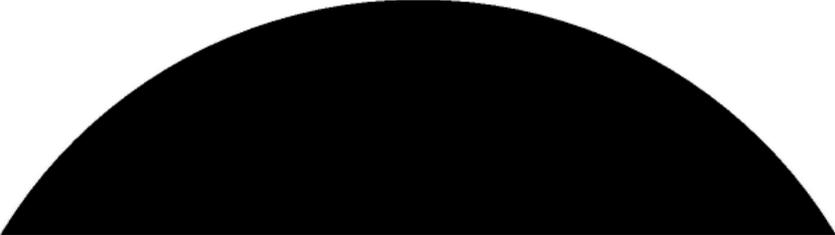

**History of Science, Medicine and Technology
Postgraduate Conference 2018**



SEX, DRUGS and DEATH



new perspectives on

SCIENCE, MEDICINE and TECHNOLOGY



**This event is organised and supported by
The Oxford Centre for the History of Science, Medicine and Technology
University of Oxford**

Sex, Drugs and Death: New Perspectives on Science, Medicine and Technology

Welcome to the 2018 History of Science, Medicine, and Technology Graduate Research Conference. Over the next two days, you will hear presentations on a wide range of topics – sex, drugs, and death, but also souls and stellar atmospheres – from the current HSMT cohort. We, too, are a varied group. You will hear from two DPhil candidates, four MPhil and eleven MSc students. Our homes are dispersed from Cape Town to Devon to Wellington, and our backgrounds range from history to pure mathematics and clinical psychology.

History of science, medicine and technology is an eclectic and flexible sub-discipline, and our projects reflect that. Although many of us direct our attention to the nineteenth and early-twentieth centuries, our topics cover five centuries, four continents and two maritime regions. Our research considers questions as different as the battle for Aristotle's legacy in seventeenth-century Britain; how to calculate morbidity and mortality at the Carlisle Indian Industrial School in Pennsylvania; the medicalisation of paedophilia; the development of mathematical logic; and the World Health Organisation's policies for the treatment of leprosy.

Benjamin Franklin, another subject on whom you will hear shortly, wrote that 'nothing can be said to be certain, except death and taxes.' We think that Franklin might have shortlisted sex and drugs too. Even then the list would have been incomplete, and far from concrete. In that spirit of eclecticism, we are pleased to have you join us on what we hope will prove a methodologically and topically rich journey through the history of science, medicine, and technology.

Sex, Drugs and Death: New Perspectives on Science, Medicine and Technology

7 & 8 June 2018

History Faculty Lecture Theatre, George Street, Oxford

Thursday, 7 June

- 09:45-10:00 **Registration**
- 10:00-10:10 **Opening Remarks: Rob Iliffe**, *Professor of the History of Science*, Oxford
- 10:10-11:20 **Session One – Early Modern Natural Philosophy**
Natasha Bailey, “The strange force of fascination”: Alexander Ross and natural philosophy
Lucia Bucciarelli, Disseminating scientific knowledge: the role of discipleship in the early modern period
Michelle Pfeffer, Heterodoxy and historical argument: the physician William Coward studies the soul
Chair: Rob Iliffe
- 11:20-11:40 **Tea/Coffee**
- 11:40-12:50 **Session Two – Modern Science**
Constance Hardesty, Who decides? Public opinion versus the Royal Society in the eighteenth-century lightning rod controversy
Johann Gaebler, Calculus of the mind: George Boole and *The Laws of Thought*
Patrick Lee, *Stellar Atmospheres*: Cecilia Payne-Gaposchkin, historical receptions, and ascribing scientific priority
Chair: Michelle Pfeffer
- 12:50-13:50 **Lunch**
- 13:50-15:00 **Session Three – Sexuality, Reproduction and Eugenics**
Alicja Howard, The sex glands: paradigms of sexuality and gender in the quest for rejuvenation
Nick Logan, Overcorrecting cruel science in post-war America
Angela Yu, Frozen futures: “reproduction without sex” and the single girl
Chair: John Shepherd
- 15:00-15:20 **Tea/Coffee**

Sex, Drugs and Death: New Perspectives on Science, Medicine and Technology

7 & 8 June 2018

History Faculty Lecture Theatre, George Street, Oxford

15:20-16:30

Session Four – Psychology and Criminality

John Shepherd, Tracing the criminal subject: theories of crime and the practice of prevention in Berkeley, California, c.1910-40

Alexandra Ackland-Snow, Surgical, chemical, psychological, behavioural: the concept of “restraint” in the medicalisation of paedophilia in the twentieth century

Henry-James Meiring, Politics and psychoanalysis in Africa: the birth and death of institutional psychoanalysis in South Africa, 1929-50

Chair: Angela Yu

16:30-16:50

Closing Remarks: Sloan Mahone, *Associate Professor of the History of Medicine, Oxford*

Friday, 8 June

09:50-10:00

Opening Remarks: Erica Charters, *Associate Professor of the History of Medicine and Director of the Oxford Centre for Global History, Oxford*

10:00-11:10

Session Five – Health and Colonialism

Rhiannon Bertaud-Gandar, Sharing sanitary intelligence in the Red Sea, ca. 1865-1914

Ho Hee Cho, British-Commonwealth initiatives in international medical cooperation and the Second World War

Frank Vitale IV, Counting Carlisle’s casualties: multiple methods for measuring mortality at the Carlisle Indian Industrial School, 1879-1918

Chair: Ethan Friederich

11:10-11:40

Tea/Coffee

11:40-12:30

Session Six – Medicine and Disease Control

Ethan Friederich, Plantations, policy and public health: a history of malaria in Assam 1919-39

Josefine Lochen, The World Health Organization, leprosy and the saga of multidrug therapy

Chair: Frank Vitale IV

12:30-12:45

Closing Remarks: Mark Harrison, *Professor of the History of Medicine and Director of the Wellcome Unit for the History of Medicine, Oxford*

Natasha Bailey
MSc Candidate
St Hilda's College

Early Modern Natural Philosophy

“The strange force of fascination”: Alexander Ross and natural philosophy

The Scottish cleric and classical scholar, Alexander Ross (1591-1654), has been the object of more derision than almost any other early modern writer. My paper, however, will take a fresh approach to his ideas. It homes in on how three of his works – *Medicus medicatus* (1645), *Philosophical Touchstone* (1645), and *Arcana microcosmi* (1652) – provided cogent critiques of his famous English contemporaries: Kenelm Digby, Thomas Browne, and William Harvey. In doing so, I suggest that Ross isolated these thinkers primarily because, to his mind, they adapted Aristotelian ideas in sometimes disconcerting ways. Building on recent scholarship that grapples with the plurality of early modern ‘Aristotelianisms’, this paper shows that Ross appealed to heavyweight Reformed scholastics such as Zanchi, Vermigli, and Keckermann along with Jesuit commentators and medical humanists, naturalists, and orientalist in his efforts to locate and defend the ‘true’ Aristotle. While he never ventured further than the Isle of Wight and mostly wrote in English, Ross situated himself – perhaps to a greater extent than some of his better-travelled contemporaries – in relation to a vast European and largely Latinate world of literature and learning. As he realised, calling on an array of prominent ‘humanist’ and ‘scholastic’ authors was the soundest way to promote the Christian-Aristotelian synthesis and the deployment of logic alongside observation and textbook wisdom as a means by which to come to terms with both the books of nature and scripture.

Lucia Bucciarelli
DPhil Candidate
Linacre College

Early Modern Natural Philosophy

**Disseminating scientific knowledge:
the role of discipleship in the early modern period**

Trust is an essential feature in the process of making scientific knowledge. In his *A Social History of Truth* (1985) Steven Shapin shows how, in different scientific contexts, trust assumes nuances that are of the greatest importance. A key institution underpinning trust is the master-student relationship. Before the early modern period mathematicians and natural philosophers had traditionally surrounded themselves of trusted tyros who, after a rigid apprenticeship or training, acquired, developed, and disseminated their masters' teachings. But what happened to this process when the print revolution and the flourishing of academies and journals throughout Europe signalled a significant change in the way of communicating achievements?

Focusing on early modern natural philosophy, my purpose is to study the role that discipleship continued to play in disseminating knowledge. Mathematics was at the very centre of the emerging new interpretation of nature; but it was difficult to understand and was – in an important sense – the property of a new group of experts, something to protect from “little smatterers” (as Newton called them). Copernicus, Kepler, Galileo, and Newton were pronouncing radically novel statements based on the authority of mathematics combined with observation and experiments. Making such knowledge credible required the dissemination to a select audience of sophisticated mathematically-grounded arguments backed by convincing evidence, a task that required the support of trusted and expert acolytes. Resorting to disciples still remained essential to authors dealing with the objective difficulties of their research.

Michelle Pfeffer
MSc Candidate
Harris Manchester College

Early Modern Natural Philosophy

**Heterodoxy and historical argument:
the physician William Coward studies the soul**

Early modern Europe witnessed energetic debates over the immortality and immateriality of the soul, and in a context in which the proper *scientia de anima* had not been settled, it was no surprise when in 1702 a physician entered the fray. In the midst of a successful medical career, William Coward (1657-1724) published six large volumes in which he aired dangerous mortalist and materialist opinions. Coward's medical practice had taught him that diseases of the brain were closely linked to diseases of the soul, and he advocated the physician's right to investigate the grounds of his own faith. However, Coward's contentious views were not only the products of medical knowledge, but also grew out of his engagement with much older scholarly debates over the interpretation of key biblical passages and the history of ancient philosophy. The role of physicians and of medical knowledge in early modern discussions of the soul has been well attested, but the extent to which writers like Coward bolstered their positions with historical and exegetical scholarship has been understudied. While Coward has been studied as a heterodox physician, he has not been studied as a "scholar", and this paper will assess the relationships between his medical practice, religious beliefs, and scholarship to bring to light the intellectual context of this overlooked thinker.

Constance Hardesty

MSc Candidate

Pembroke College

Modern Science

**Who decides? Public opinion versus the Royal Society
in the eighteenth-century lightning rod controversy**

One of the entertaining events in the history of electricity is “the battle of knobs and points”. At issue was the design of lightning rods. Which was most effective, the tall, pointed rods invented by Benjamin Franklin or short rods terminating in blunt ends, as rival Benjamin Wilson claimed? The controversy came to a head twice, in 1772 and again in 1777, around concerns for the safety of buildings in which the British Navy stored gunpowder.

Both times the Board of Ordnance asked the Royal Society to recommend better lightning protection, and both times the Royal Society recommended installing more of Franklin’s rods. In 1777, Benjamin Wilson refused to comply with the Royal Society’s decision, and he waged a public campaign for his own design. The campaign culminated with a spectacular public demonstration that prompted King George III to decree that Wilson was right. Thus, Wilson moved the locus of authority for validating knowledge from the experts of the Royal Society to the uninformed and enthusiastic public.

This paper analyses the persuasive resources that Wilson used in order to more fully explain why the controversy unfolded as it did, allowing public spectacle and sentiment to overrule the Society’s judgement. Piecing together evidence from correspondence, newspapers, pamphlets, journals, reports and minutes of the Royal Society gives a view of this controversy as one complicated by status, patronage, and politics.

Johann Gaebler
MSc Candidate
Wolfson College

Modern Science

Calculus of the mind: George Boole and *The Laws of Thought*

George Boole (1815–64) was an innovative mathematician, making fundamental contributions in differential equations, probability theory, and invariant theory, which his work inspired. By far the best remembered of his contributions, however, is to logic. His 1854 treatise, *An Investigation of the Laws of Thought*, spurred the mathematical treatment of the subject that would come to dominate in the late-nineteenth century and beyond. Nevertheless, the roots of Boole’s project have never been fully understood. The fundamental question – What made Boole’s “Logical Calculus,” as he called it, possible and where did it come from? – is largely unexplored. Boole lived and worked in a period when mathematics came to be used to conceptualise what it is to be human – an *animal rationale* – through the rise of mathematical political economy and actuarial science, as well as the promise of calculating machines, such as Charles Babbage’s difference engine, which many in Boole’s mathematical circle studied and built. By looking to these and other contemporary debates surrounding the foundations of abstract algebra and probability theory, this project attempts to contextualise Boole’s logical innovations in the broader intellectual project of mathematising the mind.

Patrick Lee
MSc Candidate
St Edmund Hall

Modern Science

***Stellar Atmospheres: Cecilia Payne-Gaposchkin,
historical receptions, and ascribing scientific priority***

Cecilia Payne-Gaposchkin (1900-79) has rightly been lauded as “probably the most eminent woman astronomer of all time.” Her career was marked by continually advancing astronomical knowledge, particularly in relation to stellar composition and evolution, while simultaneously earning academic honours and titles that had never been granted to women. Although her achievements were numerous her PhD thesis *Stellar Atmospheres: A Contribution to the Observational Study of High Temperature in the Reversing Layers of Stars* has been identified as containing her most important, and original, scientific insight. Payne-Gaposchkin’s evidence suggested that stars had an abundance of hydrogen and helium and therefore had a chemical composition unlike that of earth. She was encouraged by Henry Norris Russell, a major figure in the field, to qualify her findings as “almost certainly not real” since they ran contrary to the accepted scientific knowledge of the time. Russell, using different methods, would come to the same conclusion a few years after her work was published and the abundance of hydrogen and helium in stars would come to be accepted as fact by the astronomical community. *Stellar Atmospheres* has been retroactively invoked to grant Payne-Gaposchkin scientific priority. This paper will analyse how her work was received by the astronomical community when it was published, something scholarship has neglected to examine, and the ways in which it has been reformulated as the prime tool for legitimating Payne-Gaposchkin’s scientific relevance.

Alicja Howard
MSc Candidate
Green Templeton College

Sexuality, Reproduction and Eugenics

**The sex glands:
paradigms of sexuality and gender in the quest for rejuvenation**

During the early-twentieth century there was a quest to rejuvenate the body by means of manipulating or operating on the sex glands. This came to be known as 'rejuvenation' but the procedures that constituted rejuvenation could vary. Research on the sex glands was widely believed to promise new and revolutionary ways to improve the human condition. Those who carried out the procedure of rejuvenation claimed their work could delay senility and sexually reinvigorate the individual undergoing the operation, although other positive effects were also noted. Rejuvenation invoked sensational reports which seeped into the public domain and popular culture. The work of individuals such as the Viennese physiologist Eugen Steinach (1861-1944) and the Russian surgeon Serge A Voronoff (1866-1951) amassed attention on an international scale but what is more interesting is how their research was moulded by sociocultural conditions. Paradigms of masculinity and femininity sculpted the nature of their research to a large degree and notions of sexuality infused how the purpose of their research was to be determined. Although the work of the rejuvenists proved to be limited in clinical efficacy and eventually went out of fashion, in part due to increasing criticism, rejuvenation serves as an interesting and illuminating episode in the history of science and sexuality.

Nick Logan
MSc Candidate
Green Templeton College

Sexuality, Reproduction and Eugenics

Overcorrecting cruel science in post-war America

During a 1978 meeting of the American Association for the Advancement of Science, the Harvard biologist E O Wilson – who had recently published *Sociobiology: The New Synthesis* – approached the podium to deliver a highly anticipated speech on a controversial topic: the role and significance of genetics in human behaviour. Just as he was about to begin, demonstrators associated with the International Committee Against Racism stormed the stage, accused Wilson of endorsing genocide, poured a pitcher of freezing cold water over his head, and fled the scene.

My goal is to better understand how this virulent type of hostility toward Wilson and sociobiology – a subject that was, according to even Wilson’s most outspoken opponents in the scientific community, based on sound and well-reasoned observations – came to be, and the effect this public outcry had on the far more restrained and reasonable debates taking place in the scientific community regarding sociobiology’s merits and flaws.

I believe a fairly clear line can be traced from the rabid anti-eugenics movement in the United States beginning around 1945, to the intense and oftentimes irrational pushback against Wilson’s relatively benign conclusions. Although the historical consensus is that sociobiology’s focus on the genetic underpinnings of human behaviour led to an honest debate among well-meaning scientists, it seems increasingly clear that the scientific community’s reluctance to embrace this new theory stemmed in no small part from a fear that the lay public – which was aggressively skeptical of any science that remotely resembled eugenics – would slander any scientist who considered Wilson’s views to be plausible as a nefarious actor, or a peddler of “race” science.

Angela Yu
MPhil Candidate
Balliol College

Sexuality, Reproduction and Eugenics

Frozen futures: “reproduction without sex” and the single girl

In October 2014, Apple announced that it would offer female employees the option to freeze their eggs for non-medical purposes. The company reasoned that this newly available form of assisted reproductive technology (ART) would resolve the conflicting demands of work and motherhood experienced by women during their peak years for career- and family-building. Similar benefits soon followed at Facebook and Google. Given the longstanding association of ART with heterosexual marriage, its twenty first century alliance with single women in the workplace is not entirely intuitive. *Frozen Futures* thus traces the emergence of single womanhood as a dominant figure of egg freezing, and interrogates how the targeted user of ART shifted from the infertile married woman to the fertile working girl in the United States and United Kingdom. Although embryo freezing has become routine practice since the introduction of in vitro fertilisation (IVF) in 1978, egg preservation only became feasible over the last decade through the implementation of new freezing techniques. The scientific development and medical application of egg freezing and storage are therefore deeply tied to historical debates regarding the legitimate use and users of ART, wherein diverse state and activist groups invoked these emerging technologies to mobilise contested visions of the future. Drawing on sources in scientific literature, law, government and popular media, this project argues that the proliferation of real and imagined users of ART was embedded within the shifting desires and anxieties regarding labour, family and aging of the late-twentieth and early-twenty first centuries.

John Shepherd
MPhil Candidate
Worcester College

Psychology and Criminality

**Tracing the criminal subject: theories of crime
and the practice of prevention in Berkeley, California, c.1910-40**

From the formation of the American Institute of Criminal Law and Criminology in 1909 nationwide efforts to control or even cure the criminal element of a modernising society drew on science, medicine and technology to understand and solve the problem of criminal behaviour. Yet, William Healy, writing in 1933 noted the dearth of results especially among the nation's police, apparently averse to new criminological science. One department in Berkeley, California, however was cited as an exception. Under chief August Vollmer the department's novel training programmes and innovative technological solutions set a standard for policing which has led one biographer to call Vollmer the 'father of American policing'. However, Vollmer also wrote consistently on the psychological and psychiatric factors in criminal behaviour, drawing on a burgeoning criminological discourse among psychologists, psychiatrists, biologists and legal scholars at the University of California, Berkeley on the innate or environmental causes of crime and the prospect of rehabilitation. Through the 1910s-30s special classes and lectures on criminal behaviour and detection between the police and academics had high hopes for a form of law enforcement that would treat the traumas and neuroses of criminals and respond appropriately to their individual 'defects'. Meanwhile, data on 'problem children' presented new possibilities of police intervention targeting 'predelinquency'. This response to crime presents not only an episode in the interaction of medical science and law enforcement but also, it is hoped, an opportunity to trace changing conceptions of the criminal subject across the various realms of theory and practice.

Alexandra Ackland-Snow
MSc Candidate
Exeter College

Psychology and Criminology

**Surgical, chemical, psychological, behavioural: the concept of
“restraint” in the medicalisation of paedophilia in the twentieth century**

My thesis will examine how the concept of restraint governed medical formulations of paedophilia in Europe and North America in the second half of the twentieth century. I'm going to examine medical publications dealing with the surgical, pharmacological, psychological and behavioural interventions variously proposed to combat sexual offences against children. Though the interventions discussed were often presented as 'treatments', in actual fact their object was generally control rather than cure. On the whole, medical professionals who were involved with the criminal justice system – such as those working in prisons – mostly sought ways to prevent recidivism, rather than formulate of an 'aetiology' of sexual deviance. I argue that this pragmatic community-oriented approach had to do with intensifying public anxiety surrounding paedophilia in the 1970s. This was a response to a small but aggressive contingent of paedophiles who sought to capitalise on the “permissive” social mood following the legalisation of homosexuality, by publicly styling themselves as a persecuted sexual minority. I will also explore notions of aggression and masculinity in relation to psychotherapeutic aetiologies of paedophilia; behavioural therapies; and broader cultural attitudes. Paedophilia was formulated both as a failure of masculinity, and a warped exaggeration of it. In such configurations, the concept of restraint was again operative. Finally I will consider whether treating paedophilia as a mental illness absolves paedophiles of responsibility, or whether in the Foucauldian sense of discipline, vests them with the alternative responsibility of managing their illness, thus safeguarding their health and that of society.

Henry-James Meiring
MSc Candidate
Green Templeton College

Psychology and Criminology

**Politics and psychoanalysis in Africa:
the birth and death of institutional psychoanalysis in South Africa, 1929-50**

In the early months of 1932 a letter from Johannesburg, South Africa arrived in Vienna addressed to Dr Sigmund Freud. The letter in question was written by the young psychiatrist, Wulf Sachs, who informed Freud that interest in psychoanalysis was growing in South Africa. Freud responded by writing a short but enthusiastic letter back, expressing his pleasant surprise and delight at the news of his life's work finding fertile African soil. In ending the letter Freud encouraged Sachs to not lose interest in his pursuit of psychoanalysis. In the years following this initial correspondence, political upheavals in Europe, especially the rise of National Socialism in Germany, served in promoting South Africa from psychoanalytic backwater to a viable destination for the establishment and practice of psychoanalysis. The period between 1933 and 1950 was characterised by the International Psychoanalytic Association's (IPA) attempts to establish the first psychoanalytic institution in Africa. This paper traces the role of institutional politics in the development of psychoanalysis in the first half of the twentieth century by using South Africa as a case study, paying close attention to how the geopolitical landscape shaped the internal politics and the dynamics of the relevant power structures within the IPA. Thus this research hopes to contribute towards a revisionist history of institutional psychoanalysis within its greater geopolitical context, identifying and juxtaposing the different psychoanalytic schools of thought within the movement, and the overt and covert ways that adherence to Freudian orthodoxy was defined and enforced.

Rhiannon Bertaud-Gandar

MPhil Candidate

St Cross College

Health and Colonialism

Sharing sanitary intelligence in the Red Sea, ca. 1865-1914

Epidemic disease spreads easily along routes of human mobility, and in the late-nineteenth century the Red Sea was becoming increasingly important as a hub of global mobility. The Suez Canal, which opened in 1869, made the Red Sea a new transit link between the Mediterranean Sea and the Indian Ocean, while the speed and affordability of steam travel increased numbers of Muslim pilgrims making their way to the Hejaz for the Hajj pilgrimage. Multiple outbreaks of cholera and plague occurred in the region between the 1860s and the outbreak of the First World War, prompting the development of complex international measures to mitigate and control the transmission and impact of disease.

The same period saw the development of communication infrastructure in the region from steamship mail and a few small, unconnected telegraph lines to the beginning of the radio age. Telegraph technology was a relatively new tool for public health, and technological difficulties, prohibitive costs, and issues of geopolitics, commercial interests, and language made it a complex and contested tool.

This paper examines the role of electrical telegraphy in the development of international public health measures in and around the Red Sea. It assesses port cities in and around the Red Sea as a network to illuminate the flow, organisation and reception of information about outbreaks of disease, and how information was assessed for accuracy and reliability. In doing so, it draws connections between histories of empire, commerce, communication, and public health.

Ho Hee Cho
DPhil Candidate
St Hugh's College

Health and Colonialism

**British-Commonwealth initiatives in
international medical cooperation and the Second World War**

Twentieth-century Pacific was an arena of competition for bio-political hegemony and at the same time the cradle of multinational medical cooperation. During the inter-war years, the grounds for future international medical cooperation between British and Commonwealth countries were set down. Institutional establishments formed by the policies of the League of Nations Health Organisation, activities of the Rockefeller Foundation, and education of the Central Medical School in Fiji were made. British, Australian, and American ambitions to lead the international health discourse of the Pacific were expressed through such institutions. The breakout of the Second World War brought large-scale mobilisation of medical resources and legal foundations. Active exchange of medical resources between the Allied forces in the Pacific was an inevitable result of the vast and challenging natural environment. Widespread international public opinion forged under American leadership on anti-colonialism, self-determination, and human rights resulted in European Allied powers establishing Regional Commissions to take care of native welfare. In the post-war period, the activities of the South Pacific Health Services advised and inspected all health-related matters in the region. This experimental service carried expectations that these 'cultural (medical) relations' would eventually transform into political cooperation. It reflects what the role of culture means in post-war international relations. The case of medical cooperation in the Pacific reveals visions of continuous British dominance in the post-war Commonwealth. Moreover, the power dynamics in the construction of international health in the Pacific indicates the strategic value of this overlooked region.

Frank Vitale IV
MSc Candidate
Christ Church College

Health and Colonialism

**Counting Carlisle's casualties: multiple methods
for measuring mortality at the Carlisle Indian Industrial School, 1879-1918**

In 1918, the Carlisle Indian Industrial School (CIIS) closed, leaving behind a cemetery containing 186 graves. This figure stood for nearly 80 years as the school's accepted mortality statistic. Over the last two decades, however, numerous scholars have questioned the validity of that number, proposing estimations ranging from 178 to 537 deaths. This incongruity calls into doubt the historiographical assumption that "there are no shades of grey" when discussing mortality. The present investigation takes up CIIS both as its subject of inquiry and as a case study to establish a workable methodology for mortality calculations at small institutions. By juxtaposing the competing historiographical methodologies employed by scholars of CIIS, this study challenges the tenability of relying on prevailing mortality models, designed for large institutional systems and populations, when performing microhistorical analysis. Subsequently, meticulous tabulation and categorisation of the 238 recorded CIIS deaths is performed. This relies on the largest-ever compiled primary source collection regarding the school, including administrative records, student files, and ephemera. As a specific microhistory, this research enters into an ongoing historiographical debate surrounding mortality and imperial history, one which is remarkably sensitive today due to modern repatriation developments. As a historiographical case study, this model provides a useful alternative to methodologies designed for larger populations and institutional systems, emphasising the importance of historical actors' categories as well as archival gaps and biases. As a larger philosophical reflection, these findings cast into doubt the presupposition that mortality quantifications are either objective or directly linkable to moral culpability.

Ethan Friederich
MSc Candidate
St Cross College

Medicine and Disease Control

Plantations, policy and public health: a history of malaria in Assam 1919-39

For many around the world, Assam, India is perhaps most recognisable for its tea. During the colonial period, plantation and mining schemes sparked the movement of peoples from inside and outside of India, and the administrative processes structured life in Assam along the lines of agriculture and trade. From economy to public health, Assam was dominated by the implications of colonial rule. Considered in the writings of many colonial administrators as a regional backwater, Assam proves nevertheless a unique, underexplored case-study of malaria policy, prevention, treatment, and popular opinion. This work touches on the culture, history, medical practice, ecology, and social change surrounding malaria in Assam during the interwar period. These topics are bound by a specific focus on policy and labour, contextualised by the relatively advanced medical knowledge of the time. My research explores malaria in colonial Assam, which even in the contemporary period, despite the high death toll, remains a disassociated and ambiguous concept. Writings, statistics, and data from government administrators, public health officials, and the general population are all utilised in this study. The region's unique institutional and economic structure produced a practical approach to malaria different from other parts of the country and empire. Understanding this dynamic and analysing the real impact of malaria reveals a telling history of a disease shaped by colonial rule that remains, in the modern period, prevalent and deadly.

Josefine Lochen
MPhil Candidate
St Edmund Hall

Medicine and Disease Control

The World Health Organization, leprosy, and the saga of multidrug therapy

Following the discovery of *M. leprae* in 1873, the medical community struggled for almost 70 years to find an effective treatment. Only with the introduction of sulfone drugs in 1941 did leprosy become a curable disease. By then, an international infrastructure for the circulation of knowledge had been established for the medico-scientific community dedicated to leprosy research. It was through this network that observations of relapsing leprosy patients were first shared in the early 1950s, accompanied by warnings about ignoring the potential risk drug resistance could pose to the control of the disease. The WHO however did not acknowledge drug resistance as a threat to the international control of leprosy until 1976, when it for the first time recommended the use of multidrug therapy (MDT) for the world's 12 million documented leprosy patients.

Following up the 1976 report, the WHO established a study group of leading leprosy researchers in 1981 tasked with creating a standard MDT protocol. The protocol was published by the WHO and endorsed by World Health Assembly the following year, without it having been tested under clinical trial conditions. Over the next 10 years, all relevant international and national stakeholders officially accepted the protocol. The aim of this paper will be to examine the impact scientific networks of leprosy researchers had on the WHO's decision to first recommend MDT for leprosy, as well as their contribution to the development, introduction, and implementation of the WHO's protocol.

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