symposium
“Culture, Cognition, and Creative Evolution,”
meeting of the British Society for the
Philosophy of Science, University of Oxford

“Insightful AI,” Conference on Creativity in Art,
Science, and Mind Conference, University of
Cambridge

Public Engagement and Impact

I have been involved in a variety of public engagement activities this year from speaking to the House of Lords Select Committee on AI to being interviewed for a podcast on octopus consciousness. In addition to the activities listed below, I co-organised with Karina Vold and Henry Shevlin two public lectures and two public debates in association with our June 2018 Varieties of Mind conference. The first public lecture was by Margaret A. Boden on “The Future of Intelligence: What Matters?” and represented the Inaugural Margaret Boden Lecture. The second was by Peter Godfrey-Smith on “Varieties of Mind and the Mind-Body Problem.” The two public debates took place in the Debate Chamber of The Cambridge Union. The motions were “This House believes we cannot understand non-human minds” and “This House believes there is nothing special about human intelligence.” Both of these debates were recorded and are available as podcasts.

October 2017

“Can Machines Think?” Public Lecture for the
Cambridge Festival of Ideas, Whipple Museum,
University of Cambridge

Interview for BBC Radio Cambridgeshire on
the evolution of consciousness and artificial
intelligence.

November 2017

“Values in Animal Cognitive Science,” Public
Lecture for Talking Animals, Law and
Philosophy series, University of Cambridge

“Kinds of Intelligence,” Talk for the House of
Lords Select Committee on AI in collaboration
with members of the Leverhulme Centre for
the Future of Intelligence

January 2018

“Values in Animal Cognitive Science,” Public
Lecture for Fellows’ Evening, Selwyn College,
University of Cambridge

July 2018

“Insightful AI,” Summer School Lecture for
Selwyn College, University of Cambridge

“Minds in the Deep: Octopuses as Conscious
Exotica,” Interview for BioViews: Perspectives
on the Life Sciences across Time and Place.
Podcast associated with Studies in History and
Philosophy of Science Part C

Interviewed Peter Godfrey-Smith for the
Leverhulme Centre for the Future of
Intelligence Podcast Series, University of
Cambridge

May 2018

“Intelligence Up, Down, and All Around,” Event
speaker and panelist. Organised by Susan
MacTavish Best and the Templeton World
Charity Foundation, Shoreditch, London

“Insightful AI,” Public Lecture for “I think,
therefore AI” event, Pint of Science Festival,
Panton Arms, Cambridge UK

“Human Beings,” Song Project in collaboration
with artist Mikey Georgeson for Creative
Reactions, Pint of Science Festival,
Cambridge UK

Remco Heesen

Publications

Articles in journals

‘Communism and the Incentive to Share in
Science’, *Philosophy of Science* 84 (2017),
698–716

(with LK Bright and H Dang) 'A Role for Judgment Aggregation in Coauthoring Scientific Papers', *Erkenntnis* 83 (2018), 231–252

'When Journal Editors Play Favorites', *Philosophical Studies* 175 (2018), 831–858

Lectures, seminars and conferences

November 2017

'Statistical Biases in Peer Review', The Choice Group, London School of Economics and Political Science

January 2018

'Epistemic Consequences of the Credit Economy', Lecture in Theoretical Philosophy, University of Groningen

February 2018

'Statistical Biases in Peer Review', Philosophy Seminar Series, National University of Singapore

March 2018

'Epistemic Diversity and Editor Decisions: A Statistical Matthew Effect', PEERE International Conference on Peer Review, Rome

April 2018

'Statistical Biases in Peer Review', HPS Departmental Seminar, University of Cambridge

May 2018

'Why Should Scientists Do Good Science?', Formal Social Epistemology Workshop, University of California Irvine

June 2018

'Why Should Scientists Do Good Science?', Computational Modeling in Philosophy, Ludwig Maximilian University of Munich

Nick Hopwood

Nick Hopwood continued as director of graduate studies and chair of the degree committee, except that in Lent Term he took sabbatical leave to work on his visual history of human embryos. With coeditors Rebecca Flemming and Lauren Kassell, he saw *Reproduction: Antiquity to the Present Day* through the press; Cambridge University Press will publish this large, accessible, illustrated book in November. Nick is a deputy chair of a Strategic Research Initiative on Reproduction, which the University has funded for three years from October 2018, and became a faculty advisor of a new CRASSH research group on Health, Medicine and Agency. He began a three-year stint on the History of Science Society's Levinson Prize committee and a second term as an associate editor of the *Journal of the History of Biology*. He also joined the advisory board of the edition of Ernst Haeckel's letters based at the Leopoldina Academy and the Haeckel House.

Publications

Articles in journals

'Reproduits et réinventés: Les dessins d'embryons de Haeckel', *Arts et savoirs* 9 (2018).

Reviews

Review of K Taschwer, *Der Fall Paul Kammerer. Das abenteuerliche Leben des umstrittensten Biologen seiner Zeit*, in *Isis* 109 (2018), 210–211

Review of E L Peterson, *The Life Organic: The Theoretical Biology Club and the Roots of Epigenetics*, in *American Historical Review* 123 (2018), 641–642

Lectures, seminars and conferences

October 2017

'Proof and publicity in claims to human in vitro fertilization', *Ideas in Print: Journalistic Forms*

in *Intellectual History*, Humboldt University
Berlin

'Farewell to the collections; or, The tragedy of
the emeritus', *How Collections End: Objects,
Meaning and Loss in Laboratories and
Museums*, Department of History and
Philosophy of Science, University of
Cambridge

March 2018

'Human embryology at the Carnegie
Department', *Provenienzforschung in der
Sammlung Blechschmidt. Zwischenergebnisse
und Ausblick*, Anatomy Centre, University of
Göttingen

'Modern reproduction: technologies of
conception', *History of Reproduction*,
University of Groningen Honours College
Winter School, Clare College, Cambridge

April 2018

'Inclusion and exclusion in the history of
developmental biology', plenary session: *The
History and Future of Developmental Biology*,
British Society for Developmental Biology,
70th annual spring meeting, University of
Warwick

May 2018

Commentary on Erika Lorraine Milam,
'Sociobiology, evolutionary scientism, and the
conflict thesis', *United Fronts: Unity,
Organization and Syntheses in the Life
Sciences*, Department of History and
Philosophy of Science, University of
Cambridge

Panel on 'Scientific publishing', *Coffee with
Scientists*, Department of History and
Philosophy of Science, University of
Cambridge

June 2018

'Visualizing human embryos', keynote lecture,
*Visualizing Reproduction: an Interdisciplinary
Inquiry*, Photographic History Research Centre
and Centre for Reproduction Research, De
Montfort University, Leicester

September 2018

'Proof and publicity: claims to human in vitro
fertilization', keynote lecture, Belgian Society
for Logic and Philosophy of Science and
National Committee for Logic, Philosophy and
History of Science *Sixth Young Researchers
Days in Logic, Philosophy and History of
Science*, Royal Academy, Brussels

Nick Jardine

Nick has continued with graduate supervision
and helping with the organisation of seminars
and workshops, notably Aims and Methods of
Histories of the Sciences, Ideologies of
Science, the Cabinet of Natural History, and
Greek and Latin Therapy. He is currently
preparing a collection of essays on the
historiography of the sciences. Nick is on the
Botanic Garden Syndicate, and spends much
of his time studying fungi and the history of
mycology.

Publications

Articles in books

Emotional Engagement in Scientific
Biographies, in D. Matravers and A. Waldow,
eds, *Philosophical Perspectives on Empathy:
Theoretical Approaches and Emerging
Challenges*, London, Routledge, 2018, 28-42.

Articles in journals

Hesse, Mary Brenda, 1924-2016, *Biographical
Memoirs of the British Academy*, 17 (2018),
19-28.

Boris Jardine

In March 2018 Boris Jardine entered the third
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

Reviews

Review of *The Life Organic: The Theoretical Biology Club and the Roots of Epigenetics*, by E L Peterson, *British Journal for the History of Science* 50 (2017), 740–741

Review of *Science in the Archives: Pasts, Presents, Futures*, edited by L Daston, *H-Sci-Med-Tech*, *H-Net Reviews* April, 2018

Review of *Modernist Informatics: Literature, Information, and the State*, by J Purdon, *Leonardo* 51 (2018), 543–545

Lectures, seminars and conferences

October 2017

Co-organiser (with Jenny Bangham and Emma Kowal) of the workshop ‘How Collections End: Objects, Meaning and Loss in Laboratories and Museums,’ Whipple Museum of the History of Science, Department of History and Philosophy of Science, University of Cambridge, October 24–26, 2017

November 2017

“Lost and Found: The Serendipity of Collecting” (talk and discussion with Jo Atherton, as part of ‘Being Human: A Festival of the Humanities,’ Cambridge University Library, 25 November 2018)

May 2018

“‘A Dark and Sordid Muddle’: On Getting Lost in the (History of the) New Museums Site” (paper presented to the Society for the History of the University, Cambridge, 10 May 2018)

June 2018

“The Book as Instrument: Early Modern ‘Description and Use’ Texts and the Reception of Mathematical Instruments” (paper presented at the conference ‘Learning by the

Book: Manuals in the History of Knowledge,’ Princeton University, 6–10 June 2018)

August 2018

“Instruments in Transit: Techniques and Materials on the Move in the Early Modern World” (seminar at the History and Philosophy of Physics (HAPP) Summer School, ‘History of Physics: Scientific Instruments and Environmental Physics,’ University of Oxford, 20–24 August 2018)

September 2018

“The Paper Universe (in Reverse): Early Modern Printed Mathematical Instruments” (paper at the conference ‘Paper-stuff: Materiality, Technology and Invention,’ University of Cambridge, 10–11 September 2018)

Discussant on the panel ‘Paper Instruments as Tools of Unification in Early Modern Practical Mathematics’ (at the European Society for the History of Science Biennial Conference 2018, in conjunction with the British Society for the History of Science, London, 14–17 September)

Stephen John

This year was the last year of the “Limits of the Numerical” project, which I ran with Anna Alexandrova, at CRASSH, culminating in an international conference in July 2018, which, we hope, will lead to an edited volume. I was also lucky enough to enjoy funding from the Cambridge Cancer Centre’s Early Detection programme, which supported a conference in December 2017, and a term of leave in Lent 2018. Finally, I continued to build on my links in Beijing, spending three weeks as a visiting scholar at the Department of Medical Humanities at Peking University.

Publications

Articles in books

“Expertise in Climate Science” in D.Doady (ed) *Routledge Handbook of Applied Epistemology* (Routledge, 2018)

“NICE's Cost-Effectiveness Threshold, or: How We Learned to Stop Worrying and (Almost) Love the £20,000– £30,000/QALY Figure” (with Badano, G and Junghans, T) in I. McClimans (ed) *Measurement in Medicine: Philosophical Essays on Assessment and Evaluation* (Rowman & Littlefield, 2017)

Articles in journals

“Epistemic trust and the ethics of science communication: against transparency, openness, sincerity and honesty” *Social Epistemology* 32(2): 75-87

“Should We Punish Responsible Drinkers? Prevention, Paternalism and Categorization in Public Health” *Public Health Ethics* 11(1): 35-44

Online

“Was anyone harmed by the breast cancer screening scandal?” *The Conversation* May 9th 2018 <https://theconversation.com/was-anyone-harmed-by-the-breast-cancer-screening-scandal-96314>

Lectures, seminars and conferences

March 2017

“First, Do No Harm?” Ethical Issues in Early Diagnosis St Edmunds College, University of Cambridge

April 2017

“First Do No Harm” Is cancer special? CRASSH, University of Cambridge

June 2017

“Diagnosis: representation or intervention” Society for Philosophy of Science in Practice Annual Conference, University of Ghent, Ghent

August 2017

“First Do No Harm?” Medical Humanities Centre, Peking University, Beijing

Lauren Kassell

Lauren Kassell was promoted to the position of Professor of History of Science and Medicine. She continued to direct the Casebooks Project and to contribute to ‘Generation to Reproduction’, both supported by Strategic Awards from the Wellcome Trust. With co-editors Nick Hopwood and Rebecca Flemming, she saw the large manuscript of *Reproduction: Antiquity to the Present Day* through the press. It was published by Cambridge University Press in December 2018. She managed the inaugural cohort for the MPhil in Health, Medicine and Society, and secured a batch of three Wellcome studentships for future years. She continued as the Department's College Liaison Officer. With the establishment of Cambridge Digital Humanities, she became the representative of the School of Humanities and Social Sciences on the Digital Humanities Working Group and the Co-Director, with Andrew Webber, of Cambridge Digital Humanities Research. She continued to direct studies in HPS at Pembroke College, where she is also a member of the Mill Lane Project Board, a major building initiative. She continued to serve on the advisory boards of *Annals of Science and Renaissance Studies* and on the Research Libraries UK Special Collections Advisory Group.

Publications

Online

The work of the Casebooks Project reached its final stages, and a preliminary version of the new website—<https://casebooks.lib.cam.ac.uk>—went live in September 2018.

In October 2018 Casebooks Release 12 became available. Release 12 announces that a total of 73,362 cases are now accessible through GitHub. The exhibition ‘CASEBOOKS:

Six contemporary artists and an extraordinary medical archive' has been documented in a 9 minute film by Huw Wahl (viewable through our CASEBOOKS page), together with a downloadable book about our work with artists and other material and press about the exhibition. A new 'Meet the patients' page has been added to the website, setting out case histories and contextual information about selected patients.

Lectures, seminars and conferences

February 2018

Public Lecture. 'Magic and Medicine. 500 Years of the College of Physicians: The First 100 Years', 21 February 2018, Royal College of Physicians of London.

April 2018

The Casebooks Project:
www.magicandmedicine.hps.cam.ac.uk,
History of Science, Medicine, and Technology
Seminar, History Faculty, University of Oxford,
30 April 2018

July 2018

The Casebooks Project: from
www.magicandmedicine.hps.cam.ac.uk to
<https://casebooks.lib.cam.ac.uk>, 'Searching
Questions: Digital Humanities Symposium',
University of Cambridge, 11 July 2018

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 is an affiliated member of the Centre for Research in Children's Literature at Cambridge. With Charissa Varma, she organised the Science and Literature Reading Group.

Publications

Online

"Michael Faraday and his 'instructess' in chemistry", Science Stories, BBC Radio 4, December 2017 and August 2018

"Dinosaur Poop Pt 2: The Coprolite Queen", Tumble podcast, 23rd March 2018

Lectures, seminars and conferences

November 2017

"Bees and parodies" (paper presented at A Bug's Life: Creeping and Crawling Through Children's Literature conference, Cambridge, 4th November 2017)

December 2017

"Mary Anning and the history of palaeontology for children" (paper presented at Popularising Palaeontology conference, King's College London, 13th-14th December 2017)

August 2018

"The Singing Scientists" (lecture to Homerton International Programme students, 27th August 2018)

Sachiko Kusukawa

My research project, 'Making Visible: The visual and graphic practices of the early Royal Society' mounted an exhibition at the Royal Society in the summer of 2017 (<https://royalsociety.org/science-events-and-lectures/2018/07/visible-science/>), with a corresponding virtual exhibition on Google art and culture (<https://artsandculture.google.com/exhibit/zAKSobbRe6LpIA>) and an exhibition catalogue (<http://www.mv.crash.cam.ac.uk/science-made-visible-drawings-prints-objects/>). These were curated by Dr. S. Fransen and Dr K. Reinhart, post-doctoral researchers on this project.

Publications

Articles in journals

'William Courten's Lists of 'Things Bought' from the Late Seventeenth Century', *Journal of the History of Collections*, 29 (2017), 1-17.

Reviews

'Egmond, Eye for Detail: Images of Plants and Animals in Art and Science 1500–1630', *Annals of Science*, 75(2), pp.149–150

Lectures, seminars and conferences

November 2017

'Text and image in early modern scientific books', *Histoire du livre et pouvoirs de l'écrit*, L'École des Chartes, Paris.

December 2017

'The visual and graphic practices of the early Royal Society', History Department, Research Seminar, University of Durham

January 2018

'Robert Hooke's *Micrographia* (1665): art and science in the early Royal Society' Bibliographical Society, London.

Tim Lewens

Tim continued to work on the multi-institution project 'Putting the Extended Evolutionary Synthesis to the Test'. In Michaelmas 2017 he was Visiting Professor at the University of Paris 1, Panthéon-Sorbonne, and Directeur d'Études Associé at the Maison des Sciences de l'Homme, Paris.

Publications

Edited books

(with E Hannon) *Why we Disagree about Human Nature* (Oxford University Press, 2018)

Articles in books

'The Faces of Human Nature' in E Hannon and T Lewens (eds) *Why we Disagree about Human Nature* (Oxford University Press, 2018).

'The Nature of Selection: An Overview' in R Joyce (ed) *The Routledge Handbook of Evolution and Philosophy* (Routledge, 2017).

Articles in journals

'Human Nature, Human Culture: The Case of Cultural Evolution' *Interface Focus* 7: 20170018.
<http://dx.doi.org/10.1098/rsfs.2017.0018> (2017)

Online

'Cultural Evolution' in E Zalta (ed) *The Stanford Encyclopedia of Philosophy*, <https://plato.stanford.edu/entries/evolution-cultural/> (Spring 2018 Edition, substantially revised version).

Lectures, seminars and conferences

October 2017

'Science and Values: Options for the Epistemic Externalist' Institut d'Histoire et de Philosophie des Sciences et des Techniques, Paris.

'Neo-Paleyan Biology' Institut d'Histoire et de Philosophie des Sciences et des Techniques, Paris.

November 2017

'Science and Values: Options for the Epistemic Externalist' Kings College London.

'Self, Nonself, Many selves, No self' Lakatos Award Workshop for Thomas Pradeu, LSE.

'Adaptation as Design' workshop on 'General Formulations of Evolutionary Theory' Institut d'Histoire et de Philosophie des Sciences et des Techniques, Paris.

December 2017

'Species Natures: A Critique of Aristotelian Ethics' University of Paris Nanterre, Paris.

'Les Natures des Espèces: Une Critique de l'éthique neo-aristotélicienne' Doctoral School, University of Paris 1 Panthéon-Sorbonne.

February 2018

'Integrating Development and Inheritance' Extended Evolutionary Synthesis Workshop, Santa Fe Institute, New Mexico.

July 2018

'Mitochondrial "Replacement" and the Pragmatics of Communication' British Society for the Philosophy of Science Annual Conference, Oxford.

September 2018

'Blurring the Germline' How the Light Gets In Festival, London.

Joseph D. Martin

Throughout the 2017–18 academic year I served as co-editor-in-chief of *Endeavour*, managing editor of *Physics in Perspective*, and consulting editor for *H-PhysicalSciences*. I was elected and began a term as Vice-Chair of the American Physical Society Forum on the History of Physics and continued as a member of the American Physical Society Historic Sites Committee and the History Programs Task Force on Professional Standards and Operations, American Institute of Physics, Center for History of Physics/Niels Bohr Library and Archives. I co-convened (with Kathy Olesko) the Physical Sciences Working Group of the Consortium for History of Science, Technology, and Medicine. I held two one-on-one meetings with Policy Fellows from the Centre for Science and Policy.

Publications

Books

Solid State Insurrection: How the Science of Substance Made American Physics Matter. University of Pittsburgh Press, 2018.

Articles in books

"Seitz, Frederick." In Susan Ware, ed. *American National Biography*. Oxford University Press, 2018.

Articles in journals

"Prestige Asymmetry in American Physics: Aspirations, Applications, and the Purloined Letter Effect." *Science in Context* 30, no. 4 (2017): 475–506.

Reviews

"The Experimenter's Redress." *H-Sci-Tech-Med*, *H-Net Reviews*, June 2018. [Review: Jon Butterworth, *Most Wanted Particle: The Inside Story of the Hunt for the Higgs, the Heart of the Future of Physics* (The Experiment, 2015)]

"Truth with a Vengeance." *Science* 360, no. 6391 (25 May 2018): 864. [Review: Errol Morris, *The Ashtray (Or the Man Who Denied Reality)* (Chicago, 2018)].

Lectures, seminars and conferences

October 2017

"The Phoenix Project at the Science-Industry Nexus." Society for the History of Technology, Philadelphia, PA, 26–29 October 2017.

(with Edna Suárez Díaz, Gisela Mateos, and David Munns) Panel Co-Organizer: *Nuclear Science and Engineering in the Michigan Memorial-Phoenix Project*. Society for the History of Technology, Philadelphia, PA, 26–29 October 2017.

March 2018

"A Discrete History of the Quantum." Centre for Science and Policy, University of Cambridge, 9 March 2018.

"What Isn't Science?" Darwin Society Dinner Lecture, Christ's College, University of Cambridge, 5 March 2018.

May 2018

"How Physics Became 'What Physicists Do': The Solid State Community and the Identity of American Physics." "Weak" and "Strong" Knowledge in Solid State Physics and the Material Sciences, Goethe Universität, Frankfurt am Main, May 5–7, 2018.

June 2018

"Five Ways AI Is Not Like the Manhattan Project (and One Way It Is)." Leverhulme Centre for the Future of Intelligence, University of Cambridge, 25 June 2018.

July 2018

"Mildred Dresselhaus and Solid State Pedagogy at MIT."
1. AIP Center for History of Physics, College Park, MD, 27 July 2018.
2. American Association of Physics Teachers, Washington, DC, 30 July 2018.

September 2018

"When Condensed Matter Physics Became King." IOP History of Physics Meeting, London, England, 27 September 2018.

"Before New Big Science." European Society for the History of Science, London, England, 14–17 September 2018.

Daniel Margocsy

This year saw the publication of *The Fabrica of Andreas Vesalius*, a book I co-authored with Mark Somos and Stephen N. Joffe, the culmination of the Vesalius Census project. This project also resulted in a number of shorter articles for *Nature* and the Hungarian journal *Per aspera ad astra*, and a website that publishes regular updates to the census. (www.vesaliuscensus.com). Mark Somos and I have also applied the methods of the Vesalius Census to Hugo Grotius' *Mare liberum*, the foundational text of modern international relations, and published the results in *Grotiana*. In April 2018, I gave the Annual Friends of the Rare Book Room lecture at the

New York Academy of Medicine. Throughout the year, I also gave talks at the Hagströmer Library in Stockholm, the University of Cologne, the University of Warsaw, and the Institute of Philosophy of the Hungarian Academy of Sciences.

Publications

Books

The *Fabrica* of Andreas Vesalius: A Worldwide Descriptive Census, Ownership, and Annotations of the 1543 and 1555 Editions Leiden: Brill, 2018 (co-authored by Daniel Margócsy, Mark Somos, and Stephen N. Joffe).

Articles in journals

Sex, Religion and a Towering Treatise on Anatomy. *Nature* 560/7708 (2018), 304-305 (co-authored with Mark Somos and Stephen N. Joffe).

A Pécsi Fabrica (=The *Fabrica* in Pécs). *Per aspera ad astra* (2018), 110-118 (co-authored with Mark Somos and Stephen N. Joffe).

Pirating Mare Liberum (1609). *Grotiana* 38 (2017), 176-210 (co-authored with Mark Somos).

Online

How Eager Pre-20th-Century Readers Mined Anatomical Texts for Information about Sex. *Slate Vault*, April 2, 2018 (co-authored with Mark Somos and Stephen N. Joffe).

<https://slate.com/news-and-politics/2018/04/the-sexual-aspects-of-anatomical-texts-from-vesalius-to.html>

Lectures, seminars and conferences

October 2017

Nicolaes Witsen, Shipbuilding and the Problem of Technology Transfer in Early Modern Europe. EMPHASIS Seminar, London

November 2017

A Natural History of Satyrs, King's College, London

December 2017

The Vesalius Census, Hagströmer Library, Stockholm.

February 2018

A Natural History of Satyrs, University of Cologne

Nicolaes Witsen, Shipbuilding and the Problem of Technology Transfer in Early Modern Europe. University of Cambridge Early Modern World History Seminar.

April 2018

Annual Friends of the Rare Book Room Lecture, New York Academy of Medicine.

The Vesalius Census, University of Warwick.

June 2018

The Vesalius Census, Hungarian Academy of Sciences, Budapest.

July 2018

Vesalius Copied: Pictorially Repeatable Statements in Theory and Practice. Multiplied and Modified conference, University of Warsaw

September 2018

Stables as Collections: Displaying and Experimenting with Horses in Early Modern Europe. ESHS Annual Conference.

Swiss Public Radio, Interview with Thomas Häusler for a show on Vesalius in Basel, broadcast on 22 September 2018.
<https://www.vesaliuscensus.com/media/>

Richard A. McKay

Working 50% full-time as a Wellcome Trust Research Fellow and the remainder of his time

as a coach for academics, writers, and other creative thinkers at Rich Life Coaching (www.richlifecoaching.co.uk), during the 2017-18 academic year Dr Richard A. McKay also continued in his position as Director of Studies for HPS at Magdalene College. As chief investigator for the 'Before HIV' project, he conducted participatory research in London, Vancouver, and New York City. Dr McKay also continued in his role as Policy Development Officer on the executive committee of the Society for the Social History of Medicine, served on the advisory committee of the New York City Health Commissioner Records Processing Project, and worked as a historical consultant for the documentary film based on his first book.

Publications

Books

Patient Zero and the Making of the AIDS Epidemic (Chicago: University of Chicago Press, 2017)

(narrated by Paul Woodson) *Patient Zero and the Making of the AIDS Epidemic* (HighBridge Audio, 2017)

Lectures, seminars and conferences

February 2018

"Strong Bonds, Affective Labour: Sexually Transmitted Infections and the Work of History" (Wolfson Humanities Society Lecture, Wolfson College, Cambridge, 27 February 2018)

May 2018

"'In delicate country': responding to 'the homosexual VD problem' in postwar California, 1945-1965" (paper presented at the annual meeting of the American Association for the History of Medicine, Los Angeles, 13 May 2018)

July 2018

“Why do we do what we do? The values of the Society for the Social History of Medicine” (coordinated and chaired roundtable discussion at the biennial meeting of the Society for the Social History of Medicine, Liverpool, 12 July 2018)

Public Engagement and Impact

December 2017

“Patient Zero and the Making of the AIDS Epidemic” (book launch at Gay’s the Word book shop, London, 1 December 2017)

January 2018

“The Before HIV Project” (presentation at Health Initiative for Men, Vancouver, 9 January 2018)

“The Before HIV Project” (presentation at Vancouver Prime Timers, Vancouver, 14 January 2018)

“Patient Zero and the Making of the AIDS Epidemic” (book launch at Little Sister’s Book & Art Emporium, Vancouver, 25 January 2018)

February 2018

“Patient Zero and the Making of the AIDS Epidemic” (book launch at the Whipple Museum, Cambridge, 16 February 2018)

March 2018

“Patient Zero, Before HIV” (presentation at SAGE Midtown Center, New York City, 30 March 2018)

April 2018

“Patient Zero and the Making of the AIDS Epidemic” (presentation and discussion with Sarah Schulman at Bureau for General Services - Queer Division, New York City, 6 April 2018),
<https://www.youtube.com/watch?v=jfj5Li-TguY>

May 2018

“Patient Zero: Richard A. McKay in conversation with Steven Reigns”

(presentation and discussion with Steven Reigns at the City of West Hollywood, 9 May 2018),
<https://www.youtube.com/watch?v=BVhNS--cnyA>

“‘Patient Zero’: Correcting the record on a media-made gay villain,” *The Advocate*, 14 May 2018, <https://www.advocate.com/hiv-aids/2018/5/14/patient-zero-correcting-record-media-made-gay-villain>

Jaume Navarro

Ikerbasque Research Professor at the University of the Basque Country. In the year 2017-18, Basque Fellow at Clare Hall College, Cambridge.

Publications

Edited books

Jaume Navarro, ed. *Ether and Modernity. The Recalcitrance of an Epistemic Object in the early twentieth century*. Oxford: Oxford University Press, 2018.

Jaume Navarro ed. *The Promises of Science. Historical Perspectives*, Centaurus 59(3), 2017, pp. 167-250.

Jaume Navarro, Alexander Blum and Christoph Lehner, eds., On the History of the Quantum, HQ4 in *Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics* Volume 60, Pages 1-148 (November 2017)

Articles in books

(with Massimiliano Badino), “Introduction: Ether. The Multiple Lives of a Resilient Concept”, in Jaume Navarro, ed., *Ether and Modernity. The Recalcitrance of an Epistemic Object in the early twentieth century*. Oxford: Oxford University Press, 2018.

“Science contra Science. The battle for legitimate knowledge in the Spanish Catholic journals in the early twentieth century” in

Rajesh Heynickx and Stéphane Symons, eds., *So What's New About Scholasticism? How Neo-Thomism Helped Shape the Twentieth Century*, (Berlin: De Gruyter 2018), 205-226.

Articles in journals

"How to use a fundamental discovery in physics. The early days of electron diffraction", *Science in Context* 31 (3), 2018, 351-79.

(with Gustavo Schwartz), "Imaging by touching: Atomic force microscopy", *Philosophy of Photography* 9 (1), 2018, 41-52.

"Promising redemption. Science at the service of secular and religious agendas", in Jaume Navarro ed. *The Promises of Science. Historical Perspectives*, Centaurus 59(3), 173-188.

(with Annette Mülberger), "The Promises of Science. Historical perspectives", Introduction to special issue Jaume Navarro ed. *The Promises of Science. Historical Perspectives*, Centaurus 59(3), 167-172.

(Jaume Navarro, Alexander Blum and Christoph Lehner) 'On the history of the quantum. Introduction to the HQ4 special issue', *Studies in History and Philosophy of Science Part B: Studies in History and Philosophy of Modern Physics*, 60, 2017, 1-2.

Lectures, seminars and conferences

November 2017

Annual HSS Meeting, Toronto, 9 to 12 November, 2017. Paper: 'The circulation of the conflict thesis as a political tool in fin-de-siècle Spain'

Guest Professor at the Universidad Autonoma del Estado de Puebla (Mexico), 13-18 November 2017.

January 2018

Invited Seminar at the Universidad de Navarra, 16 January 2018. Talk: "Ciencia y Religión. Una tradición Inventada?".

April 2018

Invited Seminar at the University of Athens: "Ether: the multiple lives of a resilient concept in the early twentieth century", 17 April 2018.

May 2018

Invited paper at the workshop "Biographies in the History of Physics", Bad Honnef (Germany), 22-25 May, 2018. Paper: "A biographical sketch of the last days of the ether".

September 2018

ESHS2018, European Society for the History of Science Biennial Conference 2018 in conjunction with the British Society for the History of Science London, 14-17 September. Organizer of sessions (9 papers) "The Historiography of Science and Religion in the Construction of Modern Europe". Talk: "Draper in Spain. The conflicting circulation of the conflict thesis."

Rune Nyrup

In addition to the academic outputs listed below, I have also appeared on an episode of BBC Radio 4's *Moral Maze* (22 Nov 2017) on "The Morality of AI", and was featured in an interview on the ethical issues of AI in the Danish newspaper *Kristeligt Dagblad* (published 27 Dec 2017).

Publications

Articles in journals

(with Stephen Cave, Karina Vold and Adrian Weller) 'Motivations and Risks of Machine Ethics', *Proceedings of the IEEE* (Early Access, 6 Sep 2018), <https://ieeexplore.ieee.org/document/8456834>

'Of Water Drops and Atomic Nuclei: Analogies and Pursuit Worthiness in Science', *British Journal for the Philosophy of Science* (Advanced article, 28 Jun 2018), <https://doi.org/10.1093/bjps/axy036>

Lectures, seminars and conferences

December 2017

'Navigating the Interpretative Dilemma: Making Progress through Failed Analogies', *Theoretical Archaeology Group Conference*, Cardiff University.

'Three Uses of Analogy in Archaeology', *Baltic Archaeology Seminar*, University of Helsinki.

May 2017

'The Value of Speculation: A Second Look at Female Viking Warriors', Material Culture Lab, Department of Archaeology, University of Cambridge.

'Explaining Deep Neural Nets: What is it and what's the problem?', *Explainable AI Workshop*, University of Copenhagen.

June 2017

'The Interpretative Dilemma Rebalanced: Knowledge, Speculation and Female Viking Warriors', *Can Science Accommodate Multiple Ontologies?*, McDonald Institute for Archaeological Research, University of Cambridge.

'How Archaeologists Resolve the Inductive Risk Argument', *Biennial Conference of the Society for Philosophy of Science in Practice*, University of Ghent.

July 2017

'What is Algorithmic Bias and How can it be Justified?', *Open Sessions of the Joint Sessions of the Aristotelian Society and the Mind Association*, University of Oxford.

'Value-Ladenness and Algorithmic Decision Making: Three Kinds of Value Transparency', *Annual meeting of the British Society for Philosophy of Science*, University of Oxford.

September 2018

'Explainable Artificial Intelligence: What is it and What's the Problem?', *Philosophy and the Ethics of Algorithmic Decision Making*, University of Cambridge.

Jennifer Rampling

I finished my monograph *The Making of English Alchemy* (for the University of Chicago Press), and stepped down as Editor of *Ambix* after a five year term. At Princeton I continued to co-direct (with Tony Grafton) the digital project *The Winthrop Family on the Page*. I also joined the faculty of the Princeton Institute for the Science and Technology of Materials (PRISM), which will provide lab and imaging facilities for *The Dark Glass*, a new project on reconstructing historical experiments funded by an Innovation in Social Sciences grant. In September I began a visiting fellowship in Department II at the MPIWG, Berlin.

Publications

Edited collections

Jennifer M. Rampling, ed., "80th Anniversary Issue: The Future of the History of Chemistry." *Ambix*, 64.4 (2017).

Articles in journals

Richard Calis, Frederic Clark, Christian Flow, Anthony Grafton, Madeline McMahon, and Jennifer M. Rampling, 'Passing the Book: Cultures of Reading in the Winthrop Family, 1580–1900,' *Past & Present*, 241:1 (2018): 69–141.

Jennifer M. Rampling, 'The Future of the History of Chemistry,' *Ambix*, 64:4 (2017): 294–300.

Online publications

Jennifer M. Rampling, 'How to Sublime Mercury: Reading Like a Philosopher in Medieval Europe,' *History of Knowledge*, 24 May 2018, <https://wp.me/p8bNN8-23p>; *The Recipes Project*, 24 May 2018, <https://recipes.hypotheses.org/10663>.

Lectures, seminars and conferences

December 2017

'Alchemy in Tudor England: an ingenious history' (Davis Center Work-in-Progress Seminar, Princeton).

(with Lawrence M. Principe) 'Recreating the vegetable stone' (8th SHAC Graduate Workshop, Chemical Heritage Foundation, Philadelphia).

March 2018

'Edward Kelley, booked' (Renaissance Society of America Annual Meeting, New Orleans).

'From myth to matter: picturing alchemical change' (American Chemical Society and Department of Chemistry, Princeton).

April 2018

'English alchemy in the margins' (Textuality, Materiality, and Reading Practices Seminar, Princeton University).

May 2018

'Getting blood from the stone: alchemy as decipherment in medieval England' (53rd International Congress on Medieval Studies, Kalamazoo).

June 2018

'The image of alchemy: depicting chemical change in medieval England' (Plenary lecture, Mid-Atlantic Regional Meeting of the American Chemical Society, Lehigh University, Bethlehem).

'Reading alchemically: early modern guides to impossible practices' (*Learning by the Book: Manuals and Handbooks in the History of Knowledge*, Princeton).

'From script to print, and back again: the making of Elias Ashmole's *Theatrum Chemicum Britannicum* (1652)' (*Alchemy and Print Culture*, UCL Institute of Education, London).

'Reading (with) alchemical images' (Keynote lecture, *Experience and Experiment: Materiality of (Al)chemical Texts and Objects*

9th Annual SHAC Graduate Workshop, Royal Institution of London).

September 2018

'Picturing experiment: reconstructing alchemy in image and practice' (Young Scholar Lecture, European Society for the History of Science biennial meeting, London).

Martin J.S. Rudwick

Publications

Articles in journals

"The fate of the method of 'paradigms' in paleobiology," *Journal of the History of Biology* 51 (2017), pp. 479-533

Lectures, seminars and conferences

February 2018

"I the geologist": Charles Darwin's first career', Annual Darwin Lecture, Shrewsbury Museum, Shrewsbury; repeated for Shrewsbury University Centre (University of Chester), Shrewsbury

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 on 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 and Knowledge Frontier Awards. He was awarded the Dan David Prize in the field of history of science and elected an honorary fellow of Trinity College Cambridge.

Publications

Articles in books

'Spin doctor', in Natasha Ginwala and Daniel Muzyczuk (eds.), *The Museum of Rhythm* (Muzeum Sztuki, Łódź, 2017)

'Ting Tong Chang in conversation' in Antonia Harrison (ed.), *The Marvellous Mechanical Museum* (Compton Verney, 2018), 49-57

Articles in journals

'Late enlightenment crises of facts: mesmerism and meteorites', *Configurations* 26 (2018), 119-48

Lectures, seminars and conferences

November 2017

"Kepler's Trial", round-table, Victoria and Albert Museum London, November 9, 2017

February 2018

"Malarial subjects by Rohan Deb Roy", round-table, Royal Asiatic Society, February 26, 2018

March 2018

"The political and colonial in science", Cambridge UCU / CUSU teach-out, March 12, 2018

May 2018

"Material culture and scientific enlightenments", Tel Aviv University, May 8, 2018

June 2018

Workshop on the material practices of science in a global context, European University Institute, Florence, June 18, 2018

"Airy's enterprise and the Northumberland telescope", Workshop on George Biddell Airy, University Library Cambridge, June 29, 2018

September 2018

"Electric motors and lightning rods in colonial Calcutta", XXXVII Scientific Instrument Symposium, Museum Boerhaave Leiden, September 6, 2018

Public engagement and impact

"Science stories: Descartes' daughter", BBC Radio 4, contributor, first transmission June 27, 2018

"Mechanical monsters", Furnace TV / BBC4, writer and presenter, first transmission August 8, 2018

Jim Secord

Jim Secord was on leave in Michaelmas and Easter terms, including a productive three months at the Max Planck Institute for the History of Science in Berlin.

Publications

Edited books

(with F. Burkhardt and the Darwin Correspondence Project staff) *The Correspondence of Charles Darwin* (Cambridge University Press, 2017), vol. 25.

Articles in journals

'Mary Somerville's vision of science', *Physics Today* (1 Jan. 2018), 46-52.

Lectures, seminars and conferences

November 2017

'Global geology and the tectonics of empire', Conference on political geology, Department of Geography, University of Cambridge

June 2018

'Global geology and the tectonics of empire',
Kolloquium des Nachwuchskollegs für
Wissensgeschichte der Neuzeit, Gotha
Research Centre at the University of Erfurt

'Knowledge in Transit Revisited, Gotha
Research Centre at the University of Erfurt

July 2018

Participant in three-day seminar on 'Science,
History of Science, and Modernity', Max
Planck Institute for the History of Science,
Berlin

September 2018

'Communication versus circulation', European
Society for the History of Science, London

'Sedgwick's legacy', Opening talk at
Sedgwick200 anniversary meeting, Dept. of
Earth Sciences, University of Cambridge

Richard Staley

This year I continued my research on physicist
anthropologies and the history of mechanics,
and climate change and environmental
physics.

Publications

Articles in books

"Beyond the Conventional Boundaries of
Physics: On Relating Ernst Mach's Philosophy
to His Teaching and Research in the 1870s
and 80s," in Friedrich Stadler, ed. *Integrated
History and Philosophy of Science: Problems,
Perspectives and Case Studies*. Vienna Circle
Institute Yearbook 20 (Dordrecht: Springer,
2017), pp. 70-80.

"Understanding Climate Change Historically,"
in Alexander Elliott, James Cullis and Vinita
Damodaran, eds. *Climate Change and the
Humanities: Historical, Philosophical and
Interdisciplinary Approaches to the*

Contemporary Environmental Crisis
(Basingstoke: Palgrave, 2017), pp. 43-68.

Articles in journals

"Sensory Studies, or When Physics was
Psychophysics: Ernst Mach and Physics
between Physiology and Psychology, 1860-
71," *History of Science* (2018) special issue on
Phases of Physics, edited by Daniel Mitchell
(published online on 10 July at
<https://doi.org/10.1177/0073275318784104>)

"The Interwar Period as a Machine Age:
Mechanics, The Machine, Mechanisms and
The Market in Discourse," *Science in Context*
31:3 (2018), 263-292; invited contribution to a
special issue of on Interactions of Interwar
Physics: Technology, Instruments, and Other
Sciences, edited by Shaul Katzir.

Lectures, seminars and conferences

November 2017

"Cybernetics, Knowledge, and the Copernican
Delay," invited discussant with Clifford Siskin
offering a Reflection on Day 1 of "The
Afterlives of Cybernetics: Tracing the
Information Revolution from the 1960s to Big
Data," CRASSH conference, University of
Cambridge, 17 November 2017.

January 2018

Invited participant in Workshop on "The
Re:Enlightenment Project and Constructor
Theory," organized by Clifford Siskin, Balliol
College, Oxford, 16 January 2018.

February 2018

"Sensory Studies, or, When Physics was
Psychophysics: Ernst Mach and Physics
Between Physiology and Psychology, 1860-
71," *Science and Technology Studies*
Colloquium, History Department, University of
British Columbia, 1 February 2018.

March 2018

"The Economic Explanation," draft article for *Ethnographies of Explanation and the Explanation of Ethnography: Beyond Ethnographic Foundationalism?* A publication workshop organized by Matei Candea and Paolo Heywood was held on 22-23 March 2018, and an edited book proposal is being considered for publication.

April 2018

"Physics as a Comparative Science: On the Relations between Ernst Mach's Critiques of Mechanics and his Account of the Nature of the Sciences," invited contribution to workshop "Practices of Comparing and Narrating in Sciences," University of Bielefeld, 5 April 2018.

May 2018

Commentator for a session in "Biographies in the History of Physics: Actors, Institutions, and Objects," Physikzentrum, Bad Honnef, 22 May 2018.

August 2018

History and Philosophy of Physics Network Summer School on Scientific Instruments and Environmental Physics, initiator, organiser and lead contributor for sessions on "Climate Change and Environmental Physics," Brasenose College, Oxford, 20-24 August 2018. This engaged international faculty including Mike Hulme, Sarah Dry (co-applicant and collaborator, respectively, Leverhulme Trust Research Grant Proposal), Gregory Good and Matthias Heymann; teaching 30 international students. See Richard Staley, "Scientific Instruments and Environmental Physics: The Inaugural HAPP Network Summer School," *American Institute of Physics History Newsletter* 50, no. 2 (2018): 12-13.

September 2018

"Symmetries: On Physical and Aesthetic Argument in the Development of Relativity," invited talk at the inaugural Institute of Physics History of Physics Group Open Meeting, London, 27 September 2018.

Jacob Stegenga

2018 was a successful year -- I published two books, and gave talks in many countries. I began my research leave, during which I brought a number of high quality articles through the pipeline to journal submission, and began a new long-term research project.

Publications

Books

Medical Nihilism, 2018, Oxford University Press

Care and Cure: An Introduction to Philosophy of Medicine, 2018, University of Chicago Press

Lectures, seminars and conferences

"Response to Commentators on *Medical Nihilism*"

- Book Symposium, University of Bordeaux, France

"The Natural Probability Theory of Stereotypes"

- University of Toronto HPS Colloquium, Toronto, Canada
- University College Cork Philosophy Colloquium, Cork, Ireland

"The Early Detection Debate: A Resolution"

- University of Bordeaux, Bordeaux, France
- Early Detection Workshop, Cambridge, UK

"The Perils of P-Hacking and the Promise of Pre-Analysis Plans (with Zoë Hitzig)"

- Keynote Lecture, Perspectives on Scientific Error, Groningen, Netherlands
- Understanding Replication Across the Sciences, Western University, London, Canada
- American Philosophical Association, Pacific Division, San Diego, USA

“Bayesian Mechanista”

- University of Tampere, Tampere, Finland
- Inter-University Centre 45th Annual Philosophy of Science Conference, Dubrovnik, Croatia

“Medical Nihilism”

- Philosophy of Science Association, Seattle, USA
- How The Light Gets In Festival, Hay-on-Wye, UK
- University of Bordeaux, Bordeaux, France

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, to appear in the series “Science, Nature, and the Arts”).

Lectures, seminars and conferences

November 2017

Invited speaker at an international conference (Festschrift) honouring Prof. James S. Clegg, held at Bodega Marine Laboratory, University of California, Davis, California, USA, 3-5 November 2017.

Seminar Programmes

Michaelmas

Departmental Seminars

Seminars are held on **Thursdays from 3.30 to 5pm in Seminar Room 2**. There are refreshments after the seminar at 5pm in Seminar Room 1.

Organised by Agnes Bolinska.

Charu Singh (University of Cambridge)

19 October Genres of prediction: astrology between Sanskrit and Hindi print in colonial north India

Bringing together the histories of science, print, language and empire, this paper examines the circulation of jyotiḥśāstra, the Sanskrit astral sciences, in British India. By the late nineteenth century, jyotiṣa was a widely read and published genre of Sanskrit knowledge in print, appearing in a range of publishing formats in bilingual editions with Hindi translation. The paper reconstructs the social world and knowledge communities of astrology (phalit jyotiṣa) by studying the changing textuality and linguistic practices of Hindi readers, writers, publishers and translators in the burgeoning print culture of colonial north India.

Robin Scheffler (Massachusetts Institute of Technology)

26 October A contagious cause: the search for cancer viruses and the growth of American biomedicine

Throughout the twentieth century, successive generations of medical, scientific and organizational advances confronted, and were confounded by, the challenge of cancer. Few theories of cancer embodied this cycle of hope and frustration better than the idea that cancer might be caused by an infectious agent, particularly a virus. Following cancer viruses through the twentieth century allows us to understand the political ground upon which biology and medicine merged together to form biomedicine in America, as well as the impact that this new political formation had on the capacity of biologists to reimage the nature of life in molecular terms. In considering this path, I also offer some more general points as to how historians of science and medicine should think about the relationship between experimental and political systems and the relevance that this relationship has for our understanding of 'failed' scientific endeavours.

Sandra Harding (UCLA)

2 November Yet another unity of science? Latin American challenges to history, philosophy and social studies of scientific knowledge

Recently there has appeared an explosion of writings in English focused on perspectives on science, technology and society from Latin America. These have met with varied responses from Northern 'international' history, philosophy and social studies of science and technology. Here I suggest that many of the most positive and welcoming such responses nevertheless tend to replicate the now long discredited Unity of Science program. They do so insofar as they propose, often enthusiastically, to include the Latin American issues and arguments into their existing conceptual frameworks for the history, philosophy or social studies of science. Yet many of the Latin American accounts overtly resist such inclusion. Rather they insist on foregrounding the different worlds assumed by such Latin American work, and, consequently, what they regard as valuably persisting

conflicts and tensions between these worlds. They advocate for parochializing Northern history, philosophy and social studies of science, and thus for ontological as well as epistemological pluralism in these fields.

John Brewer (California Institute of Technology)

9 November Reforming Naples/how to use a network: Vesuvius and savants in the two kingdoms of Sicily

This paper shows how an international interest in Vesuvius was exploited by reformist savants in nineteenth-century Naples to promote a modernizing agenda for the Kingdom. It focuses on one key figure, Teodoro Monticelli, secretary of the Royal Scientific Academy, who connected reformers in Naples, concerned with public health, ecology, education and infra-structural development to an international network of scholars (from Brazil to Russia) studying the volcano. Monticelli not only worked in Naples with figures such as Davy, Humboldt, Biot, Babbage, Buckland and Lyell, and put together collections of Vesuvian rocks and minerals for Academies in Europe and the Americas, but with his colleagues used these international connections and recognition to push a reforming agenda within the kingdom itself.

Adrian Currie (University of Cambridge)

16 November A bold hypothesis about pursuit

Many decisions in science are not about how well-confirmed or otherwise some hypothesis is, but about which hypotheses or investigations should be chased up. This is the context of pursuit. I'm developing an account of pursuit which is built around a bold hypothesis: that questions of pursuit best turn on the biproducts rather than the products of scientific investigations. I'll start by motivating my analysis via a discussion of the pursuitworthiness of morphological phylogenetics in paleontology. I'll make a pessimistic bet that the central product of such investigations – knowledge of the ancestral relationships between extinct taxa – are unlikely to be forthcoming. But I'll then argue that a biproduct of such investigations, knowledge of the evolutionary and developmental nature of characters, is forthcoming and underwrites the pursuitworthiness of the practice. With this in place, I'll then provide an account of a practice or investigation's 'products' and 'biproducts' which turns on investigations themselves (as opposed to merely scientists) having aims (I'll co-opt some recent work by Hasok Chang to do this). I'll close by considering some possible arguments in favour of the bold hypothesis, and briefly considering two possible circumstances where the hypothesis might break down: investigations involving inductive risk, and some highly controlled experimental contexts.

Saul Dubow (University of Cambridge)

23 November Before the big bang of the Square Kilometre Array (SKA): 250 years of astronomy in South Africa

South Africa is in the process of building the world's largest radio telescope as part of a major international consortium. When the Square Kilometre Array begins to operate (around 2021) it is envisaged that the telescope, comprising hundreds of linked dishes, will offer exceptional image resolution quality and allow astronomers to catalogue radio sources with unprecedented speed and range. The promoters of the SKA stress the benefits that will accrue to the 'rainbow nation'. In doing so, they rely heavily on South Africa's remarkable history of astronomical activity – a story that goes back to Nicolas-Louis de La Caille's pioneering work in the mid-eighteenth century, as well as the role of the Royal Astronomers at the Cape and the scientific contributions of John Herschel. My own survey of this history seeks to contextualise astronomy more broadly in South African history as part of a contribution to discussions about the developmentalist objectives and political implications of the SKA project and the role of 'big science' in Africa.

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, Joseph Martin and Jesse Olszynko-Gryn.

5 October **Jahnvi Phalkey (King's College London)**
German émigré scientists and engineers and aeronautics in India

I wish to explore the stories of German émigré scientists and engineers in India through the history of India's first jetfighter, Marut – HF 24. For this, I selectively study three separate waves of German emigration to India from the 1930s to the 1950s and trace their links to the development of facilities for advanced research and education in aeronautics and aerodynamics, and eventually to manufacturing of aircraft. Two aspects of this story are significant: the transnational networks of German speaking aeronautical engineers and scientists, including that of Indian students trained in Germany, and the constraints of Cold War geopolitics as they shaped the conditions under which the aircraft could be manufactured. I make two arguments: the first concerns the nature of state power in India after independence; and the second is about the specific configuration of the military-industrial-academic complex in India, an idea that is yet to receive substantial attention.

19 October **Eglė Rindzevičiūtė (Kingston University)**
A struggle for the Soviet future: the birth of scientific forecasting in the Soviet Union

This paper argues for the importance of Soviet forecasting and scientific future studies in shaping Soviet governmentalities in the post-Stalinist period. The de-Stalinization of Soviet governance not only involved the abolition of Iosif Stalin's personality cult but also led to wider intellectual changes in conceptions of the nature, possibilities, and tasks of governance. Some of these changes, such as the impact of cybernetics after its rehabilitation in 1956, have been explored by historians of science and technology. However, although cybernetic control is based on prediction and therefore principally oriented toward the future, a new branch of scientific governance, scientific forecasting, has been overlooked, despite its transformative role as an applied policy science. Scientific forecasting sought to generate knowledge about the future states of the Soviet economy and society, becoming a field of reform, innovation, and power struggle, one that needs to be rediscovered by scholars. This paper (recently published in *Slavic Review*) lays the groundwork for such rediscovery, outlining a brief history of Soviet scientific forecasting and drawing out its relation to east-west intellectual and governmental interaction.

9 November **Bernhard Leitner (University of Vienna)**
Neuro-empire: rise of a medical-scientific discipline in modern Japan

The foundation of the Institute for Anatomy and Physiology of the Central Nervous System in Vienna in the year 1882 marks without a doubt the birth of neurology as a science based medical discipline. This paper attempts to answer the question why already after a short period of time a significant number of Japanese scholars visited the renowned Viennese laboratory. I argue that the appropriation of cutting-edge scientific knowledge by Japanese medical professionals not only altered the trajectories of adjacent medical disciplines like psychiatry, but at the same time promised

solutions to a range of problems of the young modern Japanese nation on a national as well as international scale. Historians of science have extensively studied German influences on the formation of academia in Meiji-Japan (1868–1912), but have consistently overlooked an Austrian institution and the vital role it played in this process, a role possibly concealed in a tacit dimension.

Paul A. Roth (University of California, Santa Cruz)

16 November

The structure of structure: how Kuhn establishes that science requires historical explanation

As is well known, Kuhn restricts a designation of 'normal science' to those disciplines with accepted research practices. What makes for normal science, of course, shifts with changes in paradigms on Kuhn's account. Now this way of specifying normal science has a whiff of circularity inasmuch as it defines normal science by reference to 'scientific research', but that can be overlooked. Sufficient for my purpose will be to take as a 'science' whatever comes to pass as such. In this respect, given the century old controversy regarding history's status as a science, I propose focusing rather on the question of how whatever passes as 'normal science' comes to achieve that status. My argument will be that any answer to a question about how normal science comes to be, i.e., one that develops a non-a priori causal/explanatory account, will have to utilize what I term an 'essentially narrative explanation'. In other words, my account shows how in SSR Kuhn crafts a narrativized account of normal science. This will count as naturalistic in a minimalist sense inasmuch as it does not begin with any philosophical definition of what is or is not a science, and utilizes in its explanation nothing more than facts narratively ordered so as to explain (in the sense of revealing how a later point time results from earlier ones) how what comes to be called science achieves that status. Understanding Kuhn's work in this way helps naturalize narrative explanation through a form of mutual containment — since narrative helps constitute any understanding of what counts as normal science, that narrative becomes a part of any account that comes to be viewed as science. It would be highly ironic then to reject an explanation form that in fact proves unavoidable for purposes of revealing why what passes as science at a particular time does so.

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**, with the exception of the special lecture-demonstration held on Thursday 19 October at 11am – 12.30pm in the New Gallery, Whipple Museum. You are welcome to bring your lunch with you to the Monday seminars.

Organised by Sebastian Kroupa (sk796).

Nicholas Thomas (Museum of Archaeology & Anthropology, Cambridge)

9 October

On Tupaia Street: the travels of artefacts from Cook's first voyage

This presentation reviews the history of collections and particularly ethnographic collections made during Cook's voyages. The field has been much studied over the last 50 years and it might be assumed that the histories of extant artefacts and other records are now well established. Taking as examples the travels of textiles and the misidentification of Australian artefacts that have recently

become highly controversial, the talk explains why not, and why new complexities have emerged that point to a fresh programme of cross-disciplinary research.

Lachlan Fleetwood (History, Cambridge)

16 October 'The motion of the blood is in fact a sort of living barometer': altitude sickness, poisonous plants and instrumentalised bodies in the Himalaya, 1800–1850

Motivated by both science and empire, European explorers increasingly ventured into the high Himalaya after 1800, where they encountered the insidious yet little understood effects of altitude sickness. They did not, however, do so alone. Tensions arising from the highly unpredictable distribution of symptoms were exacerbated by the way explorers were dependent on pre-existing networks of expertise and labour, which forced them to measure their minds and bodies against those of their Asian guides and porters. In this talk, I examine altitude physiology in the early nineteenth century, largely overlooked by scholars in favour of the systematic and often institutionally-sponsored scientific studies of the later period. I consider the way travellers presented their bodily debility in relation to their guides in published accounts, their examination of the indigenous explanation for altitude sickness (resulting from the *Bis* or poisonous miasmas from plants), and their experimental approaches around quantification and the instrumentalisation of bodies. I use these to examine expedition sociability and agency, and bring into focus the practical, everyday aspects of intermediary relationships. Throughout, I situate this story within the context of the constitution of the Himalaya as the northern borderlands of British India. I also show that grappling with the problem of altitude was an intrinsically comparative process for the European actors, drawing on perceived and actual differences with the Alps and the Andes, and argue that this allows us to examine the formulation of what was an inherently global science.

Brian J. Ford

Thu 19 October
11am – Complex constructs from the simple microscope
12.30pm *This extended session is co-organised with the Whipple Museum and Library and includes demonstration from the speaker.*

Conventional academic accounts reiterate a standard view of early microscopes – they were capable only of low magnification and inferior resolution, and museum displays perpetuate the notion that they generated images that were distorted by chromatism and spherical aberration. Popular presentations emphasise that the pioneers crudely tore their specimens open to peer uneducatedly at what lay within.

The deficiency lies, not in the microscopes, but the in present-day neglect by scholars of the need for technical precision and investigative originality. Surprisingly, single-lens microscopes from the seventeenth century can be used to provide images that were within a factor of four of the maximum theoretical resolution of a conventional optical microscope. Today we will revisit the work of the pioneers, and we can personally experience how they used their instruments.

The dawn of microscopy underpinned the era of the scientific enlightenment, yet present-day interpretations can mislead the unchaperoned enthusiast. Here we will witness how microscopical discovery was made.

23 October **Annual Fungus Hunt**

Andrew Lacey (Making & Knowing Project, Columbia University)

30 October Experimental reconstruction of the bronze life-cast lizard of the Renaissance

The technique of recreating objects or processes to gain deeper understanding has been used widely in the disciplines of archaeology and anthropology. Complex multi-staged processes with a verifiable material outcome offer the greatest scope for this method of analysis. As such, the anonymous sixteenth-century French artisanal and technical manuscript (MnF MS. Fr.640 for short) currently being explored by Pamela Smith with *The Making and Knowing Project* offers numerous opportunities for such an investigation. One particular chapter discusses life casting in exquisite detail, involving the sacrificial loss of the subject consumed by the fire and replaced by the bronze. These cremated animals included snake, salamander, toad and crab. Such macabre yet beautiful objects offered the Renaissance scholar a meditation on natural history and the cycle of life and death through technical virtuosity.

This paper focuses on one particular passage from the chapter dedicated to the life-casting of a lizard in MnF MS. Fr.640. The solid bronze lizard experimentally recreated here from this text, was dissected and subject to x-ray analysis for comparison with similar museum artefacts. However, by embodied experience of the recreation one may go beyond the material and gain unique insights that may not be reached otherwise. Consider that the anonymous author of the text lived in a time when material transformations were observed and governed by the senses. The author's internal thoughts, hesitations and warnings given in notes, diagrams and marginalia are made visceral when experienced directly through the senses. We may then understand more of the unspoken tacit knowledge underpinning the text.

Catarina Madruga (Universidade de Lisboa)

6 November What's in a name? Negotiations of credibility and authority in the naming of the giant otter shrew (*Potamogale velox*)

The nineteenth century is commonly associated with the growth of imperial trade routes and a 'deluge' of specimens that is said to have flooded natural history museums and collections together with a surge in the number of known biological species. However, the practice of naming new species continued to pose a challenge to an increasingly larger, more international, and more specialized community of naturalists.

This paper introduces the context behind the numerous names and descriptions of the elusive giant otter shrew (*Potamogale velox*), a small African mammal with a laterally compressed tail, aquatic feeding, and elusive behaviour that challenged its first scientific descriptions. In his travel accounts in 1861, the French-American explorer Paul Du Chaillu provisionally called the animal that he had caught in Gabon – and that he thought was a new species of carnivore – *Cynogale velox*. After observing the specimen, John Edward Gray, the keeper of the British Museum, called the animal *Mythomys*, a figment of the explorer's imagination. When new and more complete specimens arrived in Europe some years later, the Portuguese zoologist and museum director José Vicente Barbosa du Bocage, proposed to review it as the insectivore *Bayonia angolensis*, while almost at the same time, the Scottish professor George J. Allman named it *Potamogale velox*, referring back to Du Chaillu as the original describer.

The problematic characteristics of the actual animal were reflected in the confused description, publication, and nomenclature process. Beyond the specimens themselves, this paper demonstrates that the naturalists' practices of negotiation of credibility and authority were just as problematic, as these experts put forward their claims for what constitutes a credible name and an appropriate description, and fought over who should have the credentials to name new species. This paper shows how the Code for Zoological nomenclature, the nature of which was being discussed in the community at the time, was not sufficient to assure standardization of practices when so little information was available and, especially, when credit, authority, and reputation were at stake.

13 November **Jenny Bulstrode (HPS, Cambridge)**
Iron holds the whale

Just past noon, on 30 January 1839, a fight broke out in the Admiralty Library. On the one side, an official committee of savants in magnetic surveying, appointed to reform the Navy's dangerously defective compasses; on the other, the Reverend William Scoresby, a whaler turned clergyman who ministered to his congregation of mariners from a floating pulpit. While the committee and the former captain shared a common evangelism, they differed in its expression; a conflict that erupted over knowledge of iron.

A household name for his whaling journals and Arctic natural histories, in 1836 Scoresby caused a stir among the magnetic community for his remarkable mastery of the properties of iron. In particular, his 'compound needle' drew envious eyes, so light, and so powerful it would surpass the finest variation compass. In spring 1838, the committee solicited Scoresby's help; a year later they pulled him, and his compound needle, apart in a heated contest of disputed ownership. Through the early nineteenth century, revolutionary changes in the means of production transformed the nature of iron, rendering its properties in flux and uncertain. The right to make, manipulate, and assess iron became the stuff of ferocious contest for savants of the survey sciences, as it was for combinations protesting the depreciation of their work under the changing labour economy. Scoresby staked his claim to knowledge of the metal by drawing on the labour law of the whale-boats, a culture peculiarly preoccupied with the properties of certain materials, ink and skin, parchment and iron. Extant collections of Scoresby's iron in Greenwich and Whitby are the traces of a battle between ways of knowing this protean metal; 'not down in any map; true places never are'.

Alex Aylward (University of Leeds)
20 November From natural histories to man-made futures: the origins and ends of R.A. Fisher's Darwinism

The Modern Synthesis in evolutionary biology (ca. 1930–1950) is supposed to have provided a unified and comprehensive approach to the study of life, its diversity, and its evolution. However, several naturalists and historians have complained that natural history has been routinely side-lined – scientifically, institutionally, and historiographically – from the story. One means of rectifying this situation is to examine the constructive and critical roles of self-describing naturalists in the making and shaping of the synthesis. Another is to examine the role(s) of natural history – its practices, insights, and style of thought – in the work of the recognised synthesis 'architects'.

In focusing upon Ronald Aylmer Fisher (1890–1962), the present paper takes the latter approach. A trained mathematician and principal founder of theoretical population genetics, his 1930 work *The Genetical Theory of Natural Selection* is cited by many as the most important evolutionary work since Darwin's *Origin*. Several commentators have puzzled over Fisher's unwavering commitment to Darwinism, given his training in a context (pre-war Cambridge) in which the stock of the gradualist doctrine stock was low, and Mendelian-saltationist accounts of organic change held sway. Nevertheless, in comparing Fisher's evolutionary world-view with that of the American geneticist Sewall Wright (1889–1988), historian Bill Provine influentially cites the 'Importance of Traditions in Natural History and Taxonomy' in understanding their differing visions of organic change. We hear that the tradition to which Fisher was a neo-Darwinian, adaptationist one, whilst Wright's challenged such a view. This paper will explore (and ultimately contest) the historical accuracy and historiographic utility of accounting for Fisher and Wright's theoretical divergences by reference to their immersion in opposing natural historical and taxonomic 'traditions'. It turns out that, more than describing and accounting for life's past and present diversity and adaptedness, Fisher's particular reimagining of Darwinism allowed the tantalising possibility of remaking and remodelling life – and particularly human life – for the future. From this perspective, we can begin to understand the ways

in which Fisher drew upon natural historical resources, material and conceptual, whilst at the same time extricating them from their bases in both 'Nature' and 'History'.

Katalin Pataki (Central European University, Budapest)

27 November A silent servant of natural knowledge: the herbarium of 'The Flying Monk' Brother Cyprian

The herbarium of Brother Cyprian (1724–1775) is a unique collection of 283 medicinal herbs and other plants that the Camaldolese lay brother, nicknamed 'The Flying Monk' for his legendary Daedalic exploits, collected in the surroundings of the so-called Red Monastery (Červený Kláštor, Slovakia) in the Pieniny and Tatra Mountains at the borders of the Hungarian Kingdom and Poland. Brother Cyprian was in charge of the infirmary of the monastery, as well as providing medical services to the inhabitants of the nearby settlements, and his herbarium contains valuable records about his medical experience and observations. Although Cyprian's work has attracted the attention of historians of medicine and botanists, who pointed to his receptivity to current trends in natural knowledge, no written evidence has been found that would inform about his ambitions to use his knowledge in long-distance networks of intellectual or material exchange. For this reason, my research focuses on two alternative ways to learn about his strategies and attitudes to acquire and use his natural and medical expertise. On the one hand, I explore his personal interactions with other intellectuals in the region as potential mediators, who shaped his interests and ways of observations. On the other hand, relying on the inventories of the monastery, I will reconstruct Cyprian's working environment and investigate the making and the use of the herbarium in the context of the material culture in which it was created.

AD HOC

AD HOC (Association for the Discussion of the History of Chemistry) is a group dedicated to history of chemistry. While our main focus is historical, we also consider the philosophical, sociological, public and educational dimensions of chemistry. This term's theme is 'Order in Chemistry'. The group meets on **Mondays at 5pm in Seminar Room 1**. Coordinated by Karoliina Pulkkinen.

25 Klaus Ruthenberg (Coburg University of Applied Sciences)

September The history of the glass electrode for pH measurement

2 October Alex Mankoo (UCL)

Ordering public bodies in wartime through chemical control: gas tests in WWII Britain

23 October *Cancelled*

30 October Stephen Irish

The corundum stone and crystallographic chemistry

Konstantin Kiprijanov (University of Leeds)

6 November Challenging chemical chaos during the Cold War: the case of the BelousovZhabotinsky reaction

**13 Jean-Pierre Llored (Visiting Scholar, Linacre College, Oxford; Associate
November Researcher, Laboratory SPHERE, Paris 7 University)**

How do chemists order their knowledge and know-how?

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!

Early Science and Medicine

Organised by Lauren Kassell and Dániel Margócsy.

- 10 October** **James Clifton (MFA, Houston)**
Joachim Wtewael and the human body
- 24 October** **Maaïke van der Lugt (University of Versailles)**
Individual complexion and personalized care in medieval medicine
- 21 November** **Erica Charters (University of Oxford)**
Knowing numbers, counting men: paper technology and manpower in the eighteenth century

History of Modern Medicine and Biology

Organised by Mary Brazelton and Nick Hopwood.

- 7 November** **Kathleen Vongsathorn (University of Warwick)**
The place of birth: mothers, midwives, birth attendants, and choices about childbirth in twentieth-century Uganda
- 14 November** **Stuart Hogarth (Sociology, Cambridge)**
Regulatory regimes for diagnostic devices
- 28 November** **James Stark (University of Leeds)**
The cult of youth: rejuvenation in interwar Britain

Generation to Reproduction

Organised by Nick Hopwood and Lauren Kassell.

- 17 October** **Nicole Bourbonnais (Graduate Institute of International and Development Studies, Geneva)**
Spreading the good news around the world: international family planning prophets in the mid-twentieth century
- 31 October** **Boyd Brogan (HPS, Cambridge)**
Generation, demons and disease: rethinking gender in the Denham exorcisms, 1585–86

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** (unless otherwise noted) in Seminar Room 2.

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|------------------------------|--|
| 11 October
12noon | Carlo Rovelli (Aix-Marseille University)
What is quantum theory actually telling us about the world? The 'relational' interpretation |
| 18 October | Jacob Stegenga (with Zoë Hitzig) (HPS, Cambridge)
The perils of p-hacking and the promise of pre-analysis plans |
| 25 October | Sam Fletcher (University of Minnesota)
The principle of stability |
| 1 November | Eric Martin (Baylor University)
'The battle is on': Lakatos, Feyerabend and the student protests |
| 8 November | Melissa Fusco (Columbia University)
Causal decision theory and tragic evidence: Death in Damascus revisited |
| 15
November | Paul A. Roth (University of California, Santa Cruz)
Reviving analytical philosophy of history |
| 22
November | Harvey Brown (University of Oxford)
Quantum Bayesianism: the ineffable reality behind 'participatory realism' |
| 29
November | Alisa Bokulich (Boston University)
Representing and explaining: The eikonic conception of explanation |
| 6 December | Emily Thomas (Durham University)
What's the point of Margaret Cavendish's <i>Blazing World</i> ? |

Aims and Methods of Histories of the Sciences

Nick Jardine, Geoffrey Lloyd, Hasok Chang and Cristina Chimisso; Mondays 11am–12.30pm, weekly from 23 October (6 sessions)

These graduate seminars will consider aspects of the history, aims, methods and current problems of the history of science. In the opening sessions NJ will give an overview of the formation of history of science as a discipline and of the range of recent approaches. 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 roles of sympathy and antipathy in historical biographies (NJ), and approaches to the history of cross-cultural communication in the sciences (GERL & NJ).

Those participating in these seminars are likely to find interesting the meetings of the [_](#).

23 and 30 October

Nick Jardine: Formation and transformations of history of science

These two opening sessions will 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 socialist 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 histories of science: M. Biagioli, *Galileo courtier* (Chicago, 1993); P. Smith, *The business of alchemy* (Berkeley CA, 1994).
 - Global histories of science: S. Schaffer et al., eds, *The brokered world: go-betweens and global intelligence, 1770–1820* (Sagamore Beach MA, 2009); S. Sivasundaram, 'Science and the global: on methods, questions and theory', *Isis*, 101 (2010), 146–158.

6 November

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', *History of Science*, 38 (2000), 251–270.

13 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 H       Metzger (Chatou, France, 1889 – Auschwitz, 1944) aimed to answer. This session will discuss her innovative historiography of science.

Readings:

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

20 November

Nick Jardine: Emotional engagement in scientific biographies

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, antipathetic and ironic 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).
- An ironic biography: Donna Haraway's account of the life and works of Carl Akeley in *Primate visions: gender, race, and nature in the world of modern science* (London, Routledge, 1989), ch. 3.

27 November

Geoffrey Lloyd and Nick Jardine: 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.

Readings:

- G.E.R. Lloyd, *Disciplines in the making* (Oxford, 2009), especially ch. 8 'Science'.
- J. Secord, 'Knowledge in transit', *Isis*, 95 (2004), 654–672.

Further readings:

- 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); P. Manning and D. Rood, *Global scientific practice in an age of revolutions* (Pittsburg PA, 2016).

Science in Print I: Book Production in the Hand Press Period

Roger Gaskell; Wednesdays 11am–12.30pm, weekly from 8 November (4 sessions), Whipple Old Library, except session 2

Understanding how the book is made is vital to the study of its contents, helping to locate its economic and social context, its audience, and ultimately its historical significance. Using examples from the Whipple Library's rare book collections and the University Library's Historical Printing Collection, this workshop series will explore some bibliographical techniques to identify and describe the structure and production of printed material from the hand press period (16th–18th centuries), and consider the uses and abuses of online derivatives. Although the focus will be on scientific texts and illustrations, these sessions will be of interest to book historians in all disciplines, and all are welcome.

- 8 November: Survey of the hand press period I
- 15 November: Hand press book production and its implications (in the Historical Printing Room at the University Library)
- 22 November: Survey of the hand press period II
- 29 November: Analysing books from the hand press period

The sessions are open to all (undergraduates, graduates, visitors and beyond), but places are limited to ensure all have full access to the examples. Please contact Dawn Kingham (dm313) to register your interest. The sessions are conceived as a series, but it is possible to sign up for individual sessions to suit your interests if you can't make them all. Please indicate when booking which session(s) you would like to attend.

Philosophy of Biology Reading Group

The aim of the group is to discuss important, recent ideas in the field of the *philosophy of biology*, especially ones not under the purview of other reading groups. For Michaelmas 2017, readings have been fashioned primarily around 3–4 different themes including (but not limited to): Populations, Evolutionary Ethics, Evolutionary Contingency, and Cultural Evolution. All are welcome. Organised by Azita Chellappoo and William Wong.

We meet on **Thursdays, 11am to 12noon, in the Board Room.**

26 October

Stegenga, J., 2016. Population Pluralism and Natural Selection. *British Journal for the Philosophy of Science*, 67, pp. 1–29.

2 November

Sterner, B., 2017. Individuating population lineages: a new genealogical criterion. *Biology and Philosophy*, 32(5), pp. 683–703.

9 November

Deem, M., 2016. Dehorning the Darwinian dilemma for normative realism. *Biology and Philosophy*, 31(5), pp. 727–746.

16 November

Heyes, C., 2017. Enquire Within: Cultural evolution and cognitive science. *Philosophical Transactions B: Biological Sciences*.

23 November

McConwell, A., & Currie, A., 2017. Gouldian arguments and the sources of contingency. *Biology and Philosophy*, 32(2), pp. 243–261.

30 November

Burch-Brown, J. & Archer, A., 2017. [In defence of biodiversity](#). *Biology and Philosophy*. (Available Online)

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 Mary Brazelton, Joe Martin and Richard Staley.

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

The Intersection of Gender, Race and Disability with Philosophy of Science

This new reading group meets on **Mondays, 2–3pm, in the Board Room**. Organised by Azita Chellappoo (asc63).

Week 2 (16 October)

Haraway, D. (1984). 'A cyborg manifesto: Science, technology, and socialist-feminism in the late 20th century'.

Week 3 (23 October)

Harding, S. (2004). 'A socially relevant philosophy of science? Resources from standpoint theory's controversiality', *Hypatia*, 19(1), 25–47.

Week 4 (30 October)

Chapter from 'Queer Science: The Use and Abuse of Research Into Homosexuality' by Simon LeVay (to be circulated).

Week 5 (6 November)

Chapter from 'Philosophy of Science and Race' by Naomi Zack (to be circulated).

Week 6 (13 November)

Roberts, D. (2008). 'Is Race-Based Medicine Good for Us? African American Approaches to Race, Biomedicine, and Equality', *Journal of Law, Medicine, and Ethics*, 36: 537–545.

Week 7 (20 November)

O'Donovan, M. (2013). 'Feminism, Disability, and Evolutionary Psychology: What's Missing?', *Disability Studies Quarterly*, 33(4).

Science and Literature Reading Group

This term the Science and Literature Reading Group gets down to earth. We will complete our cycle of themes based on the four elements by exploring how different authors have tackled terrestrial topics, from muddy slimescapes to sublime mountain-top. We are delighted to meet in an appropriate new venue: the Watson Gallery of the Department of Earth Sciences, home to the John Watson Building Stones Collection.

All are welcome to join in our wide-ranging and friendly discussions, which take place fortnightly on Monday evenings from 7.30–9pm. The group is organised by Melanie Keene and Charissa Varma.

For recaps, further readings, news, and other updates, please follow us on Twitter [@scilitreadgrp](#) or visit [our blog](#).

16 October – Stone

- [Pliny, *Natural History*, books XXXVI \('The Natural History of Stones'\) and XXXVII \('The Natural History of Precious Stones'\)](#)

30 October – Ground

- Ludvig Holberg (trans. John Gierlow), [Niels Klim's Journey Under the Ground](#) (1741; 1845 edition)
- Edmond Halley, ['An Account of the Cause of the Variation of the Magnetical Needle; With an Hypothesis of the Structure of the Internal Parts of the Earth: As It Was Proposed to the Royal Society in One of Their Late Meetings'](#) (1753)

13 November – Mountain

- Elizabeth Parker, ['The Alpine Club of Canada'](#), *Canadian Alpine Journal* I:1 (1907), 3–8.
- Mary T. S. Schaffer, ['Untrodden Ways'](#), *Canadian Alpine Journal* I:2 (1908), 288–294.
- Mary E. Crawford, ['Mountain Climbing for Women'](#), *Canadian Alpine Journal* II:1 (1909), 85–91.
- Ethel Jones, ['A Graduating Climb'](#), *Canadian Alpine Journal* II:2 (1910), 158–164.
- Mary M. Vaux, ['Observations on Glaciers in 1910'](#), *Canadian Alpine Journal* III (1911), 127–130.

27 November – Mud

Read as many poems from our muddy anthology as you'd like:

- Mary Borden, from ['At the Somme: The Song of the Mud'](#) (1917)

- U. A. Fanthorpe, '[Earthed](#)'
- Seamus Heaney, '[Digging](#)' (1966)
- Andrew Hudgins, '[Child on the Marsh](#)' (1988)
- Curzio Malaparte, translated by Water Murch, '[Xian of Eight Rivers](#)' (2012)
- Roger McGough, '[Soil](#)'
- Jana Prikryl, '[Geodes of the Western Hemisphere](#)' (2016)
- Helen Saunders, '[A Vision of Mud](#)' (1915)
- Robert William Service, '[Mud](#)'
- Joyce Sidman, '[Into the Mud](#)' (2005)
- George Szirtes, '[Soil](#)' (2000)
- Tess Taylor, '[Mud Season](#)' (2016)
- Alison Townsend, '[Mud poem](#)' (2002)
- John Vernon, '[Mud Man](#)' (1982)

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

This term, we will focus our readings on philosophical issues arising in cancer research, treatment and prevention. These readings also allow us to cover a range of foundational questions in the Philosophy and Ethics of Medicine, including the goals of medical research, the harms of overdiagnosis, the nature of disease, the social epistemology of medical knowledge, and the broader relationships between science and society. In December, there will also be a major, one-day International conference on the Philosophy of Cancer, which group members are all invited to attend.

Week 1: Researching cancer 1: reductionism or organicism?

Marcum, J. A. (2005). Metaphysical presuppositions and scientific practices: reductionism and organicism in cancer research. *International Studies in the Philosophy of Science*, 19(1), 31–45.

Week 2: Researching cancer 2: integration or pluralism?

Plutynski, A. (2013). Cancer and the goals of integration. *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, 44(4), 466–476.

Week 3: Diagnosing cancer 2: defining and naming disease

Reid, L. (2017). Truth or Spin? Disease Definition in Cancer Screening. *Journal of Medicine and Philosophy*, online-first.

Week 4: Diagnosing cancer 3: diagnosing or predicting?

Schwartz, P. H. (2014). Small tumors as risk factors not disease. *Philosophy of Science*, 81(5), 986–998.

Week 5: Screening for cancer 1: the epistemology of screening

Solomon, M. (2015). A developing, untidy methodological pluralism. Chapter 9 of her *Making medical knowledge*. Oxford University Press, USA.

Week 6: Screening for cancer 2: the ethics of screening

Fleurbaey, M., & Voorhoeve, A. (2013). Decide As You Would with Full Information!. In Eya, Hurst, Norheim and Wikler (eds) *Inequalities in Health: Concepts, Measures, and Ethics*. Oxford University Press, 113–128.

Week 7: Screening for cancer 3: the ethics of screening

Justman, S. (2012). Uninformed consent: mass screening for prostate cancer. *Bioethics*, 26(3), 143–148.

Week 8: Cancer in, and cancer as, society

Sontag, S (1978) Chapters 1, 2, 8 and 9 of *Illness as Metaphor*. Farrar, Strauss and Giroux.

Additional event

13 December 2017: One Day Workshop on Philosophy of Cancer; HPS. Speakers include Anya Plutynski, Justin Biddle, Lynnette Reid, Alex Voorhoeve. For more information, contact Stephen John (sdj22) or Joseph Wu (jw895).

Philosophy and History of Physics Reading Group

The reading group meets on **Tuesdays, 4.30pm to 6.30pm in the Board Room**. Please contact Richard Staley (raws1) or Jeremy Butterfield (jb56) if you would like access to a copy of the readings.

The theme for the term is Symmetry and Explanation in Physics. We suggest the following readings for the first three sessions, and list some other possible readings. But at the first one or two sessions, we will plan later sessions in the light of participants' interests, and we finish the term with a visit from Alisa Bokulich.

10 October

- Ernst Mach, 'On Symmetry', in *Popular Scientific Lectures* (Chicago/London: Open Court/Kegan Paul, Trench, Truebner & Co. 1898 [1871]), pp. 89–106; and
- Ernst Mach, *The Science of Mechanics: A Critical and Historical Account of its Development*, transl. by Thomas J. McCormack, 4th ed. (Chicago/London: Open Court, 1919 [1883]), pp. 8–14.

17 October

- Shaul Katzir, 'The Emergence of the Principle of Symmetry in Physics', *Historical Studies in the Physical and Biological Sciences* 35 (2004): 35–65.

24 October

- Gordon Belot, 'Notes on Symmetries', in K. Brading and E. Castellani, *Symmetries in Physics* (Cambridge: Cambridge University Press, 2003).

For later weeks, we are considering reading (not necessarily in this order):

- Giora Hon and Bernard R. Goldstein, 'Symmetry and Asymmetry in Electrodynamics from Rowland to Einstein', *Studies in History and Philosophy of Modern Physics* 37 (2006): 635–660.
- Bryan Roberts, '[Curie's Hazard: From electromagnetism to symmetry violation](#)', *Erkenntnis* 81 (2016): 1011–1029.
- Gordon Belot, '[Dust, Time and Symmetry](#)', *British Journal for the Philosophy of Science* 56 (2005): 255–291.
- Bryan Roberts, '[The Simple Failure of Curie's Principle](#)', *Philosophy of Science* 80 (2013): 579–592.

28 November

Alisa Bokulich (University of Boston)

'Losing sight of the forest for the Ψ : a call for a successor to the realism question'

Abstract:

Traditionally the realist project in quantum theory has taken one of two forms: First, defending one of many different possible interpretations of quantum theory as the one true depiction of reality. Second, defending what has been termed wavefunction realism, according to which ordinary space is an illusion and we in fact live in a 3N-dimensional configuration space, where N is the number of particles in the universe. Neither of these projects has managed to produce a broad consensus, in striking contrast to the near universal agreement that quantum theory is one of the most successful theories ever devised. In recent years there has been a shift in the physics community away from a focus on the search for a 'theory of everything' towards an emphasis on the importance of effective theories. In this talk I explore how this effective-theory mindsight might help us transform our philosophical debates about realism. As a way of regaining sight of the proverbial 'forest', from what I argue has been an excessive focus on the Ψ , I will examine hydrodynamic representations in physics across many scales. In particular, I will focus on the different representations of the quantum state that one finds in both Eulerian and Lagrangian quantum hydrodynamics. I conclude that the largely stagnant project of depiction realism in quantum theory should be replaced with the pluralist project that I label inferential realism.

Casebooks Therapy

Organiser: 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 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.

Meetings are held on occasional Wednesdays, 5.00–6.30pm in the Department, beginning 25 October. If you are interested in attending, please email Lauren Kassell (ltk21).

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin are very welcome. We meet on **Tuesdays, 3.30–5.00pm in Room P19**, to translate and discuss a text from the history of science, technology or medicine. 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 Boyd Brogan (bb320).

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. This term we will be reading Xenophon's *Oeconomicus*.

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

Lent Term

Departmental Seminars

Seminars are held on **Thursdays from 3.30 to 5pm in Seminar Room 2**. There are refreshments after the seminar at 5pm in Seminar Room 1.

Organised by Agnes Bolinska.

18 January **Charlotte Sleigh (University of Kent)**
Making sense of art and science

Historian of science Charlotte Sleigh has been working with science-artists since 2013, and in this talk she presents her reflections on hoped-for and actual relations between the two disciplines. A brief history of the field of A&S (art and science) will highlight the different purposes that art-science hybrids have fulfilled in different contexts, with particular emphasis on the past twenty years in the UK. Key concepts that have been marshalled to mediate between the two fields are subjected to critical analysis.

A second part of the talk draws on Charlotte's particular experience in two A&S projects of her own: *Chain Reaction!* (2013) and *Biological Hermeneutics* (2017). In it, she reflects on some of the difficult and even embarrassing realities involved, drawing on Shapin's notion of 'lowering the tone' to help highlight some of the political tensions between art and science. Institutionalisation, money and space emerge amongst the categories in urgent need of more honest appraisal. Finally, related questions of research and critique are raised. There is a failure on the part of many scientists (just as there is amongst the general public) to understand and hence respect the research and critical

practice that underpins contemporary art practice. What appears in galleries and elsewhere is the top tenth of the iceberg; research and critical practice are the nine-tenths that lie beneath. A&S collaborations may be improved, Sleigh argues, by an improved communication of this little-appreciated feature of contemporary art. Additionally she suggests that contemporary artists (as well as scientists) may have their research enhanced through an engagement with STS, which may be considered as the 'out-sourced' critical practice element of science.

25 January **Casey McCoy (University of Edinburgh)**
Modelling at the border of experimental and theoretical practice in physics

In exploratory contexts in contemporary physics, such as the hunt for beyond standard model physics and the search for the nature of dark energy, physicists regularly cite the importance of 'model independence' for guiding experimental design and interpretation. What is model independence, how did it come to be a term of art in physics, and what is it good for? In answering these questions I show, among other things, how epistemic context distinguishes phenomenological modelling from a model independent approach, how this approach produces a means of communication at the border of experimental and theoretical practice in physics, and how model independence creates a target for experimental triangulation.

1 February **David Singerman (University of Virginia)**
Sugar, science and the history of capitalism

In recent years, the history of capitalism has gained prominence as a powerful framework for understanding the development of the United States and its relationship to the world. But many of the field's claims about commodities, networks and knowledge rest on categories which the history of science has shown to be unstable and contested. This paper takes as its focus the sugar trade of the nineteenth and early twentieth centuries, one of the history of capitalism's canonical cases. Sugar showcases how approaches pioneered by the history of science can reorient our understanding of corruption, monopoly, labour and other problems that remain as crucial to today's Second Gilded Age as they were to the First.

8 February **Jack Stilgoe (UCL)**
Machine learning, social learning and self-driving cars

Self-driving cars, a quintessentially 'smart' technology, are not born smart. The algorithms that control their movements are learning as the technology emerges. Self-driving cars represent a high-stakes test of the powers of machine learning, as well as a test case for social learning in technology governance. Starting with the successes and failures of social learning around a much-publicized fatal Tesla Model S crash in 2016, I argue that trajectories and rhetorics of machine learning in transport pose a substantial governance challenge. Governing these technologies in the public interest means improving social learning by constructively engaging with the contingencies of machine learning.

15 February **John Tresch (University of Pennsylvania)**
Barnum, Bache and Poe: the forging of science in the Antebellum US

Two opposed tendencies characterised US public culture around 1840: first, a sharp increase of printed matter in which the sites, audiences, styles and speakers for matters of public concern exploded in number and diversity; second, an elite movement to unify knowledge through centralised institutions. In the domain of science, Barnum's 'American Museum' typified the first, while the US Coast Survey, directed by patrician polymath and West Point graduate Alexander Dallas Bache, exemplified the second. The life and writings of Edgar Allan Poe – who trained at West Point, and

wrote constantly about the sciences, even as he struggled to survive as an editor, poet and storyteller – pushed in both directions at once. Poe 'forged' American science and letters in two senses: by crafting believable fakes which fed the uncertainty about authority over knowledge, and by lending aid to projects to restrict the flow of information and establish a unified intellectual infrastructure. His work thus offers uniquely astute, if dramatically conflicted commentary on the relations of science and public in a key phase of national consciousness and industrialisation.

22 February *The seminar originally scheduled here will be given on Wednesday 21 February at 1pm as part of the [CamPoS](#) series*

Thirteenth Cambridge Wellcome Lecture in the History of Medicine

1 March **Alisha Rankin (Tufts University)**

Poison trials, panaceas and proof: debates about testing and testimony in early modern European medicine

At the courts of sixteenth-century Europe, a number of princely physicians and surgeons tested promising poison antidotes on condemned criminals. These tests were contrived trials, in which a convict took a deadly poison followed by the antidote. The medics sometimes shared detailed descriptions of their poison trials in printed publications or private correspondence, much as they shared case histories of ill patients. Yet these very same physicians disputed the value of remarkably similar tests on animals conducted by charlatans and empirics in marketplace shows. Sometimes, however, these worlds overlapped directly. In 1583, an empiric named Andreas Berthold published a work in Latin praising the virtues of a marvellous new drug, a clay called 'Silesian terra sigillata'. Berthold presented the drug as a perfect Paracelsian remedy for poison and, like most antidotes, useful against many other illnesses as well. While such lofty claims might easily have been disregarded, Berthold noted that his readers did not have to 'trust me on my bare words'. He concluded his book with three testimonial letters from powerful figures – two German princes and one town mayor – about trials they had conducted on the drug in 1580 and 1581. In all three cases, physicians had given poison to test subjects (two used dogs, one a condemned criminal), followed by the antidote. In every case, the subjects who were given the Silesian terra sigillata survived the poison. These testimonial letters provided official legitimacy to an alchemical empiric, in the form of tests conducted by physicians. Meanwhile, other alchemists began to use a different form of testimony to demonstrate the marvellous effects of their antidote cure-alls: testimonial letters from patients describing their miraculous recoveries, which physicians derided as a perversion of the case history. Some of these alchemists likewise ridiculed the poison trial as a lowly and irrelevant form of proof. This talk examines the overlap between the genres of poison antidote and panacea and the debates these drugs engendered in attempts to 'prove' their efficacy.

8 March *Cancelled*

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 fortnightly on **Thursdays, 1–2pm in Seminar Room 2**. All welcome!

Organised by Mary Brazelton, Joseph Martin and Richard Staley.

18 January

Jaume Navarro (University of the Basque Country)

Ether: the multiple lives of a resilient concept

In this session I propose to discuss the text of the introduction to a collective volume on the ether in the early twentieth century soon to be published by Oxford University Press. This book is a snapshot of the ether qua epistemic object in the early twentieth century. The contributed papers show that the ether was not necessarily regarded as the residue of old-fashioned science, but often as one of the objects of modernity, hand in hand with the electron, radioactivity or X-rays. Instrumental was the emergence of wireless technologies and radio broadcasting, certainly a very modern technology, which brought the ether into social audiences that would otherwise have never heard about such an esoteric entity. Following the prestige of scientists like Oliver Lodge and Arthur Eddington as popularisers of science, the ether became common currency among the general educated public. Modernism in the arts was also fond of the ether in the early twentieth century: the values of modernism found in the complexities and contradictions of modern physics such as wireless action or wave-particle puzzles a fertile ground for the development of new artistic languages; in literature as much as in the pictorial and performing arts.

The question of what was meant by 'ether' (or 'aether') in the early twentieth century at the scientific and cultural levels is also central to this volume. The essays in this volume display a complex array of meanings that will help elucidate the uses of the ether before its purported abandonment. Rather than thinking of the ether as simply a name that remained popular among several publics, this book shows the complexities of an epistemic object that saw, in the early twentieth century, the last episode in the long tradition of stretching its meaning and uses.

1 February

Seung-joon Lee (National University of Singapore)

People's vital minimum: canteens and nutrition science in industrial China

At the moment when Mao Zedong was triumphantly standing atop the Heavenly Peace Gate in Beijing's Tiananmen Square to declare the founding of a new socialist regime on 1 October 1949, China was facing an existential crisis: food shortages. The Communists now had to face the same dilemma that had long haunted their political arch-enemy, because food scarcity and rampant malnutrition could not be solved overnight, even after the downfall of the KMT rule. The malnourished population, once a strategic target for mobilization against their political opponent, could turn into a potential political threat to the new regime's stability. Furthermore, food calories arguably remained the prime source of energy in China's national economy, which was predominantly agricultural. To build a strong socialist economy — industrially mighty and yet egalitarian — the Chinese working population would need to eat better and consume more food than it ever had before.

Against this backdrop, the Communist authorities undertook unsparing efforts to promote nutrition science in order to optimize the working population's food consumption. Rather than starting from ground zero, however, the Communists emulated the state-led nutrition movement that the previous regime had once practised. Industrial canteens — once a political battleground upon which workers seeking their food entitlement and the KMT-style labour management frequently collided — transformed into a new space that embraced various culinary innovations, nutritional experiments, and the politicization of nutrition science.

15 February

Susan Jones (University of Minnesota)

The homelands of the plague: Soviet disease ecology in Central Asia, 1920s–1950s

This presentation analyzes the development of an important Russian/Soviet school of 'disease ecology' at the intersection of human medicine, veterinary medicine, and ecological fieldwork. Part of a larger study in progress, I will argue that (1) although entanglements with the dynamic Soviet political system directly affected scientists' work and ideas, analysis of their local activities in the borderlands demonstrates a surprising independence and autonomy; and (2) initial analysis also points to the importance of indigenous nomadic peoples' knowledge and lived experience in informing scientific theories about endemic diseases. I conclude by discussing how collaboration between HSTM graduate students, scientists, and informants in Kazakhstan have been essential to this historical project.

1 March *Cancelled*

Fri 23 March **Mario Biagioli (University of California, Davis)**
How to game the citation metrics game in contemporary science

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.

Generally we 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.

26 January **Marie-Ann Ha (Senior Lecturer, Faculty of Medical Science, Anglia Ruskin University)**, hosted by Hasok Chang
Is 5-a-day enough? Nutrition, a science at crossroads

9 February **Longzhu Shen (Research Associate, Department of Zoology, University of Cambridge)**, hosted by Agnes Bolinska
Predicting the evolutionary trajectory of influenza

9 March **Robert Asher (Senior Lecturer, Department of Zoology, and Curator, University Museum of Zoology, University of Cambridge)** with **Adrian Currie (Postdoctoral Researcher, Centre for the Study of Existential Risk, University of Cambridge)**
Taxonomy, trees and truth in historical mammalogy

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.

All seminars are held on **Mondays at 1pm in Seminar Room 1**. Please feel free to bring your lunch.

Organised by Sebastian Kroupa (sk796).

22 January

Ádám Mézes (Central European University, Budapest)

Blood will tell? Constructions of the 'vampire problem' in the eighteenth century

In 1732, Habsburg military surgeons handed in an autopsy report to the provincial administration, in which they described several corpses that local Serbian Orthodox villagers claimed to be vampires. The report discussed an epidemic that disrupted the public order and resulted in dozens of dead subjects, many of whom (despite having been buried for up to two months) apparently refused to decay properly. The report incited a short-lived, but vigorous debate in the learned circles with contributors from the ranks of theology, natural philosophy, medicine and law. The phenomenon did not easily fit existing natural philosophical and demonological theories, hence opening the room for various ideas, such as vitalism, sympathies, astral influences, chemical processes and demonic activity to be discussed alongside one another. Since the eighteenth century, the debate has occupied a stable position in the narratives of disenchantment and enlightenment as a swift and complete victory of natural sciences over superstition.

Based on a reconstruction of the channels through which the first-hand reports travelled, the talk will argue that the learned debate started out at the provincial level in the form of appeals to the learned elite for scientific clarification, but it soon became a discourse in its own right. Furthermore, based on a comparative analysis of treatises and first-hand reports, the talk will try to show that the administrative and the learned discourses had different priorities and interests, which meant that in the end, the learned conclusions could not be convincingly applied at the grassroots level.

29 January

Meira Gold (HPS, Cambridge)

The first geological chronology of ancient Egypt and the antiquity of man, 1846–63

The 1850s through early 1860s was a transformative period for Victorian studies of the remote human past, across many new and evolving disciplines. Yet very little is known about the role of ancient Egypt as a focus of these discussions. Naturalists and scholars with Egyptological knowledge fashioned themselves as authorities to contend with the divisive topic of human antiquity and looked to the country's ancient monuments and written records to support their various claims. In a characteristic case of long-distance fieldwork, British geologist Leonard Horner relied on Turkish-born, English-educated, Cairo-based engineer Joseph Hekekyan to measure Nile silt deposits around pharaonic monuments at the ancient sites of Heliopolis and Memphis. The excavations were jointly-funded by the Royal Society of London and Egyptian government and contributed to a research program, championed by Horner and his son-in-law Charles Lyell, to assign absolute dates to the most recent geological period. Hekekyan meticulously recorded his field observations in hundreds of letters, reports, sketches and maps, which he sent to Horner for analysis. Their conclusion in 1858 that humans had existed in Egypt for over 13,000 years was particularly shocking to those who endorsed traditional biblical chronology and the work entered heated exchanges about man's place in nature and Scriptural authority.

This talk will discuss these geo-archaeological investigations, the production and circulation of field records, Hekekyan's role as a go-between, and lastly, the publication's mixed reception by several groups in Britain, including Egyptologists, geologists, ethnologists, anthropologists, Scriptural chronologists and German biblical critics. The episode is indicative of the many practical attempts in this period to deal with the growing anxieties of human antiquity. It further illuminates the roles of local knowledge and ancient Egypt within debates about the age of humans and highlights mid-Victorian attempts to reshape porous disciplinary boundaries.

5 February

Simon Werrett (University College London)

Joseph Banks: science, culture and the remaking of the Indo-Pacific world

In this presentation I assess the findings of a one-year AHRC-funded project on the career of Sir Joseph Banks, naturalist on Cook's first voyage and president of the Royal Society from 1778 to 1820. Against a view of Banks as a 'centre of calculation' participants reconsidered Banks as a connecting agent among existing imperial and scientific networks mobilising plants around the world and transforming British enterprises in the Indo-Pacific world. Participants also explored Banks after Cook, in a period between c.1780 and 1820 that is rarely discussed in the literature. During this period Banks fitted into a variety of networks of men and women engaged with the sciences, acted as an information manager and broker, and managed a diverse collection of botanical and personal images and texts. Participants doubted that he followed a coherent agenda in these activities.

12 February

Petter Hellström (Uppsala Universitet)

Trees as keys, ladders, maps: a revisionist history of early systematic trees

In recent years, there has been a profusion of studies charting the history of tree diagrams in natural history and biological systematics. Whereas some of these have focused on one or a few arboreal schemes, the majority have presented long histories, spanning centuries and occasionally even millennia. Early or 'pre-Darwinian' trees typically feature in these histories as precursors to phylogenetics; sometimes even as the 'roots' of later trees. Together with colleagues in France, I have previously argued that one of the most frequently cited early tree diagrams, Augustin Augier's 'Botanical Tree' (1801), cannot in any reasonable way be made to play the role of forerunner to later, evolutionary trees – even as the author pitched his tree of natural families in explicitly genealogical terms. In this talk, I push the argument further by proposing an alternative reading of the historical record. Starting from Augier's tree and other early examples, I argue that 'pre-evolutionary' trees should be understood less in terms of what came after, and more in terms of what came before. Attending to the functions they performed as keys, ladders and maps, I argue that early trees were logical, rhetorical and mnemonic devices drawn to imagine perfect, static order.

19 February

Caterina Schürch (LMU München)

Physico-chemical biology in practice, 1920s–1930s

During the interwar period, 'physico-chemical biology' was institutionalised on an unprecedented scale. A group of eminent researchers, science managers and philanthropists promoted the view that physical and chemical concepts and methods could and should be adopted in biology. My talk is concerned with the practical implementation of this vision: how did researchers (from the physical and the biological sciences) identify biological problems that were to be approached from a physico-chemical standpoint? And, after all, why did they decide to work on problems at the interface between the physical and life sciences? I will introduce four interwar research programs in which physical or chemical methods and concepts were used to investigate biological phenomena: research on plant growth hormones in Utrecht and Pasadena; Selig Hecht's work on the physical and chemical basis of vision; Cambridge biochemist Rose Scott-Moncrieff's study of the biochemical basis of flower colour inheritance; and the activities of Prague's 'biological-physical working group'. The talk will focus on the early phases of these research programs and show how these cross-disciplinary studies were planned, implemented, and evaluated. The analysis emphasises the material and technological conditions of the modern life sciences and, at the same time, provides insights into the methodological norms that shaped scientists' actual research actions. Secondly, it promises to speak to the motivations behind cross-disciplinary research collaborations. I will argue that researchers were willing to cooperate with practitioners from other disciplines, since they recognised their epistemical interdependence.

26 February *Cancelled*

5 March *Cancelled*

12 March *Cancelled*

AD HOC

AD HOC (Association for the Discussion of the History of Chemistry) is a group dedicated to history of chemistry. While our main focus is historical, we also consider the philosophical, sociological, public and educational dimensions of chemistry. The group meets on **Mondays at 5pm in Seminar Room 1**. Coordinated by Karoliina Pulkkinen.

22 January **Chris Campbell (UCL)**
Josiah Cooke and Charles Peirce: North American chemists in search of orderliness

5 February **Frank James (UCL; The Royal Institution)**
Humphry Davy's mineral collecting for the early Royal Institution

19 February **Carolyn Cobbold (Clare Hall, Cambridge)**
The wonders of coal tar: when chemistry became a nineteenth-century media sensation

5 March **Vanessa Seifert (University of Bristol)**
The integration of history and the philosophy of chemistry: how historical evidence can be used in support of a unificatory understanding of the relation of chemistry and physics
Venue: Newnham Terrace 1, Darwin College

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!

Early Science and Medicine

Organised by Lauren Kassell and Dániel Margócsy.

30 January **Sasha Handley (University of Manchester)**
Sleep piety and healthy sleep in early modern English households

20 February **Yari Perez-Marin (Durham University)**
Pain and physiological processes in sixteenth-century medical texts from Mexico and Spain

6 March *Cancelled*

History of Modern Medicine and Biology

Organised by Jenny Bangham and Mary Brazelton.

Margaret Charleroy (University of Warwick)

23 January 'Don't eat the pudding': food and nourishment in the nineteenth-century English prison system

Elise Burton (Newnham College, Cambridge)

13 February Genes against beans: favism, malaria and nationalism in the Middle East

13 March *Cancelled*

Generation to Reproduction

Organised by Lauren Kassell and Jesse Olszynko-Gryn.

Valerie Worth (University of Oxford)

6 February Slaying (or at least taming) a dreadful monster: Louis de Serres' treatise of 1625 for women suffering from infertility

27 February *Cancelled*

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.

J. Brian Pitts (Philosophy, Cambridge)

24 January Even observables change in Hamiltonian general relativity

Bennett Holman (Yonsei)

31 January Dr Watson: the impending automation of medical diagnosis and treatment

Wolfgang Schwarz (Edinburgh)

7 February No interpretation of probability

Craig Callender (UCSD)

14 February Yikes! Why did past-me say he'd give a talk on future discounting?

Mariam Thalos (University of Utah)

21 February Disaggregating goods

28 February *Cancelled*

7 March *Cancelled*

14 March *Cancelled*

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 Mary Brazelton, Joe Martin, Charu Singh and Richard Staley.

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

This term we will consider readings on infrastructure, scale, climate and cartography on the following dates (alternating with [Twentieth Century Think Tank](#)):

25 January, on scale:

- Alain Desrosières, 'The part in relation to the whole: how to generalise? The prehistory of representative sampling', *The Social Survey in Historical Perspective, 1880–1940*, eds. Martin Bulmer et. al. (Cambridge: Cambridge University Press, 1991).
- Casper Bruun Jensen, '[Infrastructural Fractals: Revisiting the Micro – Macro Distinction in Social Theory](#)', *Environment and Planning D: Society and Space* 25(5) (2007): 832–850.

8 February, on place and geographies of climate change:

- James Bergman, '[Knowing Their Place: The Blue Hill Observatory and the Value of Local Knowledge in an Era of Synoptic Weather Forecasting, 1884–1894](#)', *Science in Context* 29, no. 3 (2016): 305–346.
- Martin Mahony and Mike Hulme, '[Epistemic Geographies of Climate Change](#)', *Progress in Human Geography* (2016): 0309132516681485.

22 February

Cancelled

1 March

We will meet to discuss the work of Naomi Oreskes in preparation for her visit to Cambridge in mid May. We will focus on her important work with Erik Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York/Berlin/London: Bloomsbury Press, 2010). The book is widely available in Cambridge libraries with a copy on reserve at the Whipple and online access at designated PCs in the UL and affiliate libraries.

We suggest reading chapter 6, 'The Denial of Global Warming', together with the conclusion and epilogue (which offer an account of the motivations underlying the work of major denialists, and 'a new view of science').

8 March

Cancelled

The Intersection of Gender, Race and Disability with Philosophy of Science

This new reading group meets on **Mondays, 2–3pm, in the Board Room**. Organised by Azita Chellappoo (asc63).

Week 1 (22 January)

Bailey, A. (2017). Tracking Privilege-Preserving Epistemic Pushback in Feminist and Critical Race Philosophy Classes. *Hypatia*, 32(4), 876–892.

Additional reading for Week 1: Wolf, A. B. (2017). 'Tell Me How That Makes You Feel': Philosophy's Reason/Emotion Divide and Epistemic Pushback in Philosophy Classrooms. *Hypatia*, 32(4), 893–910.

Week 2 (29 January)

Third, Amanda (2010). Imprisonment and Excessive Femininity: Reading Ulrike Meinhof's Brain. *Parallax*, 16:4, 83–100.

Week 3 (5 February)

Holroyd, J. (2012). Responsibility for implicit bias. *Journal of Social Philosophy*, 43(3), 274–306.

Week 4 (12 February)

Li, Y. (2016). Testimonial Injustice without Prejudice: Considering Cases of Cognitive or Psychological Impairment. *J Soc Philos*, 47: 457–469.

Week 5 (19 February)

Yap, Audrey S. (2017). Credibility Excess and the Social Imaginary in Cases of Sexual Assault. *Feminist Philosophy Quarterly* 3, (4).

Week 6 (26 February)

Irvin, Sherri (2017). Resisting Body Oppression: An Aesthetic Approach. *Feminist Philosophy Quarterly* 3, (4).

Week 7 (5 March)

Tuana, N. (2004). Coming to understand: Orgasm and the epistemology of ignorance. *Hypatia*, 19(1), 194–232.

Week 8 (12 March)

Dotson, K. (2011). Tracking epistemic violence, tracking practices of silencing. *Hypatia*, 26(2), 236–257.

Science and Literature Reading Group

Following our tour of the four classical elements, this term the Science and Literature Reading Group looks to the fifth: aether. Our first three meetings focus on ways in which ethereal concepts have been used: as a vehicle for the imagination; as a medium for interconnection; and as a means of communication. The final meeting will celebrate completing the elementary series with a found poetry workshop using all of the texts we have read and discussed over the past year.

All are welcome to join in our wide-ranging and friendly conversations, which take place at Darwin College on selected Monday evenings from 7.30–9pm. The group is organised by Melanie Keene and Charissa Varma.

For recaps, further readings, news, and other updates, please follow us on Twitter [@scilitreadgrp](#) or visit [our blog](#).

22 January – Imagination

- [Anna Laetitia Barbauld, 'A Summer Evening's Meditation' \(1773\)](#)
- [John Tyndall, *The Scientific Use of the Imagination* \(1870\)](#)

5 February – Connection

- [John Davidson, 'Fleet Street' \(1909\)](#)
- [Oliver Lodge, *Ether and Reality* \(1925\), ch. 2, 'Fundamental notions about an ether', 33–46](#)

26 February – Communication

- [Rudyard Kipling, 'Wireless' \(1902\)](#)
- [Philip R. Coursey, 'Interplanetary Wireless?', *Wireless World* \(1920\)](#)
- [Eric Roach, 'Beyond' \(1950\)](#)

12 March – Elementary Poetry workshop

- [Online introduction to found poetry](#), and [examples](#)

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

Week 1 (23 January)

Boorse, Christopher. 'What a theory of mental health should be.' *Journal for the Theory of Social Behaviour* 6, no. 1 (1976): 61–84.

Week 2 (30 January)

Keyes, Corey LM, and Shane J. Lopez. ['Toward a science of mental health.'](#) *Handbook of Positive Psychology* (2002): 45–59.

Week 3 (6 February)

Stein DJ, Phillips KA, Bolton D, Fulford KW, Sadler JZ, Kendler KS. 'What is a mental/psychiatric disorder? From DSM-IV to DSM-V.' *Psychological Medicine* 2010 11 40 1759–1765.

Week 4 (13 February)

Andersen, Holly. 'Mechanisms: what are they evidence for in evidence-based medicine?' 2012 *Journal of Evaluation in Clinical Practice* 18: 992–999.

Week 5 (20 February)

Gillies, D. 'Evidence of mechanism in the evaluation of streptomycin and thalidomide.' *Studies in History and Philosophy of Biological and Biomedical Sciences* 66 (2017) 55–62.

Week 6 (27 February)

Baetu, Tudor. 'The "Big Picture": The Problem of Extrapolation in Basic Research.' *Brit. J. Phil. Sci.* 67 (2016) 941–964.

Week 7 (6 March)

Sackett DL, Rosenberg WMC, et al. ['Evidence based medicine: what it is and what it isn't.'](#) *BMJ* 312 (1996) 71–72.

Guyatt G, Cairns J, Churchill D, et al. 'Evidence-Based Medicine: A New Approach to Teaching the Practice of Medicine.' *JAMA* 268 (1992) 2420–2425.

Week 8 (13 March)

Gillies, D. ['Hempelian and Kuhnian approaches in the philosophy of medicine: the Semmelweis case.'](#) *Studies in History and Philosophy of Biological and Biomedical Sciences* 36(1) (2005) 159–181.

Philosophy and History of Physics Reading Group

The reading group meets on **Tuesdays, 4.30pm to 6.30pm in the Board Room**. Please contact Joe Martin (jdm205) or Jeremy Butterfield (jb56) if you would like access to a copy of the readings.

The theme for the term is Gravitational Waves. We suggest the following readings for the first three sessions, and list some other possible readings. But at the first one or two sessions, we will plan later sessions in the light of participants' interests.

23 January

- D. Kennefick, *Travelling at the Speed of Thought: Einstein and the Quest for Gravitational Waves*, Princeton University Press 2007: chapter 3;
- [The 2017 Nobel Prize in Physics: popular science background](#)

30 January

- D. Kennefick, *ibid.*, chapter 5;
- [The 2017 Nobel Prize in Physics: scientific background](#)

6 February

- Kip Thorne, *Black Holes and Time Warps*, W. Norton 1994: chapter 10

There is a copy of the Kennefick and Thorpe books in the Whipple, on Reserve. The book by D. Kennefick is also an [ebook](#), freely available in the Cambridge University domain, through iDiscover.

Casebooks Therapy

Organiser: 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 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.

Meetings are held on occasional Wednesdays, 5.00–6.30pm in the Department. If you are interested in attending, please email Lauren Kassell (ltk21).

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin are very welcome. We meet on **Tuesdays, 3.30–5.00pm in Room P19**, to translate and discuss a text from the history of science, technology or medicine. 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 Boyd Brogan (bb320).

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. This term we will be reading Xenophon's *Oeconomicus*.

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

Easter Term

Departmental Seminars

Seminars are held on **Thursdays from 3.30 to 5pm in Seminar Room 2**. There is tea and coffee before the seminar at 3pm in Seminar Room 1, and there are refreshments afterwards at 5pm in Seminar Room 1.

Organised by Agnes Bolinska.

26 April **Remco Heesen (Philosophy, Cambridge)**
Statistical biases in peer review

Various biases are known to affect the peer review system, which is used to judge journal articles for their suitability for publication and grant proposals for their suitability for funding. These biases are generally attributed to cognitive biases held by individual peer reviewers. For example, gender bias in peer review is explained by the (explicit or implicit) gender bias of individual peer reviewers, as

evidenced by the generally lower scores given to submissions authored by women. Here I introduce the notion of 'purely statistical biases': biases in peer review that arise even when individual peer reviewers are unbiased. This notion suggests that certain social groups or research programs may be disadvantaged by the peer review system even in the absence of cognitive biases. I use formal models to identify three possible mechanisms for purely statistical biases. The first mechanism relies on differences in information about authors available to decision makers. The second mechanism relies on differences in the underlying distributions of the 'quality' of submissions. Finally, the third mechanism comes into play when reviewers judge submissions on multiple criteria: aggregating these judgments into a final decision leads to a third possible source of bias.

3 May Wendy S. Parker (Durham University)

Explaining the recent 'hiatus' in global warming: models, measurement and media

In both scientific journals and the blogosphere, there has been much discussion of a recent 'hiatus' or 'pause' in global warming. Climate skeptics have characterized the hiatus as a major problem for climate change science. In response, climate scientists have invested significant time and energy investigating the hiatus and have developed explanations of it that require no revision to existing theory or models. This talk will provide an overview of these efforts, in order to illustrate some striking features of explanatory practice in climate science. It will focus in particular on the important contributions of computer simulation models, as well as some of the challenges and limitations associated with their use. The analysis will suggest that quantitative 'how-plausibly' explanations are the best that can be hoped for in the case of the recent hiatus.

10 May Erika Milam (Princeton University)

Creatures of Cain: the hunt for human nature in Cold War America

After the Second World War, the question of how to define a universal human nature took on new urgency. This talk charts the rise and precipitous fall of a theory that attributed man's evolutionary success to his unique capacity for murder amid the tense social climate of Cold War America. The scientists who advanced this 'killer ape' vision of humanity capitalized on an expanding postwar market in intellectual paperbacks and widespread faith in the power of science to solve humanity's problems, even answer fundamental questions of human identity. The killer ape theory spread quickly from colloquial science publications to late-night television, classrooms, political debates, and Hollywood films. Behind the scenes, however, scientists were sharply divided. Then, in the 1970s, the theory unravelled altogether when primatologists discovered that chimpanzees also kill members of their own species. This discovery brought an end to definitions of human exceptionalism marked by violence. Some evolutionists reacted by arguing for a shared chimpanzee-human history of aggression even as other scientists discredited all such theories as sloppy popularizations. The legacy of the killer ape persists today in Americans' conviction that fundamental questions of human nature are resolvable through science.

Twenty-Third Annual Hans Rausing Lecture

Andreas Malm (Lund University)

17 May Steamroll all the brutes: coal, steam and British Imperialism in mid-nineteenth century Levant and West Africa

McCrum Lecture Theatre, Bene't Street, at 4.30pm

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 fortnightly on **Thursdays, 1–2pm in Seminar Room 2**. All welcome!

Organised by Mary Brazelton, Joseph Martin and Richard Staley.

Siva Arumugam (Cambridge)

3 May Number, probability and community: the Duckworth-Lewis-Stern data model, Monte Carlo simulations and counterfactual futures in cricket

The Duckworth-Lewis-Stern model of cricket, used to set targets in weather-shortened matches, is framed around two distinct concerns — fairness and prediction. These two concerns are somewhat at odds with one another. I will argue that the fact that this is a data model raises issues surrounding number, probability and community. The relationship between this model, subsequent Monte Carlo models, and cricket is worth examining because it both stands in for and performs a way in which 'data governmentality' might be constructed for society at large. Data models are being used to, for example, determine job applications, college entry, insurance rates, access to credit, voter persuasion, and to monitor health. In this paper, I argue that Monte Carlo models work on and through us by forming new kinds of rule-driven, probabilistic communities oriented towards counterfactual futures.

Renny Thomas (University of Delhi)

17 May Science, scientific method and rationality: Nehru's engagement with Ayurveda

This paper, through detailed archival work looks at Nehru's engagement with Indian knowledge systems. It looks at various ways in which Nehru tried imposing the identity of tradition/religion/superstition to knowledge systems such as Ayurveda. He makes a clear distinction between tradition and modernity, wherein western medicine is seen as modern, and Indian as traditional.

Jawaharlal Nehru, India's first prime minister, was a spokesperson of modern science and technology and saw elements of emancipation in it. For him, scientific method through laboratory work was the only way to 'validate' any systems of knowledge. The massive institutionalization of modern science and technology invited anger from some politicians and leaders as these projects had totally ignored Indian systems of medicine like Ayurveda and Unani. To become 'modern' the existing knowledge systems were asked to prove their scientificity. There were politicians who thought Nehru lacked an understanding of the 'Indian knowledge system'. Nehru responded to the advocates of Indian systems of knowledge by saying that the Government will not support non-scientific, religious and superstitious beliefs and practices. Indian systems such as Ayurveda was perceived as religious by Nehru, wherein he clearly made a distinction between science and religion; western system as rational and scientific, and Indian systems of knowledge as religious. While one must be conscious of the right-wing Hindutva version of Indian systems of knowledge, one needs to also look critically the way in which modern science and medicine was used to marginalize Indian systems such as Ayurveda during Nehru's time.

Sonja Amadae (MIT)

Wed 30 May Before Trump: the neoliberal–illiberal alliance of the IMF and WTO with the Shanghai Cooperation Organization
5.00–6.30pm (note unusual day and time)

Western commentators scratch their heads over the new phenomenon of illiberalism that has recently gained ground in Europe and North America. This trend toward illiberalism has been identified as a particular feature of developmental progress of states without sufficient constitutional safeguards to offer institutional defenses against illiberal tendencies (Zakaria 1997). Yet we now can see that even fully developed constitutional democracies, most prominently the US, have taken this

turn. This paper hypothesizes that neoliberalism, specifically in the form promoted by the International Monetary Fund and the World Trade Organization, forms an ideological and practical alliance with illiberal developmental trends in Eurasia characterized by the Shanghai Cooperative Organisation.

While Western institutions tend to at least pay lip service to democratic governance, in fact the IMF and WTO sponsor policies that do not recognize the value of grass roots participation in the organization of politics and civil society. Whereas the WTO and IMF stand in opposing spheres of interest from the SCO, none of these organizations sponsors the celebrated twentieth-century marriage of free markets under the duly constituted rule of law sustained by democratic politics. Thus, perhaps the global trend towards illiberal regimes with various forms of authoritarian rule should not be surprising given the lack of contemporary robust practical and theoretical defense of open and democratic institutions. This paper closes with a preliminary exploration of modes of institutional organization that may support collective socio-technical imaginaries conducive to legitimate participatory governance. It hypothesizes that the price paid for neglecting inclusive public will formation may be deference to authoritarian forms of leadership that resonate with traditional imaginaries of collective purpose and meaning.

[Fareed Zakaria, (1997) 'The Rise of Illiberal Democracy', *Foreign Affairs*, 76(6), 22–43.]

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.

Generally we 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.

11 May **Julie-Anne Gandier (Bioproducts Laboratory, Department of Chemical Engineering and Applied Chemistry, University of Toronto)**, hosted by Agnes Bolinska
Regenerating nature's smart fabric: identification, characterization and engineering of non-catalytic proteins for the development of environmentally responsive plant-derived textiles materials

25 May **Nick Hopwood, Stephen Eglén, Patricia Fara and Richard Smith**
Scientific publishing

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.

All seminars are held on **Mondays at 1pm in Seminar Room 1**. Please feel free to bring your lunch.

Organised by Sebastian Kroupa (sk796).

30 April **Kathleen Murphy (California Polytechnic State University)**
Beetles in a haystack: collecting insects via the eighteenth-century British slave trade

In 1766, a British ship captain in the Gabon Estuary, just north of the equator in the Gulf of Guinea, found one of the largest beetles then known floating in the river. The Goliath beetle, as it came to be called, quickly became an object of desire among natural history collectors. This talk traces the efforts of Dru Drury, a British silversmith and entomologist, to acquire a specimen of the Goliath beetle by means of the slave trade. The silversmith's correspondence, account books, museum inventory and remarkable ledger of prospective specimen-collectors allow us to trace how a naturalist in the mid-eighteenth century might utilize British commercial and naval circuits to Africa in the pursuit of a particular specimen. The dramatic expansion in British participation in the slave trade by the middle of the century facilitated the efforts of naturalists such as Drury to collect specimens through the same circuits that collected enslaved Africans. Drury believed that Britain's commercial networks would not only enable him to acquire various new African specimens but, in particular, to obtain a Goliath beetle for his own museum. To encourage mariners to become collectors, Drury provided collecting supplies, images of what he desired, directions, and cash payments for each specimen delivered to his London home. In the search for the Goliath beetle, the naturalist repeatedly articulated ways that collecting slaves might lead to collecting specimens.

Marine Bellégo (École des Hautes Études en Sciences Sociales, Paris)

7 May Watering plants, drying specimens: the Calcutta Botanical Garden and its fraught relationship with moisture (c.1864–c.1900)

Created at the end of the eighteenth century, the Calcutta Botanical Garden was an important element of the network of imperial gardens that served economic and political enterprises of the Raj. In the nineteenth century, it became a centre where plants were nursed, grew, transited, fell sick and often died. Some plants were dried in order to be incorporated into the herbarium, the place which was considered the most 'scientific' by the British botanists who claimed to run the garden. Growing plants and drying them both implied controlling quantities of water and moisture, a task that was seen as particularly difficult in what the garden's administration called an 'Indian context'. Plants in the ground were subject to drought, plants in pots fell victims to overwatering, and herbarium specimen were never dry enough. Regulating water was all the more necessary as the garden was situated on the bank of the Hooghly, an arm of the Ganges, and was frequently subject to floods. I argue that this constant and sometimes obsessional preoccupation with moisture expressed the failure of the imperial claim to reduce 'place' to 'context', especially during the period of 'High Imperialism' that characterised the last quarter of the nineteenth century.

László Kontler (Central European University, Budapest)

14 May Earthquakes, the end of the world, and perspectives on the Last Judgment (1686–1756)

This paper – inspired by the prompt in Bernard de Fontenelle's *Entretiens sur la pluralité des mondes* (1686) that 'suns' may and do become extinguished, and 'worlds' come to an end as a result of ordinary processes of transformation in the universe – investigates an aspect of the imbrication of the 'new science' and religious thought in the late seventeenth and the early eighteenth centuries. Firstly, it explores reports, accounts, interpretations of earthquakes (deliberately not the much discussed contributions of Enlightenment classics, but sources from learned journals, independent essays, treatises, sermons etc.) between those of Jamaica (1692) and Lisbon (1755) to assess the extent to which such calamities invited reflection on their natural causes in combination with a consideration of the possibility that they may prefigure an 'end of the world'. Such reflections were not unusual. Secondly, the paper also attempts to establish whether the possibility of such an end of 'this world' also evoked, in this period, thinking that pointed towards Enlightenment as 'the pursuit of happiness *in this world*, regardless of what may or may not come in the next one'. In this regard the result is rather negative: in so far as authors were concerned with larger meanings as to the kind of

lives human beings are supposed to lead, preoccupation with 'the other world' remained highly resilient.

Friday 18 May Cabinet of Natural History Excursion to Stowe Landscape Gardens

We will be visiting Stowe, where we will receive a guided tour of the Gardens, followed by a picnic lunch and finally some free time to explore at our own leisure.

The entrance fee is £12. The Cabinet will provide transport and lunch. Please feel free to bring food to share. We will depart from the Department of Engineering at 10.30am and return to Cambridge by 5pm. Due to the capacity of the minibuses, the number of participants is limited to 14. Please RSVP to Sebastian Kroupa (sk796).

21 May Déborah Dubald (European University Institute, Florence)
Inventorying the Rhone: the scientific travels of Claude Jourdan collecting for the Natural History Museum of Lyon, 1834–1869

Serving as the director of the Natural History Museum of Lyon from 1834 to 1869, Claude Jourdan managed the museum's collections for nearly a lifetime with determination of his own. The museum's archive and his *Journal d'Entrées* are particularly representative of the importance of travel in Jourdan's collecting practices, especially of his efforts to assemble a comprehensive collection of minerals and fossils documenting the geology of the Rhone river basin. The respective specimens shed light on locational patterns, as well as pointing to the social dimension of Jourdan's mobility. The web of intermediaries and contacts patiently weaved together over decades provides insights into the collecting strategies developed by Jourdan, but also into the construction of his own persona within the scholarly world.

As an employee of a municipal museum, Jourdan also operated as a servant of the public establishment. Therefore, in addition to gathering specimens for the museum, Jourdan was charged with defining professional competences in the context of a public institution, as well as with negotiations with funding bodies, which were simultaneously local political authorities. Through looking at the prevailing and the peculiar in Jourdan's collecting practices, this paper will emphasise situational and contextual aspects of scientific knowledge production in Lyon. In particular, I seek to expose the construction modalities of the museum authority as a site of scientific knowledge and interrogate the extent to which this was tied to the invention of the director's own authority and persona.

Friday 15 June Cabinet of Natural History Garden Party, Caius Fellows' Garden, 1–3pm
Dániel Margócsy (HPS, Cambridge)
A natural history of satyrs

This talk examines how European natural historians made a connection between Ancient fables and exotic animals from the Renaissance to Darwin's contemporaries, focusing on the identification of the satyr with the orangutan. In recent years, historians have examined how early modern naturalists relied on humanist philology to identify the Greek plants of Dioscorides and Theophrastus with local plants in their environs. Yet the scholarship has ignored how naturalists also consulted myths and fables to make sense of exotic plants and animals. Well into the nineteenth century, natural historians assumed that, poetic licence aside, these sources offered factual evidence about real species. An expertise in natural history included the interpretive skill to tease out the difference between fact and fiction in poetry. This talk examines how European scholars justified their belief in

the power of myth by making complex arguments about the age-old circulation of knowledge between the Far East and Europe.

AD HOC

AD HOC (Association for the Discussion of the History of Chemistry) is a group dedicated to history of chemistry. While our main focus is historical, we also consider the philosophical, sociological, public and educational dimensions of chemistry. The group meets on **Mondays at 5pm in Seminar Room 1**. Coordinated by Karoliina Pulkkinen.

14 May **Frank James (UCL; The Royal Institution)**
Humphry Davy's mineral collecting for the early Royal Institution

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](#)

2 May **Natalie Gold (KCL)**
Guard against temptation: team reasoning and the role of intentions in exercising willpower

9 May **Agnes Bolinska (HPS, Cambridge) and Julie-Anne Gandier (University of Toronto)**
Understanding protein function through multiple models of structure: barriers to integration

16 May **Mike Stuart (LSE)**
A new way to defend the value free ideal for science

23 May **Darrell Rowbottom (Lingnan University; Durham University)**
What *can* scientific realists think about scientific method(s)?

30 May **Mazviita D. Chirimuuta (University of Pittsburgh)**
Constructing the organism in the age of abstraction

The Intersection of Gender, Race and Disability with Philosophy of Science

This new reading group meets on **Mondays, 2–3pm, in the Board Room**. Organised by Azita Chellappoo (asc63).

Week 1 (30 April)

Jordan-Young, Rebecca & Rumiati, Raffaella I. (2012). Hardwired for Sexism? Approaches to Sex/Gender in Neuroscience. *Neuroethics* 5 (3):305–315.

Week 2 (7 May)

Carlson, Licia (2016). Feminist Approaches to Cognitive Disability. *Philosophy Compass* 11 (10):541–553.

Week 3 (14 May)

Mills, C. W. (1997). *The racial contract*. Cornell University Press. [Chapter to be circulated]

Week 4 (21 May)

Edwards, Claire (2013). The Anomalous Wellbeing of Disabled People: A Response. *Topoi* 32 (2):189–196.

Week 5 (28 May)

Gallegos, Sergio A. & Quinn, Carol V. A. (2017). Epistemic injustice and resistance in the Chiapas Highlands: the Zapatista Case. *Hypatia* 32 (2):247–262.

Week 6 (4 June)

Goldenberg, Maya J. (2013). How can Feminist Theories of Evidence Assist Clinical Reasoning and Decision-Making? *Social Epistemology* 1–28.

Week 7 (11 June)

McKinnon, Rachel (2015). Trans*formative Experiences. *Res Philosophica* 92 (2):419–440.

Science and Literature Reading Group

The Science and Literature Reading Group will hold two sessions which were postponed from last term due to industrial action. We first complete our explorations of the aether by looking at the theme of communication, across and beyond the globe. We will then celebrate the end of our elements series with a found poetry workshop using [all of the texts](#) we have read and discussed over the previous two academic years.

All are welcome to join in our wide-ranging and friendly conversations, which take place at Darwin College on selected Monday evenings from 7.30–9pm. The group is organised by Melanie Keene and Charissa Varma.

For recaps, further readings, news, and other updates, please follow us on Twitter [@scilitreadgrp](#) or visit [our blog](#).

14 May – Communication

- [Rudyard Kipling, 'Wireless' \(1902\)](#)
- [Philip R. Coursey, 'Interplanetary Wireless?', *Wireless World* \(1920\)](#)
- [Eric Roach, 'Beyond' \(1950\)](#)

4 June – End of year party and Elementary Poetry workshop

- [Online introduction to found poetry](#), and [examples](#)

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

1 May **Jacob Stegenga:** 'Bayesian Mechanista'

8 May **Hamed Tabatabaei-Ghomi:** 'Mirror mirror on the wall: can we decompose them all? What we learn about decomposability by looking into recomposition?'

15 May **Raphael Scholl:** 'Bridging the gap between populations and individuals by n-of-1 studies'

22 May **Tim Lewens:** 'Blurring the germline'

Casebooks Therapy

Organiser: 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 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.

Meetings are held on occasional Wednesdays, 5.00–6.30pm in the Department. If you are interested in attending, please email Lauren Kassell (ltk21).

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin are very welcome. We meet on **Tuesdays, 3.30–5.00pm in Room P19**, starting on 1 May, to translate and discuss a text from the history of science, technology or medicine. 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 Boyd Brogan (bb320).

Manchu Therapy

The Manchu Therapy group meets **fortnightly on Tuesdays, from 3.00 to 4.00pm, in the Board Room** starting on Tuesday 24 April.

Manchu Therapy is an informal group for those who have an interest in the Manchu language, or who are working with Manchu documents, to learn more and improve their reading skills. (See this brief description of the [Manchus and the Manchu language](#).) Every other week, we will meet to read texts together. All are welcome.

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. This term we will be reading selections from Athenaeus' *Deipnosophistae*.

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