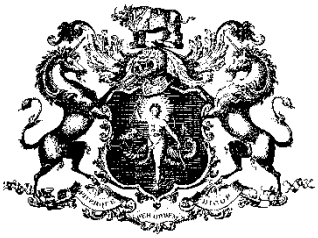

The Worshipful Society of Apothecaries of
Black Friars Lane, London EC4V 6EJ

FACULTY OF THE HISTORY AND PHILOSOPHY OF MEDICINE AND PHARMACY

HISTORY OF MEDICINE COURSE 2022-2023

COURSE BOOKLET AND LECTURE SYNOPSES – version 7

Updated 11.05.23

Registered Charity Number 233234

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Introductory Day

Dr Anna SIMMONS	Introduction to the Course
Dr Caitjan GAINTY	Starting out in History
Professor William BYNUM	The Kinds of Medicine: an introduction to the history of medicine
Dr Caitjan GAINTY	Studying History

Exploring Ancient Medicine

Professor Rosalie DAVID	Ancient Egyptian Medicine and Palaeopathology (2 Lectures)
Dr Caroline PETIT	Greek and Roman Medicine
Professor Dagmar WUJASTYK	An Introduction to Ayurveda

Islamic, Medieval and Early Modern Medicine

Professor Carole RAWCLIFFE	Medieval Medicine and the Church
Professor Carole RAWCLIFFE	At the Cutting Edge? Becoming a Late Medieval Surgeon
Dr Elaine LEONG	Early Modern Medicine
Ms Briony HUDSON	Unpacking the Historian's Toolkit

Studying Medical History

Dr Alun WITHEY	Medicine in the 18th Century
Dr Martin EDWARDS	Apothecaries and General Practice
Dr Anna Maerker	Material and Visual Culture of Medicine
Dr David Wright	Using Images in Medical History (Discussion based session with images circulated in advance)
Convenors and Examiners	Information Session on the DHMSA Exam and Dissertation

Plagues, Infectious Diseases and Public Health

Dr Marina MORGAN	Plagues and Sepsis
Dr Martin SKIRROW	Infectious Diseases before Pasteur
Dr Marin SKIRROW	The Birth of Microbiology and the Germ Theory of Infectious Diseases
Dr Noel SNELL	Tuberculosis and other respiratory disorders

The Evolution of Clinical Practice

Dr Alistair MACKENZIE	The History of Anaesthesia
Dr Caroline COATS	The Heart in Medicine
Mr Bryan Rhodes	The History of Orthopaedics and Trauma (and Wounds)
Dr Rosalind Stanwell-Smith	Public Health, Ancient and Modern

Anatomy and Renaissance Medicine

William SCHUPBACH	Anatomy: People, Books and Contexts
Daniel REES	Wellcome Library Research Resources Talk
Prof Vivian NUTTON	Renaissance Learned Medicine
Prof Michael FARTHING	Leonardo da Vinci and the science of human anatomy

The Patient's Perspective

Dr Chris MILLARD	Psychiatry from the Asylum to the Second World War
Dr Chris MILLARD	Psychiatry: the NHS and Beyond
Professor Jessica MEYER	Patient Voices
Dr Jack DAVIES	Healing Under Fire: The Development of Military Medicine

The Development of Medical Specialties

Dr Andrew LARNER	The Brain and its Connections
Dr Huw DORKINS	Medical Genetics – A Brief History
Dr Gareth CLAYTON JONES	Veterinary Surgeons and Human Doctors – Two Links in the Chain of Medicine
Dr Alison SKIPPER	Animal and Human Health, followed by group discussion on Animals and the shaping of modern medicine

Medical Marketplaces

Briony HUDSON	"A great rage for mahogany, varnish and expensive floor cloth": a history of the pharmacy shop
Professor Tilli TANSEY	Drugs in the (Long) Twentieth Century c. 1860- c. 2010
Dr John FORD	Tour of Apothecaries' Hall

Professor Anna GREENWOOD	Western Medicine and the British Empire
Prof Stuart ANDERSON	Pharmacy and Colonialism: The British Experience, 1620-1960
Dr Anna SIMMONS	Exploring the Society of Apothecaries' Archive

Women and Medicine

Professor Laurence TOTELIN	Women in Medicine in the Graeco-Roman Period
Dr Anne STOBART	Historical recipe research and women's role in healthcare in the seventeenth century
Dr Sarah CHANEY	The Changing Face of Medical Practice? Women in Healthcare and Medicine, 1700-1950
Dr Helen BYNUM	The Hospital in History

Aspects of Medical History

Dr Adrian MK THOMAS	The Development of Radiology (Parts I and II)
Dr Nancy HOLROYDE-DOWNING	Chinese Medicine
Dr Edward WAWRZYNCZAK	Understanding, Harnessing and Controlling Immunity
Dr David Wright	Scotland's Contribution to Medical History

Guy's Hospital Visit and History of Surgery

Dr Claire ELLIOTT	A History of Obstetrics and Gynaecology
Mr Mike DAVIDSON	The Evolution of Surgery
Dr Tina MATTHEWS	Microscopy and Museums

Joint Day with the Philosophy Course

Dr Tracey ELLIOTT	The Historical Development of Human Rights and Human Rights Today
Professor Raanan GILLON	Historical Aspects of Medical Ethics in the UK since the late 19th C
Professor Michael BIDDISS	The Philosophy of Medicine in the Hitler's Reich

Medical Collections

Dr Katie Dabin	Medical Collections in Museums
Dr Natasha McEnroe	Collections Based Talk
Dr Subhadra Das	Historical Perspectives on Medical Collections

INTRODUCTION TO THE HISTORY OF MEDICINE COURSE

Founded in 1617, the Society of Apothecaries is a unique and multifaceted institution, a livery company and medical organisation with civic, ceremonial, social, educational and charitable roles. Its founding charter recognised apothecaries' specialist skills in compounding and dispensing medicines and the institution's activities later developed to include drug manufacturing and medical licensing. The Faculty of the History and Philosophy of Medicine and Pharmacy is an important part of the Society's educational activities. Founded in 1959 it offers courses in the history of medicine, the philosophy of medicine and healthcare, and the history of pharmacy. Courses lasting an academic year can lead to a Diploma examination or delegates can attend purely for interest.

The Faculty's History of Medicine Course provides a substantial introduction to the history of medicine, from ancient times to the present through lectures from historians, curators and clinicians. It provides those with an interest in the history of medicine with the opportunity to develop their knowledge and historiographical skills, whilst learning more about the resources available for archival research. Its focus is the history of western medicine, but lectures on other medical systems are included, with new perspectives and topics added as the course evolves. The course also draws on the history and archives of the Society of Apothecaries. Its collections are the focus of several sessions, whilst there are also strong links with a number of medical museums and collections in London.

The course runs over fifteen Saturdays between October and June of each year. In 2022-23 it will be running in a blended format with a mix of in-person days held at Apothecaries' Hall, Guy's Hospital, and the Science Museum, and online days via Zoom. The first term provides an introduction to the history of medicine from ancient times to the eighteenth century. The second term explores themes and developments in medical history ranging from plagues, infectious disease and public health to anatomy and Renaissance Medicine and medical marketplaces. The final term covers topics including women in medicine, radiology, surgery, and medical collections and includes visits to London medical museums and a joint day with the Faculty's Philosophy Course. Workshop style sessions which explore how to critically interpret primary sources, develop historiographical, research and vocal skills are incorporated over the course of the year. A course bibliography, core reading list and lecture synopses with information on specialised further reading are also provided. For those unable to attend in-person days recordings of lectures will be available to catch up afterwards via the secure student area. However, it will not be possible to record visits nor any talks that include interaction with objects and collections.

Course Aim

Our aim for the course is that participants are equipped to fulfil their personal objectives and interests in medical history, whether that is following a specific curiosity into a particular specialty, time period or theme, enabling them to feel confident to carry out their own research for personal or professional satisfaction, or to immerse themselves in a new discipline with a group of like-minded people.

Learning Outcomes

After taking the History of Medicine Course you should have gained:

- An understanding of medical and healthcare practice from ancient to modern times and how this contributed to the evolution of the Western Medical Tradition, with brief insights into non-Western Medical traditions.
- An insight into important concepts in medical and healthcare history.
- An understanding of the historian's approach to medical and healthcare history, research methodology and historiography.
- Experience of expert lectures from around 50 different historians, curators and clinicians from a variety of fields and methodologies.

- An awareness of why people, events and developments in medicine have been accorded historical significance.
- The ability to undertake independent reading and research on medical history topics.
- Social and intellectual interaction through discussion, visits to London medical museums and networking with individuals with shared interests.
- The ability to identify, access and evaluate historic material. (There is an opportunity to take the DHMSA exam and utilise the skills gained during the course through writing a short dissertation and giving a brief presentation.)

Current lecture content covers: (please see programme for lectures included in the academic year)

Egyptian, Greco-Roman Medicine, Islamic, Ayurvedic and Chinese Medicine

Medieval, Renaissance and Early Modern Medicine

Medicine in the Enlightenment and the development of medical education

The evolution of the hospital and hospital medicine.

The growth of science, anatomy, surgery, physiology, psychiatry, pathology and the effect on medical practice

Demographic and social changes, epidemics, public health and global health

The evolution and rise of the medical profession and allied health care professions.

Apothecaries, medicines and pharmacy

The development of medical specialities

The patient's perspective

A brief insight into medical ethics – the relationship to society and professional interests

Medicine and Empire

Women in Medicine and Health Care

Animal and Human Health

Medical Collections and Museums

Historical Approaches to Medical and Healthcare History

the concept of primary and secondary sources for historical research
the range of written and non-written sources available
an introduction to archives, libraries, museums, institutions and on-line resources for medical history research

Course Director

Dr Anna Simmons is a historian who works on production, trade and science in the pharmaceutical marketplace, with a particular focus on London. Her research and publications explore various aspects of the history of British chemistry, pharmacy, and medicine from c.1650 onwards with a particular focus on the laboratories and pharmaceutical trade at the Society of Apothecaries and the development of chemical careers and professional organisations. She has published extensively on the history of the Society of Apothecaries and is an expert on its archival collections. She has been History of Medicine Course Director since July 2020 and works with the Society's Friends of the Archive to help promote use of its rich historical resources. Anna holds other roles with the Society for the History of Alchemy and Chemistry and the Royal Society of Chemistry Historical Group and is also an Hon. Research Associate in the STS Department at UCL. Please feel free to contact her for advice and research support via historydirector@apothecaries.org .

Core Reading Suggestions

The following texts are titles that previous participants have found most helpful when taking the History of Medicine Course. They are not revision guides for the associated DHMSA exam, but publications that reflect the course's introductory nature, breadth of coverage, multidisciplinary audience and primary focus on western medical traditions. It is important that individuals on the course read widely and further specialised suggestions on the topics covered are provided in the bibliography accompanying the course and with the lecture synopses included in this booklet. Please note that the titles suggested can be purchased second hand for example via www.abebooks.co.uk and via second hand booksellers on Amazon.

William Bynum, *The History of Medicine, a very short introduction* (Oxford: Oxford University Press, 2008).

L. Conrad, Michael Neve, Vivian Nutton, Roy Porter and Andrew Wear, *The Western Medical Tradition: 800 BC to AD 1800* (Cambridge: CUP, 1995).

W.F. Bynum, Anne Hardy, Stephen Jacyna, Christopher Lawrence, E.M. Tansey*, The Western Medical Tradition 1800-2000* (Cambridge: CUP, 2006).

Roy Porter, *The Greatest Benefit to Mankind; a medical history of humanity from antiquity to the present* (London: Fontana Press, 1999, reprint 2017).

Roy Porter, *The Cambridge Illustrated History of Medicine* (Cambridge: Cambridge University Press, rev. ed 2006).

For guidance on starting out in historical research and advice on participating in the historical community: Penelope J. Corfield and Tim Hitchcock, *Becoming an Historian: An Informal Guide* (London: Institute of Historical Research, 2022). Free PDF available at https://www.sas.ac.uk/publications/becoming-historian

Zoom Etiquette for Online Course Days

So that everyone (including the lecturers) gets the most out of each online session please remember the following:

- Please join the live online sessions on Saturdays if you can; if you can't please let Maria or the Course Director know.
- Please mute yourself when you enter the meeting and throughout the lecture as the lectures will be recorded for catch-up
- If you have an immediate quick query during the session please feel free to private message me using the chat function on Zoom. Longer questions please email the Course Director, Dr Anna Simmons, at historydirector@apothecaries.org
- There will be time for Q&A after each lecture and this section will not be recorded. Neither will discussion sessions.
- Whilst I recognise that there are times when we want to be off camera, the interaction with a lecturer face to face via Zoom during discussion is really worthwhile. Seeing your faces also helps the group to get to know each other and aids discussion!
- For questions to the speaker, please use the participants tab on Zoom to virtually raise your hand at the end of the session or raise it on camera. When I invite you to, please unmute yourself so you may ask the question directly.
- If you'd prefer to type your question in chat please send them to me. Please refrain from sending questions directly to the lecturer as it can be off-putting for messages to be popping up whilst they are speaking and questions can get missed.
- Any technical issues please let Maria and I know straight away using the chat function if you are logged on to Zoom or email if not.

Other Information
All course material, including lecture recordings, is made available electronically via the secure student area and students are reminded that this is for personal use only. Many of the speakers also make their slides available after each lecture and are pleased for students to contact them after the session if they have a particular interest in the subject. We welcome feedback as it contributes greatly to the planning of successive courses and we want to address problems when they arise. Please feel free to contact Maria Ferran, Faculty Manager (facultyhp@apothecaries.org) and/or Dr Anna Simmons, Course Director, as necessary. The course is evolving and your ideas can help shape its future. In the past two years a review of the course on the final day has provided ideas which have been incorporated in subsequent years.

The DHMSA
Many of the students who take the Society's history of medicine course go on to take the diploma examination – DHMSA – Diploma in the History of Medicine of the Society of Apothecaries. The DHMSA arose from a proposal first made in 1962 by Noel Poynter, of the Wellcome Institute Library, one of the Faculty's founder members and editor of *Medical History*. The first exam was held in November 1970 and there were nine successful candidates, five of whom were doctors. In 1978-9 one student travelled fortnightly from Ottawa to attend the lectures. Now we welcome students from around the world via Zoom.

In 2023 the DHMSA exam consists of four elements. Please note that this is the final year that the exam will run in this format. There will be a new format in summer 2024 and more information will be provided when this is available.

Paper 1: This paper comprises 10 factual questions taken from the syllabus that require short answers.
Paper 2: The candidate chooses one essay question from a choice of four to test subject knowledge and a second question from a choice of three which calls for the interpretative analysis of sources.
Dissertation: This is a piece of original research on medical history based on primary material and supported by suitable secondary texts. There is a word limit of 5,500 words, excluding appendices, references, footnotes and bibliography, so it is important to choose a topic that is appropriate for this length and for which suitable primary sources are available. The dissertation proposal must be submitted for approval in advance.
Test Lecture: This is a fifteen-minute lecture on a subject which is different from the dissertation and is delivered to an audience comprising the examiners and other candidates.

The DHMSA Convenor and some examiners contribute to course days, providing information on the exam and relevant skills, and also individual feedback on dissertation proposals. The DHMSA Convenor, Dr Tina Matthews, can be contacted via convenordhmsa@gmail.com

Further information on the DHMSA can be found at:
https://www.apothecaries.org/diploma-in-the-history-of-medicine/
Exam Enquiries: Precious Eniola, AcademicAdmin@apothecaries.org

Lecture Synopses and Reading Suggestions
The synopses that follow provide a broad outline of the lectures given and specialised reading suggestions for each topic should students wish to pursue an area in greater detail. There is occasionally some overlap in content and in reading matter, but this can be useful in providing an opportunity to subjects from different angles.

Please note that the synopses provided in this pdf are a work in progress and will change as the course progresses. New and revised synopses and reading lists, plus updated titles, are provided by lecturers over the duration of the course from October to June and we will update this publication accordingly. There are occasions when topics cannot be accommodated and changes may occur to the speaker programme.

STARTING OUT IN HISTORY

Caitjan Gainty

This introductory lecture looks at key questions:

What can you study?
When can you study?
Where can you study?
How do you study?
It explores how to read and write in history, looks at the structure of academic papers and discusses primary and secondary sources.

Please see PowerPoint Slides in student area.

The paper referenced in the lecture is:
Thomas Schlich, "No Time for Statistics: Joseph Lister's Antisepsis and Types of Knowledge in Nineteenth Century British Surgery", *Bulletin for the History of Medicine* 94 (2020), 394-422.

A good general resource for anyone starting out in history is:

Penelope J. Corfield and Tim Hitchcock, *Becoming an Historian: An Informal Guide* (London: Institute of Historical Research, 2022). Free PDF available at
https://www.sas.ac.uk/publications/becoming-historian

THE KINDS OF MEDICINE: AN INTRODUCTION TO THE HISTORY OF MEDICINE
Prof. William Bynum

Lecture Aims:
This lecture presents a broad survey of the history of the western medical tradition from Plato to NATO or from the ancient Greek world and most famously Hippocrates of Cos to the advent of antibiotics in the mid-20th century.

It uses the five kinds of medicine as a chronological framework. These are
Bedside medicine
Library medicine
Hospital medicine
Community medicine
Laboratory medicine

Each of these kinds of medicine has different aims, different methods and individual historical realisations. These are set out in a little more detail in the accompanying table. Remember that each kind of medicine builds upon the ones that come before. They are layers and are formed together into the sort of medicine we can recognise in our own lifetimes.

Historians used frameworks as a way of processing a great deal of information into a workable format, one that can be used to pose questions of history and set research projects. The framework of the Five Kinds of Medicine is a way of making sense of the mass of historical detail in the history of western medicine. It crafts this body of knowledge into a narrative that acts as an introductory guide to your own exploration of the history of medicine.

In this lecture I people the story of the kinds of medicine with many of the important historical figures that will reappear in later lectures in this course where you will learn about them in more depth and in specific contexts. The names appear in the cast of characters below. I use these protagonists as a springboard to explicate what happened and suggest why historians think it happened as it did.

In a one-hour lecture there are hard choices to make about who makes gets to take the stage. This is a lecture about the rules not the exceptions. See it as a stimulus, not the last word. Indeed be wary of last words, our understanding of history should never be static.

Further Reading
W F Bynum, (2008), *The History of Medicine: A Very Short Introduction* (OUP).
Roy Porter, (1999), *The Greatest Benefit to Mankind* (Fontana) is still the most accessible grand history of medicine in a single volume.
L Conrad et al., (1995) *The Western Medical Tradition: 800 BC to AD 1800* and W F Bynum et al., (2006), *The Western Medical Tradition: 1800 to 2000* (CUP) these two volumes provide a series of different voices that piece together another version of the history of medicine over a grand sweep of time.

Read, compare and contrast.

The Five Kinds of Medicine				
KINDS	**INQUIRY**	**EDUCATION**	**OBJECT**	**EXAMPLE**
BEDSIDE	Whole Patient	Apprenticeship	Therapy	Hippocrates c. 400 BC
LIBRARY	Text	Scholastic/Linguistic	Preserve, recover, comment	Constantine the African 11th century
HOSPITAL	Patient/organ	Hospital	Diagnosis	Laennec 19th century
COMMUNITY	Population/Statistic	Community	Prevent	Simon 19th century
LABORATORY	Animal Model	Laboratory	Understand	Bernard 19th century

THE CAST

SIR HENRY WELLCOME (1853-1936) American/British pharmaceutical pioneer and philanthropist.

HIPPOCRATES (c.460- c.370 BCE) the 'father 'of Western medicine.

GALEN (129- c.216) the most influential physician of Antiquity.

VESALIUS (1514-1564) pioneer Flemish/Italian anatomist.

WILLIAM CHESELDEN (1688-1752) London surgeon and anatomist.

WILLIAM HUNTER (1718-1783) Scottish/London anatomist and obstetrician.

JOHN HUNTER (1728-1793) Scottish/London surgeon and physiologist.

XAVIER BICHAT (1771-1802) French anatomist and pathologist.

NICOLAS CORVISART (1755-1821) French physician and pioneer of percussion.

RENE LAENNEC (1781-1826) French physician, inventor of the stethoscope.

JEREMY BENTHAM (1748-1832) British reformer and philosopher, advocate of Utilitarianism.

EDWIN CHADWICK (1800-1890) British social reformer and pioneer of public health.

JOHN SNOW (1813-1858) British anaesthetist and epidemiologist.

JOHN SIMON (1816-1904) British surgeon and public health pioneer.

FLORENCE NIGHTINGALE (1820-1910) British public health and nursing pioneer.

CLAUDE BERNARD (1813-1878) French physiologist and philosopher of medicine.

LOUIS PASTEUR (1822-1895) French microbiologist and pioneer of germ theory.

JOSEPH LISTER (1827-1912) British surgeon, advocate of antiseptic surgery.

ROBERT KOCH (1843-1910) German bacteriologist.

ALEXANDER FLEMING (1881-1955) British bacteriologist, discoverer of penicillin.

STUDYING HISTORY

Caitjan Gainty

Lecture and Discussion Goals

- To think about the questions: Why study history? Why the history of medicine? What is history good for?
- To become acquainted with some of the methods and approaches that historians take
- To become aware of some of the key tools in the historian's toolkit (perspective, context, contingency, agency, etc)
- And finally, to disconnect the study of medicine's history from a celebration of progress over time.

Some interesting readings

Charles Rosenberg, "The Tyranny of Diagnosis" *The Milbank Quarterly* 2002 80(2): 237-260.

In this, the wonderful Charles Rosenberg offers a great example of how history can help us to differently understand the nature of medical change.

Gabrielle Spiegel, "The Task of the Historian" AHA Presidential Address, 2009.

A more general review of how and why historians study history and what it might be good for.

Richard Shyrock, "The Historian Looks at Medicine" *Bulletin of the Institute of the History of Medicine* 1937 5(10): 887-894.

Shyrock was one of the first historians of medicine who saw its history as something other than a line of discoveries and progressive improvements. His discussion of medicine is itself a kind of lesson in how we might think about history in addition to a lesson in how we have thought about it in the past.

Free access via JSTOR which provides up to 100 articles a month for independent researchers. https://www.jstor.org/stable/44438192

John Pickstone and Michael Worboys, "Between and Beyond 'Histories of Science' and 'Histories of Medicine' *Isis* 2011 102(1): 97-101.

A lovely article by an insightful pair of historians that makes important distinctions between the histories of these two recently intertwined historical narratives. Free access via JSTOR which provides up to 100 articles a month for independent researchers. https://www.jstor.org/stable/10.1086/658658.

These offer a starting point for consideration of how and why historians do history but also, perhaps more importantly, how and why history is and can be a useful tool. If you want to think more about these issues, please get in touch! Caitjan.gainty@kcl.ac.uk.

ANCIENT EGYPTIAN MEDICINE AND PALAEOPATHOLOGY

Professor Rosalie David
OBE, BA, PhD, FRSA

These lectures will cover the aims and organisation of the medical system in ancient Egypt, and will provide an introduction to the application and use of medical and other scientific techniques to augment knowledge about the Egyptians' daily existence, diseases and causes of death.

I. The Practice of Medicine in Ancient Egypt

1. The Theoretical Background

'Rational' and 'magical' methods of treatment.

2. Sources of Evidence and their Limitations

Archaeological evidence: monuments and artefacts.

Literary evidence: the Medical Papyri.

Palaeopathological evidence: human remains, the mummification process.

3. Interaction between Religion and Medicine

The medical profession: the roles played by priest-doctors and others in treating and healing the sick.

Deities associated with medicine and healing (eg Sekhmet, Thoth, Bes, Tauert).

The temples as centres for treatment of the sick, and as colleges for medical instruction and training. The history of incubation, and the use of dream therapy.

The roles of surgery and pharmacy.

II. Palaeopathology and Ancient Egypt

1. Biomedical Research in Manchester

The Manchester Egyptian Mummy Research Project: its role, over the past 30 years, in pioneering and developing the use of scientific and biomedical techniques for the investigation of disease in mummified remains.

The International Ancient Egyptian Mummy Tissue Bank: a resource for studying disease and disease patterns.

The KNH Centre for Biomedical Egyptology, Faculty of Biology, Medicine and Health, The University of Manchester: its establishment, role and future research.

2. **The Application of Diagnostic Tools and Techniques**

The contribution made by radiology, palaeo-histology, palaeo-odontology, immunocytochemistry, DNA identification; their limitations.

Research undertaken at the KNH Centre for Biomedical Egyptology on the epidemiology of diseases from antiquity to the present day.

Further reading

David, AR. *The Manchester Museum Mummy Project* Manchester Museum, Manchester, 1979

(ISBN 0 7190 1293 7).

David, AR. *Disease in Egyptian mummies: the contribution of new technologies* The Lancet 1997; **349**: 1760-1763.

David, R. *Egyptian Mummies and Modern Science.* Cambridge University Press, Cambridge, 2008; paperback ed. 2014.

Rosalie David and Eileen Murphy (eds.), *The Life and Times of Takabuti in Egypt: Investigating the Belfast Mummy* (Liverpool: Liverpool University Press, 2021).

Aufderheide, AC. *The Scientific Study of Mummies*. Cambridge U.P., Cambridge, 2003. Extensive bibliography.

(ISBN 0521 81826 5).

Nunn, J. *Ancient Egyptian Medicine*, British Museum Press, London, 2000. Extensive bibliography.

(ISBN 0 7141 0981 9).

GREEK AND ROMAN MEDICINE

Caroline Petit

Podcasts

In Our Time : GALEN (Melvyn Bragg with Vivian Nutton, Helen King & Caroline Petit)

http://www.bbc.co.uk/programmes/b03c4dys

In Our Time : HIPPOCRATES (the Oath)

(Melvyn Bragg with Vivian Nutton, Helen King and Peter Pormann)

http://www.bbc.co.uk/programmes/b014gdqq

Further reading after the lecture

- M. D. Grmek, *Diseases in the ancient Greek World*, John Hopkins University Press, 1989 (ch. 1)
- R. J. Hankinson (ed.), *The Cambridge Companion to Galen*, 2008
- J. Jouanna, *Hippocrates,* 1999 (several reprints)
- **R. Lane Fox, *The Invention of Medicine,* 2020**
- **V. Nutton, *Galen. A Thinking Doctor in Imperial Rome*, 2020**
- V. Nutton, *Ancient Medicine* 2013 (2nd edition)
- V. Nutton, chapters 1-3 in L. Conrad *et alii* (eds), *The Western Medical Tradition*, 1995
- C. Petit (ed.), *Revisiting Medical Humanism in Renaissance Europe*, 2021 (open access)
- C. Petit (ed.), *Galen's peri alupias (De indolentia) in Context. A tale of resilience,* Brill, 2018 (open access)
- C. Roberts et al., 'Health and Disease in Greece. Past, Present and Future' in H. King (ed.), *Health in Antiquity*, 2005, 32-58
- O. Temkin, 1973. *Galenism. Rise and Decline of a Medical Philosophy*, Ithaca: Cornell University Press

Caroline can be contacted at C.C.L.Petit@warwick.ac.uk.

CULTURAL HISTORY OF CHEMISTRY IN ANTIQUITY: Available Open Access

https://www.bloomsburycollections.com/book/a-cultural-history-of-chemistry-volume-volume-1-in-antiquity/

A Cultural History of Chemistry in Antiquity covers the period from 3000 BCE to 600 CE, ranging across the civilizations of the Mediterranean and Near East. Over this long period, chemical artisans, recipes, and ideas were exchanged between Mesopotamia, Egypt, Phoenicia, Greece, Rome, and Byzantium. This study presents the first synthesis of this epoch, examining the centrality of intense exchange and interconnectivity to the discovery and development of sources, techniques, materials, and instruments.

ERC funding has enabled the first volume in this six volume series to be available open access. Each chapter is divided into sections on Egypt, Mesopotamia and Graeco-Roman. Chapters include the Invention of Chemical Recipes; the Circulation of Trade in the Mediterranean; Gods, Myths and Religion, and all have coverage of medicine and drugs, information on relevant sources and are beautifully illustrated.

INTRODUCTION TO AYURVEDA

Dagmar Wujastyk

Abstract:

Introduction to Ayurveda

Ayurveda has been practised in India for over two thousand years, and survives today as a living medical tradition. In this lecture, you will be introduced to the literary tradition of this discipline and its main theoretical concepts and their applications. We will also examine its more recent history of institutionalization and globalization.

Reading Suggestions

The Usman Report (1923). Translations of Regional Submissions. Edited by Dagmar Wujastyk and Christèle Barois

https://indianmedicine.nl/article/view/38278

Dominik Wujastyk, ch. on Ayurvedic Medicine; J. van Alpen J and A. Arris (eds.), *Oriental Medicine* (London: Serindia, 1995).

Dominik Wujastyk, *Roots of Ayurveda* (London: Penguin, 2003).

Dagmar Wujastyk and Frederik Smith, *Global and Modern Ayurveda* (London: Penguin, 2013).

MEDICINE IN THE ISLAMIC WORLD

Vivian Nutton

Until recently, this type of medicine, now called Yunani medicine, has been viewed largely as an extension of the ideas of Galen, Dioscorides and, to a smaller extent, Hippocrates, with an occasionally nod to a few great names. Although today still a living medical tradition, it has remained largely within the Islamic community, and serious study of its history post-1400 is only just beginning.

This lecture will begin by setting out the problems involved in naming this type of medicine, and the history of its transmission from the Greek world as far as China. It will consider how this legacy was maintained and interpreted in the Middle Ages, and what new intellectual challenges were faced. There was also new structures – charitable hospitals and civic control of the profession – but within a new religious environment, which may have inhibited critical ideas and, in turn, led to the destruction of this type of medicine in Catholic Europe in the 16th century. Other suggestions will be made about the reasons for the apparent stagnation of medicine in a civilisation that had for many centuries been superior in many respects to that elsewhere in the world.

The lecture will end with some thoughts on Western medical influence on the Islamic world from the nineteenth century and of reactions to it.

Reading suggestions

PE Pormann and E Savage-Smith, Medieval Islamic Medicine, 2007.

JC Lamoreaux, Hunayn Ibn Ishaq on his Galen Translations, 2016
(also contains an important appendix on Syriac medical texts).

The 2019 Brill's Companion to the Reception of Galen, ed. P.Bouras-Vallianatos and B Zipser, contains many valuable essays of direct relevance, but may not yet be available in Wellcome.

P Pormann, `The formation of the Arabic Pharmacology between tradition and innovation', Annals of Science 68, 493-515.

MEDIEVAL MEDICINE AND THE CHURCH
Carole Rawcliffe

Throughout the Middle Ages and beyond we can observe a hierarchy of two medicines, with the care of the immortal soul taking precedence over that of the body: a direct inversion of priorities evident in the West today. One obvious reason for the Church's power in a field now dominated by 'big science' lay in the fragility of human life. Because the body seemed no more than a temporary shell, while the soul endured forever, spiritual health assumed overwhelming importance. Without the advances in medical science that we now take for granted, medieval men and women lived permanently under the shadow of pain and bereavement. The omnipresence of death was regarded as an unavoidable legacy from their first parents, Adam and Eve, whose disobedience in the garden of Eden had been punished by the loss of eternal life. Added to this unwelcome inheritance was the burden of personal sin, carried by every individual, which might also incur the wrath of God, most dramatically through outbreaks of plague (regarded by many as a '*bellum Dei contra homines*' – or a war of God against men).

What modern day historians call 'the hierarchy of medical resort' was dominated by the Church, which exercised enormous influence over healing practices in the medieval West. In 1215, for example, Pope Innocent III insisted that patients should confess their sins *before* receiving medical treatment, 'for when the cause ceases so does the effect'. Fear of the Last Judgment, when their souls would be weighed in St Michael's scales, meant that people were anxious to give money to hospitals and other charitable works for the sick poor. At the same time, the Church made a great deal of money out of pilgrimage and the cult of healing saints and therefore had a vested interest in promoting them, to the extent that certain saints became specialists in the cure of specific diseases. We should bear in mind that recourse to spiritual therapeutics was generally much cheaper and often less painful or risky than medical intervention, while the belief that suffering was good for the soul may have helped men and women to come to terms with the experience of unrelieved pain. A 'Good Death', accepted gratefully without struggle or resentment, was the goal of devout Christians, who hoped thus to gain a celestial reward; and it was the task of medical practitioners to prepare their patients accordingly. On the other hand, the idea of *Christus medicus*, Christ as a physician, did much to reconcile the Church to earthly medicine. St Augustine (d. 430) had compared Christ to a 'good doctor' who reassures his patient by tasting unpleasant medicine himself (in this case the pains of death) before administering it. These ideas, along with the accounts of healing miracles recorded in the New Testament, worked to the advantage of ordinary practitioners because they could claim divine sanction for their work.

Recommended Reading

Darrel W. Amundsen, 'Medieval Canon Law on Medical and Surgical Practice by the Clergy', *Bulletin of the History of Medicine*, 52 (1978), pp. 22-45

Peter Biller and Joseph Ziegler, eds, *Religion and Medicine in the Middle Ages* (Woodbridge, 2001)

Faye Getz, *Medicine in the English Middle Ages* (Princeton, 1998)

MD Grmek, ed., *Western Medical Thought from Antiquity to the Middle Ages* (Cambridge, Mass., and London, 1998).

I Lawrence, M Neve, V Nutton, R Porter and A Wear, *The Western medical Tradition 800 BC to AD 1800* (Cambridge, 1995), chapters three, four and five.

Katherine Park. ‘Medicine and Society in Medieval Europe, 500-1500’, in Andrew Wear, ed, *Medicine in Society* (Cambridge, 1992), pp. 59-90.

Carole Rawcliffe, *Medicine and Society in Later Medieval England* (Stroud, 1995).

Carole Rawcliffe, ‘Christ the Physician Walks the Wards: Celestial Therapeutics in the Medieval Hospital’, in M.P. Davies and Andrew Prescott, eds, *London and the Kingdom* (Donington, 2008), pp. 78-97

N Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago, 1990).

AT THE CUTTING EDGE? BECOMING A LATE MEDIEVAL SURGEON
Carole Rawcliffe

Following another ruling by Innocent III, which forbade priests from shedding blood (to preserve the sanctity of the Mass and the status of the clergy), surgery became the preserve of the laity and developed as a craft. In England the status of the surgeon was generally lower than that of the physician, since he was an artisan whose remit extended to the practical business of embalming bodies and making instruments. Physic, on the other hand, became a more academic, theoretical discipline, taught in universities. It was concerned with the inner workings of the body and with classical texts (by authors such as Galen and Hippocrates) on this topic. The physician's first task was to devise and implement a regimen of health for his patients, assisting them to achieve the optimum humoral balance through the management of diet, 'the first instrument of medicine', and other external factors. Should this fail, the patient could turn to a growing pharmacopoeia of drugs and herbal remedies, 'the second instrument of medicine', and then, in the last resort, to surgery, the most painful and uncertain option. In an age without reliable analgesics, blood transfusion or antisepsis, the possibility of accidental homicide was never far away, with the result that surgeons were generally reluctant to take risks. On the other hand, a successful military surgeon, such as John Bradmore, who saved the life of King Henry V, had greater opportunities for experimentation and, indeed, of personal advancement.

Although very few English surgeons went to university, and most took great pride in their status as master craftsmen, it would be a mistake to regard them as ignorant butchers (as medical historians often used to do). Some wrote textbooks in Latin, while most were trained through a rigorous system of apprenticeship and licensing that was overseen by the civil authorities. The craft guilds that implemented this system sought to retain public confidence by imposing strict rules regarding the type of procedures that might be attempted and the machinery to be employed in cases of alleged malpractice. Training was largely empirical, through observation, but we know that many master surgeons owned books and that literacy, at least in English, was assumed. Since surgeons were required to assist in the implementation of a range of prophylactic measures, as well as treating wounds, sprains, breakages and external medical conditions, they had to understand the basics of humoral medicine. A working knowledge of astrology was also essential, not least when it came to phlebotomy, a common procedure that was employed for therapeutic as well as curative purposes. Notwithstanding their insistence upon the centrality of 'manual operation', these men and (a few) women were well educated in the underlying principles of Galenic medicine.

Recommended Reading

Michael McVaugh, 'Therapeutic Strategies: Surgery', in Mirko D. Grmek and others, eds, *Western Medical Thought from Antiquity to the Middle Ages* (Cambridge MA, 1998), pp. 273-90

Peter Murray Jones, 'John Arderne and Surgery', in Luis Garcia-Ballester and others, eds, *Practical Medicine from Salerno to the Black Death* (Cambridge, 1994), pp. 289-321

Marie-Christine Pouchelle, *The Body and Surgery in the Middle Ages* (Cambridge, 1990)

Carole Rawcliffe, 'Master Surgeons at the Lancastrian Court', in Jenny Straford, ed., *The Lancastrian Court* (Donington, 2003), pp. 192-210

***Lecture Handout for* At the Cutting Edge? Training the Late Medieval Surgeon**

A. Hit restyth most principally in *manuall applicacon* of medicines: in staunchyng of blod, serchyng of woundes with irons and with other instrumentes, in cuttyng of the sculle in due proporcyon to the pellicules of the brayne with instrumentes of iron, cowchyng of catharactes, takyng owt bonys, sowyng of the flesshe, launchyng of bocchis [lancing boils], cuttyng of apostumes [swellings or tumours], burning of cankers and other lyke, settyng in of joyntes and byndyng of theym with ligatures, lettyng of blod, drawyng of tethe, with other suche lyke, which restyth onely in manuall operacon, princypally with the handes of the werkman. And surgery ys in comparyson to phisik as the crafte of carpentar ys comparyd to geometrie: for lyke as the geometer consideryth causis of compasse, quadrangles, triangles and counterpeyses [counterpoises], and as his conyng servyth for buyldyng … the carpenter occupyeth hit manually to his owne profyte and of necessite profitable to man, wherfor yt ys callyd *ars mechanica*.

The National Archives, Kew, SP1/19, fos 88-9.

B. There shall no ffraunchesed barbour within the said Citee take any man or child to be his apprentice before that he hath presented the same man or child unto the maister and wardeyns of the said craft for the tyme being, to th'entent that the same maister and wardeyns may duely examyne, oversee, serche and behold by the colour and complexion of the said man or child if he be avexed or disposed to be lepur or gowty, maymed or disfigured in any parties of the body, whereby he shall fall in disdeyn or lothefulnesse unto the sight of the kinges liege people … and if he be founde defectif in any of thise poyntes that than no fraunchesed barbour of the saide citee shall take hym to his apprentice uppon payn to pay v li.

Sidney Young, *Annals of the Barber-Surgeons of London* (London, 1890), p. 62

C. Every werkman is i-holden to knowe the subiecte in the whiche he wircheth, and ellis he erreth in wirchynge. But a cirurgien is a *werkman* of the helthe of manis body; therfore he is holden to konne the kynde of composicioun of it. And by this manere resoun, he is holden to konne anothomye. It is confermed by a liknes, for in the same manere wircheth a blynde man in a tre as a cirurgien in the body when he knoweth nought anathomye. But the blynde man kyttynge the tree ofte tymes, forsothe as it wer alwey, he erreth in taking uppon hym more or lasse than he schulde, therfore in the same wise a cirurgien when he can not anothomye.

Guy de Chauliac, *The Cyrurgie of Guy de Chauliac*, ed. M.S. Ogden (Early English Text Society, original series, 265, 1971), p. 27

D. We … at this tyme masturs and wardens of the saide felishyp, ffor the comyn profyte, welth and relefe, socour of owr lordis the kynges lege people, entendyng to prouyde men of good capasite and abill in maners and conyng, sufficiently lerned, enfourmed, and labored by long experyens, and other in the seide craft of surgery, haue prayed and requyred Mastur John Smyth, doctor in phesik, instructour & examener of the seide feliship, and be the same for that intent chosen and elect, to entur & examynacyon … with divers persons whiche long tyme withowte auctorite haue vsed and haunted with experyens the conyng of surgery, wheruppon, aftur dewe and dyuers monycions made in this be halue, Roberd Anson, on of the seide comialte, at the comyn hall of the same in London appered in his propyr person, the first day of August last past, submyttyng hym selfe to the examynacon and th'aposicion [interrogation], wher and when the seide Roberd by the sayde John Smyth, in a gret audiens of many ryght well expert men in surgery & other, was opynly examined in dyuers thinges concerning the practise operatife and directif in the seyde crafte of surgery. And ther albe it he hathe a fore this many tymys been well approuyd, yet now he is newly habelyd be the seyde doctor and felyship, and found

abyll and discrete to ocopy & vse the practise of surgery, as well a bowte new woundis, as cansers, fystelis [fistulae], vlceracions & many other disessis & dyuers ... as an expert man in the seyd faculte ...

Young, *Annals*, p. 70

EARLY MODERN MEDICINE

Elaine Leong

This introductory talk takes us on a tour of the medical landscape in early modern London. It first explores contemporary ideas of health, sickness and the body from a number of different viewpoints with an emphasis on the patients' view. It then discusses the vast array of healthcare options offered to early modern men and women. Throughout the talk, we will encounter different kinds of primary sources which can be used to study early modern medical knowledge and practice.

Further Reading

Beier, Lucinda McCray. "In Sickness and in Health: A Seventeenth Century Family's Experience." In *Patients and Practitioners. Lay Perceptions of Medicine in Pre-Industrial Society*, edited by Roy Porter, 101–28. Cambridge Studies in the History of Medicine. Cambridge: Cambridge University Press, 1985.

Cook, Harold. *The Decline of the Old Medical Regime in Stuart London*. Ithaca, NY: Cornell University Press, 1986, chapter 1.

Fissell, Mary. *Patients, Power and the Poor in Eighteenth-Century Bristol*. Cambridge England; New York: Cambridge University Press, 2002, particularly chapter 2.

Harkness, Deborah E. "A View from the Streets: Women and Medical Work in Elizabethan London." *Bulletin of the History of Medicine* 82, no.1 (March 10, 2008): 52–85.

Jenner, Mark S. R., and Patrick Wallis. "The Medical Marketplace." In *Medicine and the Market in England and Its Colonies*, c. 1450–c. 1850, edited by Mark S. R. Jenner and Patrick Wallis, 1–23. Palgrave Macmillan UK, 2007.

Kassell, Lauren "Medical Understandings of the Body, c.1500–1750." In *The Routledge History of Sex and the Body, 1500 to the Present,* edited by Kate Fisher and Sarah Toulalan, 57–74. London: Routledge, 2013.

LeJacq, Seth. "The Bounds of Domestic Healing: Medical Recipes, Storytelling and Surgery in Early Modern England." *Social History of Medicine* 26.3 (2013): 451–68.

Leong, Elaine. "Making Medicines in the Early Modern Household." *Bulletin of the History of Medicine* 82, no. 1 (2008): 145–68.

Siraisi, Nancy, *Medieval and Early Renaissance Medicine* (1990), Chapter 4

Webster, Charles, and Margaret Pelling. "Medical Practitioners." In *Health, Medicine and Mortality in the Sixteenth Century*, edited by Charles Webster. CUP Archive, 1979.

Weisser, Olivia. *Ill Composed: Sickness, Gender and Belief in Early Modern England*. New Haven, CT and London: Yale University Press, 2015, chapter 1.

UNPACKING THE HISTORIAN'S TOOLKIT

Briony Hudson

This session is an opportunity to think about how a historian might approach investigating a research question or interrogating a source. As a pharmacy historian and curator, Briony will help you to consider what resources or evidence you might look for to support your research.

Primary and Secondary Sources

The following information is provided as background to the session.

Primary sources provide first-hand testimony or direct evidence concerning a topic under investigation. They are created by witnesses or recorders who experienced the events or conditions being documented.

- Often these sources are created at the time when the events or conditions are occurring, but primary sources can also include autobiographies, memoirs, and oral histories recorded later.

Some types of primary sources:

- **Original documents**: Diaries, speeches, manuscripts, letters, interviews, news film footage, contemporary newspaper articles, autobiographies, official records, pamphlets, meeting notes, photographs, contemporary sketches
- **Creative works**: Poetry, drama, novels, music, art
- **Relics or artefacts**: Furniture, clothing, buildings

Secondary sources were created by someone who did *not* experience first-hand or participate in the events or conditions you're researching.

- A secondary source interprets and analyses primary sources. These sources are one or more steps removed from the event.
- Some types of secondary source include: Textbooks; journal articles; histories; criticisms; commentaries; encyclopaedias.

Summary

Primary sources are the building blocks of historical research and should provide the foundation of your argument and interpretation

Secondary sources should inform and supplement the primary sources. For a historical research project, such as the DHMSA dissertation, secondary sources are generally scholarly books and articles.

MEDICINE IN THE EIGHTEENTH CENTURY

Alun Withey

Further Reading

W.F. Bynum and Roy Porter (eds.), *William Hunter and the Eighteenth Century Medical World* (Cambridge: CUP, 1985).

Anne Digby, *Making a medical living: Doctors and Patients in the English market for medicine, 1720-1911* (Cambridge: Cambridge University Press 1994).

Mark S.R. Jenner and Patrick Wallis (eds), Medicine and the Market in England and Its Colonies, c.1450-c.1850 (2007).

Christopher Lawrence, *Medicine in the Making of Modern Britain, 1700-1920,* (London/New York: Routledge, 1994), chapter on 'Enlightenment'.

Susan Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in 18th Century London* (Cambridge: CUP, 1996).

Irvine Loudon, *Medical care and the general practitioner 1750-1850* (Oxford: Clarendon Press: 1986).

Vivian Nutton and Roy Porter (eds.), *The History of Medical Education in Britain* (Amsterdam: Rodophi, 1995).

Dorinda Outram, *The Enlightenment*, (Cambridge: CUP, 2005).

Roy Porter, *Health for Sale: Quackery in England 1660-1850* (1989).

Dorothy Porter and Roy Porter, *Patient's Progress: Doctors and Doctoring in Eighteenth-Century England* (Cambridge: Polity Press, 1989).

Emma Spary, "Health and Medicine in the Enlightenment" in M. Jackson (ed.), 2011. *The Oxford Handbook of the History of Medicine* (Oxford: OUP, 2011).

Alun Withey, '*Physick and the Family: Health, medicine and care in Wales c. 1600-1750* (MUP, 2012)

Alun Withey, "Medicine and Charity in Eighteenth-Century Northumberland: the early years of the Bamburgh Castle dispensary and surgery, c. 1772-1802," *Social History of Medicine,* 2016, 467-489.

APOTHECARIES AND GENERAL PRACTICE

Martin Edwards

Did general practice, as we understand it, exist before the mid-nineteenth century? Some historians would claim it did not, or that the history of general practice up to this point simply *is* the history of medicine as nearly all practitioners were essentially GPs. Others would track the origins of general practice to sixteenth or seventeenth century apothecaries or barber-surgeons, or later surgeon-apothecaries, and point to the clashes between these practitioners and elite university-educated physicians as a process of defining a distinct identity for the general practitioner who served the bulk of the population.

This talk will discuss the 17th and 18th century origins of the GP only briefly (to avoid too much overlap with other talks) and concentrate mainly upon 19th and 20th century developments. My view is that the changing nature and roles of GPs can be presented as a series of self-conscious reinventions, periods when GPs constructed a distinct identity for themselves in response to social, political and financial factors; and that this refashioning is, indeed, still going on.

16th century: Legislation attempted to regulate who could practice; Royal College of Physicians (RCP) founded in 1518 to serve the interests of 'elite' physicians.

Licensing issues: RCP clashes with apothecaries and surgeons. The Rose Case in 1703 established the right of apothecaries to provide medical advice along with dispensing medication.

19th century: Pressure for reform, Apothecaries Act 1815, Medical Act 1858. Rise in numbers of hospitals; emergence of specialists.

Victorian medicine: Competition. Poor law infirmaries, cottage hospitals, Friendly Societies.

Early twentieth century: Panel system 1911. NHS 1948, Royal College of General Practitioners (RCGP) 1952.

Changes in organisation of general practice: Partnerships, female practitioners, telephones, transport, motor-cars, premises.

Changes in practice: New drugs and therapies. Economic organisation of practices and its effect on GP behaviour.

Second half of twentieth century: Criticisms of state of General Practice. Collings Report 1950. Practitioners examined the nature and unique aspects of general practice; Balint, Byrne and Long, Pendleton. RCGP's role in establishing the character of general practice. GP contracts 1966, 1991, 2003 and their effect on practice.

Reading List

Juanita Burnby, *A Study of the English Apothecary from 1660 to 1760,* Medical History Supplement No. 3 (London: Wellcome Institute for the History of Medicine, 1983).
Available via:

https://www.cambridge.org/core/journals/medical-history/issue/study-of-the-english-apothecary-from-1660-to-1760/4D717E9D167B03082F03B8FF921A69C2

Anne Digby. *The evolution of British general practice 1850-1948* (Oxford, 1999) ISBN: 0198205139.

Penelope Hunting, *A History of the Society of Apothecaries* (London: Society of Apothecaries, 1998).

Currently available for purchase from the Society's shop on apothecaries.org for £5

Irvine Loudon. *Medical care and the general practitioner 1750-1850* (Oxford, 1986) ISBN: 0198227930.

Irvine Loudon, John Horder and Charles Webster (eds). *General Practice under the National Health Service, 1948-1997* (Oxford, 1998) ISBN: 0198206755.

MATERIAL AND VISUAL CULTURE OF MEDICINE

Anna Maerker

In this lecture we will explore how images and objects shaped the history of medicine in different ways. We will investigate the use of images for changing understandings of the body, from the *Fabrica* of Andreas Vesalius to the introduction of photography and other imaging technologies. We will also trace the use of objects for medical research and medical practice more widely, and assess their role for the professionalisation of medicine and the "laboratory revolution" of the nineteenth century. We will finish with questions about the role of images and objects for shaping medical identities – of doctors and nurses, students, and patients.

Further reading:

Alberti, Samuel J.M.M. (2011), *Morbid Curiosities: Medical Museums in Nineteenth-Century Britain,* Oxford: Oxford University Press.

Bates, Christina (2012), *A Cultural History of the Nurse's Uniform,* Gatineau: Canadian Museum of Civilization.

Berkowitz, Carin (2015), *Charles Bell and the Anatomy of Reform,* Chicago: University of. Chicago Press.

Berkowitz, Carin (2011), ''The beauty of anatomy: visual displays and surgical education in early nineteenth-century London'', *Bulletin of the History of Medicine* 85 (2011), vol.2, 248–271.

Bourke, Joanna (1996), *Dismembering the Male: Men's Bodies, Britain and the Great War,* London: Reaktion.

Buckley, Cali (2020), "Pathos, Eros, and Curiosity: The History and Reception of Ivory Anatomical Models from the Seventeenth Century to Today", *Nuncius: Annali di Storia della Scienza*, pp. 64-89.

Carlino, Andrea (1995), "Knowe Thyself: Anatomical Figures in Early Modern Europe", *RES: Anthropology and Aesthetics* 27 (1995), 52-69.

Cavallo, Sandra (2007), *Artisans of the Body in Early Modern Italy. Identities, Families, Masculinities,* Manchester: Manchester University Press.

Nancy Anderson and Michael R. Dietrich, eds. (2012), *The Educated Eye: Visual Culture and Pedagogy in the Life Sciences,* Hanover, NH: Dartmouth College Press.

Dacome, Lucia (2017), *Malleable Anatomies: Models, Makers and Material Culture in eighteenth-century Italy* (Chicago: University of Chicago Press, 2017).

Daston, Lorraine and Galison Peter (2007), *Objectivity*. NewYork: Zone Books.

Fend, Mechthild (2017), *Fleshing out Surfaces: Skin in French Art and Medicine, 1650-1850*. Manchester: Manchester University Press.

Hallam, Elizabeth (2016), *Anatomy Museum: Death and the Body Displayed*. Reaktion Books.

Nick Hopwood and Soraya de Chadarevian, eds. ((2004), *Models: The Third Dimension of Science*, Stanford: Stanford University Press.

Huistra, Hieke (2018), *The Afterlife of the Leiden Anatomical Collections: Hands On, Hands Off*. London: Routledge.

Jordanova, Ludmilla (1989), *Sexual Visions: Images of Gender in Science and Medicine between the Eighteenth and Twentieth Centuries*. Madison: University of Wisconsin Press.

Jordanova, Ludmilla (2000) *Defining features: Scientific and medical portraits, 1660-2000.* Reaktion Books.

Jones, Claire L. (2013), *The Medical Trade Catalogue in Britain, 1870-1914,* London: Pickering & Chatto.

Kusukawa, Sachiko (2012), *Picturing the Book of Nature: Image, Text, and Argument in Sixteenth-Century Human Anatomy and Medical Botany*. University of Chicago Press.

Maerker, Anna (2011), *Model Experts: Wax Anatomies and Enlightenment in Florence and Vienna, 1775-1815*. Manchester: Manchester University Press, 2011.

Andrew Cunningham and Perry Williams, eds. (1992), *The Laboratory Revolution in Medicine*, Cambridge: Cambridge University Press.

Richardson, Ruth (1987), *Death, dissection, and the destitute*. Chicago: University of Chicago Press.

Timmermann, Carsten and Julie Anderson, eds. (2006), *Devices and Designs: Medical Technologies in Historical Perspective,* London: Palgrave MacMillan.

Warner, John Harley and James M. Edmondson (2009), *Dissection: Photographs of a Rite of Passage in American Medicine 1880-1930,* New York: Blast Books.

NB: Key sources in bold

USING IMAGES IN MEDICAL HISTORY

David Wright

Some questions to consider

Why might you use images? Where do you find images? How might you keep a record of images? What makes a good image? What needs to be remembered if you use images? How do you interpret images?

Why might you use images?

They can be complex and information rich, striking and memorable. They can act with text to increase understanding. They can encourage the reader to think beyond the text. They can encourage the viewer or reader to interpret what is seen

Where do you find images?

Google is a good start, Wikipedia has thousands of images, through Wikimedia Commons which may be freely available.

Wellcome Images https://wellcomecollection.org/works

National Library of Medicine https://collections.nlm.nih.gov/about

University of Paris https://www.biusante.parisdescartes.fr/histoire/images/index.php

De Partu has a lot of links https://departu.org.uk/about/

How might you keep a record of images?

The first thing to do is to copy and paste the image into a Word table, then copy and paste the link. In the table you can also copy anything that you find that might be useful, websites, images that look striking but are not immediately relevant.

This allows you to keep the image, its title, source and url. You can add another column for notes. The table works better in landscape than portrait.

N	Image	Title	Source	url
1		Portrait of Duncan Liddell attributed to George Jamieson	Wellcome images	https://iiif.wellcomecollection.org/image/M0008733/full/880%2C/0/default.jpg

2		A Sketch of the life of Duncan Liddell	Wellcome images	https://iiif.wellcomecollection.org/image/L0016806/full/880%2C/0/default.jpg

How do you interpret images?

Have a system and ask the following questions.

What is it (photo, painting etc) and what does it show? What else is in the image? What are the subjects wearing? What gives context?

Who does it show (not just the main subject, but others as well)? Who created it and who was it aimed at?

Why was the image made? For example, was it to spread an idea, to gain sympathy, for advertisement of someone or something? **When** was it made? **Where** was it made?

When you've asked these questions, you're in a better position to say what is the purpose of using it and is it likely to be successful.

What makes a good image?

Things to take into account are the quality of the image, its relevance, its context (background, clothing, social features, where it's come from, etc) and perhaps whether it is a familiar image or is little-known. Is it an accurate representation of what it depicts?

What must you remember if you use images?

Always check copyright status

If in a **paper or a book**, they must be appropriately placed, titled and acknowledged.

If copyright exists, the copyright holder needs to be asked for permission before use.

If in a **PowerPoint presentation** to a small audience then the source should be acknowledged where appropriate. This can be done by a slide at the end.

If image is in the Public Domain or available by Creative Commons, then written permission to use not necessary. If copyright exists, must have written permission to use. Usually forthcoming if not for profit use.

Beware of using images from Commercial Image banks like Getty Images or Alamy. Their images are likely to be imprinted and your use of them can be picked up digitally and you could be faced with a large bill if you have used images which have copyright.

Further Reading
Roy Porter on Images in Medical History
https://archives.history.ac.uk/history-in-focus/Medical/respcambridge.html
This is a response from Roy Porter written following a review of the Cambridge Illustrated History of Medicine, which he had been the editor of. It is worth reading as it explains some of the difficulties of using images in a text book, as well as providing an opportunity to read Roy Porter on Medical History

Further References on Material and Visual Culture

Illustrated Histories of Medicine

Science and Technology in Medicine: An illustrated account based on ninety-nine landmark publications from five centuries, Andras Gedeon, (Springer, 2006), ISBN-10 0-387-27874-5 £20 used on Amazon.

Cambridge Illustrated History of Medicine Edited by Roy Porter, (CUP 1996), ISBN 978 0 521 00252 3, £19.23 new on Amazon.

Western Medicine: An Illustrated History, Edited by Irvine Loudon (OUP, 1997), ISBN-19 924813-3, £5.28 used on Amazon.

Medicine – The Definitive Illustrated History, Steve Parker, (Dorling Kindersley, 2016),ISBN 978-0-2412-2596-7, £29.99 new on Amazon.

Scottish Medicine – An Illustrated History, H Dingwall, D Hamilton, I Macintyre, M McCrae, D Wright, (Birlinn, 2011), ISBN 978 1 78027 018 0, £14.84 new on Amazon

Medicine - An Illustrated History, AS Lyons, RJ Petrucelli, (Abradale Press, 1987), ISBN 0-8109-8080-0, £11.64 used on Amazon.

Publications on Art in Medicine

Medicine and Art, Alan and Marcia Emery, (CRC Press, 2002) ISBN 978-1853155017.

Mother and Childcare in Art, Alan and Marcia Emery, (CRC Press, 2006) ISBN 978-1853156298.

Surgical and Medical Treatment in Art, Alan and Marcia Emery, (RSM Press, 2006) ISBN 978-1853156953.

Medicine in Art (Guide to Imagery Getty publications-Yale), Giorgio Bordin and Laura Polo D'Ambrosia, (J Paul Getty Museum, 2010). ISBN 978-1606060445.

The Sick Rose or Disease and the Art of Medical Illustration, Richard Barnett (Thames & Hudson, 2014), ISBN 978-0-500-51734-5.

Sources on Interpreting Objects

Natasha McEnroe and Selina Hurley (eds.), *The Medicine Cabinet: The Story of Health and Disease Told Through Extraordinary Objects* (London: Andre Deutsch, 2019).

Leslie G. Matthews, *Antiques of the Pharmacy. Part III. Wooden Objects: Pharmacy in Print* (Hounslow: Merrell Dow Pharmaceuticals, 1984).

Information on Medical Caricatures

Caricature by definition is a representation in which the subject's distinctive features or peculiarities are deliberately exaggerated to produce a comic or grotesque effect. Nineteenth-century medicine provided caricaturists with a wealth of material. Artists humorously exaggerated medical conditions and physical characteristics, whilst bizarre treatments, massive doses of pills, and excessive bloodletting, prescribed by trained physicians and quack doctors alike, were all lampooned. The following link is to virtual exhibition from the University of Virginia explores medical caricatures in England and France from the nineteenth century: http://exhibits.hsl.virginia.edu/caricatures/

See also Kate Arnold-Forster and Nigel Tallis, *The Bruising Apothecary: Images of Pharmacy and Medicine in Caricature* (London: Pharmaceutical Press, 1989)

THE DHMSA EXAMINATION

Introduction

The purpose of this talk is to give students an opportunity to learn more about the DHMSA (Diploma in the History of Medicine of the Society of Apothecaries). Each of the four parts: the two written papers, the dissertation and the test lecture, will be dealt with, and the importance of the timetable stressed. There will also be time to discuss any questions with the Exam Convenors/Examiners.

Please note that 2023 is the final time that the exam will run in the format below. Students will be updated when plans for 2024 onwards are available.

Written Papers: There are two, two-hour written papers.

Paper 1 comprises ten compulsory questions based on themes in medical history and is designed to test the candidate's command of factual knowledge. The questions will be based on ten themes taken from the syllabus. Ten questions in two hours means that on average no more than 12 minutes should be spent on any question. It is expected therefore that the answers will be laid out as short notes, rather than in essay form.

Paper 2 comprises two essay style questions. The first question (chosen from a selection) is designed to test the candidate's depth of knowledge. The second question (also chosen from a selection) is designed to test the candidate's skills in interpreting the primary sources given. The questions are based on the syllabus, but candidates will be expected to have broadened their knowledge with further reading of the topics covered.

The Dissertation

This is on a research topic chosen by the candidate, although a proposal has to be submitted and approved by the Convener. In the proposal details of suitable primary sources are required, supported by relevant secondary literature, together with a 500-800 word summary of what will be covered, how it relates to current scholarship and details of the proposed argument. Feedback will be given on the initial proposal and students are encouraged to start thinking about possible topics early in the course and doing some preliminary work to assess suitable primary sources.

The dissertation must be original and based on a significant amount of primary source material, for example letters, hospital records, reports, diaries. It should have a well-defined thesis, argument and conclusion. The way that the dissertation should be approached, from before the abstract is submitted to final submission, will be considered and tips given on avoiding common pitfalls. Particular stress will be laid on the need for good primary material and an appropriately focussed approach e.g. choosing a suitable time period. The dissertation word count must not exceed 5,500 words, excluding appendices, references, footnotes and bibliography, so it is important to choose a research area that can be covered in a dissertation of this length.

The Test Lecture

This must be on a completely different subject from the dissertation and targeted at a suitable audience eg. medical students, university of the third age, local history group etc. It should last for fifteen minutes. It will be timed and it is important to keep to time as this is part of the marking scheme. It is a test of content, presentation and communication, given before the examiners and fellow candidates. There are no questions from the audience. In 2023 the Test Lecture will take place on Zoom.

Please note that at the moment there is not a separate form for the test lecture, but the lecture title, an abstract of 100-200 words and an indication of the intended audience must be submitted for approval at the same time as the dissertation title and abstract is submitted to asstreg@apothecaries.org

DHMSA Timetable

Deadline for receipt in the Examinations Office of titles and proposal / abstract for the Dissertation and Test Lecture: **Thursday 23 March 2023**

Closing date for receipt in the Examinations Office of electronically completed application form and payment (email completed application forms to academicadmin@apothecaries.org) **5pm on Tuesday 18 April 2023**

Due date for submission of completed dissertation **5pm on Friday 26 May 2023**

Written Papers 1 & 2 (in person at Apothecaries Hall) **Tuesday 13 June 2023**

Due date for submission of Test Lecture Précis **5pm on Friday 16 June 2023**

Test Lecture (via Zoom) **Friday 30 June 2023**

Please see: https://www.apothecaries.org/wp-content/uploads/2022/11/Administrative-Guidance-for-Candidates.pdf

Useful Information

All materials relating to the DHMSA , including the Guide, can be found at https://www.apothecaries.org/diploma-in-the-history-of-medicine/

The Guide to the Diploma in the History of Medicine includes information on the examination, dissertation and test lecture plus the form for the dissertation proposal. It also includes the syllabus, details on marking and the review and appeals procedure.
https://www.apothecaries.org/wp-content/uploads/2022/11/Guide-to-the-Diploma-in-the-History-of-Medicine-Incorporating-the-Regulations-Syllabus.pdf

The list of Past Dissertation Titles (2022-2012) gives potential candidates an idea of the topics undertaken.
https://www.apothecaries.org/wp-content/uploads/2023/02/List-of-successful-dissertation-titles-2022-2012.pdf

Accessing Past DHMSA Dissertations

If you would like to view some examples of past DHMSA dissertations, please email Precious Eniola, Academic Assessment Administrator, via AcademicAdmin@apothecaries.org and state which dissertations from the list below you would like to read. The selection covers a range of subjects and includes recent winners of the Maccabean Prize for the best dissertation submitted for the DHMSA.

Dissertation Titles

Robert Feneck, Surgery, Emotion and the Impact of Anaesthesia (2021)

Anita Hoffmann, Popular Medical Literature – for Women, by Women and Published by Women in 17th Century London (2020)

Jane Hone, What factors within the NHS and in late 20th century medical education led to the formation of the Imperial College School of Medicine, London? (2021)

David Maudgil, The “moral treatment” of insanity with particular reference to the work of Sir William Charles Ellis and his wife at the Hanwell Pauper Lunatic Asylum from 1831-1838 (2020)

Alexander Manché, Two Historical Landmark Heart Operations performed in Malta: How was this possible? (2022)

Katherine Millard, Public Health Approaches to Reducing Infant Mortality in the administrative county of Warwickshire in the first decade of the 20th Century (2020)

Joanna Mary Pearson, Aid to Spain. Blood for Britain. Janet Vaughan, her humanitarian and medical work 1936-1945 and her legacy to British Medicine (2017)

Bryan Rhodes, Richard Owen, the Lancaster Castle Surgeons and the Stolen Prisoner’s Head (2020)

Lauren Watts, Drug Development of Digitalis: an account of discovery, trials and refinement across the 18th and 19th centuries (2022)

For past Maccabean Prize Winners see:

https://www.apothecaries.org/wp-content/uploads/2022/08/Maccabaean-Prize-Winners-History-1961-current.pdf

Preparing for the DHMSA dissertation – tips and suggestions – Martin Edwards, November 2022

These are informal notes based on the experience of DHMSA examiners and are intended to be read in conjunction with the DHMSA regulations. If there appears to be a conflict, the regulations take priority.

The dissertation is fun! Most candidates enjoy the opportunity to do some ‘real history’, to look at primary sources and say something new and original about them, and to show what you can do – if yours is judged the best dissertation of the year you might be awarded the Maccabean prize.

The dissertation should be a maximum of 5500 words, which isn’t as much as it may seem once you get into a topic. The word count doesn’t include references, appendices, footnotes, bibliography and captions for images, but don’t be tempted to exploit long appendices etc. as a ploy to get round the word count – they should be genuinely supplementary. You should interrogate primary source material (for example newspaper reports, books, journal articles, advertisements and directories from the period under investigation) and present original work – this doesn’t mean it has to be ground-breaking but you should try to say something new, or from a different perspective, compared to what’s previously been written on the subject. This means that besides primary sources you will need to be aware of, and use, relevant secondary material.

Two key things to bear in mind are topic and structure.

Choosing a topic. Good ideas might come from something that’s piqued your interest on the course, from personal or professional interest, or even from a local source. Dissertations in recent years have used hospital archives, Medical Officer of Health Reports, medical literature, correspondence, government, military and apprenticeship records. A background as a non-historian can actually be an advantage here as it might raise questions in your mind that don’t occur to historians. Experience suggests some common pitfalls in choosing a topic:

- Too broad a topic. Probably the most common reason for dissertation proposals being sent back for reworking. Too long a time period (a century might sound neat but a lot happens!) or too broad a scope – the history of anaesthesia in the 18th century, for example. Once you start writing in any degree of detail, you soon eat up your 5500 words. At best, you’d end up with a sketchy narrative

description lacking detail and analysis. Focus instead on one area and/or limited time period, which will enable the kind of detail and critical analysis that the dissertation is intended to demonstrate.

- Too narrow a topic. Less common but does happen, for example when a candidate finds and is enthused by a particular primary source such as an article or pamphlet which simply doesn't contain enough material to sustain a dissertation on its own. Can be overcome if you can locate additional relevant primary sources to compare and contrast, together with relevant secondary material.
- Failure to contextualise. Examiners are aware that it seems you're expected to provide a description of your dissertation, your primary and secondary sources and your argument and even your conclusions, before you've even started work on it! That's not entirely true, and examiners appreciate that your argument may shift as you uncover new sources in the course of your research, but some preliminary work is important. Secondary sources – what have others said about this area? There's often the heartsink realisation that someone has had your Great Idea before you (usually Roy Porter, in my experience.) Before submitting your proposal you should have an idea of the major primary and secondary sources relevant to your work and how they relate to the argument or question you'll be posing.
- Hagiography. Beware the 'great man' trap if you're writing biography, which can lead to an uncritical and unhistorical analysis. If you're concentrating on a person try to analyse his/her work, influence, legacy etc. critically and in context.

Structure. You don't have to propose a radical new historical discovery but should aim for a clear thesis. This might mean an argument based upon your source material with a conclusion, or a question which you attempt to answer from source material. Simply describing a narrative, chronological sequence of events is unlikely to offer sufficient opportunity for analysis. It's also often helpful to ask one or more friends to read your finished dissertation for clarity, typos, punctuation etc.

Once you've submitted your proposal by the March deadline (please check the Administrative Guidance for Candidates on https://www.apothecaries.org/diploma-in-the-history-of-medicine/ for dates) you'll receive brief written examiner feedback – we try to make this genuinely helpful rather than unduly critical so please try to take it in this spirit and try not to wait until the last minute to submit, to enable opportunity to revise your initial proposal before the April deadline for the submission of the application form.

Best of luck and we hope you enjoy preparing your dissertation.

Useful Contacts

For administrative queries regarding the DHMSA exam please contact Precious Eniola: AcademicAdmin@apothecaries.org

Past papers can be purchased from Precious for £15.

To contact the convenor, Dr Tina Matthews please email: convenordhmsa@gmail.com

PLAGUES AND SEPSIS
Marina Morgan

References from the Lecture on Plagues

Lilith K. Whittles and Xavier Didelot **Epidemiological analysis of the Eyam plague outbreak of 1665–1666** http://rspb.royalsocietypublishing.org/content/283/1830/20160618

Frith J **The History of Plague** – Part 1. The Three Great Pandemics https://www.google.co.uk/search?q=The+History+of+Plague+%E2%80%93+Part+1.+The+Three+Great+Pandemics&rlz=1C1GGRV_enGB751GB751&oq=The+History+of+Plague+%E2%80%93+Part+1.+The+Three+Great+Pandemics&aqs=chrome..69i57.1560j0j8&sourceid=chrome&ie=UTF-8

Harbeck M et al Yersinia pestis DNA from Skeletal Remains from the 6th Century AD Reveals Insights into Justinianic Plague PLOS pathogens , http://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1003349

Stenseth NC et al Plague: Past, Present, and Future http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0050003

Chernin E **Richard Pearson Strong and the ManchurianEpidemic of Pneumonic Plague**, 1910-1911 https://pdfs.semanticscholar.org/9769/105e9ae325c217e1b5bd5a1b231bff4a20df.pdf

Loimologia, or, An historical account of the plague in London in 1665 : with precautionary directions against the like contagion by Hodges, Nathaniel, 1629-1688; https://archive.org/details/loimologiaorhist00hodg

Quincy, John, d. 1722. Essay on the different causes of pestilential diseases, and how they become contagious https://archive.org/details/loimologiaorhist00hodg

Outbreak of gastroenteritis caused by Yersinia pestis in Afghanistan. White L . **http://researchonline.lshtm.ac.uk/1733/**

Schuenemann VJ **Targeted enrichment of ancient pathogens yielding the pPCP1 plasmid of Yersinia pestis from victims of the Black Death** PNAS 2011. 108; 38: 15673–15674 http://www.pnas.org/content/108/38/E746

Papagrigorakis MJ **DNA examination of ancient dental pulp incriminates typhoid fever as a probable cause of the Plague of Athens** *Int J Infect Dis* 2006 10: 206—214

Wagner DM et et a***l Yersinia pestis*** **and the Plague of Justinian 541–543 AD: a genomic analysis** *Lancet Infect Dis* 2014; 14: 319–26

Butler T, Plague history: **Yersins discovery of the causative bacterium in 1894enabled, in the subsequent century, scientific progress in understanding the disease and the development of treatments and vaccines** *Clin Microbiol Infect* 2014; 20: 202–209

References from the Lecture on STREPTOCOCCUS PYOGENES /PUERPERAL SEPSIS

Loudon I Puerperal fever, the streptococcus, and the sulphonamides, 1911-1945 BMJ 1987 285; 295: 485-590 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1247339/

Noakes TD et al Semmelweis and the aetiology of puerperal sepsis 160 years on: an historical review Epidemiol Infect. 2008 Jan; 136(1): 1–9 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2870773/
Mills Pearce R Scarlet fever https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2359565/

Oliver Wendell Holmes account of the origin of the contagiousness of puerperal fever BMJ 1905
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2322679/pdf/brmedj08141-0001.pdf

Dunn PM Oliver Wendell Holmes (1809–1894) and his essay on puerperal fever
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2675443/pdf/F325.pdf
http://www.antimicrobe.org/h04c.files/history/Lancet%20ID-
Gould Ian M, Alexander Gordon, puerperal sepsis, and modern theories of infection control—Semmelweis in perspective Lancet Infect Dis 2010; 10: 275–78
http://www.antimicrobe.org/h04c.files/history/Lancet%20ID-Alexander%20Gordon%20puerperal%20sepsis%20and%20modern%20theories%20of%20infection%20control%20Semmelweis%20in%20perspective.pdf

General Reading: Plagues and Infections

Creighton	*History of epidemics in Britain- AD 664-1666*
Shrewsbury	*A history of bubonic plague in the British Isles*
Scott & Duncan	*Return of the Black death*
Albert Camus	*The Plague*
Patrick Deville	*Plague and Cholera* [nice read outlining the history of Yersin
Philip Ziegler	*The Black death*

Pollitzer *Plague*
https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=plague&btnG=
Defoe *A journal of the plague year*
(also freely available at https://scholar.google.com/scholar?start=10&q=plague&hl=en&as_sdt=0,5)
Yersinia pestis - overview ; https://cmr.asm.org/content/cmr/10/1/35.full.pdf

Roosen & Curtis, ”1 Dangers of Noncritical Use of Historical Plague Data”
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5749453/pdf/17-0477.pdf

Bramanti et al, The Third Plague Pandemic in Europe
https://royalsocietypublishing.org/doi/pdf/10.1098/rspb.2018.2429

Loudon	*The tragedy of childbed fever*
Bennett	*The practice of Physick* by Alexander Gordon
Bollett	*Plagues and poxes*

Da Costa “The contagiousness of childbed fever”: a short history of puerperal sepsis and its treatment
http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.151.7978&rep=rep1&type=pdf
Semmelweiss The Etiology, Concept and Prophylaxis Of Childbed Fever (excerpts)
https://www.medicinasocial.info/index.php/socialmedicine/article/viewFile/178/353

INFECTIOUS DISEASES AND THE BIRTH OF MICROBIOLOGY

Martin Skirrow

It is commonly held that medical microbiology was born in the late 19th century with the work of Pasteur, Koch and others. While this is broadly true, we will see that it developed from such diverse fields as parasitology, chemistry, philosophical speculation and epidemiology practised much earlier. A recurring theme throughout this history is the extraordinary reluctance of people to accept ideas and evidence that cut across established dogma, especially when they challenge cultural and religious beliefs.

Infectious disease before the science of microbiology

1. Antiquity

Diseases recognised from palaeontology and contemporary descriptions:

Tuberculosis (Neolithic man; Egyptian mummy, 1000 BC); smallpox (Rameses V); trachoma (Ebers papyrus, 1500 BC); schistosomiasis (Egyptian mummies); leprosy (Egyptian mummies, 200 BC); anthrax; diphtheria; rabies (Hippocrates, 5th century BC); bubonic plague (Justinian, 6th century AD)

Extent of understanding:

Concept of contagion and isolation (King of Mari, 1680 BC)

Value of hygiene (Hebrew, Greek and Roman civilisations)

2. Early Christian and Middle Ages

Poor hygiene: “He who has washed in Christ need never wash again”! (St Jerome, 4th century). Infectious disease outbreaks attributed to cosmic factors, retribution from God, and corruptions of the earth and air. Conformity to religious and philosophical dogma – period of scientific sterility. Exception: Roger Bacon, 13th century scholar, champion of experimental method and ‘first martyr in the cause of true research’.

3. Renaissance

Girolamo Fracastoro (1483-1553) poet and epidemiologist. Described and named syphilis (from ‘Sipylus’, Niobe's 2nd son – Ovid) and its epidemiology. Believed that specific fevers were caused by ‘invisible seeds’ or ‘contagia’. Had he possessed a microscope and seen his ‘seeds’, he would have been the founder of medical microbiology.

Early parasitology: Ectoparasites (lice, scabies, fleas). ‘Hortus Sanitas’ (1491) depicts delousing of youth's head.

Thomas Moffet used simple magnifying glasses to study scabies mites, insects, spiders etc. His *Theatrum Insectorum* (1590) was a model of accurate observation and way ahead of its time.

4. 17th century

Early microscopy Antonie van Leeuwenhoek (1673) pioneered high power microscopy with a pin-hole version of a tiny but powerful simple lens capable of resolving protozoa and larger bacteria (his ‘animalcules’). Robert

Hooke in London confirmed and promoted Leeuwenhoek's work. But microscopy not applied to medicine for another 170 years.

5. 18th and early 19th century

Fermentation and putrefaction: John Pringle attributed wound sepsis and dysentery to 'contagious septic ferments' and used 'antiseptic' compounds on wounds. No actual microbiology, but pioneered control of infection in military hospitals.

Epidemiological observation: Control of certain infectious diseases in the 18th and early 19th centuries through interventions based on epidemiological observation:

Smallpox: variolation – Lady Mary Wortley Montague (1718), vaccination – Edward Jenner (1796)

Puerperal sepsis: Gordon (1795); Wendell Holmes (1843); Semmelweis (1847)

Cholera: John Snow (Broad St. pump, Soho, 1854); Henry Whitehead (1855)

II. The dawn of microbiology in the 19th century

Fungal disease of silkworms – Agostino Bassi (1835)

Bacteria first seen in diseased organ – John Goodsir (1842)

Microbial nature of fermentation and foundation of germ theory – Louis Pasteur (1857)

Surgical infection and antisepsis – Joseph Lister (1860s)

Anthrax shown to be caused by specific bacterium – Robert Koch (1876); then tuberculosis, cholera, etc. Koch's 'postulates'

Birth of immunology – Von Behring and Kitasato (1890s)

20th century

Birth of antimicrobial chemotherapy:

Salvarsan: Paul Ehrlich's first 'magic bullet' (1909)

Prontosil red (azo dye): first sulphonamide, Gerhard Domagk, Germany (1935)

Penicillin, the first therapeutic antibiotic: Fleming (1928), Florey et al (1942)

Virology: Electron microscope 1934; tissue culture late 1940s. Story of poliomyelitis

Molecular biology: Structure of DNA (Crick & Watson, 1950s); profound influence on microbiology

Discovery of *Helicobacter pylori* as cause of peptic ulcer disease (Nobel Prize for Warren & Marshall); yet another example of reluctance to abandon accepted dogma.

Further reading

Selwyn S. (1974). *The origins of medical microbiology in Britain and abroad*. Proceedings oif the XXIII International Congress on the History of Medicine **1:**654-660.

Selwyn S. (1991). *Hospital infection: the first 2500 years*. J Hosp Infect; **18 (Suppl A):**5-64.

Hudson MM, Morton RS. (1996). *Fracastoro and syphilis: 500 years on*. Lancet; **348**:1495- 1496.

Editorial (1981). *Classics in infectious diseases. Childbed fever, Ignaz Philipp Semmelweis*. Rev Infect Dis; **3:**808-811.

Winterton WR. (1980).*The Soho cholera epidemic* 1854. Hist Med. March/April:11-20.

http://kora.matrix.msu.edu/files/21/120/15-78-132-22-1980-Winterton.pdf

Grange JM, Bishop PJ. (1982). *'Über tuberkulose'. A tribute to Robert Koch's discovery of the tubercle bacillus, 1882*. Tubercle; **63:**3-17.

Hare R. (1970). *The birth of penicillin*. Geo Allen & Unwin.

Williams G. (2013). *Paralysed with fear: the story of polio.* Basingstoke, Palgrave Macmillan.

Williams G. (2010). *Angel of death: the story of smallpox*. Basingstoke, Palgrave Macmillan.

TUBERCULOSIS AND OTHER RESPIRATORY DISORDERS

Noel Snell

A vast topic to cover; this is only an introduction. The lecture notes below come from the 2021 Lecture which had a broader focus of respiratory medicine and physiology (including TB). They are included here to give an introduction to the whole topic and provide suggestions for further reading.

For centuries 'lung disease' consisted of pulmonary tuberculosis ('consumption') and 'the rest'. Asthma, coughs and colds, pneumonia, and empyema (pus in the pleural cavity due to infection) were recognised in antiquity. The term 'bronchitis was first used in 1808, Laennec described emphysema 1819. Lung cancers were rare before tobacco smoking became common, and life expectancy sufficient for them to develop. Other lung disorders such as lung fibrosis, sarcoidosis, pneumoconiosis, cystic fibrosis, pulmonary hypertension etc were not recognised before the development of new diagnostic apparatus and methods such as the microscope, stethoscope, bronchoscope, and thoracoscope; and pathology, spirometry, bacteriology, radiology, and genetics.

Antiquity

Egypt – Ebers papyrus describes inhalation of smoke from Henbane placed on heated stones (1550 BCE).
China – Ma Huang (Ephedra) taken for breathing disorders possibly 5000 years ago.

India – Ayurvedic tradition. Datura leaves smoked for asthma 600 BCE or earlier. Garlic, cinnamon used as expectorants.

Henbane contains hyoscyamine and Datura, hyoscine (scopolamine) – both anticholinergic agents which act as bronchodilators. Ephedra contains ephedrine, which also acts as a bronchodilator by stimulating adrenergic receptors.

Greece – Hippocrates (460-370 BCE) first described finger clubbing (a sign of chronic lung infection or lung cancer), recognised that empyema required drainage, and designed the first inhaler (a pot with a lid pierced by a straw) – not improved on until 17thC!

Rome – Galen (129-201 CE) influenced medical thinking until the 1700s and later; thought that an imbalance of 'Humours' caused disease, 'Doctrine of signatures' could indicate a treatment; knowledge of anatomy was largely based on animal dissection until Vesalius (1543).

Islam – Al-Rhazi, or Rhazes (ca 866-925 CE) described Hay Fever ('rose cold') and discussed asthma. Ibn Sina (Avicenna) mused on the contagious nature of TB. Root of giant fennel used for coughs and colds.

Jewish tradition – Maimonides' 'Book on asthma' (1190) advocated chicken soup.

Dark Ages/Medieval period – treatments were based on herbal medicines & prayer, blood-letting was a panacea. Paracelsus (ca. 1520s) studied lung disease in miners. (He stated; 'All things are poisons…the dose makes the thing a poison or not' and is known as the 'father of toxicology', but this was also the beginning of occupational medicine).

Americas – Native Americans smoked dried leaves of tobacco and Lobelia for lung disorders, particularly asthma. Lobelia flowers were used in a tea for coughs and colds. Active ingredient, lobeline, is similar in action to nicotine and has been used as a smoking cessation treatment.

Horn of Africa – frankincense was used for the treatment of chest infections.

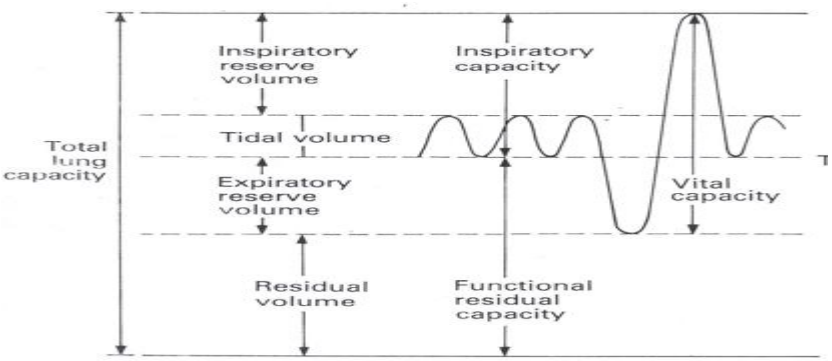
Beginnings of cardiopulmonary physiology

The Ebers papyrus (1550 BCE): 'As to the air that penetrates into the nose. It enters into the heart and the lung. They are those which give air to the entire body'. Hippocrates (460-370 BCE) reported on the

frequency & amplitude of breathing. Galen (129-201 CE) described the effects of pneumothorax (air in the pleural space leading to lung collapse), and cutting the intercostal & phrenic nerves, in animals. Leonardo da Vinci (1452-1519) described residual lung volume (RV) after complete exhalation.

Colombo (1515-59) established the concept of pulmonary circulation; William Harvey described the systemic circulation 1628; Malpighi used a compound microscope to discover lung alveoli and capillaries in 1661.

Boyle (1627-91) built an air pump, demonstrated that air was necessary for life by evacuating the air from a bell-jar containing a mouse, showing that the mouse died. Rev Stephen Hales researched on 'chemistry of the air', measured a maximal expiration, and was the first to measure blood pressure (in a horse) 1727-33. Lavoisier (1743-94) measured oxygen consumption and carbon dioxide production at rest and at work. Abernethy (1793) collected expired air over mercury, assessing vital capacity (VC) at 3150ml. Beddoes' Pneumatic Institute (1790s) measured lung volumes, but was more interested in treatment (with nitrous oxide and other gases). Humphry Davy (who superintended the Beddoes' Institute) measured his own VC, tidal volume (TV), and RV using a hydrogen dilution method (helium is used now). Menzies (1796) measured TV by immersing a subject in a waterfilled barrel up to the neck and measuring displacement on breathing. Hutchinson devised a water spirometer in 1844, reported VC of >4000 subjects in 1852 and correlated VC with longevity.



(Diagram shows the sub-divisions of total lung volume)

Early history of lung surgery

Hippocrates (4thC BBCE) advocated surgical drainage of empyema. Occasional reports of attempted chest surgery for trauma through Middle Ages (mainly unsuccessful). Until the late 19thC surgeons generally avoided opening the chest or abdomen; the former caused fatal collapse of the lungs, the latter usually led to fatal infection. Hooke (1667) showed that a dog could be kept alive with multiple pleural perforations if ventilated via the trachea (this had been shown previously by Vesalius, in 1543, but ignored). In general, drainage of lung abscesses and tuberculous cavities was the extent of pulmonary surgery until the late 19thC. Effective (inhalation) anaesthesia was introduced in the 1840s, revolutionising surgery. In 1881 it was shown that animals could survive pneumonectomy, and during the1880s there were sporadic reports of partial resections of the lung, using Lister's antisepsis; mainly unsuccessful. In 1904 Sauerbruch operated in a negative-pressure cabinet to prevent lung collapse; in 1910 intratracheal insufflation was introduced but not widely accepted until 1918. The first successful complete pneumonectomy was not until 1931 (by Nissen, in Germany). In 1963 the first lung transplant was performed; rejection was a major problem until effective immunosuppression was developed.

Development of diagnostic apparatus

Chest percussion was described by Auenbrugger 1761, Piorry introduced the pleximeter in 1826. Percussion: tapping the chest to see if it resonates (normal) or is dull (containing a mass, or fluid). It can be done with a finger, or a hammer striking a flat object (a pleximeter). The stethoscope was invented in

1816 by Laennec; he originally listened to the chest through a rolled-up newspaper, to distance himself from the patient. The first easy-to-use spirometer was devised by Hutchinson in 1844: body plethysmography was introduced 1956. Cyrtometers and stethometers (for measuring the shape and movements of the chest, respectively) were invented in the 1850s. Bronchoscopy was first used in 1876 (bronchoscopes are 'telescopes' introduced via the trachea to view the bronchi; originally rigid, superseded in 1967 by flexible fibreoptic devices). Chest radiography began to be used before 1900, within a couple of years of Roentgen's discovery of X-rays.

Treatment: sympathomimetic bronchodilators

Ma Huang (Ephedra) was used in China as an infusion since ancient times for cough and chest problems. Ephedrine (the active principle of Ma Huang) was identified in 1887; tablets, inhalations for asthma introduced in the 1920s. Pseudoephedrine is still widely used as decongestant. Adrenaline was used as bronchodilator 1900, and by the inhaled route in 1929. Inhaled isoprenaline, salbutamol, salmeterol, formoterol, etc introduced in the 1970s-1990s.

Treatment: anticholinergic bronchodilators

The benefits of smoking *Datura ferox* for asthma were confirmed in 1802 in India, published 1812 in Edinburgh. It contains hyoscine. *Datura stramonium* was used in Europe, USA. Atropine (structurally similar to hyoscine) was isolated from *Atropa belladonna* in 1833, its benefits in asthma being described by Hyde Salter in 1869. Synthetic analogues were developed in the 20thC as inhalers for COPD and asthma e.g. ipratropium (Atrovent), tiotropium (Spiriva).

Treatment – tea, coffee, chocolate

All contain varying amounts of caffeine, theophylline, and theobromine. William Withering (of foxglove fame) said that strong coffee was the main treatment for asthma (1786); Hyde Salter agreed in 1859. Theophylline was originally used as a diuretic, but found use as a bronchodilator ca. 1940 and was subsequently shown to have anti-inflammatory properties. It is a non-selective inhibitor of the enzyme phosphodiesterase, which breaks down cyclic AMP, thus maintaining bronchodilatation. Selective phosphodiesterase isoenzyme 4 inhibitors have been synthesised and marketed for obstructive airway disease.

Treatment: therapeutic uses of smoking

When introduced to Europe, smoking was perceived as beneficial (despite detractors e.g King James 1's *Counter-blaste to tobacco*: "A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and in the black stinking fume thereof, nearest resembling the horrible stygian smoke of the pit that is bottomless"). Smoking was still considered 'manly' and 'good for the wind' into the 20thC.

Various other substances (e.g stramonium, cannabis, camphor, foxglove, arsenic), were mixed with tobacco. 'Potter's asthma cigarettes' could be bought at tobacconists in the UK until 1988.

Treatment: anti-allergics

Anti-histamines (marketed 1940s) proved to be good treatment for allergic rhinitis, but poor for asthma. Desensitisation therapy (developed 1911) can work well, especially for pollen allergies.

Cortisone was first used for asthma 1949, inhaled derivatives (beclomethasone, fluticasone etc) were introduced from the 1970s. Orally administered adrenal extract had been shown to be beneficial in 1900 by Solis-Cohen, but this was not recognised to be due to the cortisol content, rather than adrenaline, until 50 years later.

Sodium cromoglycate (a ‘mast-cell stabiliser’) was discovered by Roger Altounyan in 1965; its mode of action is still not fully understood.

More recent agents include antagonists of inflammatory mediators including the leukotrienes, prostaglandin D2, and Immunoglobulin E.

20thC developments: disease recognition

von Neergard (1929), Pattle (1955), Clements (1956/7) described the lung surfactant system; Avery & Mead (1959) showed that infant respiratory distress syndrome in premature babies is due to surfactant deficiency. Surfactant reduces the surface tension in the airways and deceases the work of breathing.

Doll & Bradford (1964) showed conclusively that smoking causes lung cancer. It was also recognised (with air pollution) as a cause of chronic obstructive pulmonary disease (COPD).

Obstructive Sleep Apnoea was recognised and treated with continuous positive airway pressure (CPAP) in 1980.

Cystic fibrosis was shown to be due to gene variants in 1989; genetic deficiency of alpha-1-antitrypsin was found to be a rare cause of emphysema in 1963.

Pulmonary arterial hypertension was described and treated with vasodilators in the 1980s.

Ciliary tract disorders were shown to be a rare cause of bronchiectasis (and dextrocardia).

There was greater recognition of industrial lung disease (coal-miners’ lung, asbestosis, silicosis), with the introduction of compensation, and protective equipment.

20thC – new methods and techniques

Early prototypes of the ‘iron lung’ included the hand-operated bellows-driven "Spirophore" designed by Dr Woillez of Paris (1876). The Iron lung came into its own for the management of cases of paralytic polio from 1929. Positive pressure ventilation was introduced in 1959.

The discovery of sulphonamides in the late 1930s, and the introduction of penicillin in the 1940s, revolutionised the management of bacterial lung infections. The first effective anti-TB drugs were developed in the late 1940s. Vaccines against TB (BCG), Streptococcus pneumoniae, influenza, COVID-19 were introduced, together with some modestly effective antivirals.

Routine measurement of arterial pH, O2, CO2 in 1960s; subsequently pulse oximetry introduced.

New imaging techniques: Computed Tomography invented by Hounsfield, 1972; high-Resolution CT 1989; gamma scans, positron emission tomography (PET scans), ultrasound introduced into practice.

Pulmonary rehabilitation programmes were developed ca. 1985.

Novel treatment techniques; lung transplants, gene therapy.

Tuberculosis – a brief review

Caused by infection with a bacillus (Mycobacterium tuberculosis) – related to leprosy. An ancient disease of man, probably originated from cattle.

One-third of the world population is infected - only a minority develop disease (lifetime risk about 10%).

TB in the industrialised nations was exported to their colonies: in the 20thC immigrants, especially from Southern and Western Africa, the Indian sub-continent, and S-E Asia, brought it back.

It can affect any organ in the body, most commonly the lungs. Gastrointestinal infection can be due to unpasteurised milk (M bovis); blood-borne spread causes TB in other organs e.g TB meningitis. Lymph-node TB was known as 'Scrofula.'

Tuberculosis in antiquity

TB bacilli isolated from mummies in Egypt (ca 1000 BCE) & Peru (ca 700-1000 CE). Evidence for spinal TB in both regions.

PTB recognised as 'phthisis' in ancient Greece, 'consumption' in the Bible. PTB almost certainly described in texts from China & India 2000-3000 BCE. (Until the 19thC 'consumption' could refer to any wasting disease, e.g. cancer).

Sylvius (1679) recognised that TB caused consistent changes in organs, but prior to the development of pathology & bacteriology TB of different organs was not generally recognised as the same disease.

Scrofula – lymph node tuberculosis

Scrofula (the 'King's Evil') was thought to be cured by the 'Royal Touch' from 496 CE (Clovis, King of France, at his coronation); Edward the Confessor (d. 1056) was the first English monarch to touch, Queen Anne the last (Samuel Johnson was 'touched' by Queen Anne). Scrofula was a fairly common condition; King Charles ll touched 92,000 people in the period 1662-82.

Roots of Figwort (Scrophularia) were used from medieval times to 18thC to treat lymph-node TB (doctrine of signatures). 'So called of Scrophula, the King's Evil, which it cures, they say, by being only hung about the neck, if not bruise it, and apply it to the place' (Nicholas Culpeper 1650).

Consumption – the Romantic Disease

By the early 19thC PTB came to have romantic associations, dying heroines were depicted in opera, many young poets, authors, artists died from TB (Chopin, Keats, the Brontës, Beardsley…).

Concept of 'spes phthisica' – TB could enhance hopefulness & creativity.

In reality there was no effective treatment, patients suffered with fever, sweats, bloodstained cough, & died or were often left breathless.

TB treatment in the pre-antibiotic era

Laennec (1810) mentions inhalations of balsam, myrrh, and aromatics for TB; creosote, eucalyptus, also used.

Incidence increased after the industrial revolution due to overcrowding, malnutrition, lack of fresh air and sunlight.

19th & early 20thC was the era of 'quack' TB cures – electrotherapy, Umckaloabo.

Tar inhalations, gold injections, both ineffective; heliotherapy & cod-liver oil beneficial (Vit D activates macrophages, boosting the immune system).

Sanatoria instituted mid-19thC – segregation, bed-rest, fresh air, graded exercise, nutritious food. 'No spitting' – patients had personal sputum pots. Authoritarian régime – dismissal for offences such as visiting the pub.

Advances in TB

1882 Koch discovers M.tuberculosis, demonstrates that it causes TB.

X-rays discovered 1895, chest radiography was being used by 1900.

Tuberculin skin testing introduced 1907; Tuberculin is a mixture of TB proteins. Koch thought (wrongly) that it would be useful therapeutically. It was introduced by von Pirquet and Mantoux as a useful test for TB infection.

BCG vaccine introduced 1922. BCG is a weakened form of bovine TB, named after its two French inventors: 'Bacille Calmette-Guérin'.

Collapse therapy to 'rest the lung' and close cavities developed 1920s; air, or sponge, or Perspex balls were introduced into the pleural cavity.

First effective antibiotics, streptomycin and PAS, introduced 1940s, followed by isoniazid in 1950.

It was shown in 1959 that patients do as well on effective antibiotics at home as in a sanatorium; sputum becomes non-infectious after 2 weeks of treatment, although total duration of therapy is 6 months to 2 years.

20thC: TB and novel lung infections

TB: increased incidence – immunosuppression (HIV, transplants, ageing, alcohol, drugs, medication e.g. anti-TNF); and the development of multi-drug resistance (MDR) and extreme drug resistance – XDR – where hardly any standard anti-TB drugs are effective. New anti-TB drugs are now being developed after a 40-yr gap.

New strains of influenza – 'Bird Flu', and novel viral infections – Hantavirus, SARS, MERS; now COVID-19 (Sars-Cov2).

Further reading

I know of no comprehensive text on the history of respiratory medicine per se; Jackson M. Asthma: the Biography. Oxford; OUP, 2009 is an excellent short history of asthma.

Watson R & Pride N. Early history of chronic obstructive lung disease 1808-1980, is a detailed review of the history of COPD.

Geddes D. The history of respiratory disease management. Medicine 2016;44(6): 393-7 is an idiosyncratic but interesting review of the topic.

There are numerous books on the history of TB, I would recommend: Dormandy T. The White Death: a history of tuberculosis. London; the Hambledon Press, 1999. A briefer alternative is Helen Bynum's 'Spitting blood', Oxford; OUP, 2012.

Likewise there are plenty of books on the history (and often the joys) of smoking; Hilton M. Smoking in British popular culture 1800-2000. Manchester; Manchester University Press, 2000 is interesting.

There are several books on the history of respiratory physiology, I recommend West J B. Respiratory Physiology: people and ideas. New York; OUP, 1996.

Surgery: Meade R. A History of Thoracic Surgery. Springfield; Charles C Thomas, 1961.

Cultural History of Disease Lectures – Professor Jo Bourke

This series of lectures explores six physical maladies that have afflicted people throughout the world: tuberculosis, polio, breast cancer, AIDS, sickle cell disease, and dementia. The 2019-21 Covid pandemic has excited widespread interest in the social, cultural, and political meaning of illness.

https://www.gresham.ac.uk/watch-now/series/cultural-disease

A HISTORY OF ANAESTHESIA

Dr Alistair G. McKenzie

Although opium extracts were prescribed in the Hippocratic texts for painful ailments, there was no mention of this in the context of surgery. Ether was being synthesised in the 1540s, yet it was not demonstrated to be a general anaesthetic until 300 years later (October 1846 in Boston). Again, Humphry Davy published his suggestion that nitrous oxide might be used to alleviate pain during surgical operations in 1800 – but there was a delay of nearly half a century before the advent of general anaesthesia. One of the reasons was that in the mid-19th century, it was commonly believed that pain provided a means of atonement for sin.

Even when the news that general anaesthesia had travelled from Boston to the world, there were both surgeons and patients who would not accept it. Misgivings were common well into the 1860s.

Advances in anaesthetic drugs, equipment and apparatus were continuously introduced over the next 150 years. It took a long time for action to be taken on some of the hazards, and the most striking changes in recent times have been improvements in monitoring and patient safety.

The main events in this story will be covered. Beware of some early books on the history of anaesthesia, in which many myths have been printed.

Reading Suggestions

B.M. Duncum, *The Development of Inhalation Anaesthesia*. London: Royal Society of Medicine Press, 1994 (first published 1947)

M.S. Pernick, *A Calculus of Suffering – Pain, Professionalism and Anaesthesia in Nineteenth-Century America*. New York, Columbia University Press, 1985

A.G. McKenzie, Chapter 31 The history of anaesthesia. In: Hardman JG, Hopkins PM, Struys MMRF (Eds) *Oxford Textbook of Anaesthesia*. Oxford: Oxford University Press, 2017

E. Bunker (ed.), *Horace and Elizabeth: Love and Death and Painless Dentistry, the Letters of Horace and Elizabeth Wells*, published independently and available from online book stores, 2020.

www.histansoc.org.uk for Historic Timeline, Proceedings, Book Notices, Links

THE HEART IN MEDICINE

Caroline Coats

The heart has long been recognised as the principal organ of human life. Symptoms of heart disease: dropsy, anasarca and apoplexy are described in the Hippocratic corpus. However, the structure and function of the heart defied the wisest scientists, physicians and philosophers for centuries. This lecture translates the important discoveries made by Morgani, Harvey, Laennec and Einthoven into clinical apparatus and treatments used at the bedside today. From measurement of blood pressure to development of the electrocardiograph, we consider how advances in science and engineering have underpinned progress in Western cardiovascular medicine.

Diagnostic methods

Effective treatment of cardiovascular disorders, as with other illnesses, depends largely on knowledge of the disease processes and for the heart this was not really achieved until the last part of the 18th century. It was the careful study of cardiac pathology, with correlation of the clinical manifestations, by Morgagni in 1761 that gave the impetus to an era of informed clinical diagnosis. Armed with knowledge of the pathology, the invention of auscultation by RHT Laennec in 1816 catalysed cardiac examination, which was well developed by 1880. The 19th century also saw great strides in cardiac physiology, which were translated into bedside practice by the invention of the clinical polygraph by James Mackenzie in 1893. This apparatus recorded events on both the left and right sides of the heart. Blood pressure had been known about since Stephen Hales measured it in a horse in 1711, but it was not until Riva Rocci invented the blood pressure cuff in 1896 that it could be accurately measured in the human. Roentgen's discovery of X-Rays in 1895 enabled heart size and lung abnormalities to be studied. The invention of the modern electrocardiogram by Willem Einthoven in 1901 was of enormous importance enabling Thomas Lewis in 1911 to describe the mechanism of many cardiac arrhythmias. Intra cardiac pressures were well recorded in animals in 1878 by Marey in France and in 1929 cardiac catheterisation in the human was introduced by Forssmann and extended by Cournand in 1941. Huge advances in cardiac radiology, electrocardiography and cardiac catheterisation have taken place following these early pioneer studies to which one can add the introduction of magnetic resonance imaging. The use of ultrasound imaging started in 1930s; Hertz and Edler invented the echocardiogram in 1954. Various types of echocardiography are now an indispensable method of diagnosis.

Treatment

Empirical treatment (folk medicine) with squill and foxglove gave effective treatment for the symptoms of what we now know as heart failure, and even William Withering who regularised treatment with digitalis in 1775 did not know he was treating heart disease. But arrhythmias could not be properly treated without knowing their mechanism, nor could hypertension be treated without the sphygmomanometer. Arrhythmias have been treated with several drugs and currently non-drug therapy with pacemakers, radio frequency ablation and DC shock is widely used. A whole range of drugs is used in hypertension, sometimes three at a time. Oral anticoagulant drug treatment for thrombosis and arterial embolism started on the 1940s following a perceptive observation in animals by a veterinary surgeon in Canada. Aspirin has changed from an analgesic into a useful treatment and prophylaxis for coronary disease and stroke. Even with digitalis there was no effective treatment for severe heart failure until the oral diuretics were introduced with chlorthiazide in 1957 – not so long ago, and now there are much better ones.

Cardiac surgery

The prime example of where a detailed knowledge of the exact cardiac defect is vital for treatment. We have come a long way since a surgeon in 1890 said the heart was an untouchable organ. Operations on vessels outside the heart itself started in 1938. The extra-cardiac Blalock-Taussig operation in 1944 catalysed the surgery of congenital heart disease but the urgent need was to open the heart and fully correct the defects. Hypothermia allowed limited access to the heart in the 1950s and the invention of the heart lung machine in 1955 opened the way to complete correction. Heberden identified angina pectoris in 1768 and Lauder Brunton discovered treatment with nitrates in 1867, which are still in use today. But the recognition of myocardial infarction came much later with Herrick's paper of 1912. The development of the coronary care unit in Edinburgh by Julian in 1960 was a big step forward, now enhanced by treatment in the ambulance following the work of Pantridge in Belfast. Coronary artery surgery, unheard of prior to 1960, is now commonplace and physicians dilate the arteries with balloon angioplasty. Another important story has been the disappearance of rheumatic fever in the young and hence of rheumatic valve disease in adults. In 1945 according to John Parkinson there were 200,000 patients with rheumatic heart disease in the UK. Was this disappearance due to medical treatment? It was probably due chiefly to better housing because the streptococcal infection causing rheumatic fever occurs with overcrowding,

Further reading

1. Fleming PR. *A Short History of Cardiology*. Rodopi 1997. ISBN 90-420-0048-1. 239 pages. Paperback by a former Apothecaries Lecturer.
2. Acierno LJ. *The History of Cardiology*. Parthenon 1994. ISBN 1-85070-339-6. 750 pages. A large well-referenced textbook.
3. Silverman ME (Ed). *British Cardiology in the 20th Century*. Springer, London 2000. ISBN 1-85233-312-X.
4. Treasure T. *The Heart Club:* Clink Street Publishing 2017. 312 pages. ISBN-10 : 1911525840. A History of London's Heart Surgery pioneers.
5. Wells FC. *The Heart of Leonardo.* Springer 2013. 266 pages ISBN-10 : 1447145305. All of Leonardo Da Vinci's drawings on the heart and its physiology, accompanied by re-translations of the associated notes.
6. Fye WB. *Caring for the Heart: Mayo Clinic and the Rise of Specialization* Oxford University Press 2015. ISBN-10: 019998235X. Development of the Mayo Clinic, alongside the history of cardiology
7. Lomas D. *Painting the History of Cardiology* BMJ. 2005 Dec 24; 331(7531): 1533–1535. doi: 10.1136/bmj.331.7531.1533. An art historian perspective on Diego Rivera's 1944 mural.

Link to British Cardiovascular Society Channel

A short recording of early cardiac instruments

https://www.youtube.com/watch?v=JNpVgh9vJkI

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THE HISTORY OF ORTHOPAEDICS AND TRAUMA (AND WOUNDS)

Bryan Rhodes

Synopsis

The earliest evidence of fracture treatment dates from 2400 B.C.E. in Egypt. With almost 5000 years of history to cover, my lecture will aim to give a broad overview of key elements that have contributed to the development of a modern surgical specialty. I will relate my presentation to other features of the DHMSA course. I will look briefly at the ancient origins of trauma treatment with a particular focus on the Hippocratic corpus. I will then cover in more detail the period between 1550 and 1950, assessing the contribution of advances in surgical sciences and developments in hospital practice, with a bias towards British history.

I will present the evidence that unqualified bonesetters were prominent and successful trauma practitioners in rural areas and how a small number of them moved to a city practice in the 19th century. I will show how Hugh Owen Thomas, the son of a bonesetter, and his contemporary, Joseph Lister, were important in the foundation of modern orthopaedics.

I will show how events before and during the first world war, resulted in the creation of the first of the British surgical subspecialties signalling the start of the modernization of surgery in the twentieth century.

Using total hip replacement as an example, I will show how the 20th century became a period of innovation and progress for orthopaedics based on new scientific approaches.

Finally I will give a very brief overview of the history of wound management highlighting some of the principles and techniques used through the ages

Reading list

Main source:

David Le Vay *The History of Orthopaedics, An Account of the Study and Practice of Orthopaedics from the Earliest Times to the Modern Era* (Carnforth, Parthenon Ltd., 1990)

Note: Now out of print but available in the Wellcome library

Additional sources:

Christopher L. Colton *The history of fracture treatment*. In: Browner BD, Jupiter JB, Levine AM, Trafton PG, Ch Kretek (eds) *Skeletal trauma*. (Saunders, Philadelphia, 2009) pp 3–31

Roger Cooter *The Meaning of Fractures: Orthopaedics and the Reform of British Hospitals in the Inter-War Period* Medical History, 1987, 31: 306-332.

Hippocrates, *Loeb Classical Library Vol. III* Transl. by E.T. Withington (W. Heinemann, Harvard Press, 1928)

D. LL. Griffiths and W. Brockbank *Orthopaedic Surgery in the 16th and 17th Centuries: Traction Apparatus – The Vidian Pictures*, The Journal of Bone and Joint Surgery 1949 Vol. 31 B, 2, pp 313-7

Thomas Scotland and Steven Heys *War Surgery 1914-18* (Solihull, Helion & Co. 2012)

Roger Cooter *Bones of Contention? Orthodox Medicine and the Mystery of the Bonesetter's Craft* in *Medical Fringe and Medical Orthodoxy* Eds. W.F. Bynum and R. Porter (Routledge 1987)

D.J. Leaper *The History of Wound Healing* in Leaper DJ and Harding KG (Eds.) *Wounds: Biology and Management* (Oxford, Oxford Uni. Press 1998) pp5-9

PUBLIC HEALTH, ANCIENT AND MODERN

Rosalind Stanwell-Smith

FFPH, FRCOG, MSc, DHMSA Honorary Senior Lecturer, Centre for History in Public Health, London School of Hygiene and Tropical Medicine

Synopsis

The history of public health dates back to ancient times but the main period of interest is the escalation of concern and related legislation in the nineteenth/twentieth centuries. In general, public health measures were introduced to combat epidemics and filthy sanitation – with disposal of waste and keeping streets clean (and decent) being a constant target during the Victorian era. Health systems evolved rapidly during the 20th century and an examination of how these developed gives insights into 'how we got to here' and the multidisciplinary public health that exists today.

Key points to be covered in the lecture

Defining public health: The definition has changed over time (and is still evolving). The WHO defines it as all organized measures (whether public or private) to prevent disease, promote health and prolong life among the population as a whole. We shall examine other definitions to understand the viewpoints at different stages in history.

Legislation: The first fairly comprehensive Public Health Act was in 1848 – mainly thanks to 'King Cholera' - and, like many other pieces of 19th century public health legislation, it was permissive rather than requiring action. We shall briefly consider key pieces of legislation and the part they played in developing community and treatment services.

State intervention: This is a key theme of the evolution of public health, prompted by factors such as the need to control cholera and other epidemics, industrialisation/ urbanisation, recognition of poor health in military recruits and children - and an increasing attempt to promote healthy lifestyles. Critics have argued against state control, claiming it is largely aimed at lengthening the working life - and reducing costs. The rise of the welfare state is associated with detailed surveillance and legislation to enforce behaviour changes such as smoking.

Water and sanitation: The earliest UK statute was concerned with disposal of excreta, but measures to improve water quality and waste disposal were private commercial concerns until well into the 19th century. Legislation for bath houses and public toilets remains permissive, a legacy of this period.

The rise (and fall?) of medical influence: early public health doctors often lacked authority but organization of training and infection control measures led to high status for Medical Officers of Health between the world wars. Post World War II saw growth of a wider form of 'social medicine'. The 19th/ /early 20th century obsession with hygiene has been criticised, with historians citing the influence of poverty and bad nutrition on the poor health of the 'disadvantaged class' – although it was not just doctors that led the onslaught on cleaning up society.

Focusing on evidence and the individual: Modern public health aims to be evidence-based (rise of epidemiology and statistics) but also to influence at the individual level including, from the second half of the 20th century, the use of 'social marketing', shock tactics and fronting up road safety or alcohol campaigns with celebrities.

Environment (again): Modern public health has re-invented the earlier concern about the environment, drawing on experience in conflicts, emergencies and attention to social justice and equity. It now has a breadth that our ancestors could scarcely have imagined but problems of increasing costs, ageing (and fatter) populations, climate change and higher expectations are common to many countries and a challenge for the future history of public health.

Suggested reading list

General introductions

Porter, R. *The greatest benefit to mankind. A medical history of humanity from antiquity to the present***.** London, HarperCollins, 1997, Chapter xiii.

Rosen, George. *A History of Public Health* Johns Hopkins University Press 1993 (the classic account, first published 1958).

Porter, D. *Health, Civilization and the State: a history of public health from ancient to modern times*, Routledge, 1999.

Chadwick and his reappraisal

Chadwick, Sir Edwin. *Great Britain, Poor Law Commission. - Report on the sanitary condition of the labouring population of Great Britain* (ed M Flinn).

Hamlin, C. *Public Health and Social Justice in the Age of Chadwick: Britain, 1800- 1854* Cambridge University Press, 1998.

Infectious disease in the nineteenth century

Baldwin, P. *Contagion and the state in Europe, 1830-1930*, Cambridge, 1999.

Hardy, A. *The Epidemic Streets*, Oxford, 1993.

Rosenberg, C. *The Cholera Years*, Chicago 1962.

Evans, RJ. *Death in Hamburg: society, and politics in the cholera years, 1830-1910*, Oxford, 1987.

Vinten-Johansen, P, Brody, H et al. *Cholera, chloroform and the science of medicine: a life of John Snow*, Oxford, 2003.

Durbach, Nadja. *Bodily matters: the Anti-Vaccination Movement in England, 1853-1907* Durham: Duke University Press, 2005.

Hennock, EP. 'Vaccination policy against smallpox, 1835-1914: A comparison of England with Prussia and Imperial Germany', *Social History of Medicine* 1998; 11:49-71.

The McKeown thesis

McKeown, T. *The Modern Rise of Population*, London, 1976.

Harris, B. 'Public Health, Nutrition and the Decline of Mortality: the McKeown Thesis revisited', *Social History of Medicine* 2004; 17:3.

Szreter, S. 'The Importance of Social Intervention in Britain's Mortality Decline', *Social History of Medicine*1988; 1.

Woods, R. *The Demography of Victorian England and Wales*, Cambridge, 2000.

The impact of bacteriology

Tomes N. *The gospel of germs men, women, and the microbe in American life*, (Cambridge, 1998).

Public health in twentieth century Britain

Lewis, J. 'The public's health: philosophy and practice in Britain in the twentieth century', in E Fee and R.M Acheson (eds). *A History of Education in Public Health: health that mocks the doctor's rules*, OUP, 1991, 195-229.

Lewis, J. *What price community medicine? The philosophy, practice and politics of public health since 1919*, Wheatsheaf, 1986.

Welshman, J. *Municipal Medicine: public health in twentieth century Britain*, Oxford, Peter Lang 2000.

ANATOMY: PEOPLE, BOOKS AND CONTEXTS

William Schupbach

Anatomy in the West has been a battleground between several competing groups. **First**, there are those who have concentrated on distinguishing, defining, and interpreting organs, by using techniques from philology and philosophy (such as "Aristotle's categories"). **Second**, there are those who concentrate on building anatomy's empirical base by topographical description. **Third** there are those who promote and practise anatomy for its social or medical benefits. **Lastly** there are those who regard anatomy as useless. The reception accorded to each group has been affected by factors as various as Christian theology, government policy, the French Revolution, and the hazardous transmission of ideas through books and drawings. **Nevertheless**, there is much continuity in the history of the discipline: some of its earliest features can still be recognized today in its child-disciplines such as histology, neuroanatomy and embryology.

Some personalities and works discussed:

Galen (c. 130-200 AD): two completely different anatomical works, namely

1. ***De usu partium*** (on the usefulness of the parts of the body); a briefer Latin version was called ***De iuvamentis membrorum*** (on the advantages of the members). A work of **teleological philosophy**. Translation by M.T. May (2 vols., Ithaca 1968)

2. ***De anatomicis administrandis*** (On the handling of anatomical matters). Running commentary on dissection. Translation by Charles Singer, *On anatomical procedures* (London 1956)

Mundinus (Mondino de Liuzzi, died 1326; of Bologna)

Anathomia; printed version in Ketham's ***Fasciculus medicine,*** Venice 1493. Translation by Charles Singer in ***The Fasciculo di medicina****, Venice, 1493* (Florence 1925). Follows the practical order of dissection, not a logical order

Berengario da Carpi (1470-1550, also of Bologna)

Wrote a massive ***Commentary on Mundinus***, and other works (one of them, *A short introduction to anatomy (****Isagogae breves****)*, translated by L.R. Lind (Chicago [1959])

Andreas Vesalius (b. Brussels 1514, d. 1564)

De humani corporis fabrica, Basel 1543 and 1555. Translated by W.F. Richardson and J.B. Carman (San Francisco 1998-2009); and by D. H. Garrison and M.H. Hast (Basel 2014)

Pieter Paaw, professor at Leiden (d. 1617), creator of the Leiden anatomy school

William Hunter (1718-1783)

Anatomia uteri humani gravidi tabulis illustrata ... The anatomy of the human gravid uterus exhibited in figures, Birmingham & London, 1774. Co-founder with John Hunter of the Great Windmill Street school of anatomy in London

Pierre-Joseph Desault (1744-1795)

Oeuvres chirurgicales de P.J. Desault ... ou tableau de sa doctrine et de sa pratique dans le traitement des maladies externes ... Ouvrage publié par Xav. Bichat, Paris, an 6, 1798

Richard Bright (1789-1858)

Reports of medical cases, selected with a view of illustrating the symptoms and cure of diseases by a reference to morbid anatomy, London, 1827-1831

Nikolai Ivanovich Pirogov (1810-1881)

Anatome topographica sectionibus per corpus humanum congelatum triplici directione ductis illustrata, St Petersburg 1852-1859 (frozen cross-sections represented in lithographs)

Further reading

J. J. Bylebyl, 'Interpreting the Fasciculo anatomy scene', *Journal of the history of medicine*, vol. 45, 1990, 285-316

Andrew Cunningham, 'The end of the sacred ritual of anatomy', *Canadian bulletin of medical history,* vol. 18, 2001, 187-204

Andrew Cunningham, *The anatomical renaissance: the resurrection of the anatomical projects of the ancients*, Aldershot: Scolar Press, 1997, ISBN 1859283381

Andrew Cunningham, *The anatomist anatomis'd: an experimental discipline in Enlightenment Europe*, Farnham : Ashgate, 2009, ISBN 9780754663386

Sachiko Kusukawa, *Picturing the book of nature : image, text, and argument in sixteenth-century human anatomy and medical botany*, Chicago: University of Chicago Press, 2012.

C.D. O'Malley, *Andreas Vesalius of Brussels*, Berkeley & Los Angeles: University of California Press, 1964.

Ruth Richardson, *Death, dissection and the destitute*, London: Phoenix, 2001. ISBN 1842122770

K.B. Roberts and J.D.W. Tomlinson, *The fabric of the body: European traditions of anatomical illustration*, Oxford: Clarendon Press, 1992

WELLCOME LIBRARY RESEARCH RESOURCES TALK AND OTHER ONLINE RESOURCES

For information on the museum and library exploring human health and experience:

https://wellcomecollection.org/

For the latest opening information
https://wellcomecollection.org/visit-us

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Email: library@wellcomecollection.org

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Wellcome Library Databases

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Shows which resources are available anywhere with a Wellcome Library Membership

Primary sources include: Jisc Historical Texts, House of Commons Parliamentary Papers, 19th Century British Newspapers, Times Digital Archive (1785-2008), Punch Historical Archive (1841-1992)

Secondary Sources include: History of Science, Technology and Medicine Bibliography, Oxford Dictionary of National Biography, Who's Who, Who Was Who

These resources can be accessed remotely once you have joined the library. Email library@wellcomecollection.org for further assistance.

MEDICAL HISTORY

Medical History is a refereed journal devoted to all aspects of the history of medicine, health and related sciences, with the goal of broadening and deepening the understanding of the field, in the widest sense, by historical studies of the highest quality.

Access via Cambridge Core

https://www.cambridge.org/core/journals/medical-history/all-issues

Content from 1957-2019 available open access

JISC HISTORICAL TEXTS

Contains four resources

https://historicaltexts.jisc.ac.uk/

Free access to

1. Contains **UK Medical Heritage Library** (UKMHL 1800s-1900s) with the images and full text of over 66,000 19th Century European medical publications. Includes access to 4,000 books from the Royal College of Physicians.

2. BL 19th Century (1789-1914) contains over 65,000 recently digitised editions from the British Library's 19th century collection, comprising over 25 million pages of previously rare and inaccessible titles.

Access via https://wellcomecollection.org/pages/YDaP2BMAACUAT7DS

3. Early English Books Online (EEBO 1473-1700) contains the scanned images, and full-text digital versions where available, of over 125,000 books published in English up to 1700.

4. Eighteenth Century Collections Online (ECCO 1701-1800) is a digital collection of more than 180,000 titles published in Great Britain and its colonies during the Eighteenth century. Contains digital copies of almost every book published in the eighteenth century.

JSTOR
Up to 100 journal articles are available to read free read online a month if you register. Some material is available to download as PDFs. Register at www.jstor.org/register

Articles from the last few years are generally not available but includes access to Journals including *Bulletin of the History of Medicine* (1939-2016), *Isis* (1913-2016), *Pharmacy in History* (1959-2020), *Social History* (1976-2014), *Economic History Review* (1927-2015) (useful for Patrick Wallis's 2008 article on Consumption, Retailing and Medicine in Early Modern London), *British Medical Journal* (1857-1980) plus Book Chapters from *Brill*.

Tip: the basic search function isn't that effective so it is often easier to find which journals are available by going to Browse by Title
https://www.jstor.org/action/showJournals
This also enables the user to see which years are available.

Then find the journal in the A-Z list and use the year of publication, then issue number, before finally selecting the article title.

BMJ and predecessor journals
The BMJ is one of the world's oldest general medical journals. It published its first weekly edition on 3 October 1840 as the ***Provincial Medical and Surgical Journal*** before uniting with the ***London Journal of Medicine*** and publishing from January 1853 as the ***Associated Medical Journal.*** Four years later in January 1857, this merged journal became the ***British Medical Journal***. The title was shortened to ***BMJ*** in 1988, and then changed to ***The BMJ*** in 2014. All issues up to 2018 are available if you register via JSTOR (see above) or up to 1980 via PubMed Central (see below).

The Lancet
The Lancet is an independent, international general medical journal founded in 1823 by Thomas Wakley. Since its first weekly issue (October 5, 1823), the journal has strived to make science widely available so that medicine can serve, and transform society, and positively impact the lives of people. Issues are available online from 1823, to the most recent through Wellcome Library membership. If you search for "The Lancet", ticking "online resources", in the Wellcome library catalogue you will be able to connect to Science Direct Journals. You will be prompted to log in with your email and password linked to your membership and then directed to *The Lancet.*

PubMed Central
PubMed Central is a free full text archive of biomedical and life sciences journal literature at the US National Institutes of Health's National Library of Medicine (NIH/NLM).
https://www.ncbi.nlm.nih.gov/pmc/
It includes access to the BMJ from 1857 to 1980.
https://www.ncbi.nlm.nih.gov/pmc/journals/182/

HISTORICAL ANATOMIES ON THE WEB

For information on historical anatomies on the web, includes books with freely available plates but not context:
https://www.nlm.nih.gov/exhibition/historicalanatomies/intro.html#:~:text=Historical%20Anatomies%20on%20the%20Web%20is%20a%20digital,best%20edition%20of%20a%20work%20in%20NLM%27s%20possession

Pharmaceutical Historian

The international journal *Pharmaceutical Historian* is now available online on an open access basis at http://www.ingentaconnect.com/content/bshp/ph
The entire journal archive from 1967 to 2016 is also available online on open access basis at:
https://publikationsserver.tu-braunschweig.de/receive/dbbs_mods_65362.

RENAISSANCE LEARNED MEDICINE, 1492-1600

Vivian Nutton

This lecture will concentrate on some general outlines of ideas, beginning with the recovery of Greek medicine from 1492 with Leoniceno and, particularly, after the publication of the Greek editions of Galen (1525) and Hippocrates (1526). It will look at the process in different stages. The challenge to earlier medicine (Leoniceno); the clarification of terms (Manardi); expanding the horizon (Brasavola, Matthioli, Vesalius); new diseases (Fracastoro); the new therapeutics (Da Monte); the classics consolidated (Mercuriale); and the classics challenged (Paracelsus). This talk will not deal in detail with anatomy, pharmacology or surgery in the 16th century, although these topics may come up in discussion.

A further bibliography.

Vivian Nutton, *Renaissance Medicine: A Short History of European Medicine in the 16th Century* (Routledge: April 2022).

There is also an overall survey by Andrew Wear in *The Western Medical Tradition*, but no big collection of essays in English since Andrew Wear, Roger French and Iain Lonie, eds, *The Medical Renaissance of the Sixteenth Century*, Cambridge University Press., 1985. Andrew Wear, *Knowledge and Practice in English Medicine, 1550-1580,* Cambridge University Press, 2000, ranges more widely than his title suggests. Mary Lindemann, *Medicine and Society in Early Modern Europe*, ed. 2. Cambridge University Press, 2010, does not go into much detail about ideas. By contrast, Ian Maclean, *Logic, Signs and Nature in the Renaissance,* Cambridge University Press, 2002, is a brilliantly learned survey, but not for the faint-hearted. The best short guide to some of the riches of Renaissance academic medicine is Nancy Siraisi, *Communities of Learned Experience: Epistolary Medicine in the Renaissance*. Johns Hopkins University Press., 2012. There are also some useful articles in the K. Park, and L. Daston, eds, *The Cambridge History of Science, vol. 3: Early Modern Science*, Cambridge University Press, 2008.

Some of this lacuna can be explained by the fact that, except for Linacre, Caius (on whom see Christopher Brooke*, A history of Gonville and Caius College*, The Boydell Press, 1985, and the introduction to my translation of his *Autobibliography,* Routledge 2018), and later Harvey, England was an intellectual backwater. Hence, the surveys devoted to major intellectual figures have been written or edited by continental scholars, and, although containing some material in English, are largely in other languages.

For Leoniceno and the introduction of Greek, see Peter Godman *From Poliziano to Macchiavelli. Florentine Humanism in the High Renaissance,* Princeton University Press, 1998; and the essays in Petros Bouras-Vallianatos and Barbara Zipser (eds), *Brill's Companion to the Reception of Galen,* Brill, 2019

We still lack good studies of Manardi, Brasavola and Da Monte, three crucial figures.

For Fracastoro, see Geoffrey Eatough's translatkion of his *Syphilis,* Francis Cairns, 1984, and Alessandro :Pastore and Enrico Peruzzi, *Girolamo Fracastoro*, Leo S. Olschki, 2006. The debagte about contagion is discussed by me in `The Reception of Fracastoro's Theory of Contagion. The Seed that Fell among Thorns? ' *Osiris*, ser. 2, 6, 1990, 196-234.

For Mercuriale, see the English translation of his *De arte gymnastica,* Leo S. Olschki, 2008, and Alessandro Arcangeli and Vivian Nutton, eds. *Girolamo Mercuriale,* Leo S. Olschki, 2008.

For Paracelsus, there are two good recent books, Charles Webster, *Paracelsus. Medicine, Magic and Mission at the End of Time*, Yale University Press, 2008,and Bruce T. Moran,: *Paracelsus. An Alchemical Life*, Reaktion Book., 2019.

LEONARDO DA VINCI AND THE SCIENCE OF HUMAN ANATOMY

Michael Farthing

Leonardo da Vinci (1452-1519) was a multi-talented individual, an intuitive artist and scientist, with a magical talent to integrate both art and science. His contribution to the birth of the science of modern human anatomy might be attributed to being born in 'the right place at the right time'. However, the story which extends over more than 50 years of his professional life has both triumphant successes and a notable serious failure.

Leonardo was born in a small hamlet, Anchiano, just north of Vinci, set on a Tuscan hillside to the west of Florence on 15 April 1452. He was the illegitimate son of a local notary but this accident of birth excluded him from following his father's profession and from any formal education; he was notably deficient in Latin and Greek. Paradoxically, this may have been his liberation. He was apprenticed as an artist in the workshop of Andrea Del Verrocchio at the age of 14 and it is speculated that he contributed to some of Verrocchio's major commissions, including the *Baptism of Christ.* Towards the end of his time with Verrocchio, he joined a Guild in Florence, *Arte dei Medicie Speziali,* which in addition to artists had physicians and apothecaries as part of its membership. This may have facilitated his introduction to the study of the human form, which as a painter was already highly relevant.

In 1483, Leonardo established himself as an independent artist in Milan. He successfully introduced himself to the wealthy Duke Ludovico Sforza, who was interested in his developing skills in military engineering and architecture as well as being an artist, but it also brought him close to a young Professor of Anatomy, Marcantonio della Torre, who was working in Pavia and had access to the bodies of executed criminals for dissection.

On 2 April 1489, Leonardo wrote in mirror script, with his left hand on one of his folio sheets, which also contained the drawing of a skull, 'Book entitled *On the Human Figure'.* From the hundreds of annotations that surround the multitude of anatomical drawings that he created during three periods of intensive study, an early period in Milan (1487-95), a middle period back in Florence (1505-09), and the late period in Pavia and Rome (1510-13), he made it abundantly clear that he was creating a comprehensive manual or textbook of human anatomy. The manuscripts are peppered with instructions to future students as to how they should perform the dissections and the questions they should be asking themselves as they proceeded with their studies. Reviewing the work that he had produced during the 25 years of endeavour, reveals that he had taken a systematic approach to the study of anatomy. From his annotations it was clear that he was not only interested in structure but also in function, notable examples being his ideas as to how muscles move the skeleton, and early ideas on the nature of the cardiopulmonary circulation, closely anticipating William Harvey's discovery more than a hundred years later, on the circulation of the blood (*De Motu Cordis*, 1628), which included experimental work on the unidirectional flow valves in the heart. Despite the difficulties involved in working with bodies that were neither refrigerated nor preserved, he made some previously undiscovered observations.

But not all his anatomical drawings were correct, and some would not stand up to scrutiny by today's physicians, surgeons, and anatomists. One reason was the difficulty that he faced in undertaking human dissection without embalming or refrigeration, as many organs particularly the gastrointestinal tract undergo rapid degradation after death. He makes no mention for instance of the presence of the pancreas, which lies at the back of the abdomen and autolyses rapidly after death. But more importantly, it is evident that Leonardo was both, cognisant and respectful of current anatomical dogma particularly that emanating from Galen and Aristotle, some of which suffered by being based on anatomical studies in animals which would not automatically translate across to humans. There are examples of these, what might be called,

'ideological distortions', in his work on the central nervous system, the heart and reproductive systems. But in addition, there are occasions when despite it being evident that his work is based on dissection, he lets his imagination take over! In science not all experiments work first time, but there is a saying that 'science corrects itself', and there is evidence that this indeed occurs in his own work when he comes back to a subject again in a later phase of his anatomy periods.

But the greatest tragedy is not that he made mistakes, or that he was too reverential to the great master Galen, but that his work never had the impact on the development of human science in the way that it should have. He spent the last 3 years of his life in France as a companion of the French King, François I. Perhaps distracted by his daily discussions with François or his new interest in waveforms and water, his work was never published. Normally at the time, he would have selected the best drawings and handed them over to an engraver to enable the work to be printed and published; but this never happened. After he died the collection was put into the custody of his young assistant and companion Francesco Meltzi, who did nothing to advance their future, but handed them on to his son on his death in 1570. The route by which they eventually found their way into the King's collection in Windsor is uncertain and by that time their impact on development of anatomy as a science was inevitably limited.

In 1543, Andreas Vesalius of Brussels published what is usually called 'his masterpiece', *De Humani Corporis Fabrica,* a systematic textbook of anatomy. He worked very closely with the artist Jan Stefan van Kalkar, and although Vesalius probably undertook some of the drawings before being refined by van Kalkar, there is little doubt that Leonardo's drawings benefit from having the dissection and the drawings produced by the same hand.

Further Reading:

Martin Clayton, *Leonardo da Vinci*: Anatomy, iPad app, London 2012
Martin Clayton and Ron Philo, *Leonardo da Vinci: Anatomist*, London, 2012
Martin Clayton and Ron Philo, *Leonardo da Vinci: The Anatomy of Man*, Boston, 1992
Michael Craig-Martin, *Drawing the Line: Reappraising drawing past and present*, London, 1995

Michael Farthing and Stephen Farthing, *Leonardo da Vinci: Under the skin,* RA, London,2019
Ludwig Goldscheider, *Leonardo da Vinci: Life and Works, Paintings and Drawings*, London and New York, 1944
K. D. Keele, *Leonardo da Vinci on the Movement of the Heart and Blood*, London, 1952
Martin Kemp, *Leonardo da Vinci: The marvellous works of nature and man*, London, 2006
Martin Kemp, *Leonardo da Vinci: Experience, experiment, and design*, London and Princeton, 2006
Charles D. O'Malley and J. B. de C. M. Saunders, *Leonardo da Vinci on the Human Body*, New York, 1983
Giorgio Vasari, 'Life of Leonardo da Vinci: Painter and Sculptor of Florence', in *Lives of the Most Eminent Painters, Sculptors and Architects*, translated from the 1550 edition by Gaston Du C. De Vere, London, 1912–14

Giorgio Vasari, 'The Life of Leonardo da Vinci: Florentine Painter and Sculptor', in Lives of the Artists, translated from the 1568 edition by Julia Conaway Bondanella and Peter Bondanella, Oxford, 1991
Francis C. Wells, *The Heart of Leonardo*, Springer-Verlag, London, 2013

HISTORY OF PSYCHIATRY

Chris Millard

LECTURE 1 - FROM THE ASYLUM TO THE SECOND WORLD WAR

The history of psychiatry is a difficult, contested subject. During the last 200 years, psychiatry has been both fulsomely praised and mercilessly castigated. Psychiatry has always been a class apart from what might be called 'mainstream medicine'. However, the understanding of this difference has changed constantly. Every effort to bring them together has floundered. The story begins in the courtroom, at the trial of James Hadfield in 1800, and we will mention a number of other cases. From there, we shall talk about treatment in the nineteenth century – especially the famous 'moral therapy' of the Tukes at the York Retreat – and then the extraordinary asylum-building that characterised much of the nineteenth-century. This institutional basis for psychiatry has an inertia that is difficult to escape. The First World War intervenes, and 'shell-shock' shakes up ideas about mental illness and human nature. Ideas about mental illness begin to flourish outside of the asylums. We shall follow the thread, away from the asylums and look at child guidance and juvenile delinquency. The lecture ends with a brief discussion of the innovations of the Second World War, comparing them with the First.

LECTURE 2 – PSYCHIATRY: THE NHS AND BEYOND

We begin the second lecture with the founding of the National Health Service, and its impact for psychiatry in the twentieth century. We shall see how a pharmacological revolution kick-started another raft of changes, this time around drugs known as 'anti-psychotics'. One of the most important pieces of legislation in mental healthcare in Britain is the Mental Health Act 1959 (and the Royal Commission that preceded it). We shall also touch on how clinical psychology in Britain was a significant influence – when North American psychiatry was hugely dominated by Freudians, a much more eclectic picture emerges in the UK. We shall again attempt to see how psychiatry seeps beyond its narrow institutional and disciplinary boundaries, this time through the vehicle of psychiatric social work. The opposing poles of medicine and the law constantly recur in the history of psychiatry, and we will discuss a range of mental health legislation: 1959, 1983, 2007. We will also look at one of the most iconic psychiatric drugs of modern times – Prozac – and a great rise in recorded mental health conditions. Finally we consider the (re-)emergence of 'service user' voices in treatment, in activism, and across medicine more generally, and conclude by talking about 'parity of esteem' between mental and physical health.

Psychiatry Reading List

Mental Health Policy in Britain Rogers & Pilgrim (2nd ed)

Madness: A Brief History Roy Porter

Madness: A Very Short Introduction Andrew Scull (OUP, 2011)

Madness in Civilisation Andrew Scull (Thames and Hudson, 2015)

Mad, Bad and Sad: A History of Women and the Mind Doctors from 1800 to the Present Lisa Appignanesi (London, 2008)

From the Age of the Asylum to the Age of Prozac Edward Shorter (London, 1996)

The Female Malady: Women, Madness and English Culture: 1830-1980 Elaine Showalter (New York, 1985)

Our Necessary Shadow: The Nature and Meaning of Psychiatry Tom Burns (London, 2014)

The Quest for Mental Health: A Tale of Science, Medicine, Scandal, Sorrow, and Mass Society Ian Dowbiggin (Cambridge, 2011)

Destigmatizing Mental Illness? Professional Politics and Public Education in Britain 1870-1970 Vicky Long (Manchester, 2014)

Medicine, Madness and Social History Essays in Honour of Roy Porter Roberta Bivins & John Pickstone (eds) (Basingstoke, 2007)

For the patient's perspective, mentioned in the lecture

Psyche on the Skin: A History of Self-Harm Sarah Chaney (London, 2017)

The Last Asylum: A Memoir of Madness in our time Barbara Taylor (London, 2015)

PATIENT VOICES

Jessica Meyer

In this lecture I will examine some of the spaces in which modern medical historians, particularly historians of military medicine, might locate the patient voice. These spaces include private papers or ego documents, medical institutions and departments of state. I will consider some of the challenges that such sources may pose to the historian, including questions of representativeness, performativity and historical ethics. Finally, I will discuss the benefits of using patient voice both for our greater insight into the past, and also for how we understand and interact with medical care giving in the present.

Further Reading:

Armstrong, David, 'The Patient's View', *Social Science and Medicine* 18:9 (1984): 737–44.

Armstrong, David, 'Actors, Patients and Agency: A Recent History', *Sociology of Health and Illness* 36:2 (2014): 163–74.

Bacopoulous-Viau, Alexandra and Aude Fauvel, 'The Patient's Turn: Roy Porter and Psychiatry's Tales, Thirty Years On', *Medical History* 60:1 (2016): 1-18.

Beier, Lucinda McCray, *Sufferers and Healers: The Experience of Illness in Seventeenth-Century England,* Abingdon: Routledge, 1987.

Condrau, Florian, 'The Patient's View Meets the Clinical Gaze', *Social History of Medicine* 20:3 (2007): 525-40.

Cooter, Roger, 'Medicine and the Goodness of War', *Canadian Bulletin of Medical History* 7:2 (1990): 147-59.

Davis, K. 'Silent and Censured Travellers? Patients' Narratives and Patients' Voices: Perspectives in the History of Mental Illness since 1948', *Social History of Medicine* 14:2 (2001), 267–92.

Digby, Anne, *Making a Medical Living: Doctors and Patients in the Market for Medicine, 1720–1911*, Cambridge: Cambridge University Press, 1994.

Hanley, Anne and Jessica Meyer, *Patient Voices in Britain, 1840-1948*, Manchester: Manchester University Press, 2021.

Two chapters are available OA:

Michael Worboys, 'The non-patient's view'.

https://library.oapen.org/bitstream/handle/20.500.12657/50924/1/9781526154897_ch1.pdf

Jessica Meyer and Alexia Moncrieff, 'Family not to be informed? The ethical use of historical medical documentation'.

www.manchesterhive.com/view/9781526154897/9781526154897.00011.xml

Howell, Joel D., *Technology in the Hospital: Transforming Patient Care in the Early Twentieth Century*, Baltimore: Johns Hopkins University Press, 1995.

Marland, Hilary, *Medicine and Society in Wakefield and Huddersfield 1780–1870*, Cambridge: Cambridge University Press, 1987.

McVaugh, M.R., *Medicine Before the Plague: Practitioners and their Patients in the Crown of Aragon, 1285–1345,* Cambridge: Cambridge University Press, 1993.

Millard, Chris, ‘Using personal experience in the academic medical humanities: a genealogy, *Social Theory & Health* (2019): 1–15.

Molds, Alex, *Making the Consumer Patient: Patient Organisations and Health Consumerism in Britain*, Manchester: Manchester University Press, 2015.

Pickstone, J.V., *Medicine and Industrial Society: A History of Hospital Development in Manchester and its Region, 1752–1946*, Manchester: Manchester University Press, 1985.

Porter, Roy, *A Social History of Madness: The World Through the Eyes of the Insane*, Weidenfeld & Nicolson, 1987.

Porter, Roy (ed.), *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Industrial Society*, Cambridge: Cambridge University Press, 1986.

Porter, Roy, ‘The Patient’s View: Doing Medical History from Below’, *Theory and Society* 14:2 (1985): 175-198.

Reid, Fiona, *Medicine in First World War Europe: Soldiers, Medics, Pacifists*, London: Bloomsbury, 2017.

Reinarz, Jonathan and Rebecca Wynter, *Complaints, Controversies and Grievances in Medicine: Historical and Social Science Perspectives*, Abingdon: Routledge, 2015.

Risse, G.B., *Mending Bodies, Saving Souls: A History of Hospitals*, Oxford: Oxford University Press, 1999.

Stolberg, M., *Experiencing Illness and the Sick Body in Early Modern Europe*, Basingstoke: Palgrave, 2011.

Woods, Angela, ‘The limits of narrative: provocations for the medical humanities’, *Medical Humanities* 37:2 (2011): 73-78.

HEALING UNDER FIRE: THE DEVELOPMENT OF MILITARY MEDICINE

Jack Davies

This lecture examines the development of British military medicine from the Crimean War (1853 – 1856) to the Second World War (1939 – 1945). It draws from the Science Museum's collections to tell stories of medical innovation during The Crimean War, The Second Boer War, and The First and Second World Wars and the impact that these developments had on soldier's lives.

Further reading

- War Medicine and Modernity edited by R Cooter, M Harrison and S Sturdy, Sutton Publishing UK, 1998
- ·War and medicine/ The Wellcome Trust,
- The medical war: British military medicine in the First World War / by Mark Harrison.
- Fighting fit: health, medicine and war in the twentieth century / Kevin Brown.
- Medics at war: military medicine from colonial times to the 21st century / John T. Greenwood, F. Clifton Berry, Jr. John T Greenwood
- *Angels and Citizens: British Women as Military Nurses, 1854-1914*/ Anne Summers (London: Routledge, 1988)
- *Wounded: A New History of the Western Front in World War I* / Emily Mayhew (Oxford: OUP, 2016)

THE BRAIN AND ITS CONNECTIONS

Andrew Larner

The history of neuroscience may date from antiquity (Hippocrates, Herophilus, Galen) but this lecture will focus on developments from the seventeenth century onwards, looking at selected countries (mostly Great Britain) and times, and will be oriented particularly toward clinical rather than laboratory advances, in particular the development of the knowledge base of neurological disorders which has underpinned the specialty of neurology since the mid-nineteenth century. Topics to be covered, time allowing, may include:

Early history

Thomas Willis (1621-75): the anatomy of the brain; the term 'neurology'.

Nineteenth century

1817: James Parkinson and his disease.

1860s onwards:

Jean-Martin Charcot: *methode anatomo-clinique*; Salpetriere Hospital, Paris

Queen Square, London: professionalization of neurology: Gowers, Hughlings Jackson

Clinical localization: Broca, Wernicke

Twentieth century

Golgi: staining technique for examination of nerves

Ramon y Cajal: microscopical anatomy of the nervous system

Clinical localization: war wounds to map visual cortex, cerebellar function (Gordon Holmes); surgical mishap pinpointing role of hippocampus in memory function (HM).

Neuropathology: Alzheimer, neurofibrillary tangles

Neurophysiology: EEG (Caton, Berger)

Neurochemistry: dopamine depletion in Parkinson's disease brain; acetylcholine depletion in Alzheimer's disease brain.

Neuroimaging

Neuroimmunology: multiple sclerosis, myasthenia

Neurogenetics: Huntington's disease, Alzheimer's disease, neuropathies, myopathies

Neurorehabilitation

Treatment: Initially empirical but gradual development of medications targeted to disease pathogenesis: antiepileptic drugs, drugs for Parkinson's disease, Alzheimer's disease.

Growth of specialty: dedicated neurologists, neuroscience centres

Reading List

Suggested Reading

Bennett MR, Hacker PMS. *History of cognitive neuroscience*. Chichester: Wiley-Blackwell, 2008: 199-236

Cobb M. *The idea of the brain. A history*. London: Profile Books, 2020

Glickstein M. *Neuroscience: a historical introduction*. Cambridge, Mass: MIT Press, 2014

Further Reading

Hughes JT. *Thomas Willis 1621-1675. His life and work*. London: Royal Society of Medicine Services, 1991.

Clarke E, Jacyna LS. *Nineteenth-century origins of neuroscientific concepts*. Berkeley: University of California Press, 1987Goetz CG.

Bonduelle M, Gelfand T. *Charcot. Constructing neurology*. Oxford: Oxford University Press, 1995.

Rose FC (ed.). *A short history of neurology. The British contribution 1660-1910*. Oxford: Butterworth-Heinemann, 1999.

Zimmer C. *Soul made flesh. The discovery of the brain and the way it changed the world*. London: Heinemann, 2004.

Critchley M, Critchley EA. *John Hughlings Jackson. Father of English neurology*. Oxford: Oxford University Press, 1998.

MEDICAL GENETICS: A BRIEF HISTORY

Huw Dorkins

Definitions:

Medical Genetics: science of human biological variation as it relates to health and disease

Clinical Genetics: that part of medical genetics concerned with health of individual humans and their families.

The lecture provides a broad overview around three key dates:

1865 – Mendel's work published

1953 – Watson and Crick discover structure of DNA

1956 – Tijo and Levan publish the correct number of human chromosomes.

Topics covered include

Pre-1956 – Mendelism, Cytogenetics, Biochemical genetics, Immunogenetics and Statistical, Formal and Population genetics.

Post 1956 – Convergence of the above strands and the emergence of specific methodologies: Chromosomology, Somatic cell genetics and Molecular genetics. Later, these were joined with Gene transfer/knockout technologies, Bioinformatics and Array technologies.

Further reading

McKusick VA History of Medical Genetics in: Rimoin et al., *Emery and Rimoin's Principles and Practice of Medical Genetics* 5e. Elsevier 2007.

Harper PS *A Short History of Medical Genetics* (Oxford Monographs on Medical Genetics 57). OUP 2008.

Emery AEH and Emery MLH *The History of a Genetic Disease: Duchenne Muscular Dystrophy or Meryon's Disease* 2e, Oxford: OUP 2011

Harper PS *Landmarks in medical genetics: Classic papers with commentaries* (Oxford Monographs on Medical Genetics 51). OUP 2004.

Harper PS The evolution of medical genetics: a British perspective. Boca Raton: CRC Press, Taylor and Francis 2020.

VETERINARY SURGEONS AND HUMAN DOCTORS - TWO LINKS IN THE CHAIN OF MEDICINE

Gareth Clayton Jones

Most people will be aware of the veterinary profession and will have had some contact either for their pets, horses or farm animals. However by the 21st century the profession has developed a far wider influence on society. Before the 18th century it is difficult to distinguish between those persons working with animal disease and those treating people.

In early civilisations, doctors who treated animals are mentioned in Egyptian Papyri, on Clay tablets in Mesopotamia and early Indian and Chinese manuscripts. Distinctions between human and veterinary medicine seem quite blurred, as often the same people who treated all. Animal dissection was practiced in Greece and Rome as well as Arabia, and Comparative Anatomy and Physiology gained importance through such as Galen. From about the 12th century, Guilds of Farriers in European countries began to control those who shod horses and became a natural group to treat other equine and farm animal problems, but having little theoretical basis or training in anatomy and medicine.

By the 18th century a number of Doctors and Surgeons turned their attentions to animals rather than man (possibly for economic reasons) and wrote many veterinary books - frequently termed 'farrieries'. This probably stimulated the development of a profession of persons who actually knew about animals, their diseases and management who had some sort of scientific background.

The development of veterinary medicine and its teaching has numerous similarities to the evolution of human medical education. John Hunter used animal preparations at his medical school. The 18th century sees the first veterinary colleges begin in Europe and the UK, often with Doctors as both examiners and teachers. Contemporaneous with the Apothecaries Company Act, full registration and examination of Veterinary Surgeons as an independent profession in Britain occurred by the mid-19th century.

The professions then appear to have developed along their own routes until the work of Pasteur and Koch exemplified the full significance of the close relationship between Animal and Human disease. Since that time vets have made important advances in Health, such as in TB, Anthrax, Trypanosomiasis and more recently virology and Ebola. The use of animals in medical research has been improved through veterinary involvement in medicine, surgery, pathology and pharmacology as well as supervising all aspects of animal welfare.

More recently the development of an international concept of 'One Health' includes human medicine and veterinary medicine together with the environment, wildlife, nutrition, and sociology. All these professions now participate equally in the maintenance of life and good health.

READING MATERIAL

Available at libraries: Wellcome, Royal College of Veterinary Surgeons, Royal Veterinary College, all in London.

The Early History of Veterinary Literature (4 Vols) Sir Frederick Smith. Reprinted 1976 - Originally articles in J Comp Path 1912 to 1918. A very comprehensive review and analysis of the literature, mainly covering English authors in later volumes; Vol 1 covers many of the known works from earliest times until 1700.

Veterinary History: An illustrated encyclopaedia. Dunlop and Williams. 1996. A modern text of worldwide coverage with many illustrations

The British Veterinary Profession 1791 – 1848. Iain Pattison 1984 (Also various other veterinary biographies) All his books are well written

The Royal Veterinary College London, A Bicentenary History, E. Cotchin 1990

Veterinary Science: A Very Short Introduction by James Yeates, OUP 2018.

Many texts and articles available by searching on Google.

For information on the Veterinary History Society https://www.veterinaryhistorysociety.org.uk/

ANIMAL AND HUMAN HEALTH

Alison Skipper

Synopsis

In medical thought today, animals usually appear in a limited number of roles: as the source of zoonotic disease, as a cause of antimicrobial resistance; as laboratory models; or as novelties, perhaps on TV vet shows. But these marginalised categories arise from, and reinforce, the modern anthropocentric view of medicine, which the recent 'One Health' movement seeks to challenge. It was not always so.

This lecture offers a brief tour through the common history of human and animal health. The first part gives an overview of the many overlaps and entanglements between them during the last two hundred years. It shows that acknowledging the animals achieves a fuller understanding of medical history than an approach which overlooks their significance in the past. I then demonstrate the continuity between human and animal health through an example from my own research, discussing the practical and laboratory investigation of canine retinal disease, and showing how this work has repeatedly crossed the borders between canine and human medicine.

Reading suggestions

a) Books

Abigail Woods, Michael Bresalier, Angela Cassidy and Rachel Mason Dentinger

Animals and the Shaping of Modern Medicine: One Health and Its Histories (Palgrave MacMillan, 2018)

OPEN ACCESS (Wellcome Trust funded) and therefore available for free download (also a print version). 'Puts the animals back into medical history' through a series of surprising and varied global case studies (tapeworms, zoo medicine, sheep …). The introduction to this book is the basis for the discussion held on the course day.

https://link.springer.com/book/10.1007/978-3-319-64337-3

Angela Cassidy

Vermin, Victims and Disease: British Debates over Tuberculosis and Badgers (Palgrave MacMillan, 2019)

OPEN ACCESS (Wellcome Trust funded) and therefore available for free download (also a print version). Detailed case study of the recent biopolitical history of a economically significant zoonotic disease.

Michael Worboys and Neil Pemberton

Rabies in Britain: Dogs, Disease and Culture, 1830-2000 (Palgrave MacMillan, 2012)

Social history of another, very different zoonosis; very readable.

Susan Jones

Death in a Small Package: A Short History of Anthrax (John Hopkins University Press, 2010)

Biography of the bacillus, covering the whole globe over a very long time period.

b) Articles/book chapters

Robert Kirk and Michael Worboys

'Medicine and Species: One Medicine, One History?' In *The Oxford Handbook of the History of Medicine*, ed. Mark Jackson (OUP, 2011), 561-577.

Short essay that offers a thoughtful overview of the historiography of animal health (albeit ten years ago)

Abigail Woods

'Between Human and Veterinary Medicine: The History of Animals and Surgery' In *The Palgrave Handbook of the History of Surgery*, ed. T.Schlich (Palgrave, 2018), 115-131.

Overview that does exactly what the title says!

Daniel P. Todes

'Pavlov's Physiology Factory'

Isis 88 (1997) 205-246

Classic account of Pavlov's dog work, which considers how dogs shaped, and were shaped by, his laboratory practices. Available through JSTOR.

Michael Bresalier and Michael Worboys

'"Saving the Lives of our Dogs": the development of canine distemper vaccine in interwar Britain'

The British Journal for the History of Science 47 (2014), 305-334

Readable account of publicly-funded major advance in virology that targeted animal, not human, health.

Anne Hardy

'Animals, disease and man: making connections'

Perspectives in Biology and Medicine 46 (2003), 200-215 (pdf readily available online)

Overview of the historical elucidation of zoonotic disease and its marginalisation.

Many of these scholars have many other publications on the history of animal health - particularly Hardy, Kirk, Jones, Woods and Worboys.

"A great rage for mahogany, varnish and expensive floor-cloth": London pharmacy shops.

Briony Hudson

With a shop on every high street, apothecaries and pharmacists have always been one of the most visible health practitioners. The businesses themselves have also left us with a wide range of fascinating objects from carboys to specie jars, drug runs to dispensing signs. In this broadly chronological talk, Briony will share some of the many stories that these shops, their contents and their owners can tell, taking us from the earliest apothecaries to the foundation of a national professional body. She will also explore the issues bound up in this focus on the shop across the centuries and the tensions between trade and altruism this has raised both within the pharmacy profession and beyond.

Further reading:

- Anderson, S.C. 'Community Pharmacy and Public Health in Great Britain 1936 to 2006: How a Phoenix Rose from the Ashes', *Journal of Epidemiology and Community Health*, (2007) 61; 844- 848. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2652958/pdf/844.pdf
- Anderson, S.C. 'From 'Bespoke' to 'Off-the-Peg': Community Pharmacists and the Retailing of Medicines in Great Britain 1900 to 1970', *Pharmacy in History*, (2008), 50(2); 43-69. https://www.jstor.org/stable/41112388?seq=1#page_scan_tab_contents
- Burnby, J.G.L. 'English Apothecaries and Probate Inventories' *Pharmaceutical Historian* (1997) 27.4, 49-59
- Burnby, J. G.L. 'Pharmacy in the mid-19th century' *Pharmaceutical Historian (*1992) 22.2.,5
- Crellin, J.K. 'Notes on soaps, Victorian pharmacies and customer service' *Pharmaceutical Historian* 2012, 42(3), 52-3
- Crellin, J.K. and Scott*, J.R. Glass and British Pharmacy 1600-1900. A Survey and Guide to the Wellcome Collection of British Glass* (London: Wellcome Institute of the History of Medicine, 1972)
- Crellin, J.K. 'Pharmacies as General Stores in the 19th century' *Pharmaceutical Historian* (1979) 9.1, 5-6
- Curth, Louise Hill (ed) *From physick to pharmacology. Five hundred years of British Drug retailing* (Aldershot: Ashgate, 2006), especially chapters:
  - Wallis, P. 'Apothecaries and Medicines in Early Modern London'
  - Marland, H. 'The 'Doctor's Shop': The Rise of the Chemist and Druggist in Nineteenth-century manufacturing districts
- Homan, P. 'Auxiliary trades: added income for the pharmacy' *Pharmaceutical Historian (*2014) 44(2), 32-34
- Homan, P. 'The development of community pharmacy' in Anderson, S.C. (ed) *Making Medicines* (London:Pharmaceutical Press, 2005)
- Matthews, L.G. *Antiques of the Pharmacy* (London: Bell, 1971)
- Wallis, P. 'Consumption, Retailing and Medicine in Early-Modern London.' *Economic History Review* 61(1) 2008, 26-53

DRUGS IN THE (LONG) TWENTIETH CENTURY c. 1860- c. 2010

Professor Tilli Tansey

This is a brief review of the development of medicinal therapies from the end of the nineteenth century to the beginning of the twenty-first century. The geographical focus will be Western Europe and North America.

It will include a brief examination of the growth and development of the pharmaceutical industry, the campaigns for legislation and standardisation of medicinal products, the changing patterns of human diseases, modes of drug discovery and development, aspects of drug marketing, and the inter-relationships of health policy and health care systems with pharmaceutical advances.

The lecture will be structured around four main themes.

Biological therapies: revolutionary new ideas such as the Germ Theory at the end of the nineteenth century stimulated the production of serum anti-toxins and vaccines against a number of infectious diseases. These 'biological' therapies, derived from animals rather than plants or chemicals, were a significant new departure from medicines. Greater understanding of animal physiology led to the discovery, shortly after the First World War, of insulin. This was the first hormone available commercially on a large scale.

Endogenous mediators: work in animal physiology also began to elucidate the normal mechanisms of control of living processes, both in normal physiology and abnormal pathology. These included neurotransmitters and hormones, and the therapeutic significance of manipulating such mechanisms was not lost on medical researchers and pharmaceutical companies. After the Second World War, greater knowledge of the cellular and molecular modes of action of these chemicals led to rational drug design – the deliberate creation of a molecule to affect a particular cellular target or receptor site. The first successful drugs developed in this way were the beta-blockers.

Standards and legislation: from the latter part of the nineteenth century there was concern among professional pharmacists and members of the medical profession at the quality and safety of remedies sold by quacks and unscrupulous vendors. The impact of new biological therapies and the problem that they could not be tested chemically for contamination compounded such concerns. Partial legislation was enacted in the USA in 1902 with the **Biologics Control Act** (regulating vaccines and sera) and in 1906 with the Food and Drugs Act. It was not until 1926 that limited legislation came into effect in the UK: the Therapeutic Substances Act that applied to sera, vaccines, Salvarsan and some hormone preparations. Updates of this Act or specific legislation under the Penicillin Acts continued until 1968 when, in the aftermath of the thalidomide tragedy, the Medicines Act became law. This remains the basis of contemporary legislation.

Pharmaceutical industry: the development of large-scale industrial concerns is traced from the German chemical industry in the mid-nineteenth century to the present day multi-national corporations, with examples taken from well-known companies. The increasingly varied uses of, and markets for, drugs (.. for symptomatic relief; disease prevention; cure; or enhancement of natural function) will be considered, as will the impact of new and emerging diseases (such as TB, AIDS, malaria and diseases of affluence and degeneration) at the beginning of the twenty first century.

For general reading

Crellin, JK (2004). A *social history of medicines in the twentieth century: to be taken three times a day* PPP.

Liebenau, J, Higby, GJ and Stroud, EC (eds) (1990). *Pill Peddlers:* Essays *on the History of the Pharmaceutical Industry,* American Institute of the History of Pharmacy, Wisconsin.

Marks, H (1997). *The progress of experiment: science and therapeutic reform in the United States, 1900-1990.* Cambridge University Press.

Sneader, W (1985) *Drug discovery: the evolution of modern medicines Wiley* Re-issued as *Drug discovery: a history* (2005) John Wiley.

Tansey, EM. (1995*) Pills, profits and propriety: the early pharmaceutical industry in Britain: The 1995 Foundation lecture Pharmaceutical Historian* 25:3-8.

Weatherall, M (1990*) In search of a cure: a history of pharmaceutical discovery* Oxford University Press.

More specialised accounts

Bliss, M. (1982) *The story of insulin,* University of Chicago Press.

Bud, R (2007). ***Penicillin: triumph and tragedy,* O**UP.

Church, RA and Tansey, EM (2007). *Burroughs Wellcome & Co: Knowledge, trust, profit and the transformation of the British pharmaceutical industry 1880-1940*. Crucible Books.

Galambos, L and Sewell, J.E. (1995) *Networks of innovation: vaccine development at Merck*, *Sharp & Dohme, and Mulford, 1895-1995* Cambridge Universiyt Press.

Gijswijt-Hofstra, M, Van Heteren, GM and Tansey, EM. (2002). *Biographies of Remedies: Drugs, medicines and contraceptives in Dutch and Anglo- American healing cultures*. Rodopi, Amsterdam.

Homan, PG, Hudson, B and Rowe, RC (2007). *Popular medicines: an illustrated history*. Pharmaceutical Press.

The *James Lind Library '*has been created to introduce people to the characteristics of fair tests of treatments in health care' and includes examples over many centuries, including some modern drug trials. It can be found at: *http://www.jameslindlibrary.org/*

Stephens, T and Brynner, R (2001). *Dark remedy: the impact of thalidomide and its revival as a vital medicine.* Perseus.

Vos, R (1991). *Drugs looking for diseases: innovative drug research and the development of the beta blockers and the calcium antagonists*. London.

General accounts of the period, which include some discussion of drugs and their development

Le Fanu, James (1999). *The rise and fall of modern medicine Little,* Brown & Co.

Lock, S (1997). *Medicine in the second half of the twentieth century, In Western medicine*: *An illustrated history* ed. Irvine Loudon, Oxford University Press, Oxford, pp 123-144.

Rivett, G (1998). *From cradle to grave: fifty years of the NHS Kings Fund*. Some of these chapters are also available at *http://www.nhshistory.net/*

Tansey, EM. (1997) *From the germ theory to 1945. In Western medicine.* An illustrated history, ed Irvine Loudon, Oxford University Press, Oxford pp 102-122.

APOTHECARIES' HALL AND ITS ARCHIVE

John Ford

The Society of Apothecaries is fortunate that it keeps its Archive at the Hall. The Great Fire of 1666 started on the Sunday evening of 2 September and took to the Tuesday of that week to reach Blackfriars which gave sufficient time for the Archive, pictures and some furniture to be removed to a place of safety. We therefore have a complete record of the activities of the Society from its founding in 1617. Microfilms of some of the registers are accessible at the Guildhall Library.

The holdings are of national and international importance in several fields. Firstly, there are the Society's administrative, legal and financial records, its charitable giving and its relationship with the City of London. From 1815 until 2003 the Society was a medical licensing body and as such was important in the history of the development of the medical profession. Drugs were manufactured initially for the use of the members and their apprentices and eventually this developed into a pharmaceutical operation which supplied drugs wholesale to the Army, Navy and the East India Company and retail to our own shop. From the beginning members have been influential in the history of botany which was furthered by our tenure of the Chelsea Physic Garden from 1673 to 1899. These rich holdings are available by appointment for research (archivist@apothecaries.org) which is overseen by members of the Friends of the Archive who can provide guidance through the collection. Course participants can learn more about the Society's history and archives during the tours offered on the History of Medicine Course.

For further information on the history and activities of the Society of Apothecaries

C. R. B. Barrett, *The History of the Society of Apothecaries of London* (London: Eliot Stock, 1905).

Juanita Burnby, *A Study of the English Apothecary from 1660 to 1760,* Medical History Supplement

No. 3 (London: Wellcome Institute for the History of Medicine, 1983).

Penelope Hunting, *A History of the Society of Apothecaries* (London: Society of Apothecaries, 1998).

Sue Minter, The Apothecaries' Garden: *A History of the Chelsea Physic Garden* (Stroud: Sutton Publishing, 2003).

Anna Simmons, "Trade, Knowledge and Networks: the activities of the Society of Apothecaries and its members in London, c. 1670-c. 1800," *British Journal for the History of Science*, June 2019, 52 (2), 273-296.

Anna Simmons, "Medicines, Monopolies and Mortars: The chemical laboratory and the pharmaceutical trade at the Society of Apothecaries in the eighteenth century," *Ambix,* 53 (2006): 221-36.

Anna Simmons, "Stills, Status, Stocks and Science: The laboratories at Apothecaries' Hall in the nineteenth century," Ambix, 61 (2014): 141-61.

Anna Simmons, "Wholesale Pharmaceutical Manufacturing in London, c.1760 - c.1840: Sites, Production and Networks," in Lissa Roberts and Simon Werrett, eds., *Compound Histories: Materials, Production, and Governance, 1760-1840* (Leiden: Brill, 2017), 289-310. The article is available free online at https://brill.com/view/book/edcoll/9789004325562/B9789004325562_014.xml

E. A. Underwood, ed., Cecil Wall and H. C. Cameron, *A History of the Worshipful Society of Apothecaries of London, vol. 1, 1617-1815* (London: Oxford University Press, 1963).

WESTERN MEDICINE AND THE BRITISH EMPIRE

ANNA GREENWOOD

This lecture provides an introductory overview to key themes within the medical history of colonialism, particularly examining the implications of the inequitable power relations inherent in any colonial project and how these have specifically contributed to the development of health principles and policies. The lecture shows how western medical theories of disease and healing were 'tools' for empire building, and shaped ideas about colonial environments, populations, bodies, and racial differences in the imaginations of colonisers. Western medicine is revealed, however, not only as a means to secure colonial domination, but also as fundamentally limited as a successful mechanism for colonial social control. Although in some cases western medicine was welcomed, in many instances local populations fiercely resisted, or adaptively culturally appropriated, these western incursions. Although not concerned with pharmacy in the main, this broader context given in this talk will help listeners better understand the roll out of western pharmacy in colonial locations. Increasingly historians are acknowledging that this process was fraught with contestation.

Suggested Reading:

Stuart Anderson, *Pharmacy and Professionalization in the British Empire, 1780–1970*, Palgrave Macmillan, 2021.

David Arnold, 'Introduction: Tropical Medicine before Manson' in David Arnold (ed.), *Warm Climates and Western Medicine: The Emergence of Tropical Medicine, 1500-1900*, Rodopi, 1996, pp.1-19

Nandini Bhattacharya, N. (2016). Between the Bazaar and the Bench: Making of the Drugs Trade in Colonial India, ca. 1900–1930, *Bulletin of the History of Medicine*, 90 (1), 2016, pp.61-91.

Pratik Chakrabarti, *Medicine and Empire: 1600-1960*, Macmillan International Higher Education, 2013.

Mark Harrison, *Public Health in British India: Anglo Indian Preventative Medicine, 1859-1914*, Cambridge University Press, 1994.

Laurence Monnais, *The Colonial Life of Pharmaceuticals*. Cambridge University Press, 2019.

Deborah J. Neill, *Networks in Tropical Medicine: Internationalism, Colonialism and the Rise of a Medical Speciality, 1890-1930*, Stanford University Press, 2012.

Kavita Sivaramakrishnan, *Old potions, New Bottles*. Orient Longman, 2006.

Pharmacy and Colonialism: The British Experience 1620-1960

Stuart Anderson

This lecture explores the history of pharmacy and medicines in the colonial context. Empire building entailed the movement of people, the transport of goods, and the transfer of ideas. There is now a very large literature on colonial medicine much of which is relevant to pharmacy. The colonial drug trade has received much attention from historians, whilst the professionalization of pharmacy and the movement of pharmaceutical ideas have received much less.

The lecture presents three case studies highlighting different aspects of research in this area. The first relates to the British West Indies, illustrating the legacy of slavery on the development of pharmacy. Throughout the period of British rule, medicine supply and pharmacy legislation privileged European health over that of the Black population. Pharmacy in the West Indies remained largely undeveloped whilst under the control of Medical Boards until after independence. Legislation strengthened the position of British chemists and druggists in the medical market but left the local population with little access to effective medicines. The legacy of British colonialism in the West Indies was a delay of over half a century in the professionalization of pharmacy.

The second case study concerns pharmacy in the British Mediterranean colonies. Pharmacy in colonial settings had to respond to very different local circumstances. In Gibraltar pharmacy was shaped by its military origins and immigration from Europe. In Malta the professional development of pharmacy was more advanced than it was in Britain. The British response was to reverse the process to bring Maltese pharmacy into line with that in the metropole. In Cyprus the British inherited no organised pharmacy in the aftermath of the Ottoman Empire. British pharmacy regulations, education and practice could largely be introduced unhindered along British lines. Pharmacy in diverse colonial settings was shaped by their politics, economy, and history.

The third case study explores the status and use of pharmacopoeias in empires. In the late nineteenth century Britain's approach to their place in its Empire differed from that of the other European colonial powers. It "imperialized" its pharmacopoeia in order to make it "suitable for the whole empire", by consulting colonial practitioners and incorporating colonial items. Pharmacists and chemists were engaged on an advisory rather than collaborative basis. The final work was more a medical than pharmaceutical work, reflecting the marginal role of pharmacists in its preparation. It aimed to include all medicines routinely prescribed by doctors and dispensed by pharmacists. It was shaped by social, political, and economic factors in which trade interests played a dominant role.

The lecture concludes with reflections on some of the challenges and opportunities in researching pharmacy and colonialism. Challenges include identifying relevant records and seeking access to archives; access to pharmaceutical industry records is often difficult. The pharmacy profession has often been a 'silent voice', as few ordinary pharmacists kept diaries or other records. Addressing legacy issues such as land and property rights, cultural appropriation, and reparations present additional challenges. But the opportunities for further studies in this field are great. Many questions remain to be answered; about the supply and use of drugs; about pharmacists and their relations with doctors; and about the emergence of pharmacy organisations, education, and journals. Pharmacy and colonialism offers many exciting opportunities for further research.

Suggested reading:

Pratik Chakrabarti, *Medicine and Empire, 1600-1960,* Palgrave Macmillan, 2014.

Mark Harrison, *Medicine in an age of Commerce and Empire: Britain and its tropical colonies, 1660-1830,* Oxford University Press, 2010.

Mark Jenner and Patrick Wallis (eds), *Medicine and the Market in England and its Colonies, c.1450- c.1850,* Palgrave Macmillan, 2007.

Zachary Dorner, *Merchants of Medicines: The Commerce and Coercion of Health in Britain's Long Eighteenth Century,* University of Chicago Press, 2020.

Stuart Anderson, *Pharmacy and Professionalization in the British Empire, 1780-1970,* Palgrave Macmillan, 2021.

B. Bennett and J. Hodge, *Science and empire: knowledge and networks of science across the British Empire, 1800-1970,* Basingstoke: Palgrave Macmillan, 2011.

Biswamoy Pati and Mark Harrison (eds), *Health, Medicine and Empire: Perspectives on Colonial India,* New Delhi: Orient Longman, 2001.

Nandini Bhattacharya, *Disparate Remedies: Making Medicines in Modern India,* McGill-Queen's University Press, 2023.

Laurence Monnais, *The Colonial Life of Pharmaceuticals: Medicines and Modernity in Vietnam,* Cambridge University Press, 2019.

Anne Digby, Waltraud Ernst and Projit B. Mukharji (eds) *Crossing Colonial Historiographies: Histories of Colonial and Indigenous Medicines in Transnational Perspective*, Cambridge Scholars Publishing, 2007.

Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World,* Harvard University Press, 2007.

Abena Dove Osseo-Asare, *Bitter Roots: The Search for Healing Plants in Africa,* Chicago University Press, 2014.

EXPLORING THE SOCIETY OF APOTHECARIES' ARCHIVES

Anna Simmons

Meaning by derivation 'warehouseman' or 'storekeeper', apothecaries were originally aligned with pepperers and spicers in terms of products. Over time their specialised skills in buying, preparing and retailing drugs set them apart. By the late 14th century, the apothecaries' trade in London was controlled by the wealthy Grocers' Company. However following the foundation of the College of Physicians in 1518, increasingly the College sought control over the apothecaries as well. By the start of the 17th century, they were subject to the authority of these two disparate groups, but they had little power to regulate themselves and protect the integrity of their trade. Demands for self-governance started. Supported by Gideon de Laune and Theodore Turquet de Mayerne, respectively apothecary and physician to Anne of Denmark, Queen consort, and the College of Physicians, the Apothecaries formally separated from the Grocers' Company in 1617. Under the terms of the royal charter granted by James I, the new livery company was governed by a Court of Assistants. With a Master and Wardens at its head, the Court's initial composition reflected the strong links with the royal court and College of Physicians which lay behind the Society's formation.

This session will provide participants with the opportunity to explore some of the items held in the Society's archives, including the founding Charter, Court Minute Books, and a small selection of the many manuscripts, ledgers, minute books, plans, objects and letters which shed light on the institution's roles in medical education and the development of drug production in London. It will shed light on the role of the Royal Apothecary in the nineteenth century through the Embalming Notebook of John Nussey and a letter to his wife following the death of the King. Nussey began his career as Royal Apothecary with an appointment to the Household of Frederick, Duke of York and Albany, in 1825. He then became Apothecary to George IV, William IV and, on her accession to the throne, to Queen Victoria.

Selected reading

Penelope Hunting, *A History of the Society of Apothecaries* (London: Society of Apothecaries, 1998).

John T.M. Nussey, "Walker and Nussey – Royal Apothecaries, 1784-1860", *Medical History,* **14** (1970), pp. 81-9.
https://www.cambridge.org/core/services/aop-cambridge-core/content/view/8D44DB09CDDA9D7E5FD82C2BD4E103F4/S0025727300015167a.pdf/walker-and-nusseyroyal-apothecaries-17841860.pdf

Anna Simmons, "Wholesale Pharmaceutical Manufacturing in London, c.1760 - c.1840: Sites, Production and Networks," in Lissa Roberts and Simon Werrett, eds., *Compound Histories: Materials, Production, and Governance, 1760-1840* (Leiden: Brill, 2017), 289-310. The article is available free online at https://brill.com/view/book/edcoll/9789004325562/B9789004325562_014.xml

E. A. Underwood, ed., Cecil Wall and H. C. Cameron, *A History of the Worshipful Society of Apothecaries of London , vol. 1, 1617-1815* (London: Oxford University Press, 1963).

WOMEN IN MEDICINE IN THE GRAECO-ROMAN PERIOD

Professor Laurence Totelin (Cardiff University)

This lecture offers a broad survey of women in Greek and Roman medicine. Drawing upon a variety of sources, both literary (e.g. the works of the Hippocratic Corpus and Soranus) and material (e.g. ancient votives and funeral monuments), the lecture concentrates on three areas. First, it discusses several ancient conceptions of the female body, following the research of Helen King: the one-sex model, the two-sex model, and the sliding-scale model. Second, it examines how gynaecological and obstetric issues were treated in antiquity. Third, it explores the role of midwives in antiquity, and the ways in which they were commemorated. We will see that the expertise of women in matters of gynaecology and obstetrics was acknowledged in the ancient world, even though female healers were in competition with male physicians.

Selected Bibliography

Bradley, M., Leonard, V. and Totelin, L. (eds.) (2021), *Bodily Fluids in Antiquity*, Routledge.

Demand, N. (1994), *Birth, Death, and Motherhood in Classical Greece*, Baltimore.

Dean-Jones, L. (1992), *Women's Bodies in Classical Greek Science*, Oxford.

Flemming R. (2000), *Medicine and the Making of Roman Women: Gender, Nature, and Authority from Celsus to Galen*, Oxford.

Flemming, R. (2007), 'Women, Writing, and Medicine in the Classical World', *Classical Quarterly* 57, 257-279.

King, H. (1998), *Hippocrates' Woman: Reading the Female Body in Ancient Greece*, London.

King, H. (2013), *The One-Sex Body on Trial: The Classical and Early Modern Evidence*, Farnham.

Laes, C. (2010), 'The Educated Midwife in the Roman Empire. An Example of Differential Equations, in in M. Horstmanshoff and C. van Tilburg, *Hippocrates and Medical Education. Selected Papers read at the XIIth International Hippocrates Colloquium. Universiteit Leiden. 24-26 August 2005*, Leiden, 261-286.

Muir, S. and Totelin, L. (2013), 'Medicine and Disease', in Tulloch, J.H. (ed.), *A Cultural History of Women in Antiquity*, Oxford, 81-104.

Potter, P. (2010-2018), *Hippocrates.* Volumes IX-XI, Cambridge, Mass [these Loeb Classical Library volumes include translations of the key Hippocratic gynaecological texts].

Temkin, O. (1956), *Soranus' Gynecology*, Baltimore.

Totelin, L. (2020), 'Do no Harm: Phanostrate's Midwifery Practice', *Technai* 11, 129-143.

Mentioned in talk: Database of ancient magical gems: http://cbd.mfab.hu/

HISTORICAL RECIPE RESEARCH AND WOMEN'S ROLE IN HEALTHCARE IN THE SEVENTEENTH CENTURY

Dr Anne Stobart (Exeter University)

ABSTRACT

Limited detail is known of therapeutic approaches to self-help that were preferred in the household in the early modern period. And, although many medicinal recipe collections survive, we do not always know which recipes were actively used by women as lay household healthcare practitioners. I will consider these issues with evidence from recipe collections, accounts and letters in several households in the late seventeenth century. Some women determined household expenditure and resources which can help demonstrate the kinds of items that they obtained for use as medicines. These items can be compared with recipes in household collections. During this late seventeenth-century period, I show ways in which women maintained an active role in determining medical treatment both as household healthcare practitioners and as patients. I argue that the household practitioner-cum-patient could show differences in therapeutic outlook, whether providing direct treatment to household members or negotiating the nature of medical practitioner treatment. Women gained confidence in using a range of medicines and remedies though were increasingly criticised for their attempts to diagnose and treat illness.

REFERENCES

Albala, Ken. 2002. *Eating right in the Renaissance.* Berkeley: University of California Press.

Beier, Lucinda McCray. 1987. *Sufferers and healers: The experience of illness in seventeenth century England. London* and New York: Routledge and Kegan Paul.

Cabré, Montserrat. 2008. 'Women or healers? Household practices and the categories of health care in late medieval Iberia'. *Bulletin of the History of Medicine* 82:18-51.

Cavallo, Sandra. 2015. 'Invisible beds: health and the material culture of sleep'. In *Writing material culture history*, edited by Anne Gerritsen and Giorgio Riello, 143-149. London: Bloomsbury;

Cavallo, Sandra, and Tessa Storey. 2013. *Healthy living in late Renaissance Italy*. Oxford: Oxford University Press.

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Laroche, Rebecca. 2009. *Medical authority and Englishwomen's herbal texts, 1550-1650*. Farnham: Ashgate.

Leong, Elaine. 2018. *Recipes and everyday knowledge: Medicine, science and the household in early modern England*. Chicago: University of Chicago Press.

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Pennell, Sara. 2004. '"Perfecting practice": Women, manuscript recipes and knowledge in early modern England.' In *Early modern women's manuscript writings: Selected papers from the Trinity/Trent Colloquium*, edited by Victoria E. Burke and Jonathan Gibson, 237-55. Ashgate: Aldershot.

Rawcliffe, Carole. 2008. '"Delectable sightes and fragrant smelles": Gardens and health in late medieval and early modern England'. *Garden History* 36 (1):3-21.

Schofield, Roger and E. A. Wrigley, 'Infant and child mortality in England in the late Tudor and early Stuart period', in *Health, medicine and mortality in the sixteenth century*, ed. C. Webster (Cambridge: Cambridge University Press, 1979).

Shapin, Steven. 2014. '"You are what you eat": Historical changes in ideas about food and identity'. *Historical Research* 87 (237):377-392.

Smith, Lisa W. 2003. 'Reassessing the role of the family: women's medical care in eighteenth-century England.' *Social History of Medicine* 16 (3):327-342.

Smith, Lisa. 2006. 'The relative duties of a man: Domestic medicine in England and France, ca. 1685-1740', *Journal of Family History* 31(3): 237-256.

Stobart, Anne. 2016. *Household medicine in seventeenth-century England*. London: Bloomsbury Academic.

Strocchia, Sharon T. 2019. *Forgotten healers: Women and the pursuit of health in late Renaissance Italy*. Cambridge, MA: Harvard University Press.

Theophano, Janet. 2002. *Eat my words: Reading women's lives through the cookbooks they wrote*. New York: Palgrave Books.

Walker, Kim and Mark Nesbitt. 2019. *Just the tonic: A natural history of tonic water*. London: Kew.

Weisser, Olivia. 2013. 'Grieved and disordered: Gender and emotions in early modern patient narratives'. *Journal of Medieval and Early Modern Studies* 42 (2):247-273.

USEFUL WEB LINKS

Recipes Hypotheses Project. https://recipes.hypotheses.org/;

The Recipes Project, Series of blog posts on 'The Working of Herbs'
https://recipes.hypotheses.org/thematic-series/the-working-of-herbs

Society for the Study of Early Modern Women and Gender

https://ssemwg.org/links-and-resources/

THE CHANGING FACE OF MEDICAL PRACTICE? WOMEN IN HEALTHCARE AND MEDICINE, 1700 - 1950

Dr Sarah Chaney, Queen Mary University of London and Royal College of Nursing

In medical schools across most of the Western World today, female students outnumber men, yet a hundred years ago women made up less than 10% of doctors. In healthcare, by contrast, the gender balance has changed little over the past century: 89% of nurses and more than 99% of midwives in the UK are women. How can the history of women's (re)-entry to health and medicine in the 19th century help us to better understand the changes and continuities in the professions?

This talk explores women practitioners in health and medicine between 1700 and 1950 in three parts. First, I look at the role of women in the eighteenth century – largely, but not entirely confined to nursing and midwifery. I move on to advances made in the nineteenth century by a small group of elite women – Elizabeth Garrett Anderson and Florence Nightingale among them. These women – wittingly and unwittingly – also helped to erase from the record those who did not conform to their ideals of femininity, by way of race, class or non binary gender: people like Mary Seacole, Betsi Cadwaladr and James Barry.

Finally, I will explore the simultaneous broadening and specialisation of both nursing and medicine in the twentieth century, and the way in which these shifts continued to be underpinned by pre-existing attitudes about class, gender and race. I conclude by considering some of the lessons from this history for health and medicine today.

Suggested Reading

- Catriona Blake (1990) *The Charge of the Parasols: Women's Entry to the Medical Profession*, London: The Women's Press.
- Anne Borsay and Billie Hunter (2012) *Nursing and Midwifery in Britain Since 1700*, London: Palgrave Macmillan.
- Claire Brock (2017) *British Women Surgeons and their Patients, 1860 – 1918,* Cambridge: Cambridge University Press.
- Lawrence Conrad and Ann Hardy, ed. (2001) *Women and Modern Medicine*, Amsterdam; Atlanta: Rodopi.
- Vanessa Heggie (2015) "Women Doctors and Lady Nurses: Class, Education and the Professional Victorian Woman, *Bulletin of the Histor of Medicine,* 89: 267-292.
- Ellen S. More, Elizabeth Fee and Manon Parry, ed. (2009) *Women Physicians and the Cultures of Medicine*, Baltimore: Johns Hopkins University Press.

HOSPITALS IN HISTORY
Dr Helen Bynum -

Lecture Outline

What's in a name?
Hospital, hospitality, hostel, hospice, hotel

Antecedents of care beyond the home:
Temples, valetudinaria, bimaristans

Hospital medicine - beyond the bedside
Service, teaching, research

Paris hospital medicine in the age of revolution

The Hôtel Dieu

The new medical schools

The new curriculum: "medicine and surgery are two branches of the same science' externships and internships Bodies
Tangibles Tissues, Technology, Totting-up

Transformation?

Reading suggestions:

Bynum, W. F. (1994). *Science and the Practice of Medicine in the Nineteenth Century*. Cambridge University Press.

Hannaway, C., & La Berge, A. F., (2016). *Constructing Paris Medicine*. Clio Medica Vol. 50, https://brill.com/display/title/28310

Risse, G. B. (1999). *Mending Bodies, Saving Souls: A History of Hospitals*. Oxford University Press.

Weiner, D. B., & Sauter, M. J. (2003). The City of Paris and the Rise of Clinical Medicine. *Osiris*, *18*, 23–42. https://doi.org/10.1086/649375

THE DEVELOPMENT OF RADIOLOGY

Adrian MK Thomas

There had been significant advances in medicine during the 19th century with increase knowledge in medicine, surgery, bacteriology and chemical pathology. However our ability to look inside the body had shown little improvement and was limited to the probing finger or simple endoscopy. This was all to change in 1895 when Wilhelm Conrad Röntgen discovered the x-rays. Röntgen noted that when a current was passed across an evacuated glass bulb, a barium platinocyanide screen was seen to fluoresce. He at once realised the significance of this observation, and on the 28th of December 1895 his manuscript "*On a New Kind of Ray*" was submitted to the Würzburg Physical Medical Institute. The essential features of the x-rays were described and the new discovery aroused considerable interest and astonishment. The description of the ability to see through the body was greeted by many with incredulity and early accounts had to reassure the public that this was a serious discovery by a respected scientist.

Early radiology was technically difficult to perform, however the next few decades the equipment gradually improved. Initially image interpretation was also difficult and it took many years to decipher these often confusing shadows. Radiology was also not without risk, with injuries related to ionising radiation, electrical injuries and chemical injuries from processing the films and plates.

Radiology steadily progressed with the development of the modern X-ray tube, contrast medium, catheters and image intensification. Traditional radiology revolutionise medical care however investigations were often invasive and pathology was often shown indirectly.

Radiology has profoundly changed since what can be seen as the golden decade of the 1970s, starting with the announcement of CT scanning in 1972. Developments in CT scanning, ultrasound, nuclear medicine, MRI scanning, and finally interventional radiology has placed radiology in the forefront modern medicine. Modern radiology now allows for non-invasive diagnosis, and this has facilitated minimally invasive therapy. This story is exciting and interesting. In some respects, and in spite of all the dramatic advances, medicine in general, and radiology in particular, is now in one of its most challenging periods.

Reading

- *Invisible Light, The Remarkable Story of Radiology*. (2022) Thomas, Adrian. Boca Raton: CRC Press (Taylor and Francis Group). A fully referenced account of the development of radiology.
- *Classic Papers in Modern Diagnostic Radiology*. (2004) Adrian M K Thomas, Arpan K Banerjee & Uwe Busch. Berlin: Springer Verlag. The full texts of the classic papers that comprise modern radiology, with accompaning essays.
- *Godfrey Hounsfield: Intiuitive Genius of CT*. (2012) Bates S, Beckmann E, Thomas AMK, Waltham R. London: The British Institute of Radiology. The biography of the invento of the CT scanner.
- *Edith and Florence Stoney, Sisters in Radiology*. (2019) Thomas, Adrian., Duck, Francis. (Springer Biographies) Cham: Springer Nature Switzerland. The biographies of an early Anglo-Irish female radiologist and medical physicist.

Other more general sources:

- Illich, I. 1977. *Limits to Medicine. Medical Nemesis: The Expropriation of Health*. Harmondsworth: Penguin Books. Classic criticism of modern medicine.
- Coleman, V. 2006. *Coleman's Laws: The Twelve Medical Truths You Cannot Live Without*. Barnstaple: European Medical Journal. Critical views from a retired General Medical Practitioner.
- Le Fanu, J. 1999. *The Rise and Fall of Modern Medicine*. London: Little, Brown and Company (UK). A modern classic. Where is medicine heading?
- Streather, J. 2019. *Is Medicine Still Good for Us? A Primer for the 21st Century*. London: Thames & Hudson. Popular style but an interesting study.
- Pollard, S. 1971. *The Idea of Progress*. Harmondsworth: Pelican Books. What is progress?

CHINESE MEDICINE

Nancy Holroyde-Downing

Chinese traditional medicine has a long and extensive textual history, including aspects as varied as oracle bone inscriptions, illustrated exercise regimens, pharmacopoeia, theoretical treatises and case records. Though in Europe it has been primarily associated with acupuncture, it is a multi-faceted medicine, ranging from folk traditions and 'kitchen medicine' recipes to philosophical treatises and scholarly clinical practice.

This lecture will give an overview of what was happening in Imperial China's recorded medical practice (Han dynasty, 206BCE– 220CE, to end of the Qing dynasty (1644-1911), and the dynamic, if occasionally fractious, interface with western medicine since 1911.

We will also look at the transforming role of the healer in China as varying methods of practitioner training, shifts in societal position accorded to medical practitioners and the eventual interface with western medicine reconfigured 'Chinese Medicine'.

Suggested reading:

Andrews, Bridie. *The Making of Modern Chinese Medicine, 1850-1960.* 2014.

Barnes, Linda. *Needles, Herbs, Gods and Ghosts.* 2005.

Harpur, Donald. *Early Chinese Medical Literature*. 1998.

Hsu, Elisabeth. *Innovation in Chinese Medicine.* 2001.

Kaptchuk, Ted. *The Web that has no Weaver.* 1983.

Lo, Vivienne and Cullen, Christopher, eds. *Medieval Chinese Medicine.* 2005.

Scheid, Volker, *Currents of Tradition in Chinese Medicine, 1626-2006*. 2007.

Unschuld, Paul. *Medicine in China*. 1985

UNDERSTANDING, HARNESSING AND CONTROLLING IMMUNITY

Edward Wawrzynczak

Synopsis

The medical notion of immunity stemmed from a growing understanding of how the body resisted infectious disease. The scientific study of immunity – immunology – developed in the late 19th and early 20th centuries from the work of researchers who applied microbiology and bacteriology to the medical problems of the time. The three principal advances – the extension of the concept of vaccination beyond smallpox, the creation of antitoxins and development of serum therapy for the treatment and prophylaxis of bacterial infections, and the use of serological methods for diagnosis and research – impacted on many infectious diseases in the coming century. In the mid-20th century, a shift in immunological thinking brought a more complete knowledge of how the immune system works and led to advances in disparate fields of medicine, including tissue and organ transplantation, auto-immune disease, immunodeficiency, and cancer immunotherapy. The threat of emerging diseases underlines how vital understanding, harnessing and controlling immunity remains today.

Key topics

The concept of immunity – how it developed at the end of the 19th century, the role played by microbes, resistance to disease, and vaccine protection.

The discovery and development of antibodies – antitoxins specifically neutralising the toxins of pathogenic bacteria such as diphtheria and tetanus, and serum therapy of other deadly diseases.

Diphtheria – the disease problem, benefits and limitations of antitoxin, need for mass vaccination, diphtheria in the UK.

Serological tests – use as experimental tools, to diagnose infectious diseases, and to identify the human blood groups.

Theories of immunity – Metchnikoff's cellular immunity to infection, Ehrlich's side-chain theory of humoral immunity, and Burnet's clonal selection theory of antibody formation.

The distinction between self and non-self – how understanding the workings of immune cells explained transplant rejection, autoimmune diseases, immunodeficiency and cancer immunity.

The modern concept of immunity – the immune system, adaptive and innate immunity, contemporary views.

Key developments – vaccines, therapeutic antibodies and anti-body tests over the last century.

Immunity today – the challenge of emerging infectious diseases.

Suggested Reading

Introductions

Bynum, W.F. (2006) 'The Rise of Science in Medicine, 1850-1913.' In: Bynum, W.F., Hardy, A., Jacyna, S., Lawrence, C. & Tansey, E.M. (eds). *The Western Medical Tradition*, 1800-2000 (Cambridge: C.U.P.), pp. 111-239. – Bacteriology and immunology in the context of contemporary developments.

Moulin, A.M. (2003) 'The Defended Body'. In: Cooter, R. & Pickstone, J. (eds.) *Companion to Medicine in the Twentieth Century* (London: Routledge), pp. 385-398. – How the concept of immunity developed and its complications.

Porter, R. (1997) *The Greatest Benefit to Mankind* (New York: W.W. Norton), esp. Ch. XIV, 'From Pasteur to Penicillin', pp. 428-461. – Studies of immunity in the context of vaccines and bacteriology.

Histories

Silverstein, A.M. (2009) *A History of Immunology*, Second Edition. (Amsterdam: Academic Press/Elsevier). – General history focused on the conceptual development of the field to the 1960s.

Cruse, J.M. & Lewis, R.E. (2005) *Historical Atlas of Immunology* (Abingdon: Taylor & Francis). – Heavily-illustrated summaries of key concepts and advances to the 1990s.

Bibel, D.J. (1988) *Milestones in Immunology: A Historical Exploration* (Madison WI: Science Tech Publishers). – Extracts of milestone publications with explanatory commentaries.

Burnet F.M. (1976) *Immunology: Readings from Scientific American* (San Francisco CA: W.H. Freeman). – Collection of articles relating to immunology with additional introductions.

Collections

Kroker, K., Keelan, J. & Mazumdar, P.M.H. (eds). (2008) *Crafting Immunity: Working Histories of Clinical Immunology* (Aldershot: Ashgate). – The influence of clinical practices on the conception of immunity.

Gallagher, R.B., Gilder, J., Nossal, G.J.V. & Salvatore, G. (eds). (1995) *Immunology: The Making of a Modern Science* (London, Academic Press). – Researchers' biographical accounts of major discoveries in modern immunology.

Mazumdar, P.H. (ed.). (1989) *Immunology 1930-1980: Essays on the History of Immunology* (Toronto: Wall & Thompson). – Papers from a symposium on the history of immunology

More specialised histories

Kinch, M. (2018) *Between Hope and Fear: A History of Vaccines and Human Immunity* (New York NY, Pegasus Books). – A wide-ranging history of vaccine-preventable diseases.

Anderson, W. & Mackay, I.R. (2014) *Intolerant Bodies: A Short History of Autoimmunity* (Baltimore MD: Johns Hopkins University Press). – Origins of the concept of autoimmunity in the mid-twentieth century.

Hamilton, D. (2012) *A History of Organ Transplantation: Ancient Legends to Modern Practice* (Pittsburgh PA: University of Pittsburgh Press). – Comprehensive history including chapters on transplantation immunology set in context.

Jackson, M. (2006) *Allergy: The History of a Modern Malady* (London: Reaktion Books). – Examines multiple aspects – scientific, clinical and pharmaceutical – of allergy.

Colgrove, J. (2006) *State of Immunity: The Politics of Vaccination in Twentieth-Century America* (Berkeley CA: University of California Press). – Covers history of smallpox, diphtheria, polio, measles and pertussis vaccines.

Hammonds, E.M. (1999) *Childhood's Deadly Scourge: The Campaign to Control Diphtheria in New York City, 1880-1930* (Baltimore MD: Johns Hopkins University Press). – Story of mass childhood vaccination including background on diphtheria and antitoxin.

Selected biographies

Vikhanski, L. (2016) *Immunity: How Elie Metchnikoff Changed the Course of Modern Medicine* (Chicago IL: Chicago Review Press). – Well-researched biography of Metchnikoff and his relevance today.

Gradmann, C. (2009) *Laboratory Disease: Robert Koch's Medical Bacteriology* (Baltimore MD: Johns Hopkins University Press). – Covers Koch's life, his experimental work and the development of bacteriology.

Linton, D.S. (2005) *Emil von Behring: Infectious Disease, Immunology, Serum Therapy* (Philadelphia PA: American Philosophical Society). – Comprehensive English-language biography including translations of key papers.

Silverstein, A.M. (2002) *Paul Ehrlich's Receptor Immunology: The Magnificent Obsession* (San Diego CA, Academic Press). – Focused history and analysis of Ehrlich's work on immunity.

Dunnill, M. (2000) *The Plato of Praed Street: The Life and Times of Almroth Wright* (London: RSM Press). – Life and work of a colourful and controversial character.

Geison, G.L. (1995) *The Private Science of Louis Pasteur* (Princeton NJ: Princeton University Press). – Critical biography of Pasteur and his work in wider cultural context.

Autobiographies

Medawar, P. (1986) *Memoir of a Thinking Radish: An Autobiography* (Oxford: O.U.P.).

Burnet. M. (1968) *Changing Patterns: An Atypical Autobiography* (London: Heinemann).

Different perspectives

Hansen, B. (2009) *Picturing Medical Progress from Pasteur to Polio: A History of Mass Media Images and Popular Attitudes in America* (New Brunswick NJ: Rutgers University Press). – Highly illustrated study of medical advances as portrayed in the mass media.

Martin, E. (1994) *Flexible Bodies: The Role of Immunity in American Culture from the Days of Polio to the Age of AIDS* (Boston MA: Beacon Press). – An anthropologist's analysis of the public's understanding of health and immunity.

De Kruif, P. (1926) *Microbe Hunters* (New York: Blue Ribbon Books). – Racy, imaginative and inspiring popular account of the pioneers.

Popular science books

Dettmer, P. (2021) *Immune: A Journey into the Mysterious System That Keeps You Alive* (London: Hodder & Stoughton). – Beautifully illustrated exposition of the immune system.

Klenerman, P. (2017) *The Immune System: A Very Short Introduction* (Oxford: O.U.P.). – How the immune system works in health and disease.

Carver, C. (2017) *Immune: How Your Body Defends and Protects You* (London: Bloomsbury). – General and easily-digestible account of immunity.

Internet resources

The History of Vaccines https://historyofvaccines.org – Educational resource from The College of Physicians of Philadelphia.

Nature Milestones – Antibodies https://www.nature.com/milestones/mileantibodies/timeline/index.html – Interactive timeline of key antibody milestones from antitoxin to cancer immunotherapy.

Nobel Prizes and the Immune System https://www.nobelprize.org/prizes/uncategorized/nobel-prizes-and-the-immune-system/ – Some of the key advances recognised by the Nobel Prize in Physiology or Medicine.

A History of Immunology in 60 Objects https://www.immunology.org/days – Representations of seminal discoveries in immunological understanding and practice.

SCOTLAND'S CONTRIBUTION TO MEDICAL HISTORY

David Wright

Bibliography and some other resources

General Works on Scottish History

Devine, T. M., *The Scottish Nation* (London, Penguin Press, 1999)

Martin, M., *A Description of the Western Islands of Scotland circa 1695* (Edinburgh, Birlinn, 1999)

The Scottish Enlightenment

Daiches, D., Jones, P., et al., (eds), *The Scottish Enlightenment 1730-1790; A Hotbed of Genius* (Edinburgh, Edinburgh University Press, 1986)

Herman A *The Scottish Enlightenment; The Scots' Invention of the Modern World* (London, Fourth Estate, 2001)

The History of Scottish Medicine

Burnett, J., *The Scots in Sickness and Health* (National Museums of Scotland, 1997)

Collins, K., *Go and Learn. The International Story of Jews and Medicine in Scotland* (Aberdeen, Aberdeen University Press, 1988)

Comrie, J. D., *History of Scottish Medicine. Two Vols* (London, Baillière, Tyndall and Cox, 1932)

Dingwall, H. M., *A History of Scottish Medicine. Themes and Influences* (Edinburgh, Edinburgh University Press, 2003)

Dingwall, H. M., *Physicians, Surgeons and Apothecaries. Medical Practice in Seventeenth Century Edinburgh* (East Linton, Tuckwell Press, 1995)

Dingwall H, Hamilton, D, Macintyre I, McCrae M, Wright D *Scottish Medicine*, *An Illustrated History* (Edinburgh, Birlinn, 2011)

Guthrie, D. *A History of Medicine.* (London, Thomas Nelson and Sons, 1945)

Hamilton, D., *The Healers. A History of Medicine in Scotland* (Edinburgh, Canongate, 1981)

McCrae, M., *The National Health Service in Scotland. Origins and Ideals* (East Linton, Tuckwell Press, 2003)

MacLennan, W. T., 'Medieval Hospitals in Scotland: a cure for body or soul', *Journal of the Royal College of Physicians of Edinburgh* 22 (Suppl. 12) (2003), pp.36-41.

Some Classic texts

Baillie, M., *The Morbid Anatomy of Some of the Most Important Parts of the Human Body* (London, for Johnson and Nicol, 1793)

Buchan, W., *Domestic Medicine; or, the Family Physician: ... Chiefly Calculated to Recommend a Proper Attention to Regimen and Simple Medicines* (Edinburgh, Balfour, Auld and Smellie, 1769)

Buchan, W., *Domestic Medicine a Treatise on the Prevention and Cure of Diseases, by Regimen and Simple Medicines, with the Latest Corrections and Improvements* (Manchester, S. Johnson & Son, 1876)

Gordon, A., *Treatise on the Epidemic of Puerperal Fever of Aberdeen* (London, printed for G.G. and J. Robinson, 1795)

Lowe, Peter., *The Whole Course of Chirurgerie: Wherein is Briefly Set Downe the Causes, Signes, Prognostications & Curations of All Sorts of Tumors, Wounds, Vlcers, Fractures, Dislocations & all Other Diseases, Vsually Practiced by Chirurgions, According to the Opinion of All Our Ancient Doctours in Chirurgerie* (London, printed by Thomas Purfoot, 1597)

Watt, A., *The Glasgow bills of mortality for 1841 & 1842* (Glasgow, The Town Council, 1844)

Traditional medicine

Beith, M., *Healing Threads. Traditional Medicines of the Highlands and Islands* (Edinburgh, Polygon, 1995)

Buchan. D. (ed.), *Folk Tradition and Folk Medicine in Scotland. The Writings of David Rorie* (Edinburgh, Canongate Academic, 1994)

Carmichael, A., (ed.), *Carmina Gadelica. Hymns and Incantations Collected in the Highlands and Islands of Scotland in the Last Century* (Edinburgh, Floris Books, 2006)

Walker, A., *A Garden of Herbs. Traditional Uses of Herbs in Scotland* (Glendaruel, Argyll Publishing, 2004)

Institutions (Universities, Medical Schools and Medical and Surgical Colleges)

Blair, J. S. G., *History of Medicine in the University of St. Andrews* (Edinburgh, Scottish Academic Press, 1987)

Craig, W. S., *History of the Royal College of Physicians of Edinburgh* (Oxford, Blackwell Scientific Publications, 1976)

Dingwall, H. M., *A Famous and Flourishing Society. The History of the Royal College of Surgeons of Edinburgh, 1505-2005* (Edinburgh, Edinburgh University Press, 2005)

Geyer-Kordesch, J. and Macdonald, F, *Physicians and Surgeons in Glasgow. The History of the Royal College of Physicians and Surgeons of Glasgow 1599-1858* (Oxford, Clarendon Press, 1999)

Gibson, T., *The Royal College of Physicians and Surgeons of Glasgow* (Midlothian, Macdonald, 1983)

Gray, J., *History of the Royal Medical Society 1737-1937* (Edinburgh, Edinburgh University Press, 1952)

Jenkinson, J., *Scottish Medical Societies, 1731-1939: Their History and Records* (Edinburgh, Edinburgh University Press, 1993)

Macintyre, I. M. C. and MacLaren, I. (eds), *Surgeons' Lives: An Anthology of College Fellows over 500 years* (Edinburgh, Royal College of Surgeons of Edinburgh, 2005)

McCrae, M., *Physicians and Society. A Social History of the Royal College of Physicians of Edinburgh* (Edinburgh, John Donald, 2007)

Richardson R, *Death, Dissection and the Destitute: The Politics of the Corpse in Pre-Victorian Britain*. (Routledge, 1988)

Trohler, U. and Royal College of Physicians of Edinburgh, *"To improve the evidence of medicine": the 18th century British Origins of a Critical Approach*. (Edinburgh, Royal College of Physicians of Edinburgh, 2000)

Underwood, E. A., *Boerhaave's Men at Leyden and After* (Edinburgh, Edinburgh University Press, 1977)

Individuals of note

Bowman, A.K., *The Life and Teaching of Sir William Macewen* (Glasgow, William Hodge and Co, 1942)

Chalmers, J., *Andrew Duncan Senior. Physician of the Enlightenment* (Edinburgh, National Museums of Scotland Enterprises Ltd., 2010)

Godlee, R. J., *Lord Lister* (Oxford, Clarendon Press, 1924)

Gordon-Taylor, G. and Walls, E.W., *Sir Charles Bell: His Life and Times*. Edinburgh, Livingstone, 1958)

Leneman, L., *In the Service of Life: The Story of Elsie Inglis and the Scottish Women's Hospitals* (Edinburgh, Mercat Press, 1994)

McCrae, M., *Simpson. The Turbulent Life of a Medical Pioneer* (Edinburgh, Birlinn, 2010)

Manson-Bahr, P. E. C., *Patrick Manson. The Father of Tropical Medicine* London, Nelson, 1962)

Nye, E. R. and Gibson, M. E., *Ronald Ross: Malariologist and Polymath* (Basingstoke, Macmillan, 1997)

Richards, R. L., *Rae, John* (Toronto, University of Toronto Press)

Robertson, E., *Glasgow's Doctor: James Burn Russell* (East Linton, Tuckwell Press, 1998)

Rush C. and Shaw J.F., *With Sharp Compassion. Norman Dott, Freeman Surgeon of Edinburgh* (Aberdeen, Aberdeen University Press, 1990)

Hospitals

Catford, E.F., *The Royal Infirmary of Edinburgh 1929-1979*. (Edinburgh, Scottish Academic Press, 1984)

Eastwood, M. and Jenkinson, A., *A History of the Western General Hospital* (Edinburgh, John Donald, 1995))

Gibson, H. J. C., *Dundee Royal Infirmary. The Story of the Old Infirmary with a Short Account of Recent Years* (Dundee, W. Kidd, 1948)

Levack, Ian D. and Dudley, H. A. F., *Aberdeen Infirmary. The People's Hospital of the North-East* (London, Baillière Tyndall, 1992)

Jenkinson, J. L. M., Moss, M. and Russell, I., *The Royal. The History of Glasgow Royal Infirmary 1794-1994* (Glasgow, Glasgow Royal Infirmary NHS Trust, 1994)

McQueen, L. and Kerr, A. B., *The Western Infirmary 1874-1974. A Century of Service to Glasgow* (Glasgow, John Horn Ltd., 1974)

Risse, G. B., *Hospital life in Enlightenment Scotland. Care and Teaching at the Royal Infirmary of Edinburgh* (Cambridge, Cambridge University Press, 1986)

Turner, A. Logan, *Story of a Great Hospital. The Royal Infirmary of Edinburgh 1729-1929*. (Edinburgh, Oliver and Boyd, 1937)

Medicine and War

Blair, J. S. G., *The Royal Army Medical Corps 1898-1998. Reflections of One Hundred Years of Service* (RAMC, 1998)

Cook, H. J., 'Practical medicine and the British armed forces after the "Glorious Revolution", *Medical History* 34 (1990), pp.1-26.

McGrigor, M. (ed.), *Sir James McGrigor: the Scalpel and the Sword: The Autobiography of the Father of Army Medicine* (Dalkeith, Scottish Cultural Press,

Pringle, J., *Observations on the Diseases of the Army* (London, printed for A. Millar, D. Wilson and T. Payne, 1752)

Influence of Scottish Medicine abroad

Corner, B. C., *William Shippen Jr. Pioneer in American Medical Education* (Philadelphia, American Philosophical Society, 1951)

Dow, D. A. (ed.), *The Influence of Scottish Medicine: an Historical Assessment of its International Impact* (Carnforth, Parthenon, 1988)

McLeod, R. and Lewis, M. (eds), *Disease, Medicine and Empire* (London, Routledge, 1988)

Rosner, L., 'Thistle on the Delaware. Edinburgh medical education and Philadelphia practice 1800-1825', *Social History of Medicine* 5(1) (1992), pp.19-42

Ross, A. C., *David Livingstone: Mission and Empire* (London, Hambledon, 2002)

Entry of Women into Medicine

Alexander, W., *First Ladies of Medicine: The Origins, Education and Destinations of Early Women Medical Graduates of Glasgow University* (University of Glasgow, Wellcome Unit for the History of Medicine, 1987)

Geyer-Kordesch, J. and Ferguson, R., *Blue Stockings, Black Gowns, White Coats. A Brief History of Women Entering the Medical Profession in Scotland in Celebration of One Hundred Years of Women Graduates at the University of Glasgow* (University of Glasgow, Wellcome Unit for the History of Medicine, 1994)

Roberts, S., *Sophia Jex-Blake: A Pioneer in Nineteenth Century Medical Reform* (London, Routledge, 1993)

Todd, M., *The Life of Sophia Jex-Blake* (London, Macmillan, 1918)

Books available digitally

Charles Bell's Essays on Anatomy of Expression in Painting
https://ia802608.us.archive.org/32/items/essaysonanatomyo00bell/essaysonanatomyo00bell.pdf

Comrie's History of Scottish Medicine to 1860

https://www.electricscotland.com/HISTORY/medical/scottish_medicinendx.htm

HC Gillies's Regimen Sanitatis: A Gaelic Medical Manuscript of the Early Sixteenth Century or perhaps older (Glasgow 1911. Robert Maclehose)

https://archive.org/details/regimensanitatis00gilliala/page/n11/mode/2up?view=theater

Peter Lowe's A Discourse on the Whole Art of Chyrurgery etc

https://wellcomecollection.org/works/ms63rkrp/items

Gilbert Skene's *Ane Breve Description of the Pest* (Scotland's first medical book in the vernacular)

https://digital.nls.uk/learning/scots-plague-buik/page-turner/

Useful Websites

Heritage at the RCP, Edinburgh https://www.rcpe.ac.uk/heritage

Heritage at the RCPS, Glasgow https://heritage.rcpsg.ac.uk/

Hunterian Museum, Glasgow https://www.glasgow.ac.uk/hunterian

Library at the RCS, Edinburgh https://library.rcsed.ac.uk/

Lothian Health Service Archive http://www.lhsa.lib.ed.ac.uk

Wellcome Images https://wellcomecollection.org/works

Video

Nicolson M. How distinctive was Scottish Medical Practice? Keynote lecture BSHM Congress, Edinburgh 2017 https://bshm.org.uk/past-congresses/congress-2017/

DW 19 March 2023

A HISTORY OF OBSTETRICS AND GYNAECOLOGY

Dr Claire Elliott

Introduction

The study of the history of childbirth gives us an excellent insight into the social and medical beliefs of the time and place. In this lecture we shall look at selected countries and times in order to elucidate some of the common practices that raise key questions in the history of obstetrics. Where did it take place? Who assisted at the delivery and how had they been trained or educated? What was the father's role in childbirth? What helped with pain relief? How has maternity mortality changed? When did childbirth become a medical event? We shall also look at the development of the specialty of gynaecology in Western Medicine since the mid-nineteenth century.

Early history

The rite of couvades

Ancient Greece- the role of birth goddesses, Lex Caesare. Galen's contribution and Soranus, his influential book on obstetrics and diseases of women

Childbirth in the Medieval Period

The influence of Christianity, particularly in training of midwives

Renaissance in Childbirth

New books and the influence of anatomy on understanding childbirth, Vesalius and Fallopio

Rosslin Rosegarden of Pregnant women and Midwifery in German, 1513

Jacob Rueff The conception and Generation of mankind, 1554

Forceps and the Chamberlen family

Early modern period

William Harvey De Generatione Animalum, 1651. Also known as the 'father of British midwifery'

The Eighteenth Century

More intervention from medics, the origin of male midwifery

Lying-in hospitals

William Smellie A Treatise of the Theory and Practice of Midwifery, 1752

William Hunter Anatomy of Human Gravid Uterus, 1774

Puerperal fever

High mortality rates in hospitals after childbirth

Ignaz Semmelweis- wards attended by students had greater mortality rates in women after childbirth

Oliver Wendell Holmes- physician who carried the fever from patient to patient and link between post mortems and puerperal fever

Louis Pasteur, 1879, link between puerperal fever and causative organism

Nineteenth Century

Gynaecology as a separate speciality: hysterectomy, ovariotomy, ectopic pregnancy

James Marion Sims and treatment of vesico-vaginal fistula

Triple Obstetric Tragedy, 1817

Anaesthesia Ether, nitrous oxide, chloroform

The Twentieth Century

State involvement

Growth of speciality of obstetrics

Grantly Dick Read

Natural childbirth

Lowering of the maternal and perinatal mortality

Reactions to the medicalisation of birth

Changing Childbirth

High rates of Caesarian section

Reading list

Donnison, J (1988). *Midwives and Medical Men*, Historical Publications Ltd, London.

Filippini N (2021) *Pregnancy, Delivery, Childbirth A Gender and Cultural History from Antiquity to the Test Tube in Europe* Routledge

Kerr, JMM (1954). Historical *Review of British Obstetrics and Gynaecology*, 1800-1950,

Livingston, Edinburgh.

Loudon, I (1992). *Death in Childbirth*, Clarendon Press, Oxford.

McKay, WJS (1901). *The History of Ancient Gynaecology*, Balliere, Tindall and Cox, London.

Moscucci, O (1993). *The Science of Woman*, CUP, Cambridge.

O'Dowd, M and Philipp E (1994). *The History of Obstetrics and Gynaecology*, Parthenon, England.

Peel, Sir J (1976). *The Royal College of Obstetricians and Gynaecologists, 1929-1979*, Heinemann, London (also in British Journal of Obstetrics and Gynaecology, 1979; 86**:** 673-692).

Radcliffe, W (1967). *Milestones in Midwifery*, John Wright and Sons Ltd, Bristol.

Rhodes, Philip (1995). *A Short History of Clinical Midwifery*, Books for Midwives Press, Hale.

Spencer, HR (1927). *History of British Midwifery, 1650-1800*, John Bale, London.

THE EVOLUTION OF SURGERY

Michael Davidson

I have used the term evolution of surgery rather than the usual title in most history texts of surgical revolutions. I feel most of the history of surgery can be likened to evolution, movement forward but along the way some changes prove to be dead ends or some techniques become redundant or extinct as conditions usually in the form of improved knowledge or technology, change.

Inevitable some of my material will overlap with areas approached by those talking about specialities related to surgery e.g., Anaesthesia or nursing, or healthcare in non-European cultures. I will only repeat such overlaps to emphasise their importance in the historical record. Due to time constraints, this will be an overview.

The chronological approach will follow surgical evolution from ancient civilisations, through Romano-Greco era, the Arabic golden age, medieval, Renaissance Europe, the Enlightenment. The major changes in the 100 years from the introduction of effective anaesthesia to the founding of safe blood transfusion banks will be covered in more detail. Finally, the "modern era" with its transitions from resection to repair to replacement will highlight the growing influence of biotechnology and the work of allied health professions.

I will during the presentation and the bibliography highlight resources that might help those who wish to dig deeper into the subject. The influence of non-clinical drivers that affect many aspects of health care evolution will be included.

- Development of hospital care
- Exchange of ideas
- Professionalism
- Development of Surgical Institutions
- Surgical sub-Specialisation
- Organisational changes

Aims and Objectives of the presentation: -

- Describe transition of surgery from a manual craft to a speciality within medicine.
- Identify 'turning points' in surgeries evolution.
- Appreciate why there were significant changes in surgical practice in the 19th century.
- See surgery in the wider context of the social and intellectual history of humankind.

Suggested supplemental reading and resources.

I do not suggest all these books but consider those that cover your interests and you can access. Lecturers presenting material on specific eras and non-European cultures may have highlighted texts that better covered surgery for their periods than I have. Those marked with an asterisk denote general reviews of surgery.

Richard Barnett, Crucial Interventions: An Illustrated Treatise on the Principles & Practice of Nineteenth-Century Surgery. (Thames and Hudson Ltd, 2015).

W.J. Bishop, Knife, Fire and Boiling Oil: The Early History of Surgery. (Robert Halke, London 2010).

M. Anne Crowther, Marguerite W. Dupree, Medical Lives in the Age of Surgical Revolution. (Cambridge University Press, 2007).

* Harold Ellis, The Cambridge Illustrated History of Surgery. (Cambridge University Press 2009).

* Harold Ellis, A History of Surgery, (Cambridge: Cambridge University Press, 2001).

Jones, Peter, A Surgical Revolution: Surgery in Scotland, 1837-1901 (Birlinn Ltd, 2007).

* Ghislane Lawrence, "Surgery (Traditional)," Chapter 41 in W.F. Bynum and R. Porter (eds.), Companion Encyclopaedia of the History of Medicine (London: Routledge, 1993).

Wendy Moore, Knife Man (London: Bantam Books, 2005) on John Hunter.

* Roy Porter, The Greatest Benefit to Mankind; a medical history of humanity from antiquity to the present (London: Fontana Press, 1999, reprint 2017). Chapter XIX.

Ira M. Rutkow, Surgery: An Illustrated History. (Mosby 1993).

Thomas Schlich, Chapter 3 in Ed Deborah Brunton Medicine Transformed: Health, Disease and Society in Europe 1800–1930 (Manchester University Press 2004)

Nicholas L. Tilney, Invasion of the Body Revolutions in Surgery. (research University Press 2011}

* Ulrich Tröhler, "Surgery (Modern)," Chapter 42 in W.F. Bynum and R. Porter (eds.), Companion Encyclopaedia of the History of Medicine (London: Routledge, 1993.

Lindsey Fitzharris, The Butchering Art: Joseph Lister's Quest to Transform the Grisly World of Victorian Medicine (Publisher: Allen Lane 2017).

* Leo M. Zimmerman, Ilza Veith, Great Ideas in the History of Surgery (Norman Publishing, 1993).

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MICROSCOPY AND MUSEUMS

Tina Matthews

Cellular Pathology includes autopsy, histopathology and cytopathology. Dissection for elucidation of anatomy has been around, on and off, for a long time; the autopsy specifically to identify a cause of death is much more recent. Cytohistopathology, relating disease to cells is a development of the past century and a half, and cytology and histology of about 200 years. This is an examination of the circumstances and sequences of events which led to recognition of the cell as the basis of all living organisms, a concept that underpins the specialty of cellular pathology.
For many centuries anatomy indicated that a body included organs but this was not particularly related to disease which was generally approached as a holistic or whole body matter. Cells really were not a concept that would fit with what the eye can appreciate as cell morphology can only be studied when tissue is greatly magnified, thus the history of microscopes is intimately related to progress and errors in the development of the cell theory. Add to this techniques and equipment for cutting, staining and mounting and you begin to see how only the advent of relatively recent technology would allow this advance.

The idea of the basic cell unit has permeated scientific knowledge to an extent that today we almost cannot comprehend the thoughts of those in the past who only recognised disease at the whole body or organ level. Drawing on the rich collections of the Gordon Museum this tour and talk will explore the evolution of the concept of the cell and the development of the microscope, relating disease to cells and early clinical use.

Introductions with laboratory/science sections which encompass most of the individuals covered in the lecture

Bynum, W. (2008) The History of Medicine. A Very Short Introduction. Ashford Colour Press, Gosport, Hants
Porter, R ed. ((2009) Cambridge Illustrated History of Medicine. University Press, Cambridge

Further reading

Allen Terence, *Microscopy: A Very Short Introduction* (Oxford: OUP, 2015).
Cameron, G R. (1952) Pathology of the Cell. Oliver & Boyd, Edinburgh
Ford, B. *The Revealing Lens: Mankind and the Microscope* (London: Harrap, 1973).
Grunze, H and Spriggs, A I. *History of Clinical Cytology* 2nd Edition (Darmstadt: G.I.T. Verlag Ernst Giebeler, 1983).
Hughes, Arthur F.W. (1959) *A History of Cytology* (London: Abelard-Schuman, 1959).
Long, Esmond R. *A History of Pathology* (New York: Dover Publications, 1965).

For further information please see the pdf Colours and Shapes The Cell Theory Notes shared in the student area. No recording of the tour/talk is available.

THE HISTORICAL DEVELOPMENT OF HUMAN RIGHTS AND HUMAN RIGHTS TODAY

Dr Tracey Elliott

Human Rights – Background and Historical Development

This lecture begins by examining the nature and characteristics of human rights and explaining basic terminology (the nature of positive and negative rights and objective and subjective rights). The development of human rights and natural law (the idea that there is a 'higher' law above man-made law) will then be considered, from Greek and Roman times to the aftermath of the Second World War, with key documents (e.g. Magna Carta and the American Declaration of Independence) and the views of key theorists (e.g. St. Thomas Aquinas, Grotius, Locke and Paine) being briefly considered.

Human Rights – Bioethics and Law

This lecture will examine the development of human rights in bioethics and law. The aftermath of the Second World War saw the development of ethical codes, conventions and declarations governing clinical and research practice, and international human rights declarations, conventions and treaties aimed at preventing human rights abuses. It also saw the development of the European Convention on Human Rights, which was intended to ensure that fundamental rights and freedoms were protected and legally enforceable. How these rights have been used and interpreted in relation to medico-legal issues will be examined. This lecture will also consider the concept of dignity as an ethical principle and the relationship between human rights and bioethics. Finally, this lecture will address the question of whether human rights might subsume/replace bioethics and how the expansion of human rights discourse may lead to 'a crisis of confidence'.

Reading List

Introductory/Generally

- Clapham, *Human Rights: A Very Short Introduction* (2007: OUP: Oxford)
- W.A. Edmundson, *An Introduction to Rights* (2012: Cambridge: CUP)
- M. Freeman, *Human Rights*, 2nd edition (2011: Polity Press: Cambridge)
- L. Hunt, *Inventing Human Rights: A History* (2008: W.W. Norton & Co)

Development of Human Rights

(i) Books

- T. Hobbes, *The Leviathan* (1660), http://oregonstate.edu/instruct/phl302/texts/hobbes/leviathan-contents.html
- J. Locke (1689) *Two Treatises of Government* (1970:CUP: Cambridge), available online at: http://www.efm.bris.ac.uk/het/locke/government.pdf
- I. Kant (1785) *Groundwork for the Metaphysics of Morals*, available at: http://www.earlymoderntexts.com/kgw.html
- T. Paine *The Rights of Man* (1791), http://www.ushistory.org/paine/rights/index.htm
- J. Bentham, "Anarchical Fallacies", in *Selected Writings on Utilitarianism* (2001: Wordsworth Classics: London), 404-405. Available online at: http://oll.libertyfund.org/?option=com_staticxt&staticfile=show.php%3Ftitle=1921&chapter=114226&layout=html&Itemid=27

- R. Dworkin, *Taking Rights Seriously* (1978: Duckworth: London)
- A. Macintyre, *After Virtue: a study in moral theory*, 2nd edition (1985: Duckworth: London)
- G.J. Annas and M.J. Grodin, *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation* (1992, Oxford: Oxford University Press)

(ii) Human Rights Documents

- Magna Carta (1215) A translation may be accessed here: http://www.bl.uk/treasures/magnacarta/translation/mc_trans.html
- American Declaration of Independence (1776) http://www.archives.gov/exhibits/charters/declaration_transcript.html
- French Declaration of Rights 1789 A translation may be accessed here: http://avalon.law.yale.edu/18th_century/rightsof.asp
- United Nations, The Universal Declaration of Human Rights (1948) http://www.un.org/en/documents/udhr/index.shtml
- Council of Europe, Convention for the Protection of Human Rights and Fundamental Freedoms (1950 – amended subsequently by protocols) http://conventions.coe.int/treaty/en/treaties/html/005.htm
- Human Rights Act 1998, http://www.legislation.gov.uk/ukpga/1998/42/contents
- Nuremberg Code 1948, http://www.hhs.gov/ohrp/archive/nurcode.html
- World Medical Association (WMA), Declaration of Helsinki – Ethical Principles for Medical Research Involving Human Subjects, http://www.wma.net/en/30publications/10policies/b3/ (Adopted at the 18th WMA General Assembly, Helsinki, 1964 and amended on a number of occasions since then, most recently at the 59th WMA General Assembly, Seoul, 2008.
- Council of Europe, Convention on Human Rights and Biomedicine (1997) http://conventions.coe.int/Treaty/en/Treaties/Html/164.htm
- Council for International Organizations of Medical Sciences, International Ethical Guidelines for Biomedical Research Involving Human Subjects (2002) http://www.cioms.ch/publications/layout_guide2002.pdf
- UNESCO, Universal Declaration on Bioethics and Human Rights (2005) http://www.unesco.org/new/en/social-and-human-sciences/themes/bioethics/bioethics-and-human-rights/
- UN Convention on The Rights of Persons With Disabilities (CRPD), http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf

Human Dignity

R. Ashcroft, "Making Sense of dignity" (2005) 31 *Journal of Medical Ethics* 679
M. Bagaric and J. Allen, "The Vacuous Concept of Dignity" (2006) 5 *Journal of Human Rights* 257
D. Beyleveld and R. Brownsword, *Human Dignity in Bioethics and Biolaw* (2001: OUP: Oxford)
C. Foster, *Human Dignity in Bioethics and Law* (2011: Hart: Oxford)
A. Gallagher, "Dignity and respect for dignity- two key health professional values: implications for nursing practice" (2004) 11 *Nursing Ethics* 587
M. Häyry, "Another Look at Dignity" (2004) 13 *Cambridge Quarterly of Healthcare Ethics* 7
L.R. Kass, *Life, Liberty and the Defense of Dignity* (2002: Encounter Books: San Fransisco)
R. Macklin, "Dignity is a useless concept" (2003) 327 *BMJ* 1419
M. Nussbaum, *Creating Capabilities: The Human Development Approach* (2011: Belknap: Harvard)
S. Riley, *Human Dignity and Law: Legal and Philosophical Investigations* (2018: Routledge, London)

Human Rights and Bioethics

- R. Ashcroft, "Could Human Rights Supersede Bioethics?" [2010] 10(4) *Human Rights Law Review* 639-660
- G.J. Annas and W.K. Mariner, "(Public) Health and Human Rights in Practice" (2016) 41 *Journal of Health Politics, Policy and Law* 129-139.
- J. Bräanmark, "Respect for Persons in Bioethics: Towards a Human Rights-Based Account" (2017) 18 *Human Rights Review* 171-187 (open access article, available at: https://link.springer.com/article/10.1007/s12142-017-0450-x).
- T.A. Faunce, "Will international human rights subsume medical ethics? Intersections in the UNESCO Universal Bioethics Declaration" (2005) 31 *Journal of Medical Ethics* 173-178
- L.P. Knowles, 'The Lingua Franca of Human Rights and the Rise of a Global Bioethic', (2001) 10 Cambridge Quarterly of Healthcare Ethics 253-263.
- S.A.M. Mclean, "Human Rights and Bioethics", http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SHS/pdf/Bioethics-Human-Rights-McLean.pdf .
- T.M. Pope, T.M., Reuniting Human Rights and Bioethics to Address Medical Futility and End-of-Life Treatment', available at http://www.thaddeuspope.com/images/Pope_abstract_for_NYC_AALS.pdf.
- D, Shroeder, "Doctors and Human Rights", in R.E. Ashcroft, A. Dawson, H. Draper and J.R. McMillan (eds.) *Principles of Health Care Ethics*, 2nd edition (2007, Chichester, John Wiley & Sons Ltd).
- D.C. Thomasma, 'Proposing a New Agenda: Bioethics and International Human Rights', (2001) 10 *Cambridge Quarterly of Healthcare Ethics* (2001), 299-310.

Law and Human Rights

(i) Human Rights and the Law

- J. Wadham, H. Mountfield, E. Prochaska and R. Desai, *Blackstone's Guide to the Human Rights Act 1998*, 7th edition (2015, Oxford, Oxford University Press)
- E. Wicks, *Human Rights and Healthcare* (2007, Oxford, Hart Publishing)
- B. McSherry and P. Weller, *Rethinking Rights-Based Mental Health Laws* (2010: Hart: Oxford)
- R. Adorno, "The invaluable role of soft law in the development of international norms in bioethics" (2007) http://www.unesco.de/wissenschaft/bis-2009/invaluable-role-of-soft-law.html .
- ECtHR, Report: *Health-related issues in the case-law of the European Court of Human Rights* (2015): http://www.echr.coe.int/Documents/Research_report_health.pdf
- ECtHR, Factsheet, *Health*: http://www.echr.coe.int/Documents/FS_Health_ENG.pdf

(ii) Some 'selected '*medical*' cases involving ECHR issues

- *Vo v France* [2004] 2 FCR 577, available at: http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-61887#{"itemid":["001-61887"]}
- *Pretty v Director of Public Prosecutions and Home Secretary* [2001] 3 WLR 1598; [2002] 1 All ER 1 HL , http://www.publications.parliament.uk/pa/ld200102/ldjudgmt/jd011129/pretty-1.htm
- *Pretty v United Kingdom* [2002] 35 EHRR 1, available at: http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-61887
- *R (On the Application of Oliver Leslie Burke) v General Medical Council* CA [2005] EWCA Civ 1003, http://www.bailii.org/ew/cases/EWCA/Civ/2005/1003.html
- *Herczegfalvy v Austria* (1992) 15 EHRR 437, available at: http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-61887
- *Winterwerp v Netherlands* (1996) 22 EHRR 533, available at: http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-57597

- *HL v United Kingdom* (2004) 40 EHRR 761, available at: http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-66757
- *Evans v United Kingdom* (2008) 46 EHRR 34, available at: http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-80046
- *Tysiac v Poland* (2007) 22 BHRC 155 http://hudoc.echr.coe.int/sites/eng/pages/search.aspx?i=001-79812
- *R (Nicklinson) v Ministry of Justice*[2014] UKCS 38, available at: www.supremecourt.uk/decided-cases/docs/UKSC_2013_0235_Judgment.pdf
- *Chester v Afshar* [2004] UKHL 41, available at: http://www.bailii.org/uk/cases/UKHL/2004/41.html
- *Montgomery v Lanarkshire Health Board* [2015] UKSC 11, available at: https://www.supremecourt.uk/decided-cases/docs/uksc_2013_0136_judgment.pdf

SOME HISTORICAL ASPECTS OF MEDICAL ETHICS IN THE UK SINCE THE LATE 19TH CENTURY *

Professor Raanan Gillon

This talk, given by an academic in medical ethics who is a doctor and a philosopher but neither a medical historian nor an historian of medical ethics as a whole, gives an overview of the development of medical ethics in the UK during the last 100 years or so.

It does this by focusing on some substantive medical ethics issues - social justice and health care, voluntary euthanasia and physician-assisted dying, experimentation on human subjects, abortion, reproductive technologies and informed consent. The talk also outlines the involvement of important organizations that influence UK medical ethics; it describes the development of academic courses in the subject (of which the first seems to have been the Apothecaries own diploma course in the philosophy and ethics of medicine that started in 1978); it discusses the establishment of the Nuffield Council of Bioethics - a largely charitably-sponsored independent self-selected non-governmental committee that, it is suggested, functions as a surrogate for a national bioethics committee.

It describes the development of national forums for those interested in medical ethics, especially doctors, teachers and students, focusing particularly on the Institute of Medical Ethics whose links with the London Medical Group and the Journal of Medical Ethics are explored.

The talk concludes by noting the huge growth in the teaching of medical ethics both in UK medical schools and in non-medical faculties of UK universities and leaves as an open question whether this growth has contributed to any improvements in medical care.

Useful references concerning the history of medical ethics include

Albert Jonsen's '*Short History of Medical Ethics'* (New York OUP 2000).

'*The Cambridge World History of Medical Ethics*' edited by Robert Baker and Laurence McCullough Cambridge CUP 2009.

For papers concerning UK medical ethics education in relation to the activities of the London Medical Group see most of the November 2013 issue of the Journal of medical ethics which celebrated the 50th anniversary of the founding of the London Medical Group and also a Wellcome Witness Seminar, Medical Ethics Education in Britain, 1963-1993**,** Reynolds L and Tansey E eds (with introduction by Sir Kenneth Calman) (2007**).** London: Wellcome Trust. The transcript of this seminar is accessible on line via the URL

http://www2.history.qmul.ac.uk/research/modbiomed/Publications/wit_vols/44856.pdf2006.

*NB this talk is heavily based on an entry on bioethics in the UK in the 4th edition (2014) of the Encyclopaedia of bioethics (whose publishers, Macmillan Reference USA, part of Gale Cengage Learning, own the copyright) by Gillon R and Ashcroft R, itself heavily based on earlier entries for the 2nd and 3rd editions by Gillon R).

THE PHILOSOPHY OF MEDICINE IN THE THIRD REICH

Professor Michael Biddiss

In this session we shall be analysing some of the historical and ethical issues surrounding the generally enthusiastic involvement of 'Aryan' German doctors to the promotion of Nazism. What were the material and intellectual considerations that prompted on their part such a high degree of complicity in Hitler's pursuit of 'racial community' (*Volksgemeinschaft*)? How was the Nazi philosophy of medicine converted into action, with particular reference to enforced sterilisation and involuntary 'euthanasia', and to the pursuit of inhuman scientific experimentation and ultimately even of genocide? What rationalisations of such conduct were offered in defence or mitigation when a limited selection of doctors were put on trial in 1946-7, and what significance should we attach to the 'Nuremberg Code' of medico-experimental ethics that was generated out of those criminal proceedings? Why, and with what degree of success, did the post-war West German medical establishment attempt to distort the historical record as part of a comprehensive 'cover-up'?

Some suggestions about reading

M Burleigh. ***The Third Reich*** (Pan, 2001), especially Chapter 5*

RN Proctor. *Racial Hygiene* (Harvard UP, 1988).

P Weindling. *Health, Race and German Politics* (Cambridge University Press, 1989).

Some further suggestions about reading

G Aly et al. *Cleansing the Fatherland* (Johns Hopkins University Press, 1994).

GJ Annas and MA Grodin (eds). *The Nazi Doctors and the Nuremberg Code* (OUP 1992).

British Medical Journal. Special Issue on the Nuremberg Doctors' Trial, (7 December 1996).

M Kater. *Doctors Under Hitler* (North Carolina University Press, 1989).

RJ Lifton. *The Nazi Doctors* (Macmillan, 1986).

A Mitscherlich and F Mielke, *The Death Doctors* (Elek, 1962).

P Weindling. *Nazi Medicine and the Nuremberg Trials* (Palgrave Macmillan, 2004).

* Titles most readily available.

MEDICAL COLLECTIONS IN MUSEUMS

Katie Dabin

London has been at the centre of medical training and practice for hundreds of years. Not unsurprisingly the city has become home to numerous medical museums with collections large and small documenting diverse health experiences & medical practice. In this talk, Katie traces the breadth and origins of some of these curious and unsettling collections, and explores why medical collections matter – and what they can uniquely tell us about the practice of medicine past and present.
Please note images in this talk will contain human remains, so please be advised.

Further reading:

Medical Museums: Past, Present, Future. Ed: Samuel J M M Alberti & Elizabeth Hallam, 2013, Publisher: Royal College of Surgeons of England
An Infinity of Things: How Sir Henry Wellcome Collected the World by Frances Larson, OUP Oxford (10 Sept. 2009)
Cabinets for the Curious: Looking Back at Early English Museums by Ken Arnold Routledge; 1st edition (28 Dec. 2005)
Medicine An Imperfect Science. Ed Natasha McEnroe et al. Scala Arts & Heritage 2020

Further information

Science Museum collections online: https://www.sciencemuseum.org.uk/objects-and-stories
Volunteering at the science museum https://www.sciencemuseum.org.uk/about-us/volunteering-science-museum
Contacting London Museums of Health and Medicine (re research or volunteering) http://medicalmuseums.org/faq-contact/

COLLECTIONS BASED TALK

Natasha McEnroe

Abstract:
Using both historic medical objects and the contemporary science material held by the Science Museum in London, Keeper of Medicine Natasha McEnroe will explore how laboratory medicine has been collected and interpreted by museums over time.

Reading:
'Acquiring Infection: the challenges of collecting epidemics and pandemics, past, present and future' McEnroe, N and Emmens, S, Interface Focus Journal, Royal Society https://royalsocietypublishing.org/doi/10.1098/rsfs.2021.0030
The Medicine Cabinet: The Story of Health and Disease Told Through Extraordinary objects, McEnroe, N and Hurley, S (Eds), (Andre Deutsch, 2019)
Medicine: An Imperfect Science, McEnroe, N (Ed) (Scale Publishing, 2019)

HISTORICAL PERSPECTIVES ON MEDICAL COLLECTIONS

SUBHADRA DAS

Using UCL as a case study, this talk will be the precursor to a discussion on the ethics of museum collecting for which images and questions will be shared in advance with course participants.

Founded in 1826 by a group of self-styled radical thinkers, University College London was ostensibly built in the middle of nowhere. At the time, Gower Street was little more than a bare landscape of empty fields, a far cry from the established seat of learning and bohemian cultural hub that Bloomsbury was to become. Over the course of the nineteenth century, among other things, the neighbourhood became the radical counterpoint to more imperial universities built further south (King's College) and west (Imperial). In the wider political context of London, the metropole at the heart of the British Empire, though, UCL was, more simply, the opposite side of the same colonial coin. This is best exemplified by the liberal arts and sciences curriculum set up by its founders, and, more particularly by the museum collections established and used at the university which, in their day, were at the cutting edge of pedagogic technology. In this talk I will focus on what are now two separate teaching collections at the University -- the medical collections and the zoology collections. Back in their day, though, under the auspices of Robert Grant, UCL's founding professor of Zoology and Comparative Anatomy, these two collections occupied both the same physical space in the newly built Neoclassical campus, and the same conceptual space, embodying, constructing and disseminating ideas relating to human biology and 'race'. The students taught using these collections went on to jobs all around the British Empire and in turn sent back specimens to Grant's museum, carrying on a cycle of colonial power and knowledge-making that continues to be influential to this day.

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