

Contents

The Department	2
Introduction	2
Congratulations	3
Staff and Affiliates	4
Comings and Goings	8
Roles and Responsibilities.....	9
Prizes, Projects and Honours	11
Students.....	12
Part II Essay and Dissertation Titles	14
MPhil and Part III Essay and Dissertation Titles	16
The Library.....	26
The Museum.....	31
Annual Reports of Members of the Department	32
Seminar Programmes	42

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The Department

Introduction

The 20-21 academic year was marked by even further disruption due to the COVID-19 pandemic. Virtually all teaching for the year took place online via streaming services, and the building remained largely unoccupied through all three terms, with the notable exception of the Whipple Library, which stayed open to facilitate a click-and-collect service (though the stacks were still closed to the public). As with the 2019-2020 year, Part IB and Part II examinations were open book essay writing exercises. How many of the changes continue remains to be seen.

Adding to the strange new world, Tamara Hug announced her retirement at the beginning of 2021, and stepped down at the end of Lent term. Tamara has been in HPS for a long time, first in the Wellcome Unit before moving into her position as DA. She successfully shepherded the HPS Department through difficult HE environments while preserving its unique identity as a friendly, open department. On her retirement the department established the Tamara Hug Fund, which will be used for recognition and reward of the professional services staff in HPS, whose hard work Tamara often championed. We are sure everyone in the department thanks Tamara for her tireless service over the years.

She was replaced in her role by Jane Clare, who took up the post in July 2021, joining the Department from the NST Tripos administration. Everyone in the department wishes her the best of luck in her new position.

Additionally, Raphaëlle Goyeau joined the Whipple Library as the new Library Assistant, permanently filling the vacancy that had been left since the previous year.

Congratulations

Hasok Chang was awarded the 2021 Abraham Pais Prize for History of Physics, awarded by the American Physical Society, “For innovative and influential studies on the history and philosophy of the physical sciences, including scholarly works on scientific evidence, the physics-chemistry interaction, and historical and epistemic aspects of thermal physics.” Hasok was also elected the Second Vice-President of the International Union for HPS, Division of History of Science and Technology.

Josh Nall received the Philip J Pauly prize from the History of Science Society, awarded for the best first book on the history of science in the Americas, for his book *News from Mars: Mass Media and the Forging of a New Astronomy*.

Meira Gold, who was awarded a PhD by the department in 2020, was awarded the Reingold Prize by the History of Science Society, which recognises an outstanding piece of scholarship by a graduate student. The prize-winning essay, ‘Shit Archaeology: Ancient Fertilizer and the Manufacture of British Egyptology, 1877-1906’, written by Meira while she was an HPS student, was described by the prize committee as “a major contribution to our understanding of the development of colonial science and technology”.

The documentary film ‘Killing Patient Zero’, based on **Rich McKay’s** book *Patient Zero and the Making of the AIDS Epidemic*, and on which Rich was a historical consultant, was awarded the American Historical Association’s John E O’Connor Film Award for outstanding interpretations of history through film.

Jessica Lee’s book *Two Trees Make a Forest* won the 2020 Hilary Weston Writers’ Trust Prize, Canada’s most prestigious prize for literary non-fiction.

Steve Kruse won the University of Cambridge Museums’ ‘Colleague Recognition’ award in 2020.

Cristian Larroulet-Philippini won the 2020 Emanuel Miller Prize for his essay ‘Valid for What? On the Very Idea of Unconditional Validity’. The prize is awarded by St John’s College and celebrates work in the philosophy of behavioural sciences.

Liba Taub was awarded the 2021 Paul Bunge Prize in recognition of her outstanding work on the history of scientific instruments.

Arthur Harris was appointed the Lloyd-Dan David Research Fellow at the Needham Research Institute and Darwin College

Lauren Kassell was appointed the Chair in History of Science at the European University Institute in Florence, Italy. This is a fixed term position that will last five years, after which Lauren will return to the HPS Department.

Dániel Margócsy, along with his collaborators, won the Neu Whitrow Prize for their book *The Fabrica of Andreas Vesalius*. The prize is awarded by the International Union of HPS’ Division of History of Science and Technology every four years to an individual or team for creating the most innovative research tool for managing, documenting and analysing sources within the history of science and technology.

Jessica Hamel-Akré gave birth to a new baby boy, Florent, and **Emma Perkins** gave birth to a daughter, Francesca Abigail Millar.

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
Raphaëlle Goyeau
Agnieszka Lanucha
James Livesey
Dawn Kingham

Museum Staff

Morgan Bell
Alison Giles
Steven Kruse
Joshua Nall
Alison Smith

Teaching Officers

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

Dániel Margócsy
Staffan Müller-Wille
Simon Schaffer
Richard Staley
Jacob Stegenga
Liba Taub

Teaching Associates

Salim Al-Gailani
Matt Farr
Sam Robinson

Research Fellows

Leah Astbury
Andrew Buskell
Tad Brown
Sarah Dry
Remco Heesen
Boris Jardine
Natalie Kaoukji
Richard McKay
Harriet Mercer
Ryan Nehring
Rune Nystrup
Jonathan Penn
Jessica Hamel-Akre
Henry Shevlin
Carolin Schmitz
Raphael Scholl
Andreas Sommer

Affiliated Lecturers & CTOs

Marina Frasca-Spada
Sachiko Kusukawa
Deborah Thom

College Fellows

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

Emeritus Professors

German Berrios
Andrew Cunningham
Nick Jardine
Geoffrey Lloyd
Michael Redhead
Jim Secord

Other UoC People who do HPS

Shahar Avin
Debby Banham
Michael Bravo
Angela Breitenbach
Shawn Bullock
Chris Clarke
Saul Dubow
Robbie Duschinsky
Rebecca Flemming
Sarah Franklin
Richard Holton
Shelley Innes
Martin Johnson
Tony Lawson

Kathy Liddell
Scott Mandelbrote
Peter Mandler
Alexander Marr
Jianjun Mei
Francis Neary
Alison Pearn
Huw Price
Edwin Rose
Richard Serjeantson
Sujit Sivasundaram
Jeff Skopek
Richard Smith

Liz Smith
Emma Spary
Simon Szreter
Jack Wright

Affiliated Scholars

Siva Arumugam
Peter Bowler
Robert Bud
Soraya de Chadarevian
Silvia De Renzi
Roger Gaskell

Marion Godman
Sonia Horn
Milena Ivanova
Sarah Marks
Jaume Navarro
Emma Perkins
Sadiah Qureshi
Jennifer Rampling
Rob Ralley
Anne Secord
Mark Tonelli
Paul White
John Young

Visitors and Students

Visitors

Christoffer Basse Eriksen
Guangkuan Xie
Kenneth Bradley Wray

Leore Joanne Green
Angela Gui
Arthur Harris
David Harrison
Celine Henne
Oliver Holdsworth
Yijie Huang
João Joaquim
Isaac Kean
Miles Kempton
Rory Kent
Cristian Larroulet Philippi
Zinhle Mncube
Olin Moctezuma Burns
Ruward Mulder

Adrià Segarra Torné
Elizabeth Seger
Anna Skulberg
Philipp Spillmann
Hamed Tabatabaei Ghomi
Hannah Tomczyk
Muhammad Tayara
Amelia Urry
Bobby Vos
Xinyi Wen
Oscar Westerblad
Sheryl Wombell
Jia Yu

PhD students

Fiona Amery
Claudia Baisini
Lukas Beck
Olesya Bondarenko
Laura Brassington
Gregory Bridgman
Tyler Brunet
Eoin Carter
Rebecca Charbonneau
Charlotte Connelly
Theo Di Castri
Katherine Duncan
Ahmad Elabbar
Rhianna Elliott
Adrian Erasmus
Grace Field
Gianamar Giovannetti-Singh
Henrique Gomes

Richard Ngo
Miguel Ohnesorge
Claire Oliver
Erlend Owesen
Daniel Ott
Hitesh Pant
Howard Parchment
Peter Rees
Raphael Scholl
Daniela Sclavo Castillo
Guy Sechrist

MPhil students

Armen Agopian
Alexander Aizenman
Cédric Blais
Isabella Brigstocke
Erinn Campbell
Stephan Dalügge
Mateusz Dziuda
Keane Farley
Jonah Goldman
Georgia Kapsali

Friedrich Kleffmann
Svit Komel
Anin Luo
Mary Maceda
James Mamana
Gabriela Mancey-Jones
Ciarán Mulqueen
Astrid Oredsson
Zachary Ottati
Harry Potts
Matthew Rosen
Kathleen Simpson
Abdullah Bedel Turker
Alexander Van Dijk
Mona-Marie Wandrey
Margaret Williams
Rosie Williamson
Greta Chevance
Sarah Goodman

Part III students

Ellie Aris
Freddie Bartlett-Evans
Alex Burns
Bevan Chandrasekaran
Jonny Cottrell-Mason
Maryam Dorudi
Grace Exley
Korbinian Kettner
Zak Lakota-Baldwin
Charlotte Morris
Rosamund Powell
Timothy Sim
Jacob Van Buren
Clemens von-Stengel
Charlotte Zimmel

HMS MPhil

Akashi Alam
Nada Attia
Indigo Ayling
Lilliana Buonasorte
Zoé Charpentier
Adeline Choo
Tess de Rooij
Nathan Grant
Emma Mitchell-Sparke
Bilal Nadeem
Anna Park
Isabel Ruehl
Charlotte Salf
Cerise Siamof
Meklit Tesfaye
Naazanene Vatan

Part II Students

Ananya Arora
Praneet Bolusani
L.M. Botje
Philip Brown
Cameron Burnett
Naproud. Cherchawankul
Eugene Chia
Jack. England
Alice Ertl
Alex Fitzgerald
M. Fitzgerald
Harriet Gilbert
Riley Hu
Rebecca Hunter
Alison Hutchinson
Lizzie Jack
Mimi Kelson
A. Kumar
Sena Kurt-Elli
George Laing
Harry Langford
Mehul Meghani
Hanif Nasser
Y. Novik

Gayatri Vijapurkar
Michael Yates

Classics students taking Paper 1

Amy Hill
Bethan Miller

PBS students taking HPS4

Mia Reisser-Weston
Sophie Watson

Philosophy IB students taking Paper 5

Sophie Barnett
Marta Bax
Karim Shoaib
Joshua Korber Hoffman
Amy Preece
Georgia Cruse-Drew
Karolina Filova
Lodovico Benvenuti
Alfred Sayer
Åke Gafvelin
Daniel Gallagher
François Vibert
Hugo Williams
Eleanor Heaps
Django Melly
Stanley Evans
Percy Verity
Joe Chidwick
Oxana Zhigalova
Edvin Morell
Arvid Häggqvist

BBS Early Medicine

Laura Dearn
Millie Garner
Louis Vuillemoz
Winston Yao

BBS Modern Medicine

Beatrice Asquith
Danielle Browne

BBS PEM

Eve Denaver
Conor Fairhead
Kristian Galea
Anna Kelly
Alice Riglin
Jeffrey Tooze
Beth Wilkinson

PBS taking Part II Paper 5

Oxana Grosseck
Oliver Smith

**HSPS taking Part II Paper
5**

Rustan Smith

**HSPS Taking Part II Paper
6**

Annika Luis Hilbert

**History Students taking
BBS Early Medicine**

Emily Bonnon
Sophie Cliff
Alycia Gaunt
Anna Gray
Lucy Hewitson
Hussain Ismail Mohammed
Olivia Kumar
Eden Maddix Odeniyi
Georgia Marker
Phoebe McDonnell
Grace Peters

Comings and Goings

Mark Rogers, the Department's IT Officer, retired in April 2020

Harriet Mercer joined the department to work on Richard Staley's 'Making Climate History' project in May 2020

The two staff changes above were erroneously omitted from the 2019-2020 Annual Report

Andreas Sommer, a Department Research Associate, finished his research project 'Scientific Naturalism, Unchurched Spiritualities, and the Right to Believe: William James, Agnosticism, and the Sidgwick Group' and left in December 2020

Boris Jardine left his Research Associate position in September 2020 but re-joined the department in January 2021 working on a joint project with Liba Taub entitled 'Tools of Knowledge: Modelling the Creative Communities of the Scientific Instrument Trade, 1550-1914'

Raphaëlle Goyeau took up the position of Library Assistant in January 2021.

Richard McKay left his position as a Research Associate in January 2021

Ryan Nehring started in January 2021 as a Research Associate on Helen Curry's project, 'From Collection to Cultivation: Historical Perspectives on Crop Diversity and Food Security'

Matt Beros started in June 2021, working on Boris Jardine and Liba Taub's project 'Tools of

Knowledge: Modelling the Creative Communities of the Scientific Instrument Trade, 1550-1914'

Natalie Kaoukji left her position as a Teaching Associate in June 2021

Tamara Hug, the Departmental Administrator, retired in March 2021, and **Jane Clare** began her tenure as the new Administrator in July 2021

Samuel Robinson, who joined the department in September 2020 as a Teaching Associate, left the position in August 2021 to take up a senior research fellowship at the Southampton Marine and Maritime Institute

Emma Curran, a research assistant working on Stephen John's project 'COVID-19: Rethinking the Ethics of the Vaccination', left in August 2021

Leah Astbury left the department in September 2021 to work on the Wellcome-funded project 'Sleeping well in the early modern world: an environmental approach to the history of sleep care' at the University of Manchester

Salim Al-Gailani, who was previously a Teaching and Research Associate, took up a Fixed Term Lectureship in September 2021, replacing Nick Hopwood while the latter is working on leave to work on his research project

Roles and Responsibilities

Departmental Positions

Head of Department: Tim Lewens

Departmental Administrator: Tamara Hug (M&L)

Director of Graduate Studies: Nick Hopwood (M&E), Hasok Chang (L)

HPS MPhil Managers: Marta Halina, Staffan Müller-Wille

HMS MPhil Managers: Jacob Stegenga

Part III Manager: Helen Curry

Part II Manager: Stephen John

Part IB Manager: Lauren Kassell

Staff Development Officers: Tim Lewens (UTOs), Lauren Kassell (post-docs), Tamara Hug (administrative)

Dignity Officers: Hasok Chang, Lauren Kassell, Staffan Müller-Wille

College Liaison Officer: Stephen John

Chair of the Monitoring Committee: Stephen John

Graduate Training Officer: Salim Al-Gailani

Equality and Wellbeing Officer: Anna Alexandrova (M), Helen Curry

Language Officer: Mary Brazelton, Lauren Kassell

Green Champion: Helen Curry

HPS Board and Degree Committee

Chair of the HPS Board: Simon Schaffer (M), Lauren Kassell (L&E)

Chair of the HPS Degree Committee: Nick Hopwood (M&E), Hasok Chang (L)

Professors and Readers: Anna Alexandrova, Nick Hopwood, Lauren Kassell, Tim Lewens, Dániel Margócsy, Simon Schaffer (Chair), Richard Staley, Jacob Stegenga, Liba Taub

Curator and Director of the Whipple

Museum: Josh Nall, deputising for Liba Taub (o/l)

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

Librarian: Jack Dixon

General Board Members: Angela Breitenbach, Emma Spary

Co-options: Mary Brazelton, Marta Halina, Stephen John, Staffan Müller-Wille

Elected Members:

Digital Humanities Officer: Lauren Kassell

Philosophy Faculty Board Representative: Anna Alexandrova (M), Stephen John (L&E)

NST Committee Representative: Helen Curry

HSPS/PBS Tripos Representative: Marta Halina

Examiners

NST Part IB History and Philosophy of Science

Senior Examiner: Matt Farr

Examiners: Andrew Buskell, Nick Hopwood, Stephen John, Dániel Margócsy, Emma Perkins, Richard Staley

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

Senior Examiners: Staffan Müller-Wille

External Examiner: Simon Werrett (UCL)

Examiners: Salim Al-Gailani, Hasok Chang, Helen Curry, Lauren Kassell, Tim Lewens, Sam Robinson, Jacob Stegenga, Emma Spary (Assessor)

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

Senior Examiner: Salim Al-Gailani

External Examiner: Chiara Ambrosio (UCL)

Examiners: Hasok Chang, Helen Curry, Nick Hopwood, Staffan Müller-Wille

MPhil in Health Medicine and Society

Senior Examiner: Marta Halina

External Examiner: Monica Greco (Goldsmiths)

Examiners: Stuart Hogarth, Natalie Kaoukji, Sian Lazar, Jacob Stegenga

Prizes, Projects and Honours

Student Prizes

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

Eugene Chia

Willmoth Prize – Best Dissertation Performance in HPS Part II

Eugene Chia *and* Alice Ertl

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

Zak Lakota-Baldwin

Lipton Prize—Best Overall Performance in the HPS Part III Course

Zak Lakota-Baldwin *and* Charlotte Zimmel

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

Mona-Marie Wandrey

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

Svit Komel *and* Anin Luo
and Mona-Marie Wandrey

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

Lilly Buonasorte

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

Indigo Ayling

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

Rosie Williamson

Seminars and Special Lectures

The Sixteenth Cambridge Wellcome Lecture in the History of Medicine was given on Thursday 11th February 2021 by Professor Sasha Turner (John Hopkins University), with the title *Doctors v. midwives: Caribbean medical encounters in the age of prenatal abolition*.

The Hans Rausing Lecture in the History of Technology was delayed until Michaelmas Term 2021 owing to the ongoing Coronavirus pandemic.

Students

Student Numbers

Undergraduates	Part IB	55
	Part II (incl. Classics, History, HSPS, PBS, and Phil.)	25
	Part II BBS: Philosophy and Ethics of Medicine	7
	Part II BBS: Modern Medicine	2
	Part II BBS Early Medicine	4
	Part III	15
Graduates	HPSM MPhil	25
	HMS MPhil	16
	PhD	

Examination Results

Part IB	Average mark	61.8
Part II	I	13
	IIi	11
	IIii	-
	III	-
	Fail	-
Part II BBS Philosophy and Ethics of Medicine	I	3
	II.i	3
	II.ii	1
	III	-
	Fail	-
Part III	I	9

II.i	5
II.ii	-
III	-
Fail	-

Graduate Degrees Awarded

HPSM MPhil degrees awarded	25
HMS MPhil degrees awarded	16
Part III degrees awarded	15
PhD degrees awarded	

Part II Essay and Dissertation Titles

Primary Source Essays

The Science of Sexual Desire

Why sexual addiction should be classified as a disease

The role of non-epistemic values in Sexual Behavior in the Human Male (also known as the Kinsey Report)

Defending the pair-bond theory of the female orgasm

Plain-ish sex: an analysis and expansion of the work of Nagel, Solomon and Goldman

The differences in strength of sexual desire between the two human sexes

Perversion and universality

The nature of sexual desire

Do the diagnostic criteria for Female Orgasmic Disorder in the DSM-5 need a rethink?

To medicalise or not to medicalise? An analysis of Chloë Taylor's approach to female sexual dysfunction

Freud and inversion: a critical analysis of sexual aberrations

Why constructivist approaches provide better explanations for female libido than evolutionary psychology

Does Evolutionary Theory Need a Rethink?

Extension, synthesis and structure in evolutionary theory

Evolutionary theory, epigenetic inheritance and empirical evidence

Science for the People

Tracking the evolution of Science for the People, organization and magazine, through women's reproduction

"Winning the hearts and minds of scientists: how Science for the People used the chemical and biological weapons programme to challenge Cold War America's military-industrial complex"

A reflection on how politics framed the discussion of energy and environmental concerns in the magazine Science for the People

An exploration of academic interventions on race versus ground level activism in Science for the People magazine

Science for the (homosexual) people: how contributors used Science for the People to take a stance against homophobia

Why does Science for the People describe science as perverted in the Vietnam War era?

How contributors to the Science for the People magazine used analyses of the food and agriculture industry to link large-scale changes to negative impacts on specific groups of people

The Board of Longitude

Sextant production: the interaction between the instrument-makers and the Board of Longitude

What roles did the method of dead reckoning play throughout the history of the Board of Longitude?

The Direction of Time

How would Reichenbach have reconciled the differences between human and physical time?

What are the implications of adopting alternative languages of time?

If there is a solution to the philosophical problem of time, is it really written down in the equations of mathematical physics

Dissertations

Do we have an obligation to be vaccinated?

Ethical issues surrounding the use of DNA-CPR orders with respect to the Covid-19 pandemic

The problem of interpretability in machine learning – ethical motivations and solutions

The IAEA and the use of nuclear technologies in agriculture in developing countries: 1957–1989

Japan's alleged atomic bomb test in 1945

The East India Company and the ways in which it carried out the analysis and collection of data for imperial activities

An analysis of the role of demarcation in climate change debates

Revisiting Samuel Hartlib's influence on the early history of the Royal Society

The dual-role dilemma in forensic psychiatry

Extended self in a modern technological context

Case studies in the decolonisation of climate science

The ethics of germline modification

Restoring trust in pharmaceutical research: how conflict of interest management can aid in reaching this goal

Are we going wrong by trying to measure human empathy in animal minds?

Thank you NHS: on solidarity, and why the principles underpinning public healthcare are undermined by the private sector

The obesity epidemic

The emergence of the Global South in the scientific bureaucracy of UNESCO: the case of seismology and earthquake science

Vitamarketing: vitamins, British consumers, and the Second World War

Herschel and Uranus in the public sphere

The experiment in 17th-century medicine in England

Should patients with self-inflicted illnesses be treated free at the point of service?

MPhil and Part III Essay and Dissertation Titles

HPSM MPhil Essay and Dissertation Titles

Armen Agopian

Pastoral power and overpopulation: a case study analysis of neo-Malthusian ecology

Ozone depletion and science diplomacy: an epistemic communities approach to state interest formation

Recoupling science and politics: strategies for climate action past, present and future

Dissertation

Weather modification and climate modelling: Nile Blue and the Cold War geopolitics of science

Alexander Aizenman

Can the study of international relations be value free?

As easy as cooking mutton: the intuitive empiricism of Bentham's theory of evidence

From 'Masonry' to 'Giant Death Robots': qualifying and contextualizing the technological determinism of the Civilization game series

Dissertation

Francis Bacon and torture as a means of discovery: reconsidering the 'vexation' of nature

Cédric Blais

Are multispecies assemblages non-scalable? An examination of networks in biology and the humanities

Biopsychism and the theory-light approach to consciousness

An examination of the empirical foundations of Flat Earth Theory in light of the demarcation problem

Dissertation

Can embedded philosophers of science be experimentalists? The case of giant viruses

Isabella Brigstocke

Examination of 'The Paradox of Declining Female Happiness' as a case of underdetermination

Sex and vagueness: against testosterone-restrictions in the female sports category

PCOS and disease creep: a creep-ing threat to women?

Dissertation

'Gendered illness': understanding the lived experience of PCOS

Erinn Campbell

'Botanical freaks': preservationist and utilitarian thought in postwar American bristlecone dendrochronology

A useful model? Extrapolating from the neuroendocrinology of paternal behaviour in California mice (*Peromyscus californicus*)

Clothing in Anglo-Indian medical topography, 1839–1844

Dissertation

Attention, please! Recovering working-class audience experiences at popular science lectures in Britain, 1850–1900

Stephan Dalügge

Reference class problems in Boorse's Biostatistical Theory and comparativist theories of disease

Threads of microscopical research: Martin Barry's embryological and histological investigations

Narratives in economics: limits to growth

Dissertation

Kurt Gödel's philosophical notebooks: notebook-writing as a way of leading a philosophical life

Mateusz Dziuda

Transplant ethics: systematizing non-standard MELD score exceptions

The discursive and conceptual status of 'bioluddism' in transhumanist discourse

Arendt, the proto-bioconservative: understanding the thought and philosophy of Hannah Arendt as foundational to bioconservative principles

Dissertation

An Arendtian solution to the problem of human enhancement

Jonah Goldman

Minding the body, bodying the mind: dualism, reductionism, and the mental/neurological distinction in enactive psychiatry

To label or not to label? The blackbox warning on antidepressants, looping effects, and the limits of the inductive risk framework

Livin' the dream: modal phenomenal knowledge and the epistemic value of dream experience

Dissertation

Meaning, madness and methodology: revisiting Karl Jaspers on the incomprehensibility of delusions

Georgia Kapsali

Mechanistic explanation in biology: the issue of generality

Defining scientific creativity

No lessons from history? COVID-19 and public history

Dissertation

Artificial intelligence and creativity

Friedrich Kleffmann

Granularity and the classification of diseases

Samuel von Basch's model-based justification of his novel sphygmomanometer

Diagnostic placeholders and the sick role: the case of Chronic Fatigue Syndrome

Dissertation

Upcoding in the German DRG system for hospital reimbursement: lies, epistemic risk, and values in science

Svit Komel

Metrication and mesures usuelles: a survey of the metre's tacit history

Petty's instruments: the Down Survey (1655–1659) and contrivance of natural-historical labour

Symbolic and intuitive thought in universal scientific languages: from Leibniz's *characteristica universalis* to absolute measurement

Dissertation

Technology in scientific practice: how H.J. Muller used the fruit fly to investigate the x-ray machine

Anin Luo

Human unexceptionalism: mosquitoes, empire, and the difficulties of writing a multispecies history

Animal anxieties: the dual emergence of experimental biology and animal protection in Republican China

Anthropocentrism, presentism, and the erasure of the self: historical method in the Anthropocene

Dissertation

Cryptic diseases and the invention of a veterinary history: the mutual complication of epizootic science and international policy between the world wars

Mary Alice Maceda

The visual rhetoric of Panis Quadragesimalis: Kepler's 'Lenten bread' as a physical account of a geometrical model

Inventing galvanometers: multiple innovation in electrical instrumentation

Black bile and melancholy: the relationship between mental and physical in the work of Galen of Pergamum

Dissertation

Visualising hyperbolic geometry: finding an intuitive understanding of non-Euclidean space

James Mamana

What kind of thing is capitalism?

A confutation of critical scientific realism

Ideology, conventions and institutions: a reply to Sankaran

Dissertation

Recovering the labor theory of value: a complementary science for economics

Ciarán Mulqueen

Economics and the entanglement of facts and values: against two conceptions of value-neutrality

Mockery and money: the prehistory of peer review in the Royal Society, 1655–1752

Self-undermining objections to scientific pluralism

Dissertation

Evolutionary debunking arguments, evolutionary science, and empathy

Astrid Oredsson

A case for rejecting sexual impulsivity as a symptom of borderline personality disorder

Artificial intelligence and opacity in human decision-making: using AI to encourage disclosure of medical mistakes

Failure of care: community-based mental health care from the perspective of psychiatric social workers in England, c.1959–1970

Dissertation

Failure to care: understanding the dismissal of racialised patients' pain testimony in the obstetric setting as 'care injustice'

Zachary Ottati

A pan-dispositionalist defense of dispositional essentialism

Toward a moderate interpretation of Ludwik Fleck's Genesis and Development of a Scientific Fact

Articulating, justifying and defending a novel species of B-Theory of time

Dissertation

Pan-dispositionalism, categoricism, and the mixed view: a metametaphysical case study

Harry Potts

'Computer vision': MIT, imaginaries and the future of American computing

'Interdisciplinary interactions': NIPS 1987 and the politics of neural networks

Polarisation and preferences in recommender systems

Dissertation

Reading machines: Bell Labs and the neural network 'revolution' 1986–1996

Matthew Rosen

'Reality is a man-made process': the Real Time catalogues, 'information overload', and the cybernetic 1970s

The beauty of the gesture: Alfred Jarry, anarchism, and the pataphysical exception

George Spencer Brown and the groovy science thesis, or, if you remember the long 1960s you weren't really there

Dissertation

The making of Edge Knowledge: John Brockman, the Third Culture, and the promotion of science writers in the dot-com era

Katy Simpson

Crossed currents: Richardson's Magneto-Galvanic Battery and the enchantment of late Victorian consumer electrotherapeutics

The modernity of Margaret Morris: natural dance, scientific notation and remedial movement in interwar Britain

Naming the spectrum, testing perception: colour vision in early British psychology

Dissertation

The psychiatric prescription of occupational therapy in interwar Britain

Alexander Van Dijk

'This forbidden tree of science': reassessing Jan Swammerdam's religious feelings between 1673 and 1676

Modelling policies accommodating conscientious objection to vaccination on policies accommodating conscientious objection to conscription: problems and solutions

'And fairly to test': space and credibility in the production process of Roderick Murchison's *The Geology of Russia*, 1840–1845

Dissertation

'Their own embellishments and imaginations': competition, observation and the uniformity of nature in Jan Swammerdam's visual registers

Mona-Marie Wandrey

Is the integrated information theory of consciousness panpsychist?

Managing uncertainty in disorders of consciousness

Is artificial consciousness possible? An analysis of cognitive and biological arguments

Dissertation

Self-consciousness and moral status

Margaret Williams

Criollos, Casta, and the European gaze: transatlantic discourses of racial hierarchy in late-colonial Peru, 1791–1806

The wonderful adventures of Mrs Seacole in British memory: Mary Seacole's symbolic

value to Black British history and the history of nursing, 1980–present

The biopolitics of zoonotic disease: Sydney's plague epidemic and the spectrum of Sinophobia in public health and epidemiology, 1900–1910

Dissertation

Birth control for a 'bursting Britain': family planning and population control advocacy in the British press, 1966–1974

Rosie Williamson

The root of the problem: understanding deforestation in the British Caribbean during the 18th century

All in a flap: paper, bodies and touch in George Spratt's Obstetric Tables

'The holy trinity of Sun, Wind and Sh*t': masculinity and radical environmental futures in Undercurrents, the magazine of radical science and people's technology, 1972–1984

Dissertation

'A half-privileged class of young surgical adventurers': masculinities, medical men, and midwifery in the Carlisle controversy of 1827

Part III Essay and Dissertation Titles

Ellie Aris

Investigating discussions of 'appropriate technologies' in the BSSRS radical science publication Science for People (formerly BSSRS Newsheet), 1969 to 1973

A 'relativistic' approach to economy: exploring Franz Boas' conceptualization of 'trade' in The Central Eskimo (1888)

Dissertation

An exploration of the concept of the 'gift' in the works of Bronislaw Malinowski and Marcel Mauss

Freddie Bartlett-Evans

To what extent was classical thermodynamics shaped by the Industrial Revolution?

Reframing COVID-19 vaccine hesitancy and the need for translational experts

Dissertation

Intentional fictions or inaccurate realism? An analysis of COVID-19 models for policy

Alex Burns

Better best systems, special science laws, and the problem of provisos: a defence

The counter-mapper's dilemma: alternative cartographies and epistemic injustice

Dissertation

Has there always been 'every conceivable type of person'? Homosexuality, natural kinds, and the sciences of sexual orientation

Bavan Chandrasekaran

Contextualising Ramanujan: a study into the culture of mathematics which influenced his 'inexplicable' genius

Future Shock and Westworld: how anxiety about the future in the 1960s and 70s can be understood through science fiction film

Dissertation

A study of dystopian science fiction through the Club of Rome's Limits to Growth

Jonny Cottrell-Mason

Slavery, abolition and polygenism: an
unintuitive disjuncture

Social media: addictive by design

Dissertation

Money, power and government research
committees: the green energy revolution that
didn't happen

Maryam Dorudi

The case of poor melancholia: approaches to
mental illness in West Riding Pauper Lunatic
Asylum, 1866–1876

Dorothy Needham's diaries: views of science
and society during her trips to China in 1964
and 1972

Dissertation

The Nestlé boycott and British breastfeeding,
1960s–1980s

Grace Exley

'The author would like to express his most
cordial thanks...': Francis Aston, the mass-
spectrograph, and its materials

'I (don't) want to believe' ...in science: staying
with the trouble of visual culture in anti-science

Dissertation

Girl power: solving a STEM manpower
shortage through girls' career aspirations,
1956–64

Korbinian Kettner

Symbolic AI relies on an outdated version of
analyticity

Against the modest Church-Turing thesis

Dissertation

A trilemma for the possibility of AGI:
triangulating versatility, tractability and frugality

Zak Lakota-Baldwin

All-knowing SAGE or honest broker? Critically
assessing the role of expert advice in the UK
COVID-19 response

The battle of BP and the Bucket Brigade:
citizen science and environmental justice
activism in the Deepwater Horizon oil spill

Dissertation

Glimpsing another world: indigenous and local
knowledges in the World People's Conference
on Climate Change

Charlotte Morris

Rethinking feminist standpoint empiricism:
towards a new unity of feminist epistemologies

Defining disability: a problematic pluralism

Dissertation

Towards a feminist perspectivism: bringing
feminist standpoint theory into the mainstream

Rosamund Powell

How to build a heroine: the invention of Ada
Lovelace as a cultural icon

Trauma in translation: an exploration of
testimony and treatment in the work of the
Gaza Community Mental Health programme

Dissertation

The 'artificial intelligentsia' reimagined: an
exploration of 1970s attitudes to the 'social
responsibility of the machine intelligence
worker'

Timothy Sim

Mosquito nuisance or mosquito menace?
Government discipline and public response in

the 1969 'Keep Singapore Clean and Mosquito Free' campaign

Parks for people? Protected area classification and indigeneity at the Third World Congress of National Parks

Dissertation

Miscommunicating cognitive neuroscience: folk concepts, scientific concepts, and the translation problem

Jacob Van Buren

'The appearance of utility': Benjamin Martin's globular compass

The establishment of 'real medicine' in Antarctica: care, technology and society in a pandemic

Dissertation

Changing understandings of British caesarean sections: narratives of risk and choice

Clemens von Stengel

What are the aims of science?

The Open Source Seed Initiative: material and epistemic scaling in the history of seed activism

Dissertation

Do cyborgs dream of customer fulfilment? Logistics and economics at RAND, 1946–1960

Charlotte Zimmel

A construction of a social-justice-oriented, modified cost-benefit analysis for use in COVID-19 public health policy and beyond

Causation and clinical decisions: defending the principle of clinical equipoise against the 'gap' argument

Dissertation

When diversity promotes excellence: a New Experimentalist approach to organising diverse communities

HMS MPhil Essay and Dissertation Titles

Akashi Alam

'Detachment seems both necessary and problematic in biomedical practice'. Discuss.

The integration of body mass index (BMI) into medical educational resources and the shaping of British obesity discourse.

Covid, care and the 'household': how initial lockdown restrictions in England overlooked networks of care during the Covid-19 pandemic

Dissertation

Stay at home? (Re)Negotiating crowded living environments during the Covid-19 pandemic

Nada Attia

How the positionality of Western and non-Western tellers affects the forms of knowledge produced regarding Muslim women's reproductive and sexual health in France, Mali, and Iran

Continued legacies of stratified reproduction: barriers to accessing assisted reproductive technologies for marginalised Arab Muslims in the united states and Israel

Cancer's effects on kinships and temporalities in Delhi, India: a case study of select mothers' and wives' experiences

Dissertation

Barriers to health in a hostile environment:
Third sector perspectives on asylum seeker
and refugee well-being in the United Kingdom
and the effects of the Covid-19 pandemic

Indigo Ayling

Critically evaluate the relationships between
impairment, illness and disease

Detachment seems both necessary and
problematic in biomedical practice. Discuss.

In which ways does anthropology complexify
existing binaries of pain?

Dissertation

'This is the pain you can choose': Reimagining
choice, consent and care through crip-kink
worlds

Lilliana Buonasorte

Is medical paternalism justified through
beneficence? And does the assumed
incapacity of chronically ill minors undermine
the need to respect patient autonomy?

Are communicative interactions between
disabled individuals and institutions doomed to
fail? Why or why not?

An anthropological exploration of the UK 'high
risk' category during the Covid-19 pandemic

Dissertation

The UK Covid-19 high-risk category: An
ethnographic exploration

Zoé Charpentier

To what extent is Parsons' sick role relevant to
cancer patients during the Covid-19
pandemic?

The food industry's response to the Mad Cow
Crisis: a case study of McDonald's response in
France

Parents with cancer: emotion work and the
double burden of coping with an illness while
raising children

Dissertation

A discourse analysis of the subreddit
"r/AntiVaxxers": Exploring how pro-vaxxers
and anti-vaxxers communicate during COVID-
19

Adeline Choo

Foucault and ancient pandemics: analysing
Procopius' account of the Justinianic plague

Constructing obesity: a history of the obesity
epidemic in the United States

Generation and the female in Aristotelian seed
theory

Dissertation

Medical understandings of reproduction and
female health in the Roman Empire:
Comparing Galen and Soranus

Tess de Rooij

Inhabiting violent spaces: how indigenous
women and girls embody their social and
physical environments

Shared disease threat, individual solutions?
The limited potential of personalised medicine
in the fight against Covid-19

Just impatient patients? An exploration of how
privatisation and commercialisation in
healthcare lead people with type 1 diabetes to
adopt do-it-yourself artificial pancreas systems

Dissertation

Choice without consequences: Epistemic
injustice in contraceptive aid delivery in
Uganda

Nathan Grant

Who decides where people with autism spectrum disorder should live? Ethical debates about autonomy, paternalism, and representation in the autistic community

Why do families institutionalize people with intellectual disabilities? An analysis of how families make sense of institutionalization and broader implications for understanding care

Autistic bodies and their environments: an alternative approach to understanding autism

Dissertation

Take him home and love him: The experiences of families with Hunter Syndrome at home

Emma Mitchell-Sparke

Contextualizing biomedical culture: sickle cell anaemia discourses and the impact on clinical care

How kind is Kindbody? Contextualising one U.S. fertility clinic's market strategies for elective egg freezing

A choreography of care over compensation: affective de-commodification of surrogacy within the neoliberal United States reproductive market

Dissertation

Kindbody care in unkind contexts: How employees navigate the dialectics of empowerment ideals and business biopolitics in a US fertility start-up

Bilal Nadeem

Unending misery: interrogating the consequences of medicalizing addiction as a chronic, relapsing disease

Litigating health inequalities: an appraisal of the ideological foundations and discursive risks of damage-centred health scholarship

Pandemic-borne futures: interrogating the temporal-affective dimensions of utopian and dystopian visions

Dissertation

Between piety and the everyday: Islam, faith, and reason in the United Kingdom during the Covid-19 pandemic

Anna Park

Is gender dysphoria a disease?

Autonomy or harm? A tension between respect for autonomy and using harm to justify the GPEI

The Pill, the press, and the patient-consumer in 1960s Britain

Dissertation

Re-thinking shared decision-making in healthcare

Isabel Ruehl

Patient as object, patient as agent: medical encounters and the history of childbirth

Framing the mother: individual choice, informed consent, and broadening the discourse of prenatal testing

How stigma creates story: proposing a narrative model of alcoholic denial

Dissertation

"Wrongful life?": Charting coverage of prenatal diagnosis in the New York Times and The Wall Street Journal, 1975-1989

Charlotte Salf

Do health technologies alienate patients and reinforce medical dominance?

Should the ban on transnational commercial surrogacy in India be re-evaluated?

Experiences of 'schizophrenia' in Zimbabwe: relationships, stigma and social defeat

Dissertation

Exploring the attitudes of asthmatic adults towards asthma care in the NHS and the development of the "smart inhaler" - a new digital health monitoring device: perceived implications for the future of asthma care

Cerise Siamof

Medicalization of opioid use in the United States at the intersection of three regimes of truth

Risky assumptions: moral relevance of concentration of risk and the identified versus statistical lives debate

The problem of assigning responsibility: AI as a decision-maker in health care

Dissertation

Death and Quality Adjusted Life Years (QALYs)

Meklit Tesfaye

Uncontrollable agents of disease: the inimical construction of obese black women in the U.S. war on fat

A "watershed" but not novel: comparing film strategies used in Michael Buerk's "Famine in Ethiopia" BBC news report and in colonial medical missionary films

Disruptive Yet Unifying: Examining Cancer as a Social Experience

Dissertation

Down on the bayou in petrochemical paradise: Examining everyday entanglement in Cancer Alley, Louisiana, USA

Naazanene Vatan

The kin we recognize: genetic relatedness, physical resemblance and kinship in identity formation of donor-conceived children

Gender in the birthing chamber: the rise of man-midwifery in eighteenth-century England

Give birth control and all the facts: Off our backs and the feminist media's coverage of the Pill, 1969-1979

Dissertation

Motherhood and technology: Women's narratives of epidural anaesthesia in 1980s England

The Library

As the pandemic continued, the story of the academic year 2020-2021 was one of rapid evolution in the Whipple Library, as services were developed and deployed in response to the changing situation. We began the academic year offering bookable study spaces in the library at 50% occupancy, while continuing to offer click and collect, and supporting the University Library's scan and deliver service. With the help of three of the previous cohort of MPhil students, Francis Newman, Xinyi Wen and Amelia Urry, we installed an exhibition, *Three Research Journeys*. This was aimed at helping to guide the new cohort through their research process, especially with Covid restrictions in place. As usual, a virtual exhibition was put on the Library website, to enable all to see, no matter their physical location. We were saddened in November to say goodbye to Dawn, who left for pastures new. Dawn started working in the Department & library back in 2001, clocking up an impressive twenty years of service here, and her experience and expertise will be missed. We wish her well in all her future endeavours.

Through the generosity of the Department, we were able to employ Andrew Lorey as temporary Library Assistant in November and December, allowing us to maintain service levels up until the Christmas vacation, while a recruitment exercise was carried out to find Dawn's successor. While here, Andrew assisted ably with library tasks, and also put together an exhibition, *A Bird's Eye View: Highlights from the History of British Ornithology in the Whipple Collection*, which we installed in Spring 2021. It was with this exhibition that we started to experiment with a different method of presenting our online, virtual exhibitions, in a new, more aesthetically pleasing, and accessible way.

We were very pleased in January to appoint Raphaëlle Goyeau to the post of Library Assistant, taking on Dawn's role on Mondays, Tuesdays and Wednesdays. Raphaëlle joins us from a Library Assistant role in Emmanuel College and had previously completed a Graduate Traineeship at Trinity. With the reintroduction of restrictions over the Christmas break, the library remained fully staffed, and remote services such as click and collect and scan and deliver continued into Lent Term.

We were able to reopen the library to readers in April, which proved popular in the run into Easter term and the exam period. Shortly after term wrapped up for the summer, we were pleased to host Heather Rowland for two weeks of work experience, during which she put together and installed an exhibition, *Kelvin: More than just a unit of temperature*.

Despite being closed to readers for four months of the year, we recorded a total of 4,767 bookings of our study spaces, which is impressive given that we were only able to operate at 50% capacity. We also fulfilled a total of 530 Click & Collect orders.

Collections:

Purchasing, cataloguing, and accessioning continued throughout the year, with 258 physical items added to the collections, including 27 into the Store. Around 170 ebooks have also been directly purchased.

Items newly added to the Store

Dingle, Herbert, 1890-1978.	The scientific adventure : essays in the history and philosophy of science /		London :	Pitman	1952.
Micheli, Pier Antonio, 1679-1737, author.	I cinque libri di piante : codice marciano /		Venezia :	Reale Istituto Veneto di Scienze Lettere ed Arti	1940.
Vsesoiuznaia akademiia sel'skokhoziaistvennykh nauk imeni V.I. Lenina, author.	The situation in biological science : verbatim report,		Moscow :	Foreign Languages Publishing House	1949.
Powell, Cecil Frank.	Nuclear physics in photographs : tracks of charged particles in photographic emulsions /		Oxford :	Clarendon Press	1947.
Wiberg, Kenneth B. author.	Computer programming for chemists /		New York :	WA Benjamin Inc	1965.
Girard, Pierre, author.	Contribution à l'histoire de la pharmacie en Savoie /		[Chambéry] :	Imprimeries Réunies de Chambéry	1954.
Virchow, Rudolf, 1821-1902 author.	Briefe an seine Eltern, mit einer Heliogravüre, drei Vollbildern und einem brief in Autographie /	Zweite Auflage (Zweites Tausend).	Leipzig :	Verlag von Wilhelm Engelmann	1907.
Moncrief, John (Apothecary) author.	The poor man's physician : or the receipts; being at choice collection of simple and easy remedies for most distempers, very useful for all persons, especially those of a poorer condition.	The third edition, carefully corrected and amended.	Edinburgh :	Mr Thomas Heriot Bookseller	M. DCC. XXXI. [1731]
Jauffret, L. F. 1770-1840 author. (Louis François),	Les merveilles du corps humain : ou notions familières d'anatomie, a l'usage des enfans et des adolescens /		A Paris :	Chez AJ Dugour et Durand Libraires	an VII [1798-1799]
Hobart, H. M.	A dictionary of electrical engineering /		London,		1910.

Hobart, H. M.	A dictionary of electrical engineering /		London,		1910.
Cooke, M. C. 1825-1914. (Mordecai Cubitt),	Freaks and marvels of plant life; or, Curiosities of vegetation /		London ;, New York :	Society for Promoting Christian Knowledge E & JB Young & Co	[1881]
Marcet, Mrs. 1769-1858. (Jane Haldimand),	Conversations on chemistry : in which the elements of that science are familiarly explained and illustrated by experiments : in two volumes.	The 6th ed., rev., corrected, and enl.	London :	Printed by Strahan and Spottiswoode for Longman Hurst Rees Orme and Brown	1819.
Taylor, Jane, 1783-1824 author.	Memoirs, correspondence, and poetical remains /	A new edition.	[London] :	Holdsworth and Ball	1831.
Proctor, Richard A. 1837-1888. (Richard Anthony),	Light science for leisure hours : A series of familiar essays on scientific subjects, natural phenomena, &c. &c /		London :	Longmans Green and co	1871.
Ripley, Robert L. 1890-1949 author. (Robert LeRoy),	Believe it or not : a modern book of wonders, miracles, freaks, monstrosities and almost-impossibilities, written, illustrated, and proved /		[London] :	C Arthur Pearson LTD by arrangement with the Publishers Stanley Paul & Co LTD	[1934?]
Lewes, George Henry, 1817-1878.	Sea-side studies at Ilfracombe, Tenby, the Scilly Isles, & Jersey /		Edinburgh ; London :	W Blackwood and sons	1858.
Davis, Will S. (Motion picture director)	First book of geology /		London ; Glasgow :	William Collins Sons & Company	1873.
Gregory, J. W. 1864-1932 author. (John Walter),	Geology : with numerous diagrams and illustrations /	Revised edition.	London :	JM Dent & Sons	1926.
Dawson, John William, Sir, 1820-1899 author.	The dawn of life : being the history of the oldest known fossil remains, and their relations to geological time and to the development of		London :	Hodder and Stoughton	1875.

	the animal kingdom /				
Page, David, 1814-1879 author.	Introductory text-book of geology /	Third edition.	Edinburgh and London :	William Blackwood and Sons	1857.
Cruikshank, Robert, 1789-1856 illustrator.	The comic coronal : or, book of merriment; with numerous engravings on wood /		London :	William Kidd	[1830-1831]
Gould, R. T. 1890-1948. (Rupert Thomas),	The case for the sea-serpent /		London :	P Allan	1930.
Taylor, Janet, -1870, author.	The principles of navigation simplified with luni-solar tables and their application in nautical astronomy : which contains an easy and improved method of finding the latitude by meridian and double altitude and elapsed time, the azimuth, amplitude, and true time /	Third edition.	London :	Printed for and sold by G Taylor	1837.
Wenyon, C. M. 1878-1948, author. (Charles Morley),	Human intestinal protozoa in the near east : an inquiry into some problems affecting the spread and incidence of intestinal protozoal infections of British troops and natives in the near east, with special references to the carrier question, diagnosis and treatment of amœbic dysentery, and an account of three new human intestinal protozoa /		London :	John Bale Sons & Danielsson; Published for the Wellcome Bureau of Scientific Research	1917.
Butterfield, Herbert, 1900-1979. author.	The origins of modern science, 1300-1800 /		London :	G Bell and Sons Ltd	1949.

Dingle, Herbert, 1890-1978.	The scientific adventure : essays in the history and philosophy of science /		London :	Pitman	1952.
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Staffing:

Librarian: Jack Dixon

Library Assistants: Dawn Kingham, James Livesey, Raphaëlle Goyeau.

Departmental Senior Accounts Clerk and Senior Clerical Assistant, Aga Lanucha.

Invigilators: Rhianna Elliot, Sheryl Wombell.

Temporary Library Assistant (Nov/Dec 2020): Andrew Lorey.

Work experience: Heather Rowland.

The Museum

To be added.

Annual Reports of Members of the Department

Anna Alexandrova

The guiding question of my research this year has been ‘What is responsible expertise in the context of public policy?’. I collaborated with the economists at the Bennett Institute for Public Policy and a national anti-poverty charity Turn2Us to trial a new co-production exercise of the concept of thriving. Together with Mark Fabian, Diane Coyle and others at the Bennett we drafted a series of papers developing a less expert-driven and a more participatory approach to wellbeing. With colleagues at the Expertise Under Pressure project at CRASSH we researched the relevance of citizen science to public policy. In Lent Term 2021 I held the Crauzas Wordsworth fellowship at CRASSH where I compared the modern meaning of the label ‘social science’ to its various historical senses. I have completed and sent into publication the following collaborative outputs: articles on values in psychometrics with Lisa Wijsen and Denny Borsboom, and the definition of mental health with Sam Wren-Lewis, and the edited volume *Limits of the Numerical* with Steve John and Chris Newfield. I am grateful to all my students but especially my PhD group (Lukas Beck, Cristian Larroulet-Philippi, Olesya Bondarenko, Isaac Kean) for a year of much needed albeit mostly online human and intellectual contact.

Publications

Articles in books

Alexandrova Anna (2021) “Citizen Science and Wellbeing” in *Futute Directions for Citizen Science and Public Policy* eds. Katie Cohen and Robert Doubleday, published by Centre for Science and Policy.

Articles in journals

Mitchell, P., & Alexandrova, A. (2020). Well-being and Pluralism. *Journal of Happiness Studies*, 1-23.

Alexandrova, A., Northcott, R., & Wright, J. (2021). Back to the big picture. *Journal of Economic Methodology*, 1-6

Online

“Beware of Ugly Compromises: Wellbeing Science in the Pursuit of Policy Influence”
<https://www.bennettinstitute.cam.ac.uk/publications/bennett-2020/#PAPER4>

Lectures and interviews

“Well-being and Pluralism”, Moral and Political Philosophy Seminar, Helsinki University, Sept 30th 2020

[How humble are great scientists and artists?](#)
Podcast with Naked Reflections

“Democratising Measurement”

- a. Carnegie Mellon University, Philosophy Department Colloquium, Oct 2nd 2020
- b. Helsinki TINT Perspective on Science Seminar, Jan 25th 2021
- c. The New Institute, Hamburg, Responsibility in Research Workshop, Oct 2020
- d. CHESS Seminar, University of Durham, April 2021

“Mental Health without Well-being” National Student Psychiatry Conference, February 2021.

[Anna Alexandrova on Measuring Wellbeing and Alternatives to Technocracy](#), Hear This Idea podcast interview

“On the definitions of social science and why they matter”

- a. CRASSH Fellows seminar, February 2021
- b. Eastern European Network for Philosophy of Science Keynote Address, June 2021.

“Thick Concepts in Science” Helsinki Reactivity Workshop, August 20, 2021

Mary Augusta Brazelton

The 2020-21 academic year saw the publication by the World Health Organization of a report I co-authored, summarizing the conversations that took place in a Pandemic History Think Tank the WHO-Western Pacific Regional Office organized in summer 2020 (see below). I also discussed the report and its findings as a panelist alongside policymakers and futurists at the WHO-Western Pacific Region’s [Health Futures Forum](#) in August 2021. In January, I appeared on the BBC World Service programme “The Forum” in an episode entitled “Alexandre Yersin and the race to fight the plague.” In May, I discussed my 2019 book *Mass Vaccination* with Laura Stark and her students in a podcast for the New Books Network Series in STS. Throughout the year, I continued to co-convene the “Science Across Regions in Asia” working group for the Consortium for the History of Science, Technology, and Medicine. I also served on the Council of the British Association for Chinese Studies and the Council of British Society for the History of Science. In Easter 2021, I held an Early Career Fellowship at CRASSH.

Publications

Policy papers

With Guido Alfani, Mary Fissell, Monica Green, John Manton, Frank Snowden, and Dora Vargha, *History as a Partner in Public Health: A Report of the Foresight Think Tank on the History of Pandemics*. Manila: World Health Organization Regional Office for the Western Pacific, 2021. Licence: CC BY-NC-SA 3.0 IGO.

Articles in journals

"[Aviation infrastructures in the Republic of China, 1920-37](#)," *History of Science* (open access, early view). Part of special issue co-edited with Dániel Margócsy.

"[Recovering Hygienic Modernity in the World of Covid-19](#)," *Isis* 111, no. 4 (Nov 2020): 795-99.

"[Viral Reflections: Placing China in Global Health Histories](#)," *Journal of Asian Studies* 79, no. 3 (2020): 579-88.

Lectures, seminars and conferences

November 2020

“Infectious Diseases and Public Health Management in China: From Historical and Anthropological Perspectives,” member of roundtable discussion, Fairbank Center for Chinese Studies, Harvard University.

"The Antibiotic Enterprise: Penicillin Production in China and Transnational Circulations of Biomedical Knowledge, 1940-49," HSHM Colloquium, Department of History, Yale University.

“Sovereignties, Plagues, and Policing,” public webinar with Laura Spinney for MIT course 21H.000: The History of Now (Plagues and Pandemics).

March 2021

“Dreams of immunity: what the history of medicine in China can tell us about global responses to Covid-19,” public lecture, Whipple Museum for the History of Science.

April 2021

《现代中国的大众免疫和疾病控制——从公共卫生到全球健康（1937-1978）》“Mass Immunization and Disease Control in Modern China: From Public to Global Health, 1937-78,” Renmin University of China (online lecture).

May 2021

Participant in roundtable, “The Professions and the Pandemic,” for annual meeting of the American Association for the History of Medicine (online).

“Medical Internationalism and the Biopolitics of Vaccination in 20th Century China,” UK-China Humanities Alliance annual conference, University of Exeter (online).

“Engineering Identities as Students and Scientists at the Sino-French Institute of Lyon, 1921-31,” CRASSH Work-in-Progress seminar.

June 2021

“Mass Vaccination: Citizens’ Bodies and State Power in Modern China,” talk at Department of History, Durham University (online).

July 2021

Provided commentary for plenary symposium “Pandemics, science, and society,” International Congress for the History of Science, Technology, and Medicine.

“Penicillin and the industrialization of pharmaceutical technologies in China,” talk at International Congress for the History of Science, Technology, and Medicine.

August 2021

[Panelist](#) for “Doing Chinese History in a New Era” series session on “Academic Jobs Outside the U.S.,” Yale Council on East Asian Studies and University of California-Irvine Long US-China Institute.

Helen Anne Curry

My project ‘From Collection to Cultivation: Historical Perspectives on Crop Diversity and Food Security’ (funded by a Wellcome Trust Senior Investigator Award) launched just before the start of the academic year and I was privileged to welcome its first team members to Cambridge shortly thereafter: Jessica, Ryan, Hitesh, Dani, and João. They’ve helped to make the project’s open discussion group, The Greenhouse, a lively space and begun their own exciting new research projects at the nexus of agricultural history, environmental history, and history of science. From Collection to Cultivation also convened a four-day online workshop featuring leading experts on the history of international agricultural development. The research prepared for this event will feature in a volume that will bring together critical analyses of several key institutional actors to shed new light on this contested history.

Publications

Articles in journals

“Taxonomy, Race Science, and Mexican Maize,” *Isis* 112, no. 1 (2021): 1–22.

Reviews

Review of Stuart McCook, *Coffee is Not Forever: A Global History of the Coffee Leaf Rust* (Athens: Ohio University Press, 2019), *Environmental History* 25, no. 4 (October 2020): 813–814.

Review of Bruno J. Strasser, *Collecting Experiments: Making Big Data Biology* (Chicago: University of Chicago Press, 2019), *FASEB [Federation of American Societies for Experimental Biology] Journal* 34: 3445–3447.

“Profits, Prejudice, and Plant Patents,” review of Mara Hvistendahl, *The Scientist and the Spy: A True Story of China, the FBI, and Industrial Espionage* (New York: Riverhead Books, 2020), *Science* 367, no. 6477 (31 Jan): 517.

Lectures, seminars and conferences

October 2020

"In Search of Native Seeds," History of Science Society and Society for the History of Technology Virtual Forum, 8–10 October (virtual presentation)

November 2020

"In Search of Native Seeds: Histories of Indigenous Agriculture and the Imagined Futures of Farming," El Instituto de Investigaciones Dr. José María Luis Mora, 13 November (virtual presentation)

March 2021

"Data, Duplication, and Decentralisation: Gene Bank Management in the 1980s and 1990s," Towards Responsible Plant Data Linkage Workshop, Alan Turing Institute & University of Exeter, March 5 (virtual presentation).

April 2021

"The History of Science and the Future of Food," Future Food Beacon of Excellence seminar, University of Nottingham, 21 April (virtual presentation)

"The History of Seed Banking and the Hazards of Backup," Maastricht University History Colloquium, 14 April (virtual presentation)

May 2021

"The History of Seed Banking and the Hazards of Backup," Blandy Experimental Farm, University of Virginia, REU Seminar, 26 May (virtual presentation)

June 2021

Co-organizer with Timothy Lorek, "Historical Perspectives on the Consultative Group on International Agricultural Research (CGIAR)," virtual workshop series, June 21–29

"Local Seeds and Global Needs: Ethnobotany, Agroecology, and the History of *In Situ* Conservation in Agriculture," Global Epistemologies and Ontologies (GEOS) seminar, Wageningen University, 10 June (virtual presentation)

July 2021

"The History of Seed Banking and the Hazards of Backup," International Society for the History, Philosophy, and Social Studies of Biology Biannual Meeting, July (virtual presentation)

September 2021

"Endangered Maize: Industrial Agriculture and the Crisis of Extinction," Seminar in the History of Science, University of Madison–Wisconsin, 17 September (virtual presentation)

"Local Seeds and Global Needs: Ethnobotany, Agroecology, and the History of *In Situ* Conservation in Agriculture," keynote presentation, German National Academy of Sciences Leopoldina, Annual Meeting 2021, 24 September (virtual presentation)

Nick Hopwood

Nick Hopwood continued as director of postgraduate studies, chair of the degree committee and HPS representative on the School postgraduate committee, but took sabbatical leave in Lent Term. He also carried on as a deputy chair of the Strategic Research Initiative on Reproduction, which was renewed for a further three years. Nick was awarded a Leverhulme Major Research Fellowship, also for three years from 1 September 2021, to finish the research for and to write *The Many Births of the Test-Tube Baby*. He took part in a panel for the Being Human Festival and the Fertility Podcast and several events in the Cambridge Festival, gave the Innes Lecture at the John Innes Centre and (in June) was interviewed for '14 Tage Menschenleben: Neue Forschung am frühen Embryo' in the series *Wissenschaft im Brennpunkt* on Deutschlandfunk (German Public Radio).

Publications

Articles in journals

(with S Müller-Wille, J Browne, C Groeben, S Kuriyama, M van der Lugt, G Giglioni, LK Nyhart, H-J Rheinberger, A Dröscher, W Anderson, P Anker, M Grote, L van de Wiel

and the Fifteenth Ischia Summer School on the History of the Life Sciences) 'Cycles and circulation: a theme in the history of biology and medicine', *History and Philosophy of the Life Sciences* 43 (2021): article 89

Lectures, seminars and conferences

November 2020

'Embryos from dead to alive: selection and success', *Visions of Reproduction: The Making and Meaning of Reproductive Imaging*, Being Human Festival (online) and [the Fertility Podcast](#)

March 2021

(with H Jaadla, K Niakan, A O'Shaughnessy and L van de Wiel) *Imaging Reproduction: A Cross-Disciplinary Conversation*, Cambridge Reproduction Forum (online)

(with E Rawlins, K Saeb-Parsy and R Westcott) 'How organoids help us understand ourselves and treat diseases', Cambridge Festival (online and on [YouTube](#))

(with M Evans) 'Using the archive of Robert Edwards for research', *Ways of Working: The Archive of Professor Sir Robert Edwards*, Churchill College, Cambridge and Cambridge Festival (online and on [YouTube](#))

April 2021

(with A Brand and D Cain) '*The Immortal Life of Henrietta Lacks* by Rebecca Skloot', University Library Really Popular Book Club, Cambridge Festival (online)

(with T Buklijas) 'Making visible embryos', Art Exhibition, British Society for Developmental Biology and Genetics Society Virtual Spring Meeting

'Visible embryos: a history of human development', Innes Lecture, John Innes Centre, Norwich (online and on [YouTube](#))

'Technologies of conception', *History of Reproduction*, University of Groningen Honours College Winter School (online)

May 2021

'Visible embryos: a history of human development', Visual Cultures in Natural History, the Life Sciences, and Medicine working group, Consortium for the History of Science, Technology, and Medicine (online)

'Research on human embryos: a history of direct and indirect approaches', MODDULO (Models of human development and disease) group (online)

June 2021

'François Jacob and the history of reproduction', *François Jacob's The Logic of Life 50 Years On*, Ernst-Haeckel-Haus, Jena (online)

July 2021

'The many births of the test-tube baby', *Reproduction Showcase*, Cambridge Reproduction SRI (online and on [YouTube](#))

'History of human embryos', *Virtual Placental Biology Course*, Centre for Trophoblast Research, University of Cambridge (online)

"'Not birth, marriage or death, but gastrulation": the life of a quotation in biology', British Society for the History of Science Online Conference

Boris Jardine

In September 2020 the new AHRC-funded project 'Tools of Knowledge: Modelling the Scientific Instrument Trade, 1550–1914' began. Boris Jardine is one of four Co-Investigators. The project will run until 2023, with Prof. Liba Taub as Principal Investigator, and in partnership with Royal Museums Greenwich, the University of Sussex, National Museums Scotland, and the Science Museum Group.

Publications

Articles in books

'Instrumental Reading: Towards a Typology of Use in Early Modern Practical Mathematics Texts', in P. Beeley, Y. Nasifoglu and B. Wardhaugh (eds), *Reading Mathematics in Early Modern Europe: Studies in the Production, Collection, and Use of Mathematical Books* (New York: Routledge, 2020), pp. 180–194

Articles in journals

'The Book as Instrument', *BJHS Themes* 5 ['Learning by the Book', edited by A. Creager, M. Grote and E. Leong] (2020), pp. 111–129

Robert Beckett (fl. 1597): Humfrey Cole's Apprentice and the Second Stationer-Instrument Maker', *Bulletin of the Scientific Instrument Society* 147 (December, 2020), pp. 30–32

Reviews

Review of Anthony Turner (in collaboration, for instruments from Islamic lands, with Silke Ackermann and Taha Yasin Arslan), *Mathematical Instruments in the collections of the Bibliothèque Nationale de France* (Turnhout/London: BNF Éditions/Brepols, 2018), in *Bulletin of the Scientific Instrument Society* 145 (June, 2020), pp. 20–21

Lectures, seminars and conferences

November 2020

'Machines, mines and mathematics: Elizabethan artisans as agents of change', EMPHASIS seminar, University of London, Institute of Advanced Study [online]

December 2020

'A History of the Scientific Atlas', The Human Cell Atlas: ArtSci Salon II [online]

January 2021

'Paper Instruments', Images of Science graduate seminar [online]

Nick Jardine

My main contribution to the Department of History and Philosophy of Science this year has been organisation of, and participation in, seminars and workshops, including Aims and Methods of Histories of the Sciences, Ideologies of Science, the Cabinet of Natural History, and Greek and Latin Therapy. I have supervised and advised a few graduate students. My research has been mainly on historiographical and philosophical issues raised by engagement with the remote ancestors of our sciences. I devote much time to amateur mycology.

Publications

'Turning to ontology in studies of distant sciences', in W. McCarty, G. E. R. Lloyd and Aparecida Vilaça, eds, *Science in the Forest, Science in the Past* (Chicago, HAU Books, 2020), 255-265

'Philosophical engagements with distant sciences', *Interdisciplinary Science Reviews*, 46/3 (2021), 225-240

(with C. Chimisso) 'Hélène Metzger on precursors: a historian and philosopher of science confronts her evil demon', *HOPOS*, 11/2 (2021)

Seminars

October 2020

Aims and Methods of Histories of the Sciences, HPS Graduate Seminars:

'Formation and transformations of history of science'

(with Jeffrey Skopek), 'Scientists' uses of history of science'

(with Cristina Chimisso), 'Hélène Metzger on the methods and aims of history of science'

(with Hasok Chang), 'Philosophers' uses of history of science'

February and March 2021

Ideologies of Science, HPS Graduate Seminars:

'Science and education: Whewell vs Mill'

'The Two Cultures: Snow vs Leavis'

Stephen John

Publications

Books

John, S (2021) *Objectivity in Science* (Cambridge: Cambridge University Press)

Journal articles

John, S. (2021) "Science, politics and regulation: The trust-based approach to the demarcation problem" *Studies in History and Philosophy of Science Part A*, 90, 1-9.
<https://doi.org/10.1016/j.shpsa.2021.08.006>

John, S and Curran, E (2021) "Cancer, Costa and Coronavirus: a contractualist guide to the ethics of lockdown" *Journal of Medical Ethics* "online first" doi:10.1136/medethics-2020-107103

John, S. (2021) "Scientific deceit". *Synthese*, 198(1), 373-394
<https://doi.org/10.1007/s11229-018-02017-4>

Wu, J. H., & John, S. (2021) "The Ethics of COVID-19 Risk Communication" *Journal of General Internal Medicine*, 36(4), 1092-1093.
<https://doi.org/10.1007/s11606-021-06600-3>

Wu, J. H., John, S. D., & Adashi, E. Y. (2020). "Allocating Vaccines in a Pandemic: The Ethical Dimension" *The American Journal of Medicine* 133(11), 1241-1242.
<https://dx.doi.org/10.1016%2Fj.amjmed.2020.06.007>

John, S. (2020). "The ethics of lockdown: communication, consequences, and the separateness of persons" *Kennedy Institute of Ethics Journal*, 30(3), 265-289.
<https://doi.org/10.1353/ken.2020.0015>

Book chapters:

John, S (2021) "Scales of certainty" in Lalumera, E (ed) *Philosophical issues in medical imaging* Springer

John, S (2021) "The ethics of chance and certainty" in Dawson, A and McCaughlin, S (eds) *Ethics and Epidemiology* (Oxford University Press)

John, S (2020) "The politics of distrust" in Gronda, R (ed) *Trust* (Springer)

John, S (2020) "Artificial Ignorance, epistemic obligations and epistemic paternalism" in Axtell, G (ed) *Epistemic paternalism* Routledge

Lauren Kassell

Lauren Kassell was IB Manager and, in Lent and Easter terms, Chair of the HPS Board. She continued as Director of Studies in HPS at Pembroke College, where she is a Fellow and sits on various committees. She also continued as Co-Director of Research for Cambridge Digital Humanities. She was shortlisted for the AHRC/Wellcome 2020 Medical Humanities Awards in the category of Leadership and the Casebooks Project, which she directs, was shortlisted for Research. She served on the Programme Committee for the annual meeting of the American Association for the History of Medicine, and on various grant-selection panels. From 1 September 2021 she is on leave from Cambridge to take up the Chair in History of Science, at the Department of History and Civilisation at the European University Institute, Florence.

Publications

Articles in books

'Cases', in *Information: A Historical Companion*, ed. Ann Blair, Paul Duguid, Anja Goeing, and Anthony Grafton (Princeton: Princeton University Press, 2021), pp. 358-65.

Articles in journals

'Inscribed, Coded, Archived: Digitizing Early Modern Medical Casebooks', *Journal for the History of Knowledge* 2, 1 (2021): 4, pp. 1-18.

'Going Nowhere: Routines in a Pandemic', *PMLA*, 136 (2021), 310-16. Invited (not peer reviewed) for a Theories and Methods feature on 'Poetry and Pandemic'.

《近代早期英格兰的医案簿——医学、天文学和书面记录》("Casebooks in Early Modern England: Medicine, Astrology, and Written Records"), translated by Xiurong Zhao, *International Social Science Journal* (Chinese Edition), No.2, 2021.

《纸张技术、数字技术——近代早期医疗记录的利用》("Paper Technologies, Digital Technologies: Working with Early Modern Medical Records"), translated by Xiurong Zhao, *International Social Science Journal* (Chinese Edition), No.2, 2021

Lectures, seminars and conferences

'Cases and Casebooks', History of Information, Part 3: The Social Life of Information, American Historical Association Annual Meeting, 7-10 January 2021 (online)

'Why Doesn't Astrological Medicine Work? The Science of the Stars and the History of Medicine' History of Science, Medicine and Technology Group Seminar, University of Edinburgh, 25 February 2021 (online)

Lauren Kassell and Robert Ralley, 'Conflict and Cooperation: Medical Practitioners in Richard Napier's Casebooks, 1597-1634', presented at Re-Examining Medical Encounters in the Early Modern World 1450-

1750, organised by Leah Astbury and Carolin Schmitz, 9 June 2021 (online)

Tim Lewens

Tim finished a second year as Head of Department. As co-chair of Cambridge's Philosophy REF Unit of Assessment he was also responsible for completing the Department's REF return. A lot of his time was taken up with helping the Department through a very challenging year of Covid.

Publications

Articles in journals

'The Fragility of Origin Essentialism: Where Mitochondrial "Donation" meets the Non-Identity Problem' (2021) *Bioethics* 35: 615-622.

'Blurring the Germline' (2020) *Bioethics* 34: 7-15.

Lectures, seminars and conferences

November 2020

'The Division of Advisory Labour' University of Strasbourg.

March 2021

'Universal Darwinism: A Health Check at 40', Cambridge Philosophical Society.

June 2021

'The Modern Mind' LSE Forum for Philosophy.

Richard A. McKay

In July 2021, Dr McKay completed his Wellcome Trust research fellowship and transitioned to the role of Affiliate Fellow while continuing as External College Lecturer and Director of Studies for Magdalene College and working part-time as a coach. During the

2020-21 academic year Dr McKay also continued in his capacity as Policy Development Officer for the Society for the Social History of Medicine. He participated as a guest on two podcasts: *Shame Rules!*, released in October 2020, and *Infectious Historians* in February 2021. In October 2020, *Killing Patient Zero*, the documentary feature film based on his monograph and for which he served as historical consultant, was awarded the John E. O'Connor film award (documentary category) by the American Historical Association. In April 2021, the film became widely available for viewing in the UK and US.

Publications

Articles in journals

(with J Barr and DB Doroshov) 'The Dangers of "Us Versus Them": Epidemics Then and Now', *Journal of General Internal Medicine* 36 (2021), 795-96

Lectures, seminars and conferences

November 2020

(with A Benton, M Honigsbaum, C Lynteris, and L Engelmann) 'Pandemics, Past and Present', Centre for the Study of Modern and Contemporary History, University of Edinburgh

February 2021

(with G Severs) 'It's a Sin', LGBT+ History Month Lecture, University of Cambridge

(with G Severs) 'It's a Sin', LGBT+ History Month Lecture, Kellogg College, Oxford

March 2021

(with A Hagerty, A Albert, S Hare, Y Okuleye, A Trathen, H Sallam, and Z Tyndall) 'There's an App for That: How can digital contact tracing apps promote fair, inclusive, and just health technologies?', Critiquing and Rethinking Accountability, Fairness, and Transparency (CRAFT) workshop, ACM

Conference on Fairness, Accountability, and Transparency (ACM FAccT), online

April 2021

(with A Hagerty and Y Okuleye) 'Test, Trace, Trust? Using Historical and Participatory Methods to Investigate COVID-19 Contact Tracing in a London Borough', Work in Progress seminar, Centre for the Study of Existential Risk, University of Cambridge

May 2021

(with L Engelmann, J Steere-Williams, and H Tworek) 'Do We Need a New History of Epidemiology?', annual meeting of the American Association for the History of Medicine, Madison

'Draining the Reservoir: Mid-twentieth-century venereal disease control and the rise of the male homosexual, 1936 to 1969', Reframing Disease Reservoirs conference, University of St. Andrews

Simon Schaffer

Schaffer chaired the HPS Board and the Museum Committee of the Whipple Museum. He served on the Faculty Board of HSPS and on the management committee of the Scott Polar Research Institute, and chaired the Awards Committee of the early modern history section of the British Academy. He contributed to Werner Herzog's film *Fireball: visitors from darker worlds* (released September 2020); appeared on *In Our Time* (BBC Radio 4) in programmes on Alan Turing (October 2020) and on *Longitude* (May 2021), and was a speaker on 'Human Resources: The Tree of Life', a podcast from Broccoli Productions on British involvement in the trans-Atlantic Slave Trade (released May 2021). He continued as a co-investigator on the Leverhulme Project *Making Climate History*.

Publications

Articles in books

'Beware of precursors' and 'On the difficulty of animating the Earth' in Bruno Latour and Peter

Weibel (eds.), *Critical Zones: the science and politics of landing on Earth* (Cambridge, Mass.: MIT, 2020), 154-7, 292-5

'The production of consumers' in Marleen Wynants (ed.), *Go with the flow and stay with the trouble* (Milan: Silvana Editoriale, 2020), 57-74

'Preface', in Rosie Lewellyn-Jones (ed.), *The estate of Claude Martin at Lucknow: an Indian inventory* (Newcastle: Cambridge Scholars, 2021)

Articles in journals

'Nature as Other, Others as Natural', in 'The Arts, Environmental Justice, and the Ecological Crisis', ed. Sria Chatterjee, *British Art Studies* 18 (2020), 102-7

Lectures, seminars and conferences

October 2020

'Constellations: reimagining celestial histories in the early Americas': opening address, John Carter Brown Library, Brown University, Providence, RI

November 2020

Wilkins-Bernal-Medawar medal presentation and talk, Royal Society, London

May 2021

'Doing time: clocks and cosmology in the Australian penal colony', *Time and Observatories*, Annual meeting of the Antiquarian Horological Society, London

June 2021

'Astral sciences and Indian religion in British orientalism', *Workshop on Global history of evolution and religion in the long nineteenth century*, York University, Canada

Jacob Stegenga

Publications

Articles in journals

"The Problem of New Evidence: P-Hacking and Pre-Analysis Plans" (with Zoe Hitzig), *Diametros* 2020, 17(66): 10-33

"Response to Commentaries on *Medical Nihilism*" *Studies in History and Philosophy of Biological and Biomedical Sciences* 2020, 81, 101274

"Sensible Medicine—Balancing Intervention and Inaction During the COVID-19 Pandemic" (with others) *JAMA: The Journal of the American Medical Association* 2020, 324(18): 1827-1828

Lectures, seminars and conferences

"How To Be a Medical Nihilist During a Pandemic" *American Philosophical Association, Central Division, USA*

"How To Be a Medical Nihilist During a Pandemic" *Lake Forest College, Chicago, USA*

"Sisyphean Science: Why Value-Freedom is Worth Pursuing", *University of Aarhus, Denmark*

"Medical Nihilism and Gentle Medicine" *The Ethical and Policy Implications of Overoptimism about Medical Effectiveness*, Oxford, UK

"Medical Nihilism and Gentle Medicine" *Responsible Life Science Policy*, Tübingen, Germany

"Medical Nihilism and Gentle Medicine" *Utrecht University Workshop on Medical Nihilism*, Utrecht, Netherlands

"Simulation of Trial Data to Test Speculative Hypotheses About Research Methods" *Science, Health, Economics, and Society Conference*, Rome, Italy

Seminar Programmes

Michaelmas Term

Departmental Seminars

All events take place on **Thursdays from 3.30pm to 5pm UK time.**

Organised by Anna Alexandrova and Helen Anne Curry.

Introductory seminars

These two sessions function as an introduction to members of staff for incoming students. They are open to members of the Department.

8 October: What does HPS mean to me?

Short answers by Anna Alexandrova (chair), Hasok Chang, Staffan Müller-Wille, Simon Schaffer, Matt Farr, Marta Halina, Sam Robinson, Salim Al-Gailani.

15 October: What does HPS mean to the world?

Short answers by Helen Curry (chair), Nick Hopwood, Lauren Kassell, Tim Lewens, Mary Brazelton, Jacob Stegenga, Stephen John, Josh Nall.

22 October

Henrice Altink (University of York)

Linking the global and the local: the double burden of child malnutrition in Jamaica, c. 1960–2020

Following independence in 1962, successive governments in Jamaica tried to reduce the high rate of child malnutrition. Malnutrition was the result of a lack of protein and calories, also called PCM – Protein Calorie Malnutrition – and was a leading cause of death. Since the 1990s, however, the island has witnessed a nutrition transition with child malnutrition declining and child obesity increasing. Based on, amongst others, medical journals, newspaper reports, ministry papers, and reports of international agencies, this paper first of all explores how child malnutrition was measured and analysed; the various proposals put forward and implemented to reduce it; and the success rate of these policies. It will show

that over time child malnutrition and the solutions proposed became increasingly localised; that is, greater attention was paid to the socio-economic and cultural context of pre-school children and their families and there was less reliance on outside agencies to reduce PCM. The paper will then move on to trace the rise in child obesity levels and show that contrary to the UK, US and many other western countries, child obesity in Jamaica is largely associated with higher income groups. Although child obesity has rapidly increased – in 2017 some 10.3% of children were obese – very few attempts have so far been made to localise the problem. The paper will explain why only recently campaigns – both government and NGO funded – have been started to address child obesity.

29 October

Michela Massimi (University of Edinburgh) ***The history of the electric charge c. 1897–1906 through the lenses of perspectival realism***

Scientists often disagree both *that* something is and about *what* it is. This kind of scientific disagreement is of great interest to historians of science, who might want to establish *who* really discovered some entity – e.g. whether it was Joseph Priestley rather than Antoine Lavoisier who discovered what we now call 'oxygen'; or, whether it was George J. Stoney or J.J. Thomson who really discovered the electron, given that in his Nobel Prize speech Thomson was still calling his entity a 'corpuscle'. But, historiographical debates aside, disagreement that something is and about what it is also raises pressing questions for philosophers with realist leanings. How are we to spell out the realist commitment in cases where scientists disagree about the nature of the entity? What is it like to be a realist in the face of scientific disagreement? This paper takes some steps towards answering this question by looking at the case of the electric charge. As it happens, at the turn of the last

century, there was a disagreement about the nature of the electron as the bearer of the electric charge. And there were also different views about the electric charge and the reasons why it is a 'natural unit'. Digging (briefly for limits of space here) into the history of this scientific disagreement around 1897–1906 is instructive for two different reasons. First, it helps elucidate the nature of disagreement. This was rooted not in scientists accepting or denying pieces of evidence, but rather in the way in which pieces of evidence, or, better, data, were embedded in different *scientific perspectives* and used for inferring a variety of phenomena, from which the electric charge could in turn be inferred. Second, a brief foray into the history of the electric charge can help us understand the exact nature of the realist commitment that is compatible with what I call 'perspectival disagreement'.

**5 November: Anita McConnell Lecture
Jim Bennett (University of Oxford,
emeritus)**

***A material history of 16th-century
astronomy?***

I first encountered the history of science in Cambridge in the later 1960s, when a prominent narrative in the curriculum at HPS was something called 'the astronomical revolution'. The thread to be followed in this narrative was planetary theory and it led to an understanding of historical 'cosmology'. This was terrific – intellectual and technical stimulation, sustained by a compelling storyline and offering a fresh start for my flagging engagement with science. I may have emerged ignorant of the astrolabe and knowing little more about even the armillary sphere, but I was switched on to the history of science. Might it have been different? Could we write an account of 16th-century astronomy based on objects? Probably not, but for an hour or so, it's worth a try.

**12 November
Noémi Tousignant (University College
London)**

***Africa, race and the most expensive
vaccine yet: stakes of hepatitis B***

***immunisation research in Senegal and the
Gambia***

Among the earliest and most ambitious experiments of hepatitis B vaccine happened in West Africa from the mid 1970s to the mid 1980s. Yet both plasma and recombinant vaccines for this virus, which hit the market as the most expensive vaccines yet, were not widely provided in Africa until the 2000s. In this paper, I examine relations and disjunctions between the politics of experimentation and those of vaccine distribution across spaces (and times) of economic, epidemiological and racialised difference. My focus is on the planning of a research programme partially implemented in Senegal from the late 1970s, and another launched in 1986 as the Gambia Hepatitis Intervention Study. I show how the logics underpinning this research – to use vaccination as an experimental device for generating aetiological evidence of viral cancer causation – made it acceptable to test a technology that was expected to remain 'too expensive for Africa' in the foreseeable future, and discuss how not just patterns of accessibility but their modes of rendering acceptable were racialised.

**19 November
Kristoffer Ahlstrom-Vij (Birkbeck,
University of London)**
Do we live in a post-truth era?

Have we entered a 'post-truth' era? The present paper attempts to answer this question by (a) offering an explication of the notion of 'post-truth' drawn from recent discussions; (b) deriving a testable implication from that explication, to the effect that we should expect to see decreasing information effects – i.e. differences between actual preferences and estimated, fully informed preferences – on central political issues over time; and then (c) putting the relevant narrative to the test by way of counterfactual modelling, using election year data for the period of 2004–2016 from the American National Election Studies' (ANES) Times Series Study. The implication in question turns out to be consistent with the data: at least in a US context, we do see evidence of a decrease in

information effects on key, political issues – immigration, same-sex adoption and gun laws, in particular – in the period 2004 to 2016. This offers some novel, empirical evidence for the 'post-truth' narrative.

26 November

HPS Virtual Conversation: How to study animal minds

Organised by Marta Halina

A great deal of work in comparative psychology – the study of human and nonhuman animal minds – is dedicated to the question of how to avoid bias. How do we ensure researchers are not anthropomorphising (or oversimplifying) their subjects? In her new book, *How to Study Animal Minds* (2020), Kristin Andrews argues that comparative psychologists should aim to integrate a wide range of approaches for studying animal minds, rather than focus on avoiding bias. This Virtual Conversation brings together four scholars working at the intersection of HPS and comparative psychology to explore the question, 'how should we study animal minds?'.

Speakers: **Kristin Andrews** (York University), **Mike Dacey** (Bates College), **Ali Boyle** (University of Cambridge), **Marta Halina** (University of Cambridge)

Coffee with Scientists

The aim of this group is to explore and enhance the interface between HPS and science. Though many of us in HPS engage closely with science and scientists, we could benefit from more explicit discussions about the relationship between HPS and science itself, and from more opportunities for HPS-scholars and scientists to help each other's work.

We meet on **Fridays, 3.30–5.00pm**. Further information, reading materials and links for the online meetings will be distributed through the email list of the group; please contact Hasok Chang (hc372) or Marta Halina (mh801) if you would like to be included on the list.

This term we are also pleased to coordinate our activities with the new '**Coffee with Clinicians'** series (first event on 13 November), organised by the 'Talking as Cure?' research network at CRASSH. For more information about this network, please contact Sahanika Ratnayake (tsr31).

Stuart Firestein (Columbia University)

16 October How science invented optimism – twice

James Dolan (King's College, Cambridge)

30 October Scientists, metascientists, and the nature of science: is there a role for improvised comedy?

Coffee with Clinicians Alistair Gaskell (Cambridge Stepped Care Therapies Service for Older People)

13 November Beyond beliefs – understanding the relational context of mental health in later life: a Cognitive Analytic Therapy approach

Corina Logan and Natalia Fedorova (Max Planck Institute for Evolutionary Anthropology) and Grace Smith Vidaurre (New Mexico State University)

20 November Understanding urban history from an ecological perspective

David Teplow (University of California, Los Angeles)

27 November Doing science thoughtfully

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 on Zoom**. Organised by L. Joanne Green (ljg54).

12 October

Catarina Madruga (Vrije Universiteit Amsterdam & University of Lisbon)

Piecing together the 19th-century Lisbon zoological collections through catalogue lists, specimen tags and paper slips

Amidst the permanent scent of alcohol evaporating from glass jars and the surreptitious presence of beady glass-eyes on mounted specimens, a great part of a 19th-century naturalist's work was surrounded by paper. Scientific books and catalogues, journal issues and offprints, specimen tags and notebooks filled with drawings and measurements were but a few of the paper items essential for the work inside a zoology museum.

Paper technologies played a considerable role in the daily routines of museum workers and influenced the organisation of physical specimens in shelves and drawers. On the other hand, writing articles and books, revising, and finally publishing them was supported by an intense use of paper notes, index cards, and constantly updated manuscript catalogues.

This paper will analyse the diversity of the script and printed materials of the zoological museum of Lisbon and exemplify some of the paper tools of the trade behind the publication of catalogues, scientific books, and journal articles. While the 19th-century Lisbon zoological collections no longer exist today, unpublished sources from the historical archive will be used to illustrate the use of paper in a variety of ways.

19 October

Elaine Ayers (New York University)

Death, decay, rot and ashes: the 'discovery' of the corpse flower and the politics of loss in colonial botany

During the summer of 1818 in the mountains of Sumatra, British naturalist Joseph Arnold found himself face to face with what would be called the 'prodigy of the vegetable world': the giant corpse flower, later named *Rafflesia*

arnoldii. Despite his team's attempts at collecting and preserving this flower, whose size, smell, and unusual characteristics upended blurred the lines between plant and animal, the specimen quickly rotted into a pulpy mess, resisting all attempts at 'normal' practices of preservation. Within two months, Joseph Arnold was dead. Indeed, such narratives of loss haunt narratives of the 'discovery' of the corpse flower by colonial naturalists – men perished, collections went up in flames or were consumed by ants, specimens rotted, and, through it all, the 'monstrous' plant remained, resistant to all attempts of scientific control. Tracing the history of this plant in its Sumatran rainforest home, this paper unravels constructions of political and affective loss in tropical colonial botany, arguing for the prevalence and centrality of decay in natural history collecting and collections.

26 October

Dominik Hünninger (University of Hamburg)

Visible labour? Productive forces and imaginaries of participation in European insect studies, ca. 1680–1830

Spatial and material conditions of scholarly labour in 18th-century natural history collections have received growing attention recently, as have the contributions of artisans to the development of natural history. Visual sources have been instrumental in reconstructing and analysing these contributions and conditions. Inspired by recent studies on the visual culture of science as well as the role of labour in natural history, this presentation will analyse the diversity of the 'productive forces' in European insect studies, ca. 1680–1730 and expose the social imaginaries of participation by looking at frontispieces of entomological books and periodicals and their depiction of labour. How did artists present their work? What skills, instruments, tools and spaces were depicted? What do we learn about collaborative practices in natural history knowledge formation? Are there hidden figures who come to the fore when looking closer at and magnifying digitised images? Answers to these questions will provide a richer picture of the production

processes and the producers of knowledge on insects in the long 18th century.

2 November

Christopher Preston

Discovery of Britain and Ireland's bryophytes

The bryophytes (mosses, liverworts and hornworts) have never been as popular with naturalists in Britain and Ireland as birds, butterflies or flowering plants, but they have nevertheless been studied by enthusiasts since the late 17th century. The number of species (as currently defined) has increased from two in Gerard's Herball (1597) to 1069 mapped in the latest Atlas of Bryophytes (2014). We have compiled a database of the details of discovery of each species (date, location, discoverer, place of publication). In the seminar we will look at the history of discovery over the last 400 years, examining the changing patterns of discovery in relation to places where they were found, the characteristics of the bryophytes themselves, the people who found them and the publications in which their finds were published.

9 November

Miles Kempton (HPS, Cambridge)

'Congo' the TV chimpanzee and the 'biology of art' at London Zoo, 1956–62

In April 1956, the Zoological Society of London signed an unlikely contract with Granada TV, Britain's newly established commercial television franchise for the North West. The result, a resident film and TV unit in the grounds of London Zoo, was a world first. The unit is best remembered today for producing *Zoo Time* (1956–68), the weekly children's show that gave Desmond Morris his big break on television. This paper focuses on a *Zoo Time* personality – not Morris, but a young chimpanzee dubbed 'Congo' by the programme's audience. Congo became the mainstay of *Zoo Time*'s success in its first years on air, endearing himself to millions and earning an international media following for his remarkable ability to paint and draw. Morris, who first handed Congo pencil and paper, made him the subject of a systematic

investigation into the evolutionary basis of art, spawning an academic film, a widely publicised exhibition at the Institute of Contemporary Arts in London, and Morris's first academic monograph, *The Biology of Art* (1962). In this paper, I use the story of Congo to exemplify how the complex media ecosystem of the Granada/ZSL Film and TV Unit could be pressed simultaneously into the service of commercial television, publicity for the world's oldest scientific zoo, and the burgeoning discipline of ethology. I suggest how these domains shaped one another and put this in the context of the dynamics of science communication on British television in the 1950s and 1960s.

16 November

Leonardo Carrio Cataldi (LMU Munich)

A magnetic world: understanding the lodestone in the early modern Iberian empires

There is a well-known historical narrative about magnets that ranges from Petrus Peregrinus's findings (1269) to William Gilbert's earth-magnetic theory (1600). That is, broadly speaking, from one of the first systematic descriptions of the magnet and the magnetic compass to the idea that the Earth itself behaves as a giant magnet, with two opposite poles. In my talk I will propose a different approach to this topic by addressing the question of how the lodestone was understood, used and commercialized in the early modern Iberian empires. Drawing upon sources from different domains (natural history, literature, legal disputes) my aim will be to discuss how the global expansion of Iberian empires challenged the understanding of the magnet and its uses. A more general question might arise from this discussion: what would a new social and intellectual history of such a key 'stone' look like, seen from the perspective of early modern Iberian empires?

23 November

Max Long (Faculty of History, Cambridge)

Tuning into nature in interwar Britain: biology and natural history on the BBC

The history of science in the mass media of early 20th-century Britain remains relatively

unexplored. In particular, the place of radio within a broader assemblage of mass media technologies, including print and film, deserves closer attention. Science broadcasts were fundamental to the BBC's commitment to 'public service broadcasting', and programmes about natural history, biology and agriculture appeared frequently on the BBC's schedule practically from its inception.

Natural history broadcasts were an ideal vehicle for education and were often the focus of children's programmes and School Broadcasts. Of these, David Seth-Smith's 'Zoo Man' features were perhaps the most popular. The BBC's output during this time also included adult talks about the life sciences by Julian Huxley, J. Arthur Thompson, Charles Elton and E. Kay Robinson, among many others. On some occasions, these broadcasts sought to experiment with the possibilities offered by new technologies, such as Ludwig Koch's birdsong recordings, or the cellist Beatrice Harrison's famous nightingale broadcasts.

This paper argues that these broadcasts, which reached millions of listeners every week, were an indispensable feature of the cultural space occupied by the life sciences in interwar Britain. Situating scientific knowledge as an indispensable characteristic of modern citizenship, they helped to shore up late-imperial Britain's self-styled scientific hegemony. By selecting representative examples of natural history and biology broadcasts from interwar Britain, this paper will explore how scientific knowledge was produced and circulated on radio at this time.

History of Medicine Seminars

Seminars, supported by Wellcome, are on **Tuesdays from 5.00 to 6.30pm on Zoom**. All welcome!

Early Science and Medicine

Organised by Lauren Kassell.

6 October Early Science and Medicine Work-in-Progress

Anna Marie Roos (University of Lincoln)

20 October The first Egyptian society

Karen Harvey (University of Birmingham)

3 November The body whole and quotidian: experiencing the body in 18th-century Britain

24 November Early Science and Medicine Work-in-Progress

History of Modern Medicine and Biology

Organised by Mary Brazelton, Helen Curry, Nick Hopwood and Staffan Müller-Wille.

Grace Redhead (University College London)

13 October Seeing like a welfare state: sickle cell disease, medical racism and patient advocacy in the National Health Service, 1975–1993
Commentary: Ayesha Nathoo

Victoria Lee (Ohio University)

10 November Microbe smiths: engineering microbial control in 20th-century Japan
Commentary: Mary Brazelton

Rana Hogarth (University of Illinois)

1 December The shadow of slavery: measuring miscegenation in the early 20th century
Commentary: Jenny Bingham

Generation to Reproduction

Organised by Nick Hopwood and Lauren Kassell.

Maud Bracke (University of Glasgow)

27 October Europe in the global rise of reproductive rights: abortion and transnational feminisms (1960s–80s)

This seminar is organised in association with the Strategic

*Research Initiative on
Reproduction.*

Leah DeVun (Rutgers University)

17
November Gender and generation in
premodern Europe: a discussion of
Leah DeVun's *The Shape of Sex:
Nonbinary Gender from Genesis to
the Renaissance* (2020) with the
author

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 Matt Farr (mwef2). 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 fortnightly on
Wednesdays, 1.00–2.30pm on Zoom.

21 October

Adrian Currie (University of Exeter)
Science and speculation

Despite wide recognition that speculation is critical for successful science, philosophers of science have attended little to it. When they have, speculation has been characterized in narrowly epistemic terms: a hypothesis is speculative due to its (lack of) evidential support. These accounts provide little guidance to what makes speculation productive or egregious, and how to foster the former while avoiding the latter. I examine how scientists discuss speculation and identify various functions speculations play. On this basis, I provide an account which starts with the epistemic function of speculation. This analysis grounds a richer discussion of when speculation is egregious and when it is

productive, based in both fine-grained analysis of the speculation's purpose, and what I call the 'epistemic situation' scientists face.

4 November

Petri Ylikoski (University of Helsinki)
Learning from case studies

The case study is one of the most important research designs in many social scientific fields, but no shared understanding exists of the epistemic import of case studies. One of the perennial challenges of case study research has been the problem of generalization. Social scientists expect to learn something more general from case studies, but articulating how this 'generalization' works has proved to be difficult. From early on, there has been an agreement that case studies cannot produce statistical generalizations and that statistical measures of representativeness are not adequate for the purposes of case study research. However, a generally acceptable alternative view has failed to emerge. Sociologist Howard S. Becker argues in his *What About Mozart? What About Murder? Reasoning from Cases* (2014) that case study research is about learning about social mechanisms. Rather than being about timeless generalizations about relations between variables, case studies help us to learn about social mechanisms, or logics of situation, that produce great variety of social experiences depending on contextual details. My aim is to provide a philosophical reconstruction of this idea. For Becker, the notion of a mechanism is basically a useful metaphor that captures salient dynamical features of some recurring social situations. I suggest that a more systematic idea about mechanism-based theorizing developed within so-called analytical sociology could be employed to make sense of case studies.

18 November

Haixin Dang (University of Leeds)
***Epistemic responsibility and scientific
authorship***

Epistemic responsibility is a central concept in the social epistemic practices of science, but the concept has often been left unanalyzed. The paper reporting the mass of the Higgs

boson had over 5,000 listed authors. To what extent are these authors epistemically responsible for the discovery of the mass of the Higgs boson? We need to clarify the concept of epistemic responsibility which can ground our determination of who should be acknowledged or rewarded for scientific discovery and also who should be sanctioned when a scientific claim turns out to be false or erroneous. Questions over epistemic responsibility in science are intimately tied with issues over scientific authorship. In face of collaboration, some philosophers of science have argued that there is no responsible agent or responsible author in large scientific teams (Huebner 2014; Huebner, Kukla, and Winsberg 2017; and Winsberg, Huebner, and Kukla 2014) and others (Wray 2006, 2018) have argued that only a group agent can be said to be responsible for collective outputs as a group author. Both of these existing accounts are inadequate for scientific practice. I argue that we ought to reject both these views of scientific authorship. Instead, I offer an alternative account and show how we can coherently locate epistemic responsibility to individuals. Every collaborator will be responsible but be responsible in different senses. I argue that we ought to look for a more fine-grained analysis of epistemic responsibility. There are questions about who is properly connected to the scientific claim (attributability), who can answer for and give reasons for a particular scientific claim (answerability), and who should be held accountable for or praised for scientific claims (accountability). In conclusion, I discuss how my analysis bear on current reforms as scientists and journal editors look for new models of scientific authorship.

2 December

Ariane Hanemaayer (Brandon University and CRASSH, Cambridge)

Nominalism in the social sciences: promises and pitfalls

Nominalism is typically defined in philosophical analysis as a metaphysics that rejects the existence of universal and abstract entities. It emerged during a period of unrest in medieval Europe in response to criticisms within theology. There is a lesser known set of

nominalist commitments, however, that have been inflected into social science theories and practice: a split between words and things, and the romantic specter of the Will. This presentation discusses work from two forthcoming co-authored projects (with Ronjon Paul Datta, Windsor) that posit nominalism as the defining commitments of the social sciences. Insufficient attention has been paid to these commitments by social theorists and philosophers, I argue, since nominalism offers critical sensibilities while also raising serious questions regarding theoretical coherence. I discuss two key classical theoretical terrains and conclude with the normative pitfalls of holding nominalist commitments.

The Dialectic

The Dialectic is a new, experimental seminar series premised on the idea that the format of a constructive dialogue (not: debate) is uniquely well-suited for the exposition and analysis of unorthodox/contentious views in the history and philosophy of science (broadly construed).

Each session shall take the form of a dialogue between a Proponent and an Opponent. The Proponent shall advance a *thesis*, about which they will be questioned by the Opponent. The Opponent may seek to rebut the Proponent's thesis, defend their own counter-thesis, or simply question the Proponent so as to better understand their reasoning.

In the academic year 2020–2021, *The Dialectic* will be held on a termly basis. For questions, please contact the organiser: Bobby Vos (bfmv2).

2 December, 10am–11.30am, Venue: Zoom

Discussants: Darrell Rowbottom (proponent) and Alexander Bird (opponent)

Thesis: *Scientific discourse about unobservable things shouldn't be taken as literally as scientific realists typically suggest*

The Anthropocene

The Anthropocene (Climate Histories) offers alternating sessions in the related fields of climate history and Anthropocene studies. Meetings will involve a mix of invited speakers and reading group sessions held fortnightly on **Thursdays, 1–2pm UK time on Zoom**, meeting on the odd weeks of term. All are welcome!

Note: Most resources are available online through the University Library; if you have trouble locating them, please contact the organisers.

Organised by Claire Oliver and Richard Staley.

8 October: Introductions

Introductory discussion on themes and guiding questions for the year, including reading group topics and speakers of interest for Lent and Easter terms.

Readings:

- Chakrabarty, Dipesh. 'Anthropocene Time'. *History and Theory* 57, no. 1 (2018): 5–32.
- Tsing, Anna Lowenhaupt. 'Arts of Noticing', in *The Mushroom at the End of the World* (Princeton: Princeton University Press, 2015): 11–26.

Optional background reading:

- Crutzen, Paul J. 'Geology of Mankind'. *Nature* 415 (3 January 2002): 23.
- Chakrabarty, Dipesh. 'The Climate of History: Four Theses', *Critical Inquiry*, 35.2 (2009): 197–222.

22 October: Anthropos and the global

Examining the role of the 'global' in climate history and the significance of scale for the conceptual utility of Anthropocene scholarship.

Readings:

- Edwards, Paul N. 'Afterworld', in van Munster and Sylvest, eds., *The Politics of Globality Since 1945: Assembling the Planet* (London: Routledge, 2016): 188–96.

- Taylor, Jesse Oak. 'Globalize', in Cohen and Duckert, eds., *Veer Ecology: A Companion for Environmental Thinking* (Minneapolis: University of Minnesota Press, 2017): 30–43.
- Malm, Andreas and Hornborg, Alf. 'The geology of mankind? A critique of the Anthropocene narrative'. *The Anthropocene Review* 1.1 (2014): 62–69.
- Coen, Deborah R. 'Big Is a Thing of the Past: Climate Change and Methodology in the History of Ideas'. *Journal of the History of Ideas* 77.2 (2016): 305–21.

5 November

Vladimir Janković (University of Manchester)

A climate spacebridge: digital diplomacy and Greenhouse Glasnost during the Reagan-Gorbachov era

This paper looks at the world's first online teleconference on climate change – *Greenhouse Glasnost: The Coming Global Greenhouse Warming* – organized between 1985 and 1988 by a group of the Soviet and American scientists. The meeting took place on ONMET with the express intention to bypass the visa and clearance bureaucracy involved in the organization of face-to-face meetings during the post-Afghanistan cooling of the US-USSR relationship. The idea was originally floated in 1985 by Walter Orr Roberts, sun-earth scientist, past president of NCAR and AAAS and one of the most influential scientific entrepreneurs in post-war America. Roberts introduced the idea in one of his *Climate Provocations* – a series of vignettes published on the electronic bulletin board of the Western Behavioral Science Institute in La Jolla – arguing that an asynchronous mode of communication via telemail could encourage the Soviets to get on board for a bilateral approach to research and policy considerations while defusing possible tensions and preventing any losses of meaning likely to arise in live, non-edited dialogues on the issues involving the nature,

magnitude and security risks associated with the global rise of GHGs.

In organizing the event – which in part drew on experiences from a series of telecom 'spacebridges' between Moscow's Gosteleradio and the San Francisco intentional communities such as the Esalen Institute – Roberts was joined by the Apollo astronaut Russell Louis 'Rusty' Schweickart – founder of the Association of Space Explorers – and by Roald Sagdeev, a prominent nuclear physicist and Director of the Soviet Academy's Institute for Space Research. The project received funding from the Russian Institute for Space Research, the US University Corporation for Atmospheric Research and the Rockefeller Brothers Foundation but at least 36 other governmental, private and non-governmental organizations took part in supporting the event, testifying to an unprecedented appeal of 'cyber-climatology' among the scientists working on international projects during the 1980s. Two follow-up face-to-face meetings took place in 1989 at Berlin under the auspices of Aspen Institute of Humanistic Studies and at the Institute for Resource Management in Sundance, Utah, presided by the Hollywood actor and environmentalist Robert Redford. In December that year, the Sundance participants were joined by major scientists and public figures in the *New York Times's* 'Open Letter to Our Presidents' – sponsored by singer John Denver's Windstar Foundation – outlining an international climate policy that was echoed in US President George Bush speech at the historic Malta Summit in November 1990.

In this presentation I look at the activities surrounding the organization of the *Greenhouse Glasnost* conference to discuss the relationships between an emerging scientific understanding of the anthropogenic climate change and the constellation of interests that the greenhouse crisis helped promote among communities involved in the organization of the meeting. First, I wish to provide a brief account of the activities that brought together the American and Russian academics, environmentalists and public influencers at a virtual table of discussion on

the security issues emerging in US and USSR at the dawn of anthropogenic climate change. This adds a new dimension to the history of bilateral cooperation between US and USSR by helping us to compare the governmental programs (such as the Environmental Bilateral's Working Group 8) with the relatively independent and privately funded projects that have hitherto escaped the historical analysis. Second, I address the issue of climate diplomacy during the late Cold War in relation to the role of citizen diplomacy in promoting bilateral agendas and the so-called 'global' environmental issues. Third, I provide a further perspective on the early climate change science by taking into account the technologically assisted communication and digital diplomacy as fundamental to establishing a shared cognitive platform with which it became possible to work with climate as if it were a global phenomenon. Fourth, the paper highlights a need to understand these efforts as intrinsic to the purpose and outputs of the project rather than as mere matters of organizational routine, in which I follow Susan Leigh Star's work on articulation. And finally, I look into the role of alternative cultures animating the spirit of the project and creating a heterogenous community of scientists, engineers, educators and cultural entrepreneurs interested in blending of the spiritual and environmental Globality.

19 November

Nanna K.L. Kaalund (University of Cambridge)

Josephine D. Peary's constructions of humanity and environment in the high Arctic

In the history of polar exploration, Josephine Diebitsch Peary is remembered primarily for travelling as part of her husband Robert's attempts to reach the North Pole, and for giving birth to their daughter while in the high Arctic. Peary published a travel narrative, *My Arctic Journal* in 1893, followed by two children's books, *The Snow Baby* (1901), and *Children of the North* (1903). As with other women science writers in the nineteenth century, Peary drew on and navigated the styles of authorship open to her. She mobilized her embodied difference to the

orthodox persona of the male explorer as a way of garnering attention for her lecture tours and publications. As the publisher's note to *My Arctic Journal* stated, 'She has been where no white woman has ever been'. Peary also contrasted herself with Inughuit and Kalaallit in North Greenland, including the women she lived with for extended periods. In this paper, I seek to unpack the complex interactions between gender, race, and environment in the colonial 'contact zone' as constructed through Peary's writings. Peary's descriptions of Arctic Indigenous peoples were highly racialized, paternalistic, and embedded within the broader anthropological debates of human developmentalism and nature-nurture. When Peary described Inughuit and Kalaallit, she narrated them as part of the natural environment, an environment she in turn described as inherently foreign and hostile. Peary's books were highly popular, and were part of shaping visions of the Arctic and Arctic Indigenous peoples in the imaginations of American children. By taking seriously her books as significant ethnographic texts, I aim to consider how popular literature influenced perceptions of extra-European peoples and environments within the context of white imperialistic expansionism.

The Greenhouse

The Greenhouse is a meeting place for students and researchers interested in the history and sociology of plants, food, agriculture and environment to explore how science and technology shape what we grow and eat.

The regular programme of papers and discussions is curated in conjunction with the project From Collection to Cultivation, which is funded by the Wellcome Trust.

The Greenhouse meets fortnightly on **Thursdays, 1–2pm, via Zoom**

Organised by Helen Anne Curry and Jessica J. Lee.

15 October

For our first meeting, we'll discuss:

- Gabriela Soto Laveaga (2018) '*Largo Dislocare: Connecting Microhistories to Remap and Recenter Histories of Science*', *History and Technology*, 34:1, 21–30.
- Bray, Francesca, Barbara Hahn, John Bosco Lourdusamy, and Tiago Saraiva, 'Cropscares and History', *Transfers* 9, 1: 20–41.

29 October

For our second meeting, we'll hear from Dr Jessica J. Lee, part of the From Collection to Cultivation team. She'll speak about her recent book *Two Trees Make a Forest*, giving a short talk entitled 'Gaps in Translation: On Taiwan's Plants, Language and Literature'.

12 November

For our third meeting, we'll be reading:

- Elaine Gan, 'An Unintended Race: Miracle Rice and the Green Revolution', *Environmental Philosophy* 14, no. 1 (2017): 61–81.
- Hetherington, Gregg, 'Agribiopolitics: The Health of Plants and Humans in the Age of Monocrops', *Environment and Planning D: Society and Space* 38, no. 4 (August 2020): 682–98.

26 November

For our fourth meeting, we'll hear from Dr Katie Dow, a Cambridge research associate in sociology. She'll speak about her recent ethnographic work on seed saving, with a talk entitled 'Seed-Saving in London: Slow Ethnography in Times of Crisis'.

Scientific Creativity Reading Group

This reading group will meet fortnightly on **Fridays at 10am on Zoom**. If you are interested in attending, contact the organiser Milena Ivanova (mi342).

23 October

- Gaut, B. (2010). 'The Philosophy of Creativity', *Philosophy Compass*, 5(12), 1034–1046.
- Klausen, S. H. (2010). 'The Notion of Creativity Revisited: A Philosophical Perspective on Creativity Research', *Creativity Research Journal*, 22(4), 347–360.

6 November

- Heinze, T. (2013). 'Creative accomplishments in science: definition, theoretical considerations, examples from science history, and bibliometric findings', *Scientometrics*, 95(3), 927–940.
- Schaffer, S. (1994). 'Making Up Invention', in Margaret Boden (ed.) *Dimensions of Creativity*, pp. 13–54.

20 November

- Boden, Margaret A., *Dimensions of Creativity* (Cambridge, MA: MIT Press, 1994), ch. 4 'What is creativity?'
- Novitz, David, 'Creativity and Constraint', *Australasian Journal of Philosophy*, 77 (1999): 67–82.

4 December

- Gaut, Berys, 'Creativity and Imagination', in B. Gaut and P. Livingston, eds., *The Creation of Art* (Cambridge: Cambridge University Press, 2003), pp. 148–73.
- Hills, A. and Bird, A. (2018). 'Against Creativity', *Philosophy and Phenomenological Research*.

Decolonise HPS Working Group

The Decolonise HPS Working Group is a staff-student collaboration that considers issues surrounding decolonisation in the Department and the field(s) of HPS more broadly, as well as related issues. Discussion includes such topics as curriculum reform, inclusive

pedagogy, and collaborations on similar projects with other such groups in the University. The group currently meets **every other Friday at 2pm on the 'Decolonise HPS' channel of Teams**. All students and interested members of the University are welcome to attend; contact Mary Brazelton with any questions.

In this context, we understand 'decolonise' to refer to a spectrum of attitudes and practices concerned with confronting and critiquing the colonial legacies that have shaped and continue to shape global academic cultures. In other words, so-called decolonise movements are those that criticise and provide solutions to the prevalence of colonial logics and worldviews that function to determine the scope and purpose of academic discourses. We recognise that the choice of terminology here is a complex and sensitive issue; we do not intend to make direct equivalencies between the violence of colonial expansion and contemporary academic practices. However, the use of 'decolonise' in this context has an immediate precedent in student movements in various parts of the Global South, especially in Southern Africa and Latin America, as well as amongst Indigenous scholars and activists. Furthermore, other working groups within the University, such as those in the Department of Sociology and the Faculty of English have chosen to use 'decolonise' to refer to their work. It is in following these movements that we take up this term.

The group was formed in 2018 by students and staff in the Department. In past years it has hosted seminars, reading discussions, and teaching-focused workshops. As mentioned above, it is one of a number of Decolonisation-aligned groups in the University; others exist in Sociology, English, the University Library, and other faculties. Several of the group's members also participate in a Consortium for the History of Science, Technology, and Medicine working group, History of Science in Asia: Decolonizing the History of Science, which meets monthly to discuss relevant issues.

Introductory readings (subject to change)

These are some readings that group members have found helpful in providing an orientation to concepts of decolonisation and their relevance to the history and philosophy of science.

Harding, Sandra. *Sciences from Below: Feminisms, Postcolonialities, and Modernities*. Durham: Duke University Press, 2008.

Seth, Suman. 'Putting Knowledge in its Place: Science, Colonialism, and the Postcolonial.' *Postcolonial Studies* 12, no. 4 (2009): 373–88.

Tuck, Eve and K. Wayne Yang. 'Decolonization is not a Metaphor.' *Decolonization* 1, no. 1.(2012).

Deb Roy, Rohan, 'Decolonise Science: Time to End Another Imperial Era', *The Conversation* (April 2018).

Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (Zed Books, 2013), esp Ch 1.

Power and Identity in Philosophy of Science

The Power and Identity group meets every two weeks on **Mondays at 2pm on Teams**. Organised by Rory Kent (rdk32).

We will discuss the following readings:

19 October

S. M. Campbell and J. A. Stramondo, 'The Complicated Relationship of Disability and Well-Being', *Kennedy Institute of Ethics Journal* 27(2), June 2017

2 November

Monica Aufrecht, 'The Context Distinction: Controversies over Feminist Philosophy of Science,' *European Journal for Philosophy of Science* 1(3), 2011

16 November

G. Garvey, et al., 'Is there an Aboriginal Bioethics?', *Journal of Medical Ethics* 30(6), 2004

30 November

John Harfouch, 'A Subaltern Pain: The Problem of Violence in Philosophy's Pain Discourse', *Eidos* 3(3), 2019

Science Communication Reading Group

The Science Communication Reading Group will examine the intersection between issues in HPS and science communication, looking at themes including the history and sociology of science communication, the recent emergence of the 'science' of science communication, and various moral and ethical issues brought about by the complex relationship between science, scientists and society. Each term we will adopt a particular focus on this broad topic.

Meetings are held on **Mondays, 4–5pm on Zoom**. Organised by Grace Field (gef30) and James Dolan (jad67).

This term we plan to concentrate on **the ethics of science communication**, addressing questions such as:

- Should scientists be held morally responsible for communicating their research to the public?
- In what circumstances, if any, is it permissible for scientists to knowingly mislead the public in order to attain some desired collective action?
- Are the codes of conduct for performing scientific research appropriate for the communication of that same science to various audiences?

Week 1 (12 October)

Gregory, Jane, and Simon Jay Lock. 'The Evolution of "Public Understanding of Science": Public Engagement as a Tool of Science Policy in the UK'. *Sociology Compass* 2, no. 4 (July 2008): 1252–65.

Week 2 (19 October)

Royal Society. *The Public Understanding of Science*. London: Royal Society, 1985.

Week 3 (26 October)

House of Lords Select Committee on Science and Technology. *Science and Society*. London: HMSO, 2000.

Week 4 (2 November)

Peters, Hans Peter. 'Scientists as Public Experts: Expectations and Responsibilities'. In *Routledge Handbook of Public Communication of Science and Technology*, edited by Massimiano Bucchi and Brian Trench, Second edition. London; New York: Routledge, Taylor & Francis Group, 2014.

Week 5 (9 November)

Nordmann, Alfred. 'The Ethos of Science vs. Ethics of Science Communication: On Deficit and Surplus Models of Science-Society Interaction'. In *Successful Science Communication: Telling It Like It Is*, edited by David Bennett and Richard C. Jennings. Cambridge; New York: Cambridge University Press, 2011.

Week 6 (16 November)

Doubleday, Robert. 'Ethical Codes and Scientific Norms: The Role of Communication in Maintaining the Social Contract for Science'. In *Practising Science Communication in the Information Age: Theorizing Professional Practices*, edited by Richard Holliman. New York: Oxford University Press, 2009.

Week 7 (23 November)

Jamieson, Kathleen Hall. 'The Need for a Science of Science Communication: Communicating Science's Values and Norms'. In *The Oxford Handbook of the Science of Science Communication*, edited by Kathleen Hall Jamieson, Dan M. Kahan, and Dietram Scheufele. Oxford Library of Psychology. New York, NY, United States of America: Oxford University Press, 2017.

Week 8 (30 November)

Davies, Sarah R. 'Scientists' Duty to Communicate: Exploring Ethics, Public Communication, and Scientific Practice'. In *Ethics and Practice in Science Communication*, edited by Susanna Hornig Priest, Jean Goodwin, and Michael F. Dahlstrom. Chicago; London: The University of Chicago Press, 2018.

AD HOC

AD HOC (Association for the Discussion of the History of Chemistry) is a group dedicated to the history of chemistry. While our main focus is historical, we also consider the philosophical, sociological, public and educational dimensions of chemistry.

AD HOC has been meeting in various configurations since the summer of 2004, first at UCL and then also in Cambridge since 2010. Since 2008 our activities have been generously supported by the Society for the History of Alchemy and Chemistry (SHAC).

This term we will be holding online discussion meetings. Each week we will discuss an article from a recent volume of *Ambix*, the official journal of SHAC and the premier periodical in the world dedicated to the history of chemistry and alchemy.

We will be meeting fortnightly on **Mondays at 5.00–6.30pm**. Please contact Hasok Chang (hc372) if you would like to be on the mailing list of the group. Those on the list will receive the links for joining the online meetings, and all updates on future activities.

12 October

Discussion of Amy Fisher, 'Robert Hare's Theory of Galvanism: A Study of Heat and Electricity in Early Nineteenth-Century American Chemistry', *Ambix* 65:2 (2018), 169–189.

26 October

Discussion of William R. Newman, 'Bad Chemistry: Basilisks and Women in Paracelsus and Pseudo-Paracelsus', *Ambix* 67:1 (2020), 30–46.

9 November

Discussion of Angela Creager, 'A Chemical Reaction to the Historiography of Biology', *Ambix* 64:4 (2017), 343–359.

23 November

Discussion of Sharon Ruston, 'Humphry Davy: Analogy, Priority, and the "True Philosopher"', *Ambix* 66:2–3 (2019), 121–139.

Philosophy of Medicine Reading Group

Tuesdays at 1pm – HPS Teams Channel 3.09 ('Philosophy of Medicine Reading Group')

Organisers: Anna Alexandrova, Stephen John and Tim Lewens. Please send any questions/comments to Stephen John (sdj22).

We meet each week to discuss papers in the Philosophy of Medicine, broadly construed. We are open to students and staff in HPS and other departments. Participants are expected to read papers before the session, although normally a session leader gives a short introduction to that week's reading.

This term, our papers are around the theme of philosophical responses to the Covid-19 pandemic: this includes discussions of modelling, of evidence, and ethics. There is obviously a good reason for this focus, but also a cost, that most writing is in the form of shorter opinion pieces or blogposts, rather than fully developed articles. Therefore, a recurrent theme will be what philosophers can or should say about such rapidly moving events. We discuss this topic explicitly in Week 6.

Week 1 (13 October): Models

- Fuller, Jon 2020. 'Models v. Evidence: COVID-19 has revealed a contest between two competing philosophies of scientific knowledge. To manage the crisis, we must draw on both.' *Boston Review*. 5 May 2020. (See also responses by John Ioannidis and Marc Lipsitch.)

Week 2 (20 October): Facemasks: expertise, science and uncertainty

- Schliesser, Eric, and Eric Winsberg. 2020. 'Climate and Coronavirus: The Science is Not the Same.' *New Statesman*, March 23.
- Greenhalgh, T. (2020). 'Face coverings for the public: Laying straw men to rest.' *Journal of Evaluation in Clinical Practice*, e13415.

Week 3 (27 October): Costs and benefits

- Broadbent, Alex. 2020. 'Lockdown is Wrong for Africa.' *Mail and Guardian*, April 8. Accessed May 14.
- Singer, Peter, and Michael Plant. 2020. 'When Will the Pandemic Cure Be Worse Than the Disease?' *Project Syndicate*.

Week 4 (3 November): Lockdown: the young and the old

- Savulescu, J., & Cameron, J. (2020). 'Why lockdown of the elderly is not ageist and why levelling down equality is wrong.' *Journal of Medical Ethics*. (See also the reply by Jonathan Hughes.)

Week 5 (10 November): Lockdown: the young and the old (again)

- John, S. (2020). 'The Ethics of Lockdown: Communication, Consequences, and the Separateness of Persons.' Online first.

Week 6 (17 November): Stay at home (philosophers)?

- Stegenga, J. (2020) 'Fast science and the philosophy of science' *Daily Nous*.

Week 7 (24 November): TBC based on group discussion

Week 8 (1 December): TBC based on group discussion

Calculating People

Calculating People is a reading group on history and philosophy of social sciences.

The meetings take place on **Tuesdays, 2–3pm UK time on Zoom**. Organised by Christopher Clarke and Anna Alexandrova.

All are welcome!

13 October

- Salmon, M.H. 'Reasoning in the social sciences'. *Synthese* 97, 249–267 (1993).

20 October

- Linsi, L., & Mügge, D. K. (2019). 'Globalization and the growing defects of international economic statistics'. *Review of International Political Economy*, 26(3), 361–383.

Optional:

- Mügge, D., & Linsi, L. (2020). 'The national accounting paradox: how statistical norms corrode international economic data'. *European Journal of International Relations*.

27 October

- Christopher Clarke, 'Giving Propensities a Chance', draft chapter from *The Value of Causation: From Abstract Metaphysics to Concrete Social Science*.

This chapter asks what a theory of propensity ('objective chance') would have to look like if propensities are to do meaningful work in the sciences. It then argues (against skeptical qualitative social sciences) that there are propensities in the social world.

3 November

- Johnson, M., 2019. 'Where Economics Went Wrong: A Review Essay'. *Journal of Economic Literature*, forthcoming.

10 November

- Kirun Sankaran, 'What's new in the new ideology critique?', *Philosophical Studies* 177, 1441–1462 (2020).

17 November

- Rosie Worsdale, article draft 'Radical feminism and sex work research: from feminist ideology critique to a critique of feminist ideology'.

24 November

- Glynos and Howarth, 'Causal Mechanisms', Chapter 3 of *The Logic of Critical Explanation*. Routledge 2007.

1 December

- Christopher Clarke, 'How Causation Constrains Propensity' 'Causation and Decision Making', draft chapter from *The Value of Causation: From Abstract Metaphysics to Concrete Social Science*.

This chapter asks what a theory of causation would have to look like if causation is to do meaningful work in the sciences. It argues against the standard view that the most fundamental role for causation is as a guide to effective decision-making. The alternative view I offer, unlike the standard view, makes sense of the fact that (social) scientists often appeal to Reichenbach's principle of the common cause.

Philosophy and History of Physics Reading Group

This reading group meets on **Tuesdays, 4.30pm to 6pm UK time on Zoom**. Organised by Jeremy Butterfield, Matt Farr and Bryan Roberts.

This term, we will spend the first five weeks reading Neil Dewar's draft book, *Structure and Equivalence*, which is about the individuation of (criteria of identity for) physical theories: which has recently been a hot topic in philosophy of physics. The book is pedagogic, with illustrations from Newtonian mechanics

and electromagnetism. At the first session, Tuesday 13 October, Butterfield will introduce the book, and its issues. In the following four sessions, we will read successively the four parts of the book (each is about 25 pages). From the second session (20 October), we will be joined by Neil Dewar.

After these first five weeks, we plan to read Bryan Roberts' draft book on the philosophy and physics of time-reversal.

Early Science and Medicine Work-in-Progress

This is a forum, supported by the Wellcome Trust, for early career scholars to discuss their work-in-progress. We are open to everyone with a connection to the Department. We usually read work by postdoctoral fellows and advanced doctoral students. The group works best if participants attend on a regular basis.

If you would like to participate, please email the organiser, Dr Carolin Schmitz (cs2003).

Convened by Prof. Lauren Kassell, Dr Silvia De Renzi (OU) and Dr Dániel Margócsy (on leave 2020–21).

Meetings this term will be held virtually:

- Tuesday 6 October (note that this is week 0), 5.00–6.30pm
- Tuesday 24 November, 5.00–6.30pm
- Tuesday 8 December (week 9), 5.00–6.30pm

Kinds of Intelligence Reading Group

The Kinds of Intelligence Reading Group will be meeting fortnightly on **Wednesdays, 3.00–4.30pm on Google Meet**. Organised by Ali Boyle (asb69) and Henry Shevlin (hfs35).

14 October

Francois Chollet (2019), On the measure of intelligence

28 October

Liz Irvine (forthcoming), Developing valid behavioural indicators of animal pain

11 November

Murray Shanahan et al. (forthcoming), Artificial intelligence and the common sense of animals

25 November

Jacob Beck (2019), Perception is analog: the argument from Weber's Law

HPS Workshop

Wednesdays, 5–6pm on Teams: HPS Workshop

History sessions organised by Yijie Huang (yh397)

Philosophy sessions organised by Miguel Ohnesorge (mo459)

HPS Workshop seeks to break the isolation of postgraduate research and encourage collaborative thinking by allowing students to present work in progress in a supportive seminar environment. The workshops will have alternate sessions focusing on Philosophy and History, but interdisciplinary presentations are always welcome.

Students are invited to present on any aspect of their research that they are grappling with or desire feedback on, including:

- Unpacking complicated sources, concepts, or archives
- Presenting drafts of chapters, conference papers, or publications
- Proposing new ideas or strategies towards HPS research

The session is comprised of two parts: 20 minutes where the speaker outlines their work in progress (indicating areas that they would like feedback to be based upon) and 40 minutes of discussion.

11
November **Oscar Westerblad**
Scientific understanding as
practical understanding

25
November **Rory Kent**
Feyerabend's critique of scientific
ideology: a Marxist interpretation

Postgraduate Seminars

The Postgraduate Seminars offer a sustained and systematic introduction to specific cutting-edge areas of research, led by leading experts in those areas.

Aims and Methods of Histories of the Sciences

Thu 12noon, weeks 1–4 (4 one-hour seminars) on Zoom
Nick Jardine (leader)

These seminars will consider aspects of the history, aims, methods and current problems of the history of science. The opening session will give an overview of the formation of history of science as a discipline and of the range of recent approaches. Subsequent sessions will discuss uses of histories of the sciences by scientists, the pioneering work of H el ene Metzger on the purposes of history of science, and the relations between history and philosophy of science.

8
October **Nick Jardine**
Formation and transformations of
history of science

15
October **Cristina Chimisso and Nick Jardine**
H el ene Metzger on the methods and
aims of history of science

22
October **Jeff Skopek and Nick Jardine**
Scientists' uses of history

29
October **Hasok Chang and Nick Jardine**
Philosophers' uses of history of
science

Science Communication

Thu 12noon, weeks 5–8 (4 one-hour seminars)
Jim Secord (leader)

All science is grounded in communication, but the literature in this field has not been as central to the history and philosophy of science as it should be. These seminars will examine a series of key topics in the sociology, philosophy and history of communication: scientific rhetoric and argumentation; genres and material forms; models of communication; audiences and reception; translation and cross-cultural communication. The seminars will be led and presented by Jim Secord, with occasional additional contributions from others. Each session will feature a 20-minute presentation from the organiser, with the rest of the session devoted to discussion and questions based on short readings.

Language Groups

German Therapy

German Therapy is an informal reading group, and all levels are welcome. This is an opportunity, among other things, to understand how Germans turn verbs into nouns and adjectives and back again, create new concepts by combining words and adding various prefixes and suffixes, and always place the verb at the very end of long and complicated sentences made up from a hierarchy of clauses. We will be translating and discussing German sources chosen by participants as relevant to their research, 'bei Kaffee und Kuchen'.

To be added to the mailing list, or to suggest a text, please contact Staffan M uller-Wille (sewm3) and Carolin Schmitz (cs2003).

In Michaelmas Term 2020, the group meets **fortnightly on Fridays, 10–11am, on Zoom**. The first meeting will be on 23 October, the last meeting on 4 December 2020.

Manchu Therapy

The Manchu Therapy group meets **fortnightly on Fridays, starting on 30 October, from 11am to 12noon on Zoom.**

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.

Latin Therapy

Latin Therapy is an informal reading group. All levels of Latin are very welcome. We meet 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 Arthur Harris.

We meet weekly, **Fridays from 3.00 to 4.30pm, on Zoom.** The first meeting will be Friday 9 October.

Lent Term

Departmental Seminars

Seminars take place on Zoom on **Thursdays from 3.30pm to 5pm UK time** unless otherwise stated.

Organised by Helen Anne Curry and Sam Robinson.

21 January

Christopher Clarke (CRASSH Cambridge and Erasmus University, Rotterdam)

How does process tracing work?

Political scientists working in the qualitative tradition claim to be using a method that they call process tracing. They claim that process tracing is a method of causal inference similar to that used by historians, a method that has a distinct logic from the statistical logic used by social scientists working in the quantitative tradition. But it's unclear what this logic is. I suggest that there are two types of process tracing: (a) process tracing to test a 'start-end' hypothesis, and (b) process tracing as an end in itself. While the logic of this first type of process tracing is easy enough to uncover, the logic of this second type of process tracing is more mysterious. I make some tentative proposals. The upshot is that, although process tracing is indeed a distinctive method of causal inference, it has much more in common with quantitative/statistical inference than its advocates currently recognize.

28 January

Polly Mitchell (King's College London)

Truth and consequences

In his 1987 paper 'Truth or Consequences', Dan Brock candidly describes his experience working as an in-house philosopher with the President's Commission for the Study of Ethical Problems in Medicine. Brock asserts that there is a deep conflict between the goals and virtues of philosophical scholarship and public policymaking; whereas the former is concerned with the search for truth, notwithstanding the social consequences thereof, the latter must be primarily concerned with promoting good consequences. He argues that when philosophers are actively engaged in policy-making, they must shift their primary goal from truth to the policy consequences of their actions. I will argue that while Brock is right to highlight the tensions between scholarly and public philosophy, his conclusion that these tensions amount to a 'deep conflict' reflects a needlessly pessimistic

view of the possible shape and nature of applied philosophy. I will sketch out an account of applied philosophy which denies the need to choose between truth and consequences. Consideration of the nuance and complexity of the political and social landscape in which philosophical practice takes place is not distinct from philosophical practice but, on the contrary, a crucial part of applied philosophy. Applied philosophy, far from representing a dilution of gold-standard philosophical methods, can be understood to embrace a distinctive way of doing philosophy – one which sees truth and consequences as compatible ends.

4 February

Josie Gill (University of Bristol)

Race, science and literary studies in the 21st century

In this talk I will consider the ways in which narratives from genetic science have been used to frame approaches to race in literary studies. I will interrogate the presumed anti-racism of this framing, and how this use of science disrupts contemporary theoretical assumptions about the relationship between the disciplines- namely that literary scholars tend to be critical or sceptical of science. I will argue that reading contemporary fiction alongside, rather than in opposition to, genetic science, enables us to apprehend the biofictional nature of race itself, and the cultural and literary contexts in which racial scientific ideas – including those that are situated as anti-racist – arise.

11 February

Sixteenth Cambridge Wellcome Lecture in the History of Medicine

Sasha Turner (Johns Hopkins University)
Doctors v. midwives: Caribbean medical encounters in the age of pronatal abolition

Note: this will take place from 4.00 to 5.30pm
Measuring, experimenting on, and dissecting sick and dead black bodies, physicians, scientists and naturalists claimed expertise to prove and document racial differences. Racial science bolstered slavery's social order and white medical authority by scientifically rendering blacks as inferior to whites and therefore incapable of contributing much to society beyond brute labour. Uncovering the invention of racial science remains important to disrupting the tendency to ignore the bonds

between medicine and slavery. And yet, how do we acknowledge the debt modern medicine owes to Africans and their descendants when the archive from which we are to produce knowledge of such debt was designed in exclusionary terms? How do we reconnect medicine to transformative transatlantic social and cultural interactions when it untethers itself from the quotidian? This methodological reflection explores how we might approach non-traditional medical history sources, specifically plantation slavery and abolitionist records, to reveal how politics and culture shaped medicine. It examines how the debates to end the slave trade and the interaction between enslaved midwives and learned, expatriate physicians influenced medical practice, ideas and regulation.

18 February

Tiago Saraiva (Drexel University)
Guerrilla warfare as sampling: Amílcar Cabral, African independence and the writing of transnational history of science

The paper follows the convoluted transnational historical trajectories of sampling techniques in the 20th century between the United States, Southern Europe and West Africa. It makes the case for acknowledging the historical relevance of statistics in imagining political alternatives to capitalist and colonial forms of relating to the land. Sampling first embodied emancipatory promises in the New Deal enabling the reform of American agriculture to serve wider constituencies and restore the land it relied on. The first part of the text explores the emergence of sampling techniques in the Statistical Laboratory at Iowa State University and the process through which the extended federal network of the United States Department of Agriculture made such methods into the watermark of a major experiment with American democracy in the late 1930s. The second part follows the trajectories of sampling out of the US into Southern Europe after World War II through the work of American experts that transitioned from New Deal agencies into FAO (the UN food organization) advancing statistics as the basis for European reconstruction under American hegemony. The paper ends by discussing how sampling methods learned by Amílcar Cabral in Portugal from UN experts and later applied in the agricultural survey of the colony of Guinea Bissau became instrumental for his role as leader of the guerrilla that would lead to the country's independence in 1973.

25 February

Chiara Ambrosio (University College London)
Drawing processes

In their recent manifesto for a processual philosophy of biology, John Dupré and Daniel Nicholson (2018) propose a shift – at least as far as biology and the life sciences are concerned – from substances to processes. Recent work across art, biology and process ontology (Anderson, Dupré and Wakefield, 2019) has begun to build a visual epistemology of processes by bringing the practice of drawing, as a pathway to process thinking, back into the laboratory. In this talk, I contribute to this emergent line of philosophical inquiry, and in particular I propose a pragmatist epistemology for drawing processes. Pragmatism, which I consider in its original delineation by the philosopher and scientist Charles S. Peirce, is uniquely placed – as a processual philosophy with a strong grounding in scientific practice – to contribute to this new area of investigation. My argument will focus on the simplest building block of drawing: the humble line. Combining an established body of literature in the field of visual studies (Ingold 2007, 2015; Faietti and Wolf 2015) with theoretical pragmatist writings as well as examples of drawings by Peirce himself, I will argue that the activity of 'making visible' through line drawing counts as a form of experimentation in a distinctively Peircean, pragmatist sense – and it does so in a way that cuts across the dichotomy between 'static' entities or mechanisms and 'dynamic' processes.

4 March

Richard Noakes (University of Exeter)
Messaging Mars and the dead: technology and fiction in Britain, 1900–1939

In his 1948 novel *No Highway*, Nevil Shute featured a protagonist Theodore Honey who, like Shute himself, was a British aeronautical engineer at the Royal Aircraft Establishment. When not researching aircraft design, Honey also dabbled in the spiritualist practice of automatic writing which ultimately helped him locate a plane that had crashed owing to a fatal design flaw about which he had been warning his employers. Both Honey and Shute capture aspects of early twentieth British engineering culture overlooked in the historiography, not least engineers' interest in writing fiction and in other-worldly communication (both planetary and spiritual varieties). We tend to associate this

convergence of engineering, other-worldly communication and fiction in the 1920s and '30s with cheap American magazines or 'pulp' that came to define science fiction as literary genre. As John Cheng has argued, these serials encouraged readers to write their own fiction and pursue more speculative lines of scientific and engineering research typically neglected by professionals. Although Britain didn't have its dedicated science fiction magazines until the late 1930s there were many British authors writing novels and short fiction featuring science and engineering in the three decades after H. G. Wells's 'scientific romances' of the 1890s. This paper analyses the careers of those authors with strong engineering and scientific backgrounds and what insights this yields into questions of the functions of the technological imagination, the relationships between 'amateur' and 'professional' engineering, and the foundation, in 1933, of the British Interplanetary Society.

11 March

David Teira (Universidad Nacional de Educación a Distancia)

Data agnosticism in medical emergencies: a tale from the past

Historians of statistics have mostly focused on the algorithms for data analysis in clinical trials. We do not know much yet on the history of those data: for instance, how the data should be formatted to be considered credible. Our claim in this paper is that without prior agreement on what counts as proper data, not even 100 years of hindsight will close a controversy on a medical treatment. Our case study will be Jaime Ferrán's three submissions to the Prix Bréant, an award of the French Academy of Sciences to incentivize research on cholera. Ferrán, a Spanish independent physician, claimed to have discovered a vaccine in 1884. The following year, he tried it on thousands of patients during the cholera outbreak in Valencia. The results of his trial sparked a controversy in Spain and abroad on the vaccine's efficacy, that continues today. Some historians consider Ferrán's experiments persuasive enough and accuse the Academy of chauvinism for not awarding him the Breant. Our counterfactual question is: what sort of data would have closed the debate? Drawing on archival records of the award, we suggest that Ferrán failed to format his data in a way that conformed to the emerging standards for data presentation at the Academy. This led the Bréant jury to remain agnostic about Ferrán's vaccine efficacy. As the controversy on Ferrán's

vaccine shows, this epistemic agnosticism is rarely appreciated. Furthermore, with an unfolding emergency, it is often considered morally indefensible. Yet, our lack of agreement on Ferrán suggests that, without a prior agreement on what counts as proper data, no amount of moralizing will bring about a consensus on experimental outcomes.

Coffee with Scientists

The aim of this group is to explore and enhance the interface between HPS and science. Though many of us in HPS engage closely with science and scientists, we could benefit from more explicit discussions about the relationship between HPS and science itself, and from more opportunities for HPS-scholars and scientists to help each other's work.

We meet on **Fridays, 3.30–4.30pm**, with informal conversations before and after the formal session for those who are interested. Further information, reading materials and links for the online meetings will be distributed through the email list of the group; please contact Hasok Chang (hc372) or Marta Halina (mh801) if you would like to be included on the list.

We are also pleased to continue coordinating our activities with the new '**Coffee with Clinicians**' series, organised by the 'Talking as Cure?' research network at CRASSH. For more information about this network, please contact Sahanika Ratnayake (tsr31).

Coffee with Clinicians

Anastasios Dimopoulos (Locum Consultant in General Adult Psychiatry, East London NHS Foundation Trust)

29 January Intersubjectivity as a unifying philosophical drive for mental health practice in the 21st century

12 February **Rick Welch (HPS, Cambridge)**

Life: A study in words

Coffee with Clinicians

26 February **Sophie Ellis (Criminology, Cambridge)**

What is forensic psychology?

12 March **John Krakauer (Neurology and Neuroscience, Johns Hopkins University) and David L. Barack (Neuroscience, Columbia University)**

Two views on the cognitive brain

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 on Zoom**. Organised by L. Joanne Green (ljg54).

1 February

Sarah Easterby-Smith (University of St Andrews)

Enlightenment science in Surat? Interpreting the collections of Anquetil de Briancourt and family (1773–1779)

This paper examines the personal collection of books and scientific instruments formed by Étienne Jean Anquetil de Briancourt (1727–1793) during his residence in Surat, Gujarat. De Briancourt, younger brother of the more famous French orientalist Anquetil Duperron, was French consul at the comptoir from 1773 until 1779. Like all consuls, his official duties were concerned with the management of mercantile matters. He also interceded – somewhat dramatically – within local politics. However, an inventory of de Briancourt's personal effects tells a very different story: together with his family, De Briancourt compiled a scholarly collection that was more characteristic of a Parisian intellectual than of a merchant living on the north-east coast of India. Working with the evidence contained in the inventory, this paper asks what it meant for a French family to compose a 'European' scholarly collection in a trading post such as Surat, and it examines the relationship between the de Briancourt collecting activities and the scientific aspirations of the Absolutist French state.

15 February

Alexander Etkind (European University Institute at Florence)

A natural history of evil

Based on his forthcoming book, *Nature's Evil: A Cultural History of Natural Resources* (Polity Press), Alexander Etkind will talk about non-human agency of sugar, fur, hemp, oil and other natural resources in their relations with the changing character of the state. In their interaction with technology and labour, different natural resources lead to different social institutions. Revising the contemporary perspectives on the classical problem of evil, this bottom-up narrative constitutes the new subdiscipline that Etkind calls Cultural History of Natural Resources.

22 February

Kaleigh Hunter (University of Wuppertal)
Gardens in ink: engraved title-pages of botanical treatises from 1450 to 1700

The broad aim of this project is to explore the relationship between natural history and visual methods of communication through the engraved title-pages of early modern European printed books. More specifically, my research will focus on the roles that these images played in the development of botany as a field of study, focusing on the rise and decline in popularity of the printed herbal in the early-1500s to late-1600s. In this talk, I will give an introduction to this ongoing research project and a look into the types of themes that can be seen on these title-pages.

1 March

Edwin Rose (University of Cambridge)

Books, botany and the organisation of nature in 18th-century Cambridge

In July 1760 Dr Richard Walker of Trinity College transferred £1600 to the University of Cambridge for the purpose of founding 'a public Botanic or physic garden'. These funds purchased the old Augustinian Priory and its grounds, what we now know as the New Museums Site, land occupied by the Cambridge Botanic Garden between 1760 and 1846. In 1762 Thomas Martyn (1735–1825) was appointed as the third Professor of Botany who immediately embarked upon arranging the Botanic Garden according to the Linnaean system of classification; the first institution of its kind to be founded on Linnaean principles in Britain.

In this talk I examine how printed books and herbarium specimens, many of which are still held by Cambridge University Library and Cambridge University Herbarium, were used to manage information on the living plants in the Cambridge Botanic Garden between 1760 and 1820. This was the responsibility of Martyn and a succession of curators who navigated between the living plants, dried specimens and an annotated library of approximately 1000 volumes used to identify, classify, describe and arrange species represented in the garden and the specimens held in Martyn's Botanical Museum. This system for managing information was designed to accommodate the increasing numbers of living plants, specimens and seeds Martyn and his curators received from a global network extending across the Americas, Africa, Asia and the Pacific, many of which they cultivated in the Cambridge Botanic

Garden and arranged according to the Linnaean framework.

8 March

Chris Wingfield (Sainsbury Research Unit for the Arts of Africa, Oceania and the Americas)

Dithipa: (re)collecting animals and their depictions from southern Africa's Missionary Road

The association of ethnography and natural history collections in the museum of the London Missionary Society during the early 19th century has been interpreted as suggestive of a European vision 'of people who lived in unity with nature'. Through a focus on southern Africa, this paper asks whether these collections can also provide an insight into the ways in which animals were understood in the contexts from which they were collected. Can we read the predominance of large mammals from southern Africa as indicative of the significance of large mammals for precolonial southern African societies, or are they simply indicative of European concerns? It will be suggested that a consideration of artefactual forms, and in particular the carved ivory handled knives, dithipa, suggest a precolonial cultural significance for wild animals that was significantly altered by the ecological transformations associated with missionary and colonial encounters.

15 March

Andreas Weber (University of Twente)
Governance of and by paper: natural history and the Dutch Empire in Southeast Asia, 1800–1850

The unruly materiality of 'paper' is an intriguing vehicle to examine the relationship between natural history, chemistry and governance in the early 19th-century Dutch Empire. Owing to high costs for imported raw materials, changing patterns of consumption and trade restrictions, civil servants, printers, suppliers of writing equipment, and owners of paper mills were forced to find ways to secure the circulation of paper between Europe and Southeast Asia, as well as between colonial outposts in the far-flung Malay Archipelago. While government officials in The Hague and Batavia tried to streamline paper flows in offices and print shops, engaged citizens, entrepreneurs, naturalists and chemical savants such as Adriaan Rogge, Jan Kool and Petrus Johannes Kasteleyn started to tinker with and reflect upon domestic and colonial

surrogates which were supposed to replace costly raw materials (e.g. linen rags) from elsewhere. By conceptualizing governance as the evolving consequence of the circulation of paper-related actors, expertise and materials, this paper works towards a history of paper in which a 'mentalist' and a 'materialist' (Latour) approach is combined.

History of Medicine Seminars

Seminars, supported by Wellcome, are on **Tuesdays from 5.00 to 6.30pm on Zoom**. All welcome!

Early Science and Medicine

Organised by Lauren Kassell.

19 January Early Science and Medicine Work-in-Progress

9 February Early Science and Medicine Work-in-Progress

Jack Hartnell (University of East Anglia)

23 February Wound Man: three early modern afterlives of a medieval surgical image

Anna Bonnell Freidin (University of Michigan)

9 March Birth, fate, and Roman futures
Joint meeting with Generation to Reproduction

History of Modern Medicine and Biology

Organised by Mary Brazelton, Helen Curry and Staffan Müller-Wille.

Amir Teicher (Tel Aviv University)

26 January The concept of 'disease carrier' in Western medicine

Elizabeth Hoover (University of California, Berkeley)

16 February Seed sovereignty and 'our living relatives' in Native American community farming and gardening

Aro Velmet (University of Southern California)

16 March The making of a Pastorian empire: tuberculosis and bacteriological technopolitics in French colonialism and international science, 1890–1940

Generation to Reproduction

Organised by Salim Al-Gailani and Lauren Kassell.

Mackenzie Cooley (Hamilton College)

2 February Renaissance eugenics

Elizabeth O'Brien (Johns Hopkins University)

2 March As small as a grain of barley: the Bourbon state and the caesarean operation in New Spain, 1771–1810s

Anna Bonnell Freidin (University of Michigan)

9 March Birth, fate, and Roman futures
Joint meeting with Early Science and Medicine

CamPoS

CamPoS (Cambridge Philosophy of Science) is a network of academics and students working in the philosophy of science in various parts of the University of Cambridge, including the Department of History and Philosophy of Science and the Faculty of Philosophy. The Wednesday afternoon seminar series features current research by CamPoS members as well as visitors to Cambridge and scholars based in nearby institutions. If you are interested in presenting in the series, please contact Matt Farr (mwef2). 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 fortnightly on **Wednesdays, 1.00–2.30pm on Zoom.**

10 February

Adrian Erasmus (HPS, Cambridge)
P-hacking: its costs and when it is warranted

P-hacking is a misuse of analytic techniques that may lead to exaggerated experimental results. While it is widely condemned, some have suggested that there are some contexts in which the practice may be warranted. I have three aims in this paper. First, I provide a sorely needed definition of p-hacking. Second, I use philosophical tools from decision theory to articulate the prevalent position on p-hacking and illustrate how serious its effects on statistical results can be. And third, I defend the view that there are scenarios in which p-hacking may be warranted, with a particular focus on non-epistemic judgements.

24 February

Kourken Michaelian (Université Grenoble Alpes)
From authenticity to alethism: against McCarroll on observer memory

In opposition to the natural view that observer perspective memory is bound to be inauthentic, McCarroll (2018) argues for the surprising conclusion that memories in which the subject sees himself in the remembered scene are, in many cases, true to the subject's original experience of the scene. By means of a careful reconstruction of his argument, this paper shows that McCarroll does not succeed

in establishing his conclusion. It shows, in fact, that we ought to come to the opposed conclusion that, while it may be possible in principle for observer perspective memory to be authentic, this is unlikely ever to happen in practice. The natural view, in short, is more or less right.

3 March

Lena Zuchowski (University of Bristol)
What kind of models are deep learning algorithms?

I will introduce a novel conceptual framework for the analysis of scientific modelling. The framework will be used to distinguish and comparatively analyse three different ways of model construction: vertical from covering theory and empirical knowledge about a given target system; horizontal through the systematic variation or transfer of existing models; and diagonal through a combination of vertical and horizontal construction steps. I will then apply this framework to analyse the construction of deep learning algorithms and will argue that they can be interpreted as the automated, vertical, bottom-up construction of a sequence of scientific models. Furthermore, I will maintain that the practice of transfer learning can be interpreted as horizontal model construction.

17 March

Ellen Fridland (King's College London)
Practical intentions, action schemas, and strategic control in skill

While much of skilled action happens 'under the radar' it is important to acknowledge that a significant portion of skill also involves good old-fashioned thinking. For instance, there is no way to be a skilled tennis player, if you don't know that you have to, e.g., pick up the racket and swing it towards a ball. But not all personal-level knowledge about skill is of this kind. In this talk, I'll argue that skills are organized and structured by embodied, strategic, personal-level intentions that guide skill instantiations. These intentional structures, on my account, are action schemas that function both to represent and guide skilled action. Relying on the mental practice literature, I'll maintain that skilled agents uniquely possess strategic, practical, organizing intentions that guide their skilled actions in appropriate and effective ways. It follows that skilled agents are better than novices not only at implementing the intentions that they have but also at forming the right

intentions. That is, skilled agents have strategic control.

The Dialectic

The Dialectic is a new, experimental seminar series premised on the idea that the format of a constructive dialogue (not: debate) is uniquely well-suited for the exposition and analysis of unorthodox/contentious views in the history and philosophy of science (broadly construed).

Each session shall take the form of a dialogue between a Proponent and an Opponent. The Proponent shall advance a *thesis*, about which they will be questioned by the Opponent. The Opponent may seek to rebut the Proponent's thesis, defend their own counter-thesis, or simply question the Proponent so as to better understand their reasoning.

In the academic year 2020–2021, *The Dialectic* will be held on a termly basis. For questions, please contact the organiser: Bobby Vos (bfmv2).

19 February, 11am–12.30pm, Venue: Zoom

Discussants: Henry Shevlin (proponent) and Tom McClelland (opponent)

Thesis: *Conscious AI will be with us by the end of this century*

The Anthropocene

The Anthropocene (Climate Histories) offers alternating sessions in the related fields of climate history and Anthropocene studies. Meetings will involve a mix of invited speakers and reading group sessions held fortnightly on **Thursdays, 1–2pm UK time on Zoom**, meeting on the odd weeks of term. All are welcome!

Note: Most resources are available online through the University Library; if you have trouble locating them, please contact the organisers.

Organised by Claire Oliver and Richard Staley.

21 January: Living with Gaia

1. Latour, Bruno, and Timothy M. Lenton. 'Extending the Domain of Freedom, or Why Gaia Is So Hard to Understand.' *Critical Inquiry* 45, no. 3 (2019): 659–80.
2. Todd, Zoe. 'An Indigenous Feminist's Take On The Ontological Turn: "Ontology" Is Just Another Word For Colonialism.' *Journal of Historical Sociology* 29 (2016): 4–22.
- 3.

4 February: Dania Achermann (University of Bern)

'Going deep and scaling up: How ice core

research has shaped climate understanding'

Much of today's knowledge about global climate behaviour draws on studies about past climate changes. Ice cores have become key study objects to reconstruct the climate changes of the last hundreds of thousands of years. Unlike sea sediment cores or tree rings, they can provide high temporal resolution of climate information and thus fill the otherwise vague deep past with concrete climatological events. Therefore, since its advent in the 1950s, ice core paleoclimatology contributed significantly to a temporal and spatial expansion of climate understanding far beyond human time scales. However, it has taken enormous technological, logistical and financial efforts to drill vertically into remote polar glaciers, transport the ice safely to the laboratories and translate proxy data into climate information. In my presentation I will shed light on the disciplinary and theoretical origins of this new vertical glaciology, discuss how it changed glaciological and climatological research practice, and analyse how it has shaped the temporal concept of global climate and climate change.

18 February: Science fiction and ecotopias

1. Garforth, Lisa. 'Environmental Futures, Now and Then: Crisis, Systems Modeling, and Speculative Fiction.' *Osiris* 34, no. 1 (2019): 238–57.
2. Kyle P. Whyte. 'Indigenous science (fiction) for the Anthropocene: Ancestral dystopias and fantasies of climate change crises.' *Environment and Planning E: Nature and Space* 1 (2018): 224–242.
3. Morgan, Ruth. 'Imagining a Greenhouse Future: Scientific and Literary Depictions of Climate Change in 1980s Australia.' *Australian Humanities Review* 57 (2014): 43–60.

Optional science fictions:

1. Delillo, Don. Ch. 21, 'The Airborne Toxic Event,' pp. 107–56 in *White Noise* (Harmondsworth: Penguin, 1998 [1985])
2. Ballard, J.G. 'The Illuminated Man,' (1987) from *The Complete Stories of J.G. Ballard* (New York: Norton, 2009)

4 March: Multispecies histories

1. Tsing, Anna. 'The Buck, the Bull, and the Dream of the Stag: Some Unexpected Weeds of the Anthropocene'. *Suomen Antropologi: Journal of the Finnish Anthropological Society* 42 vol 1 (2017): 3–21.

- Adams, Matthew, 'Between the whale and the kauri tree: multi-species encounters, indigenous knowledge and ethical relationality in the Anthropocene' in *Anthropocene Psychology: Being Human in a More-than-human World* (London: Routledge, 2020).

Optional:

- Tsing, Anna Lowenhaupt, Andrew S. Mathews, and Nils Bubandt. 'Patchy Anthropocene: Landscape Structure, Multispecies History, and the Retooling of Anthropology.' *Current Anthropology* 60, no. S20 (2019): S186–S197.
- Wolfe, Cary and Vincaine Despret. 'Foreword,' and 'Afterword: It is an entire world that has disappeared,' in *Extinction Studies* (New York: Columbia University Press, 2017).

The Greenhouse

The Greenhouse is a meeting place for students and researchers interested in the history and sociology of plants, food, agriculture and environment to explore how science and technology shape what we grow and eat.

The regular programme of papers and discussions is curated in junction with the project From Collection to Cultivation, which is funded by the Wellcome Trust.

We meet fortnightly on **Thursdays, 1–2pm, via Zoom.**

Organised by Helen Anne Curry and Jessica J. Lee.

Week 2 (28 January)

This week, we'll discuss a broad range of readings on plant classification, invasion ecologies, and 'weeds'.

- Harriet Ritvo. 'At the Edge of the Garden: Nature and Domestication in Eighteenth- and Nineteenth-Century Britain.' *Huntington Library Quarterly* 55, No. 3 (1992), pp. 363–378
- Catriona Sandilands. 'Dog Stranglers in the Park?: National and Vegetal Politics in Ontario's Rouge Valley.' *Journal of Canadian Studies* 47, no. 3 (2013): 93–122

Further reading (optional):

- Helen Anne Curry. 'Wanted Weeds: Environmental History in the Whipple Museum.' *The Whipple Museum of the History of Science*. 223–236. Cambridge: CUP, 2019.

- Harriet Ritvo. 'Invasion/Invasive.' *Environmental Humanities* 9, no. 1 (2017): 171–174.

Week 4 (11 February)

This week, we'll discuss readings on Indigenous food sovereignty (in advance of HPS guest speaker Elizabeth Hoover).

- Elizabeth Hoover. "'You Can't Say You're Sovereign if You Can't Feed Yourself": Defining and Enacting Food Sovereignty in American Indian Community Gardening.' *American Indian Culture and Research Journal* 41, no. 3 (2017): 31–70.
- Kyle Whyte. 'Indigenous Food Sovereignty, Renewal and U.S. Settler Colonialism.' *The Routledge Handbook of Food Ethics*, Forthcoming.

Week 6 (25 February)

This week, we'll discuss readings on plant health, quarantine, and epidemics, ahead of our speaker Stuart McCook on 11 March.

- Jennifer K. Sedell. 'No fly zone? Spatializing regimes of perceptibility, uncertainty, and the ontological fight over quarantine pests in California.' *Geoforum*, in press (published online 2019).
- Jessica Wang. 'Plants, insects, and the biological management of American empire: tropical agriculture in early twentieth-century Hawai'i.' *History and Technology* 35, no. 3 (2019): 203–236.

Week 8 (11 March)

Speaker: Stuart McCook

This week, we'll hear from speaker Stuart McCook from the University of Guelph, with a talk titled 'A Fragile Abundance: The Roots of Unsustainability in the Global Coffee Industry'.

Scientific Creativity Reading Group

This reading group will meet fortnightly on **Fridays at 10am on Zoom**. If you are interested in attending, contact the organiser Milena Ivanova (mi342).

5 February

- Hills, A. and Bird, A. (2018). 'Against Creativity', *Philosophy and Phenomenological Research*.
- Sánchez-Dorado (2020) 'Novel and Worth: Creativity as a Thick Epistemic Concept', *European Journal for Philosophy of Science*.

19 February

- Salis, F. and Frigg, R. (2020) 'Capturing the Scientific Imagination', *European Journal for Philosophy of Science*.
- Murphy, A. (forthcoming) 'Towards a Pluralist Account of the Imagination in Science', *Philosophy of Science*.

5 March

- Anscomb, C. 'Visibility, creativity, and collective working practices in art and science', *Euro Jnl Phil Sci* 11, 5 (2021).
- Stuart, M.T. 'Everyday Scientific Imagination', *Sci & Educ* 28, 711–730 (2019).

19 March

- Kieran Matthew (2014) 'Creativity, Virtue and the Challenges from Natural Talent, Ill-Being and Immorality', *Royal Institute of Philosophy Supplement*, 75, pp 203–230.
- Henry Shevlin (2021) 'Rethinking creative intelligence: comparative psychology and the concept of creativity', *European Journal for Philosophy of Science*.

Decolonise HPS Working Group

The Decolonise HPS Working Group is a staff-student collaboration that considers issues surrounding decolonisation in the Department and the field(s) of HPS more broadly, as well as related issues. Discussion includes such topics as curriculum reform, inclusive pedagogy, and collaborations on similar projects with other such groups in the University. The group currently meets **every other Friday at 2pm on the 'Decolonise HPS' channel of Teams**. All students and interested members of the University are welcome to attend; contact Mary Brazelton with any questions.

Power and Identity in Philosophy of Science

The Power and Identity group meets every two weeks on **Mondays at 2pm on Teams**. Organised by Rory Kent (rdk32). We will discuss the following readings:

1 February

Sharyn Clough, 'Charity, Peace, and the Social Epistemology of Science Controversies', in *Social Epistemology and Relativism*, eds. Natalie Ashton, Martin Kusch, Robin McKenna, and Katharina Sodoma (London: Routledge, 2020). Available online.

15 February

Nancy S Jecker, 'Nothing to Be Ashamed Of: Sex Robots for Older Adults with Disabilities', *Journal of Medical Ethics* (forthcoming). Available online.

1 March

Frances Hemsley, 'Reading Heredity in Racist Environments: Epigenetic Imaginaries in Bessie Head's *The Cardinals*', *Medical Humanities* (forthcoming). Available online.

15 March

Nokuthula Hlabangane, 'Can a Methodology Subvert the Logics of its Principal? Decolonial Medications', in *Perspectives on Science* 26, no. 6 (2018).

Science Communication Reading Group

The Science Communication Reading Group will examine the intersection between issues in HPS and science communication, looking at themes including the history and sociology of science communication, the recent emergence of the 'science' of science communication, and various moral and ethical issues brought about by the complex relationship between science, scientists and society. Each term we will adopt a particular focus on this broad topic. This term's focus will be **Science Communication in Practice**.

Meetings are held on **Mondays, 4–5pm on Zoom**. Organised by Grace Field (gef30) and James Dolan (jad67).

Week 1 (25 January)

Dudo, A., Besley, J. C. *Making Science Communication More Strategic*. Webinar.

Week 2 (1 February)

Jensen Eric A., Gerber Alexander. 2020. 'Evidence-Based Science Communication'. *Frontiers in Communication* 4: 78.

Week 3 (8 February)

Rubega, M. A., Burgio, K. R., MacDonald, A. A. M., Oeldorf-Hirsch, A., Capers, R. S., Wyss, R. 'Assessment by Audiences Shows Little Effect of Science Communication Training'. 2020. *Science Communication*.

Week 4 (15 February)

Cave, S., Dihal, K., Drage, E., Mackereth, K. Presentation on 'In His Image: Gendered Representations of AI Scientists and Engineers in Film and Television 1920–2020'.

Week 5 (22 February)

Firestein, Stuart. 2021. 'Sharing the Resources of Ignorance' [Revised second edition; to be circulated.]. In *Routledge International Handbook of Ignorance Studies*. ed. Matthias Gross and Linsey McGoey. Abingdon: Routledge. [With Stuart Firestein in attendance.]

Week 6 (1 March)

Bell, Alice R. 2011. 'Science as "Horrible": Irreverent Deference in Science Communication'. *Science as Culture* 20 (4): 491–512. [With Melanie Keene in attendance.]

Week 7 (8 March)

Vint, Sherryl. 'The Culture of Science'. In *The Oxford Handbook of Science Fiction*, ed. Rob Latham. Oxford: Oxford University Press, pp. 305–316.

Week 8 (15 March)

Riesch, Hauke. 2015. 'Why Did the Proton Cross the Road? Humour and Science Communication'. *Public Understanding of Science* 24 (7): 768–75. [With Hauke Riesch in attendance.]

AD HOC

AD HOC (Association for the Discussion of the History of Chemistry) is a group dedicated to the history of chemistry. While our main focus is historical, we also consider the philosophical, sociological, public and educational dimensions of chemistry. AD HOC has been meeting in various configurations since the summer of 2004, first at UCL and then also in Cambridge since 2010. Since 2008 our activities have been generously supported by the Society for the History of Alchemy and Chemistry (SHAC). This term we will be continue with the format of online discussion meetings. The focus will be on the latest work on the history of early chemistry and alchemy, and each time we will be joined by the author herself or himself in the discussion.

We will be meeting on **Mondays at 5.00–6.30pm**. Please contact Hasok Chang (hc372) if you would like to be on the mailing list of the group. Those on the list will receive the links for joining the online meetings, the exact specification or copies of the readings, and all updates on future activities.

Discussion of **Jennifer**

1 February **Ramplig** (Princeton University), *The Experimental Fire: Inventing English Alchemy, 1300–1700*

15 February Discussion of **Marina Banchetti** (Florida Atlantic

University), *The Chemical Philosophy of Robert Boyle*

Discussion of **Michael**

8 March **Bycroft** (University of Warwick), 'Gems and the Chemical Revolution'

Integrating the History and Philosophy of Science

This intensive reading group aims to discuss how the History and Philosophy of Science can be pursued within an integrated framework. We aim to learn from different approaches that scholars have taken to IHPS and discuss broader methodological questions surrounding them. Our focus equally lies on the general fruitfulness of IHPS as a methodology and its particular potential in different areas of science, history, and philosophy. Participants are required to prepare a significant amount of reading material, which covers a diverse range of contexts, questions, and scientific disciplines. Meetings are on **Mondays, 5–7pm** unless otherwise indicated

Organised by Hasok Chang (hc372), Miguel Ohnesorge (mo459), Oscar Westerblad (ow259), and Katy Duncan (ksd37).

Note: During Lent Term, all of our speakers and some of their colleagues will be present during the discussion of their work.

18 January

Jutta Schickore,

(i) *About Method: Experimenters, Snake Venom, and the History of Writing Scientifically* (Chicago UP, 2017), Introduction and chapters 1–3 and 5–6.

8 February

Theodore Arabatzis,

(i) 'What's in It for the Historian of Science? Reflections on the Value of Philosophy of Science for History of Science', *International Studies in the Philosophy of Science*, 31:1 (2017). 69–82.

(ii) 'Hidden entities and experimental practice: renewing the dialogue between history and philosophy of science', in S. Mauskopf and T. M. Schmaltz (eds.), *Integrating History and Philosophy of Science: Problems and Prospects* (Springer, 2012).

(iii) *Representing Electrons: A biographical approach to theoretical entities* (Chicago UP, 2006), chs. 3 and 9.

22 February

Friedrich Steinle,

(i) *Exploratory Experiments: Ampère, Faraday, and the Origins of Electrodynamics* (Pittsburgh UP, 2016); selections TBC.

Friday 5 March, 1pm

Teru Miyake,

(i) 2017. 'Magnitude, Moment, and Measurement: The Seismic Mechanism Controversy and Its Resolution.' *Studies in History and Philosophy of Science Part A*, Vol. 65–66 (Oct–Dec 2017), 112–120.

(ii) (with George E. Smith). Forthcoming. 'Realism, Physical Meaningfulness, and Molecular Spectroscopy.' In *Contemporary Scientific Realism and the Challenge from the History of Science*, Timothy Lyons and Peter Vickers, eds., Oxford University Press.

(iii) Forthcoming. 'Residual Phenomena and Nineteenth Century Optics.' In *On the Question of Evidence: A Celebration of the Work of George Smith*.

All unpublished papers will be circulated through the mailing list.

Calculating People

Calculating People is a reading group on history and philosophy of social sciences. The meetings take place on **Tuesdays, 2–3pm UK time on Zoom**. Organised by Christopher Clarke and Anna Alexandrova. All are welcome to join, but participants undertake to read the articles ahead of time.

26 January

Greenfield, Patricia M. 'Cultural Change Over Time: Why Replicability Should Not Be the Gold Standard in Psychological Science'. *Perspect Psychol Sci.* 2017 Sep;12(5):762–771.

Recommended also: 'Why Replication Is Overrated', Uljana Feest, *Philosophy of Science* 2019 86:5, 895–905.

2 February

O'Neill, J. and Uebel, T. (2004), 'Horkheimer and Neurath: Restarting a Disrupted Debate'. *European Journal of Philosophy*, 12: 75–105.

9 February

Marion Godman, *The Epistemology and Morality of Human Kinds*, Routledge 2020 (selections, probably ch 4).

16 February

O'Neill, J. and Uebel, T. (2004), 'Horkheimer and Neurath: Restarting a Disrupted Debate'. *European Journal of Philosophy*, 12: 75–105.

23 February

Osborne, T. and Rose, N. (1999), 'Do the social sciences create phenomena?: the

example of public opinion research'. *The British Journal of Sociology*, 50: 367–396.

2 March

Chris Clarke book draft 'Chapter 1 – Introduction'

In this introductory chapter, I do three things. First, I identify four questions that lie at the heart of the long-standing controversy between quantitative and qualitative political science about how to hunt causes in the political world. To answer these four questions would be to give an account of the rationale behind quantitative and qualitative causal inference in political science. Second, I introduce the idea of conceptual engineering. I explain how I think conceptual engineering ought to proceed, and why a conceptually engineered concept of causation will be a good basis upon which to build an account of the rationale behind causal inferences in political science. Since conceptual engineering runs contrary to more traditional 'conceptual analysis' in philosophy, this gives political scientists reason to doubt much of the philosophical literature on causation, on which political science methodologists presently rely. Thirdly, I argue that there are good prima facie reasons to think that the role that the concept of causation plays in our reasoning can only be described by using quantitative mental states. So qualitative researchers who want a concept of causation that best serves their aims should be prepared to talk about mental states in quantitative terms.

9 March

Chris Clarke book draft 'Chapter 3 – Causal Reasoning as a Guide to Propensity'

This chapter will define causation in terms of propensities. But I will not define causation as 'probability raising', nor will I define causation in terms of 'interventions'. Instead, my definition will look to the quantitative social sciences for inspiration in defining causation. I will define the meaning of causal hypotheses by showing how causal knowledge can be gained from knowledge of propensities, and of how causal knowledge can then be used to further one's knowledge of propensities. Thus causal reasoning allows one to take knowledge of propensities as an input, and then produce knowledge of propensities as an output. I will show how this overall system of reasoning is a striking innovative and informative one, rather than being unproductively circular. Namely, this overall system of reasoning with causation enables a sophisticated form of inference about

propensity that I call intersecting cross-case projection.

16 March

Chris Clarke book draft 'Chapter 4 – Causation and Decision Making'

Chapter 3 examined the role that causal knowledge can play in measuring propensities. Chapter 4 will examine a seemingly distinct role for causal knowledge, namely the role that causal knowledge plays in guiding one's actions when one is making a decision about what action to take. I will argue that this latter action-guiding role is not distinct from the former propensity-measuring role: in fact, this action-guiding role is just a special case of this propensity-measuring role. So, yes, the meaning of causal hypotheses can in part be defined by the role that causal knowledge has to play in guiding an agent's actions. But this decision-guiding role for causal knowledge in no way competes with this propensity-measuring role. Rather it depends upon it. Therefore one cannot point to the action-guiding role of causation as an objection to my argument in Chapter 3.

Philosophy and History of Physics Reading Group

This reading group meets on **Tuesdays, 4.30pm to 6pm UK time on Zoom** starting on Tuesday 19 January. Organised by Jeremy Butterfield, Matt Farr and Bryan Roberts. This term, we will alternate draft chapters of Bryan Roberts' *Time Reversal* book (begun last term) with some readings that are relevant/adjacent to the book chapter themes. For 19 January, we will read Bryan Roberts' book, Chapter 4, on Time, Symmetry and CPT. On 26 January, we will read N. Dewar, 'Sophistication about symmetries' (*British Journal of Philosophy of Science* 2019). On 2 February, we will read Bryan Roberts, Chapter 5, on Time Reversal Symmetry Violation.

Early Science and Medicine Work-in-Progress

This is a forum, supported by the Wellcome Trust, for early career scholars to discuss their work-in-progress. We are open to everyone with a connection to the Department. We usually read work by postdoctoral fellows and advanced doctoral students. The group works best if participants attend on a regular basis. If you would like to participate, please email the organiser, Dr Carolin Schmitz (cs2003).

Convened by Prof. Lauren Kassell, Dr Silvia De Renzi (OU) and Dr Dániel Margócsy (on leave 2020–21).

Meetings this term will be held virtually:

- Tuesday 19 January, 5.00–6.30pm
- Tuesday 9 February, 5.00–6.30pm

Kinds of Intelligence Reading Group

The Kinds of Intelligence Reading Group will be meeting fortnightly on **Wednesdays, 3.00–4.30pm on Google Meet**. Organised by Ali Boyle (asb69) and Henry Shevlin (hfs35).

- | | |
|----------------|---|
| 27
January | 'Which animals matter? Comparing psychological approaches to psychological moral status in non-human systems' (presented by Henry Shevlin) |
| 10
February | 'The invention of consciousness' (presented by Nick Humphrey) |
| 24
February | 'Intelligence and uncertainty: implications of hierarchical predictive processing for the neuroscience of cognitive ability' (Matthew J. Euler) |
| 10
March | 'Group agency and Artificial Intelligence' (Christian List) |

Ethno-Science Reading Group

'Ethno-Science' is a reading group dedicated to programmatic and critical texts on the relationship between scientific and local, 'indigenous' or 'native' knowledges. Our starting point will be eighteenth-century travel instructions that asked to routinely record indigenous names and knowledge. We explore economic botany and zoology as an important strand of nineteenth-century natural history relying on systematic surveys of national and colonial territories, and the eventual consolidation of 'ethno-' disciplines in the twentieth century. The aim is to understand the relationship between reifications and reinterpretations of 'savage', 'indigenous', 'native' or 'primitive' knowledge and corresponding field practices of interrogation and interaction with local informants. We are interested in the putative *shifts* towards an increasingly global awareness and calls for the *incorporation* of 'traditional' knowledge in political and scientific discourses. The meetings take place on **Wednesdays from 3 to 4pm**. The organisers are Raphael Uchôa and Staffan Müller-Wille.

20 January: Eighteenth-Century Travel Instructions

- Carl Linnaeus, 'Instructio Peregrinatorum', in *Caroli Linnaei*

Amoenitates Academicae, Seu Dissertationes Variæ Physicae, Medicae, Botanicae Antehac Seorsim Editæ Nunc Collectæ et Auctæ, Vol. 5. Stockholm: Laurentius Salvius, 1759), pp. 298–313. An English translation will be provided.

- Gascoigne, John. 'The Royal Society, Natural History and the Peoples of the "New World(s)", 1660–1800'. *The British Journal for the History of Science* 42, 4 (2009): 539–62.
- Fabian, Johannes. *Time and the Other: How Anthropology Makes Its Object*. New York: Columbia University Press, 2002, ch. 1.

17 February: Economic Botany and Zoology in the Nineteenth Century

- Hooker, William J. 'Botany' in John F. W. Herschel (ed.), *A Manual of Scientific Enquiry: Prepared for the Use of Her Majesty's Navy and Adapted for Travellers in General*, London: John Murray, (1849): 400–422.
- Brown, Robert. 'On the vegetable products, used by the north-west American Indians as food and medicine, in the arts, and in superstitious rites'. *Transactions of the Botanical Society of Edinburgh IX* (1868): 378–396.
- Pratt, Mary Louise. *Imperial Eyes: Travel Writing and Transculturation*. London: Routledge, 2007.

17 March: Birth of Ethno-Science around 1900

- Harshberger, John W. 'The Purposes of Ethno-Botany'. *Botanical Gazette* 21, no. 3 (1896): 146–54.
- Castetter E.F. 'Uncultivated native plants used as sources of food'. *Ethnobiological Studies in the American Southwest I, Biological Series* 4, no. 1 (1935): 1-44. (= University of New Mexico Bulletin 266, Albuquerque).
- Osseo-Asare, Abena Dove. 'Bioprospecting and Resistance: Transforming Poisoned Arrows into Strophanthin Pills in Colonial Gold Coast, 1885–1922', *Social History of Medicine*, 21.2 (2008), 269–90.

HPS Workshop

Wednesdays, 5–6pm on Teams: HPS Workshop

History sessions organised by Yijie Huang (yh397)

Philosophy sessions organised by Miguel Ohnesorge (mo459)

HPS Workshop seeks to break the isolation of postgraduate research and encourage collaborative thinking by allowing students to present work in progress in a supportive seminar environment. The workshops will have alternate sessions focusing on Philosophy and History, but interdisciplinary presentations are always welcome.

Students are invited to present on any aspect of their research that they are grappling with or desire feedback on, including:

- Unpacking complicated sources, concepts, or archives
- Presenting drafts of chapters, conference papers, or publications
- Proposing new ideas or strategies towards HPS research

The session is comprised of two parts: 20 minutes where the speaker outlines their work in progress (indicating areas that they would like feedback to be based upon) and 40 minutes of discussion.

17 March Arthur Harris

Explanation through composition of causes in Greek science

Postgraduate Seminars

The Postgraduate Seminars offer a sustained and systematic introduction to specific cutting-edge areas of research, led by leading experts in those areas.

Images of Science

Thu 12noon, weeks 1–4 (4 one-hour seminars)

Sachiko Kusukawa (leader)

These seminars will focus on the role of images in the history of science. Images have been central to observational practices, fieldwork, professional identities and scientific arguments. They contribute to our historical understanding of the sciences within visual culture, material culture, collecting and making, and the history of the book. Each seminar will be led by researchers who have worked extensively with images, and will be an opportunity to examine both primary and secondary sources.

Ideologies of Science

Thu 12noon, weeks 5–8 (4 one-hour seminars)

Nick Jardine (leader)

These seminars will explore rival conceptions of the nature of science and of its social and

political roles. Ideological conflicts to be considered include: radical agnostic John Stuart Mill vs conservative Anglican William Whewell on the methods of natural science and its proper place in education; liberal Ernst Mach vs conservative Catholic Pierre Duhem on the history and prospects of the sciences; the Society for Freedom in Science vs socialist visions of the functions of science; the 'two cultures' controversy sparked off by C.P. Snow, champion of science education, and F.R. Leavis, champion of literary education; Philip Kitcher and his critics on science, feminism and democracy.

- Nick Jardine**
 18 February Introduction, followed by Science and Education: Whewell vs Mill; Mach vs Duhem
- Mary Brazelton and Richard Staley**
 25 February Freedom and Planning in Science
- Nick Jardine**
 4 March The Two Cultures: Huxley vs. Arnold and Snow vs. Leavis
- Stephen John and Cristian Larroulet Philippi**
 11 March Science, Democracy and Feminism in Contemporary Analytic Philosophy of Science

Easter Term

Departmental Seminars

Seminars take place on Zoom on **Thursdays from 3.30pm to 5pm UK time** unless otherwise stated.

Organised by Helen Anne Curry and Sam Robinson.

29 April

[Sarah Dry](#) (University of Cambridge)

World models and intuition in the 1970s

In this paper I consider the 1972 publication of the Limits to Growth report and the so-called decade of world modelling that followed it. For early proponents, world models offered not only super-human analytical and computational capacities but something perhaps more surprising: the promise of self-revelation and a new kind of human agency. By revealing the ineradicable role of human judgement and intuition in both model- and decision-making, they were seen as tools for elevating consciousness and motivating action on the urgent matter of the Earth's future. Such an approach to modelling depended on self-reflexive attitudes on the part of modellers and a commitment to rendering the process of model-building at least somewhat transparent to outsiders. A series of conferences in the 1970s tried to do just this. In this paper, I consider the rise and eventual transformation (if not total fall) of the idea that world modelling could be a way to understand not only the complexity of the natural world but of what makes us human.

6 May

[Jenny Andersson](#) (Uppsala University) and [Sandra Kemp](#) (Lancaster University)

Futures

Drawing on research for our recently published co-edited OUP Handbook [Futures](#), we will examine historical and contemporary forms of futures knowledge, the methodologies and technologies of futures expertise, and the role played by different institutions in legitimizing, deploying, and controlling anticipatory practices. This presentation will examine the growing interest in futures thinking in opening

up multidisciplinary research. Forms of futures-making depend on complex processes of envisioning and embodiment. We place the provocation of power at the heart of the book through an investigation of futures as both objects of science and objects of the human imagination, creativity, and will. Bringing together emerging perspectives on the future from diverse disciplines including critical theory, design, anthropology, sociology, politics, and history, our book positions the future as a question of power, of representations and counter-representations, and forms of struggle over future imaginaries. Our contributors challenge and debate the varied ways in which futures are conjured and constructed, exploring issues as diverse as the utopian imagination, history and philosophy, literary and political manifestos, artefacts and design fictions, and forms of technological and financial forecasting, big data, climate modelling, and scenarios. Each chapter investigates the critical vocabularies, genres, and representational methods – narrative, quantitative, visual, and material – of futures-making as deeply contested fields in cultural and social life.

13 May

[Harun Küçük](#) (University of Pennsylvania)
Islamic science, cultural difference and colonization

Almost since its emergence as a field, the history of Islamic science has played a key role in the narrative of the preservation and flourishing of Greek science, particularly as it pertains to the emergence of modern science. In many ways, the history of Islamic science remains the most Hellenophilic, to use David Pingree's familiar term, among the arguably non-Western histories of science. Scholars working on earlier periods easily relate to Greek categories of natural inquiry and largely share the conceptual parameters that we often associate with Western science. Scholars of the modern period, by contrast, associate more easily with other parts of the world and now join the broad effort to decolonize the history of science. Consequently, there is a chasm between the progressive narrative that

dominates the earlier periods and the more pessimistic narrative that dominates the modern period as Muslim polities have in fact been subject to literal and discursive types of violence. The notion of decline is almost universally rejected in favour of explanations involving colonial domination and cultural difference. But do cultural difference or colonization sufficiently explain the career of science among modern Muslim polities? Conversely, does Islamic science explain the developments that took place in the earlier centuries? In this talk, I wish to approach these questions from a materialist perspective by deploying the case of early modern Istanbul as a methodological tool and scientific labour as an analytical term.

20 May

**[Sean Valles](#) (Michigan State University)
Humility in population health science: lessons for fostering an elder-supportive 'culture of health' after the pandemic**

One component of the increasingly popular 'population health science' framework is a conviction that public health requires health-conducive policies and social practices across society, which together constitute a 'culture of health': living wages, anti-racist public education and legal reforms, community-run health clinics, etc. One challenge for such efforts is that most communities are ill-designed for supporting elders' well-being: substandard eldercare facilities, neighbourhoods not designed for people with vision or mobility impairments, etc. I argue that one important piece of this public health effort is the humility that will need to be cultivated alongside other more concrete cultural resources. In particular, I will draw out a lesson from population health science theory: that humility is a vital part of an effort to create a culture of health in any community, a culture that fully includes elders' well-being. This includes humility in the relations between academic disciplines, between sectors of society, and between individual members of society.

Coffee with Scientists

The aim of this group is to explore and enhance the interface between HPS and science. Though many of us in HPS engage closely with science and scientists, we could benefit from more explicit discussions about the relationship between HPS and science itself, and from more opportunities for HPS-scholars and scientists to help each other's work.

We meet on **Fridays, 3.30–4.30pm**, with informal conversations before and after the formal session for those who are interested. Further information, reading materials and links for the online meetings will be distributed through the email list of the group; please contact Hasok Chang (hc372) or Marta Halina (mh801) if you would like to be included on the list.

We are also pleased to continue coordinating our activities with the new '**Coffee with Clinicians**' series, organised by the '[Talking as Cure?](#)' research network at CRASSH. For more information about this network, please contact Hannah Blythe (hgb27).

Coffee with Clinicians
Jonathan Roberts (Society and Ethics – Wellcome Genome Campus and Clinical Genetics, Addenbrooke's Hospital)
30 April
Future ethical issues in prenatal genetic counselling; view from clinical practice

Sabine Undorf (Department of Meteorology and Bolin Centre for Climate Research, Stockholm University) and Karoliina Pulkkinen (Department of Philosophy and History, KTH Royal Institute of Technology, Stockholm)
14 May
Values in science: a scientist's take on the philosophical debate and how to apply it to climate science

Coffee with Clinicians
Panayota Manias (Cambridge University Counselling Service)
28 May
Counselling in higher education

Joint meeting with [AD HOC](#)
Joaquín Pérez Pariente (Research Professor, Institute of Catalysis and
11 June

Petroleum Chemistry, Spanish Research Council (CSIC)

Reproduction of an 18th-century recipe for potable gold: a case study on the recovery and use of forgotten knowledge

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 on Zoom**. Organised by L. Joanne Green (ljg54).

3 May

**Amelia Urry (University of Cambridge)
Hearsay, gossip, misapprehension: Alfred Newton's second-hand histories of extinction**

The study of extinction was rooted in Victorian practices of observation and collection, but presented a challenge to the discipline's increasing emphasis on empiricism and precision. This paper traces the role of witness testimony and hearsay accounts in early studies of extinction in the notebooks of Cambridge zoology professor, Alfred Newton. Beginning in 1850s, Newton and his collaborators sought to trace the histories of species suspected to be extinct, such as the British great bustard and the great auk of Iceland. With its subjects absent by definition, the study of extinction relied heavily on hearsay and rumour, as well as evidence gleaned from past published accounts. Through his methodical attempts to collate diverse and contradictory sources, from eyewitnesses to newspapers to local folklore and gossip, Newton demonstrated the inextricability of human and social concerns from the practice of studying extinction. These attempts to resolve this social evidence into scientific certainty were time and again

frustrated by the uncertain epistemic status of his sources.

10 May

Christoffer Basse Eriksen (University of Cambridge)

Nehemiah Grew, collector, curator, and cataloguer of plants

In 1682, Nehemiah Grew published his majestic *Anatomy of Plants*, which is rightfully lauded for its systematic observations of the minute structures of plants, and its beautiful visual representations of their insides. The publication earned Grew recognition as the first anatomist of plants. In this talk, I want to highlight another aspect of Grew's engagement with the vegetable world, namely how he sought out specific plants to study. In order to do so, I will present snapshot databases of the plant species that Grew observed in his printed works, as well as a reconstruction of his private plant collection. This plant collection was catalogued by Grew himself in an unpublished manuscript, and later by Hans Sloane, who bought the collection after Grew's death and incorporated it into his own collection of 'vegetable substances'. Throughout the talk, Grew emerges not as anatomist, but as collector, curator, and cataloguer of plants.

17 May

Franziska Holt (University of York)

Of wasps in wigs and gnatter with gnats: how insects made *Alice in Wonderland*

The year 2021 marks the 150th anniversary of the second of Lewis Carroll's *Alice* novels: *Through the Looking-Glass, and What Alice Found There*. Despite the huge popularity of *Alice's Adventures in Wonderland*, *Looking-Glass* has always remained the less-studied of the two books. Distinctions between the two books have been scrutinized little, and the very different concerns and ways of expressing them in *Looking-Glass*, and the way in which they frame Lewis Carroll, his interests, and contributions to Victorian intellectual discourse have been side-lined. This has contributed to criticism distorting the role of 'children's authors' and 'children's literature' – neither of which, I will argue in this

talk are appropriate framing for *Alice* and its author – for instance, to the public discourse of science in the nineteenth century – but also, in parallel ways, today.

This paper will illuminate this predicament by exploring *Through the Looking-Glass* in the context of Lewis Carroll's interest in science and its impact on society, through a case study of the role insects play in his *Alice* novels, and particularly in *Looking-Glass* – including its 'lost chapter': 'A Wasp in a Wig'. Through examining Carroll's own reading, items from his personal library, to his letters to editors of Victorian newspapers on such subjects as animal rights or vaccination, it will shine a light on the ways in which Carroll used the platform gained through the success of his first *Alice* book to more prominently address controversial issues of his time. Crucially, it will underline how, counter to many critical readings of his works, Carroll did so to effect a moral transformation in his readers, in line with his own Christian moral sentiments. This will offer a corrective to framings of the *Alice* novels – and children's literature, more generally – as 'carefree nonsense', and, through a short concluding excursion, emphasise the crucial role played by narrative forms associated primarily with childhood, play in changing world views and behavioural patterns in the big science-society issues we face today, from Covid-19 to climate change.

24 May

**Ella Larsson (University of Westminster)
Collecting and curating at Rothschild's
Zoological Museum**

Showing little aptitude for the family business of banking, Lionel Walter Rothschild (1868–1937) instead devoted himself to the creation of one of the largest private natural history collections the world had ever seen. A prolific collector during the late nineteenth and early twentieth centuries, Rothschild's collection was kept within his purpose-built museum at Tring, Hertfordshire and contained some 2.5 million Lepidoptera, 300,000 bird skins, 300 dried reptiles and over 1400 mammal skins and skulls. These extensive research collections enabled Rothschild and his curators, Karl Jordan (1861–1959) and Ernst Hartert (1859–

1933), to make a substantial contribution to the study of animal species and their distribution, while the display collections fascinated the museum's many public visitors.

In this paper I will explore the logics and motivations which influenced the creation and curation of Rothschild's zoological collection. I will begin with a discussion of what Rothschild acquired for his collections and of the judgement criteria which informed his collecting practices, demonstrating the ways in which those criteria differed depending on a specimens' destination within the museum. I will then focus on the museum's public galleries and examine the ways in which Rothschild's scientific interests played out alongside his desire to inspire wonder, provoke aesthetic appreciation and convey personal stories about encounters with animals in the field, revealing the ways in which Rothschild's museum straddled the boundary between a 'public' and a 'private' museum.

History of Medicine Seminars

Seminars, supported by Wellcome, are on **Tuesdays from 5.00 to 6.30pm on Zoom**. All welcome!

Early Science and Medicine

Organised by Lauren Kassell.

Monique Kornell and Dániel

Margócsy

18 May The two lives of Jacques Le Moyne de Morgues: picturing plants in the 16th century

15 June [Early Science and Medicine Work-in-Progress](#)

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 Matt Farr (mwef2). 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 fortnightly on **Wednesdays, 1.00–2.30pm on Zoom.**

Book Launch: Mauricio Suárez's *Philosophy of Probability and Statistical Modelling*

Wednesday 19 May, 1.00–2.30pm on Zoom

Participants:

Rani Anjum, Norwegian University of Life Sciences

Nancy Cartwright, Durham University & University of California San Diego

Michael Strevens, New York University

Mauricio Suárez, Complutense University of Madrid

Jacob Stegenga, University of Cambridge (chair)

Three distinguished philosophers meet the author to discuss Mauricio Suárez's recent book, *Philosophy of Probability and Statistical Modelling*, Cambridge Elements, Cambridge University Press (2020). The book defends the 'complex nexus of chance' approach to statistical modelling practice, according to which chance functions in practice as a nexus of properties that typically includes probabilistic dispositions or propensities (represented by certain parametrizations of the phenomena), single case chances (represented in a model's formal probability distributions functions); and frequencies in actual or imagined data (represented as limiting ratios, or 'surface probabilities' within models of data). The discussion will focus upon the metaphysical foundations and methodological implications of this 'tripartite' conception of chance in practice.

The Dialectic

The Dialectic is a new, experimental seminar series premised on the idea that the format of a constructive dialogue (not: debate) is uniquely well-suited for the exposition and analysis of unorthodox/contentious views in the history and philosophy of science (broadly construed).

Each session shall take the form of a dialogue between a Proponent and an Opponent. The Proponent shall advance a *thesis*, about which they will be questioned by the Opponent. The Opponent may seek to rebut the Proponent's thesis, defend their own counter-thesis, or simply question the Proponent so as to better understand their reasoning.

In the academic year 2020–2021, *The Dialectic* will be held on a termly basis. For questions, please contact the organiser: Bobby Vos (bfmv2).

1 July, 2pm–3.30pm, Venue: Zoom

Discussants: Niels Martens (University of Bonn) (proponent) and Tushar Menon (University of Cambridge) (opponent)

Thesis: *Newton would have been justified in believing in unobservable absolute velocities*

The Anthropocene

The Anthropocene (Climate Histories) offers alternating sessions in the related fields of climate history and Anthropocene studies. Meetings will involve a mix of invited speakers and reading group sessions held fortnightly on **Thursdays on Zoom**, meeting on the odd weeks of term. All are welcome!

Organised by Claire Oliver and Richard Staley.

29 April at 1pm

Andreas Malm on his forthcoming book with the Zetkin Collective, [*White Skin, Black Fuel: On the Danger of Fossil Fascism*](#)

From Sweden to Spain, Poland to the US, Germany to Brazil, recent years have witnessed a surging far right at just the moment of intensifying climate breakdown.

This far right tends to deny the existence of any climate crisis and insist on maximum production and consumption of fossil fuels and other climate-destroying resources. At the same time, it positions itself as the defender of a racially defined nation – to all intents and purposes, the white nation. What are the historical sources of this configuration? The basis for this seminar is chapter 9 from the book *White Skin, Black Fuel: On the Danger of Fossil Fascism*, by Andreas Malm and the Zetkin Collective, released by Verso in May. The chapter looks at some of the sources of this configuration, notably the imperial use of steam-power and its central place in nineteenth-century racism, and the articulation of race in the automobile in twentieth-century US. The history of the links between whiteness and fossil fuels remains to be explored in depth. But scratching the surface suggests that the ongoing surge of an anti-climate, pro-fossil-fuel far right is bringing deep historical forces to the fore.

13 May at 12noon

John Tresch, 'The Anthropocene as Cosmology'

Discussion texts:

1. Szerszynski, Bronislaw. '[Gods of the Anthropocene: geo-spiritual formations in the Earth's new epoch.](#)' *Theory, Culture & Society* 34, no. 2–3 (2017): 253–275.
2. Arènes, Alexandra, Bruno Latour, and Jérôme Gaillardet. '[Giving depth to the surface: An exercise in the Gaia-graphy of critical zones.](#)' *The Anthropocene Review* 5, no. 2 (2018): 120–135.
3. Fontaine, Claire. 'Towards a Theory of Magic Materialism.' *Estetica. studi e ricerca* 9, no. 2 (2019): 585–590.

The Greenhouse

The Greenhouse is a meeting place for students and researchers interested in the history and sociology of plants, food,

agriculture and environment to explore how science and technology shape what we grow and eat.

The regular programme of papers and discussions is curated in junction with the project [From Collection to Cultivation](#), which is funded by the Wellcome Trust.

The reading group is open to all. We meet fortnightly on **Thursdays, 1–2pm** to discuss papers or presentations. We're currently meeting via Zoom, with access information circulated prior to the sessions via our mailing list.

Organised by Helen Anne Curry and Jessica J. Lee.

This term's theme is 'Histories of Biotechnology and Agriculture'.

6 May: Seeds and plants as technologies

Federova, Maria. '[Seeds as Technology: The Russian Agricultural Bureau in New York and Soviet Agricultural Modernization, 1921–26.](#)' *The Russian Review* 80, no. 2 (2021): 209–228.

Berry, Dominic J. '[Plants Are Technologies.](#)' In *Histories of Technology, the Environment and Modern Britain*, edited by Agar Jon and Ward Jacob, 161–85. London: UCL Press, 2018.

20 May: Political economies of biotechnologies

Holmes, Matthew. '[Somatic Hybridization: The Rise and Fall of a Mid-Twentieth-Century Biotechnology.](#)' *Historical Studies in the Natural Sciences* 48, no. 1 (2018): 1–23.

Jiang, Lijing. '[The Socialist Origins of Artificial Carp Production in Maoist China.](#)' *Science, Technology, and Society* 22, no. 1 (2017): 59–77.

3 June: Agricultural technologies and postcolonial resistance

Silva Garzón, Diego and Laura Gutiérrez Escobar. '[Revolturas: resisting multinational seed corporations and legal seed regimes through seed-saving practices and activism in](#)

[Colombia.](#) *The Journal of Peasant Studies* 47, no. 4 (2020): 674–699.

Saraiva, Tiago. '[California Cloning in French Algeria: Rooting Pieds Noirs and Uprooting Fellahs in the Orange Groves of the Mitidja.](#)' In *How Knowledge Moves*, edited by John Krige, 95–119. Chicago: University of Chicago Press, 2019.

17 June: GM crops and pop culture

For this session, we'll be watching some video clips together and talking about (the history of) celebrity takes on GM crops. No preparation necessary!

Scientific Creativity Reading Group

This reading group will meet fortnightly on **Fridays at 10am on Zoom**. If you are interested in attending, contact the organiser Milena Ivanova (mi342).

7 May

- Steven French (2020) '[Imagination in Scientific Practice](#)', *European Journal for Philosophy of Science*
- Benjamin Sheredos and William Bechtel (2020) 'Imagining Mechanisms with Diagrams', in *Scientific Imagination*, Arnon Levy and Peter Godfrey-Smith (Eds.)

21 May

- Peter Langland-Hassan (2020) '[Explaining Imagination](#)', OUP, chapter 12
- Angela Breitenbach (2020) '[One Imagination in Experiences of Beauty and Achievements of Understanding](#)', *The British Journal of Aesthetics*

4 June

- Marta Halina (2021) '[Insightful Artificial Intelligence](#)', *Mind & Language*
- Mike Stuart (2019) '[The Role of Imagination in Social Scientific](#)

[Discovery: Why Machine Discoverers Will Need Imagination Algorithms'](#)

18 June

- Cailin O'Connor (2019) 'The Natural Selection of Conservative Science', *SHPS*
- Adrian Currie (2019) 'Existential Risk, Creativity & Well-Adapted Science', *SHPS*

Decolonise HPS Working Group

The Decolonise HPS Working Group is a staff-student collaboration that considers issues surrounding decolonisation in the Department and the field(s) of HPS more broadly, as well as related issues. Discussion includes such topics as curriculum reform, inclusive pedagogy, and collaborations on similar projects with other such groups in the University. The group currently meets **every other Friday at 2pm on the 'Decolonise HPS' channel of Teams**. All students and interested members of the University are welcome to attend; contact Mary Brazelton with any questions.

Science Communication Reading Group

The Science Communication Reading Group will examine the intersection between issues in HPS and science communication, looking at themes including the history and sociology of science communication, the recent emergence of the 'science' of science communication, and various moral and ethical issues brought about by the complex relationship between science, scientists and society. Each term we will adopt a particular focus on this broad topic.

Meetings are held on **Mondays, 4–5pm on Zoom**. Organised by Grace Field (gef30), James Dolan (jad67) and Kanta Dihal (ksd38).

This term's theme is **Science Communication and Citizen Science**.

Week 1 (3 May)

Introduction and Chapter 1 (Chapter 2 optional). Irwin, Alan. *Citizen Science: A Study of People, Expertise, and Sustainable Development*. London: Routledge, 1995.

Week 2 (10 May)

Ottinger, Gwen. ['Buckets of Resistance: Standards and the Effectiveness of Citizen Science.'](#) *Science, Technology, & Human Values* 35, no. 2 (2010): 244–270.

Week 3 (17 May)

Kasperowski, D., Brouneus, F. ['The Swedish mass experiments — a way of encouraging scientific citizenship?'](#) *Journal of Science Communication* 15 (01) (2016).

Lewenstein, B. ['Can we understand citizen science?'](#) *Journal of Science Communication* 15 (01) (2016) [Editorial].

Weitkamp, E. ['From planning to motivations: citizen science comes to life.'](#) *Journal of Science Communication* 15 (03) (2016) [Editorial].

Week 4 (24 May)

Lintott, Chris. ['The Crowd and the Cosmos: Adventures in the Zooniverse.'](#)

Week 5 (31 May)

No meeting.

Week 6 (7 June)

Verpoort, Philipp. 'How science communication could benefit from deliberative democracy — the case for direct involvement of random citizens in assessing and communicating science (with a case study from Cambridge)'. *Presentation by author*.

Week 7 (14 June)

Haklay, M., Fraisl, D., Greshake Tzovaras, B., Hecker, S., Gold, M., Hager, G., ... Vohland, K. (2020, December 31). ['Contours of citizen science: a vignette study.'](#)

Week 8 (21 June)

Jasanoff, S. (2003). ['Technologies of Humility: Citizen Participation in Governing Science.'](#) *Minerva* 41(3), 223–244.

Week 9 (28 June)

Davies, S. R. and Horst, M. (2016). 'Scientific Citizenship: The Role of Science Communication in Democracy.' In *Science Communication: Culture, Identity and Citizenship*. New York, NY: Palgrave Macmillan.

AD HOC

AD HOC (Association for the Discussion of the History of Chemistry) is a group dedicated to the history of chemistry. While our main focus is historical, we also consider the philosophical, sociological, public and educational dimensions of chemistry.

AD HOC has been meeting in various configurations since the summer of 2004, first at UCL and then also in Cambridge since 2010. Since 2008 our activities have been generously supported by the Society for the History of Alchemy and Chemistry (SHAC).

This term we will continue with the format of online discussion meetings. The focus will be on the latest work on the history of early chemistry and alchemy, and each time we will be joined by the author herself or himself in the discussion.

We will be meeting on **Mondays at 5.00–6.30pm**. Please contact Hasok Chang (hc372) if you would like to be on the mailing list of the group. Those on the list will receive the links for joining the online meetings, the exact specification or copies of the readings, and all updates on future activities.

3 May

Discussion of Christoph Meinel, 'Theory or Practice? The Eighteenth-Century Debate on the Scientific Status of Chemistry', *Ambix* 30:3 (1983), 121–132.

17 May

Discussion of Peter Ramberg, 'The Death of Vitalism and the Birth of Organic Chemistry: Wohler's Urea Synthesis and the Disciplinary Identity of Organic Chemistry', *Ambix* 47:3 (2000), 170–195.

7 June

Discussion of Andrew Sparling, 'Paracelsus, a Transmutational Alchemist', *Ambix* 67:1 (2020), 62–87.

11 June

Friday, 3.30–5.00pm, Joint meeting with [Coffee with Scientists](#)

Discussion with Joaquín Pérez Pariente, Research Professor, Institute of Catalysis and Petroleum Chemistry, Spanish Research Council (CSIC): 'Reproduction of an 18th-century Recipe for Potable Gold: A Case Study on the Recovery and Use of Forgotten Knowledge'.

Integrating the History and Philosophy of Science

This intensive reading group aims to discuss how the History and Philosophy of Science can be pursued within an integrated framework. We aim to learn from different approaches that scholars have taken to IHPS and discuss broader methodological questions surrounding them. Our focus equally lies on the general fruitfulness of IHPS as a methodology and its particular potential in different areas of science, history, and philosophy. Participants are required to prepare a significant amount of reading material, which covers a diverse range of contexts, questions, and scientific disciplines.

Meetings are on **Mondays, 5–7pm**.

Organised by Hasok Chang (hc372), Miguel Ohnesorge (mo459), Oscar Westerblad (ow259), and Katy Duncan (ksd37).

All unpublished papers will be circulated through the mailing list.

26 April

Peter Vickers (Durham University)

(i) *Identifying future proof science* (manuscript), chs. 1, 2 and 10, plus one case study chapter of choice.

10 May

Alisa Bokulich (Boston University)

31 May

Adrian Currie (University of Exeter)

Philosophy of Medicine Reading Group

Tuesdays at 1pm – HPS Teams Channel 3.09 ('Philosophy of Medicine Reading Group')

Organisers: Anna Alexandrova, Stephen John and Tim Lewens. Please send any questions/comments to Stephen John (sdj22).

We meet each week to discuss papers in the Philosophy of Medicine, broadly construed. We are open to students and staff in HPS and other departments. Participants are expected to read papers before the session, although normally a session leader gives a short introduction to that week's reading.

This term we will spend weeks 1–4 reading Maya Goldenberg's exciting (and timely!) new book, [Vaccine Hesitancy: Public Trust, Expertise, and the War on Science](#) (University of Pittsburgh Press).

- Week 1 (4 May): Introduction, Chapters 1 and 2
- Week 2 (11 May): Chapters 3 and 4
- Week 3 (18 May): Chapter 5
- Week 4 (25 May): Chapter 6 and conclusion

Weeks 5–8 will provide an opportunity for contributors to present their own works-in-progress.

Calculating People

Calculating People is a reading group on history and philosophy of social sciences.

The meetings take place on **Tuesdays, 2–3pm UK time on Zoom**. Organised by Christopher Clarke and Anna Alexandrova.

All are welcome to join, but participants undertake to read the articles ahead of time.

27 April

Members of the group attend [the talk by S.M. Amadae](#)

4 May

Cohen PN. '[How Troubling Is Our Inheritance? A Review of Genetics and Race in the Social Sciences](#)'. *The Annals of the American Academy of Political and Social Science*. 2015; 661(1):65–84.

11 May

Eronen MI, Bringmann LF. '[The Theory Crisis in Psychology: How to Move Forward](#)'. *Perspectives on Psychological Science*. January 2021.

18 May

Guala, Francesco. '[Philosophy of Social Science: Naturalism and Anti-Naturalism](#)'. (2015): 1–17.

25 May

Lorraine Greaves, Alison Wylie and the Staff of the Battered Women's Advocacy Centre, 'Women and Violence: Feminist Practice and Quantitative Method', in Sandra Burt and Lorraine Code, eds., *Changing Methods: Feminists Transforming Practice*, Peterborough, Canada: Broadview Press, 1995, pp. 301–325.

1 June

No meeting

8 June

Frazer, M. (2020). '[Respect for Subjects in the Ethics of Causal and Interpretive Social](#)

[Explanation](#)'. *American Political Science Review*, 114(4), 1001–1012.

15 June

Baert, Patrick, Helena Mateus Jerónimo, and Alan Shipman. 'Social Sciences and the Democratic Ideal: From technocracy to dialogue'. In [The Social Sciences and Democracy](#), pp. 17–38. Palgrave Macmillan, London, 2009.

Philosophy and History of Physics Reading Group

This reading group meets on **Tuesdays, 4.45pm to 6pm UK time on Zoom** starting on Tuesday 4 May. Organised by Jeremy Butterfield, Matt Farr and Bryan Roberts.

We will read a sequence of various draft papers and chapters, all downloadable from the usual website:

[Further information and readings](#)

Early Science and Medicine Work-in-Progress

This is a forum, supported by the Wellcome Trust, for early career scholars to discuss their work-in-progress. We are open to everyone with a connection to the Department. We usually read work by postdoctoral fellows and advanced doctoral students. The group works best if participants attend on a regular basis.

If you would like to participate, please email the organiser, Dr Carolin Schmitz (cs2003).

Convened by Prof. Lauren Kassell, Dr Silvia De Renzi (OU) and Dr Dániel Margócsy (on leave 2020–21).

There will be one meeting this term, which will be held virtually:

- Tuesday 15 June, 5.00–6.30pm

Kinds of Intelligence Reading Group

The Kinds of Intelligence Reading Group will be meeting fortnightly on **Wednesdays, 3.00–4.30pm on Google Meet**. Organised by Ali Boyle (asb69) and Henry Shevlin (hfs35).

12 May

J. Hernández-Orallo (2020), ['Twenty years beyond the Turing test: Moving beyond the human judges too'](#). *Minds and Machines* 30 (4): 533–562.

26 May

W. Bechtel & L. Bich (2021), ['Grounding cognition: Heterarchical control mechanisms in biology'](#). *Phil. Trans. R. Soc. B* 376: 20190751.

9 June

S. Lea et al. (2020), ['Behavioural flexibility: A review, a model and some exploratory tests'](#). *Learning & Behaviour* 48, 173–187.

S. Risi & J. Togelius (2020), ['Increasing generality in machine learning through procedural content generation'](#). *Nature Machine Intelligence* 2, 428–436.

23 June

M. Del Giudice & B. J. Crespi (2018), ['Basic functional trade-offs in cognition: An integrative framework'](#). *Cognition* 179, 56–70.

7 July

T. B. Starzak & R. D. Gray (2021), ['Towards ending the animal cognition war: A three-dimensional model of causal cognition'](#). *Biology & Philosophy* 36 (9), 1–24.

Ethno-Science Reading Group

'Ethno-Science' is a reading group dedicated to programmatic and critical texts on the relationship between scientific and local, 'indigenous' or 'native' knowledges. Our starting point will be eighteenth-century travel instructions that asked to routinely record indigenous names and knowledge. We explore economic botany and zoology as an important strand of nineteenth-century natural history relying on systematic surveys of national and

colonial territories, and the eventual consolidation of 'ethno-' disciplines in the twentieth century. The aim is to understand the relationship between reifications and reinterpretations of 'savage', 'indigenous', 'native' or 'primitive' knowledge and corresponding field practices of interrogation and interaction with local informants. We are interested in the putative *shifts* towards an increasingly global awareness and calls for the *incorporation* of 'traditional' knowledge in political and scientific discourses.

The meetings take place on **Wednesdays from 3 to 4pm**. The organisers are Raphael Uchôa and Staffan Müller-Wille.

12 May: Ethno-Science after WWII

- Ackerknecht, Erwin H. 'Primitive Medicine and Culture Pattern'. *Bulletin of the History of Medicine* 12, no. 4 (1942): 545–74.
- Sturtevant, William C. 'Studies in Ethnoscience'. *American Anthropologist, New Series* 66, no. 3, Part 2: Transcultural Studies in Cognition (June 1964): 99–131.
- Schultes, Richard Evans and Siri Von Reis (eds.), *Ethnobotany: Evolution of a Discipline*. London: Chapman & Hall, 1995.

9 June: Recent Reflections and the Ontological Turn

- Eduardo Kohn, 'Anthropology of Ontologies', *Annual Review of Anthropology* 44 (1) (2015), 311–327.
- Ellen, Roy. 'Is There a Role for Ontologies in Understanding Plant Knowledge Systems?', *Journal of Ethnobiology* 36(1) (1 March 2016), 10–28.
- Hardison, Preston and Kelly Bannister. 'Ethics in Ethnobiology: History, International Law and Policy, and Contemporary Issues'. In *Ethnobiology*, edited by E. N.

Anderson et al. Hoboken, NJ: Wiley, 2011, pp. 27–49.

HPS Workshop

Wednesdays, 5–6pm on Teams: HPS Workshop

History sessions organised by Yijie Huang (yh397)

Philosophy sessions organised by Miguel Ohnesorge (mo459)

HPS Workshop seeks to break the isolation of postgraduate research and encourage collaborative thinking by allowing students to present work in progress in a supportive seminar environment. The workshops will have alternate sessions focusing on Philosophy and History, but interdisciplinary presentations are always welcome.

Students are invited to present on any aspect of their research that they are grappling with or desire feedback on, including:

- Unpacking complicated sources, concepts, or archives
- Presenting drafts of chapters, conference papers, or publications

- Proposing new ideas or strategies towards HPS research

The session is comprised of two parts: 20 minutes where the speaker outlines their work in progress (indicating areas that they would like feedback to be based upon) and 40 minutes of discussion.

12 May **Xinyi Wen**
A thousand walnuts, or how to imagine a universality through diversity

19 May **Yijie Huang**
Mechanical pluralism and the emergence of a clocklike pulse in late seventeenth-century England

26 May **Gianamar Giovannetti-Singh**
Knowledges of geography and geographies of knowledge: Martino Martini's Novus Atlas Sinensis and the emergence of mathematical cosmography

2 June **Guy Sechrist**
The use of a dead man's bones: the origins of seventeenth-century gauging rods