

British Society for the History of Science

Postgraduate Conference 2011-12



January 4th-6th 2012, University of Warwick

Organisers: David Beck, Martin Moore, Claire Sewell, Emily Andrews

This annual 3-day event gives postgraduates in the history of science, technology and medicine a chance to get to know each other and to present their work to a wider audience. The conference is organised by and for postgraduates, offering the opportunity of presenting a fifteen-minute paper in a supportive environment. Our aim is for postgraduates to convene from a wide range of universities and disciplines to discuss our common interests, share experiences and network in a friendly and receptive environment.

To contact the organisers before or after the conference please email BSHSpstgrad@warwick.ac.uk

While the conference is in-session the registration desk (in the atrium of the “Maths and Stats” building, see map on next page) will be manned by one of the organisers or an assistant who will be able to help with any queries. Bags can safely be stored behind the registration desk.

For out-of-hours emergencies during the conference call David Beck 07931 293 567.

For those who have applied to the BSHS for Butler-Eyles Travel Grants, keep your receipts.

If you would be interested in hosting the conference in January 2013, talk to one of the organising team about what’s involved. Applications must be sent to the postgraduate representative on the BSHS Programmes Committee (d.c.beck@warwick.ac.uk) by March at the latest.

Useful web-pages:

Conference homepage – <http://go.warwick.ac.uk/BSHSpstgrad>

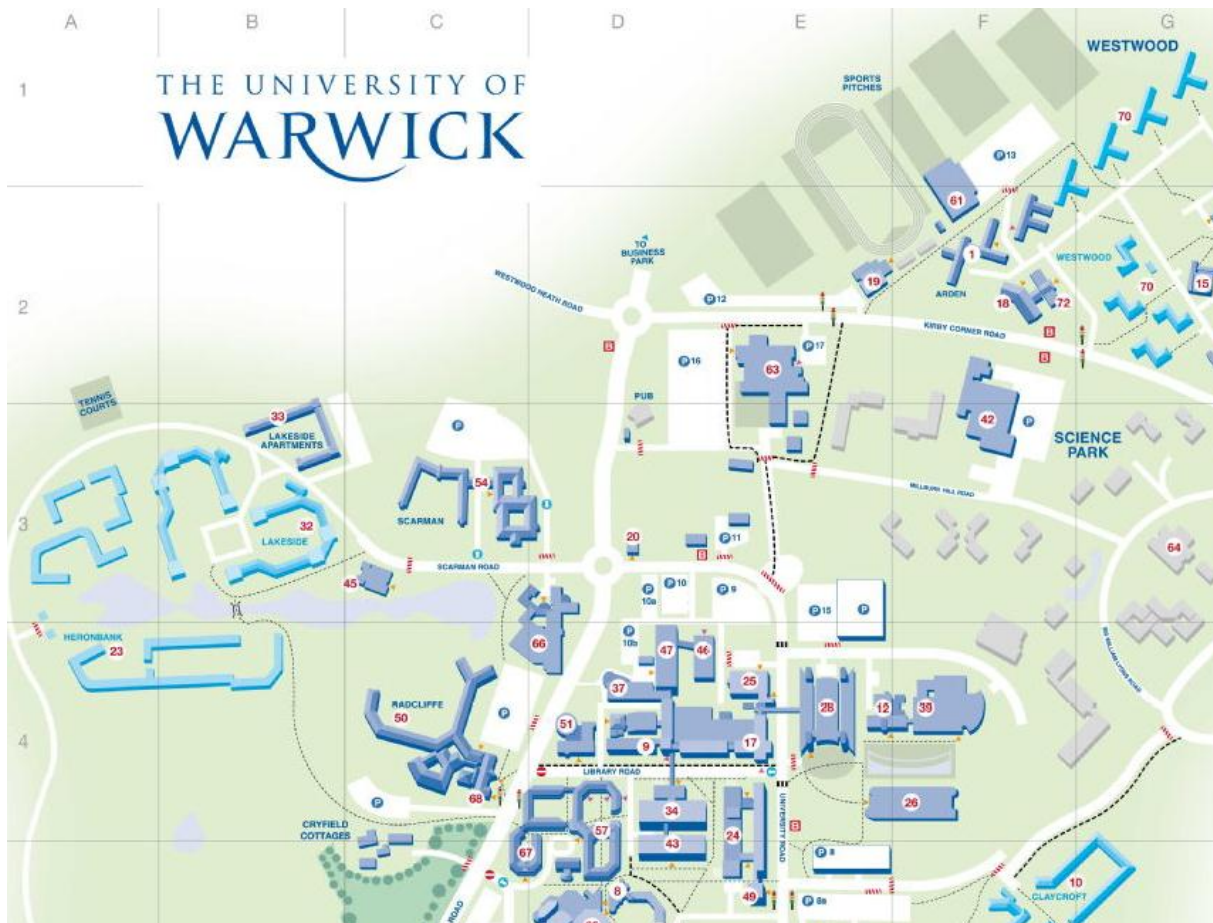
Visiting Warwick, which includes directions to the campus by car, train and bus – <http://go.warwick.ac.uk/visit>

About the accommodation (Arden house)- <http://www2.warwick.ac.uk/conferences/arden>

Sponsors:



Campus map



All conference sessions are in the “Maths and Stats” building (number 39, F4)- registration and all breaks/lunches will be in the atrium, from where all rooms will be clearly signposted.

Conference accommodation is at Arden House (number 1, F2)- there is free parking available for all who are staying in the accommodation.

For those who are not staying at Arden House we recommend **parking** in car park 15 (E3) which is a pay-on-foot car park, costing £3 per day.

We are informally dining on Wednesday 4th at Varsity (‘pub’, D3)

The **conference dinner** on Thursday 5th is at Scarman (number 54, C3)

BSSH Postgraduate Conference 2011-12 Programme

All rooms are in the "Maths and Stats" building- see map on the previous page.

Wednesday 4th January

12:00- 13:00 Registration & lunch (atrium)

13:00- 14:20

1- Introductory Remarks and 'Colonial Visions, Postcolonial Interventions' (MS.01)

James Hall- *The Races of Cattle: Acclimatization and Classification between India and Britain*

Rebecca Williams- *Family Planning, the Khanna Study, and "The Epidemiology of Population"*

Orla Mulrooney- *Exploring Medical Tourism c1976-2011*

14:20-14:50 Coffee & tea (atrium)

14:50-15:50

2a- The Cold War Era (MS.01)

Josh Moulding- *How They Eat Children': Rumour, Myth and Folklore in INCAP's Guatemalan Anti-Kwashiorkor Initiatives, 1949-1964*

Daniele Macuglia- *Nuclear Secrets and Environmental Consciousness in the US during the Cold War: Hidden Histories at Oak Ridge, Hanford Works and the Savannah River Site, 1945-1984*

Roberto Cantoni- *The American shadow: Italian oil between continuity and change*

2b- Museums and Collections (MS.02)

Ruth Horry- *Babylonian gods as ancestors of modern medicine? Disciplinary self-identity in Wellcome's Historical Medical Museum, 1913*

Michael Kay- *Painting Perpetual Motion: The curious story of the Museum of History, Science and Technology's most prominent artefact*

Rebecca Elizabeth Bowd- *Priestley's legacy? The subscription library movement in the north of England in the mid-eighteenth century*

15:50-16:20 Coffee & tea (atrium)

16:20-17:20

3a- Technology and Industry (MS.01)

Roland John Edwards- *A Short Review of the History of Ergonomics in the UK*

Advait Deshpande- *The dream of a Digital Britain: the proposal to renationalise British Telecom in the 1980s*

Katherine Platt- *Technology and Regional Identity: Siemens in the North of England*

Session 3b- Science of the Sea (MS.02)

Lisa Taramaschi- *The history of oceanography: ancient roots, modern definition*

Rebecca Whyte & J. M. Goodchild- *Maritime Disinfection: The Historical Problem of Infection at Sea*

Samuel Robinson- *Gobbling up the Discovery Committee: changing perspectives in postwar British Oceanography*

17:20 Wine Reception (atrium)

There will be a group of us dining at the Varsity pub following the wine reception - you are welcome to join us on a pay-as-you-go basis.

Thursday 5th January

09:30-10:00 Coffee & tea (atrium)

10:00-11:20

4a- Health in Twentieth-Century Britain? (MS.03)

Thomas Bray- *The Rush Down Handcross Hill": The Transformation of Cycling in England, 1890-1939*

Gregory Hollin- *The Curious Case of Autism in the 80s: How a social disorder was desocialised*

Gareth Millward- *Invalid definitions: who was "really" disabled, 1965-1995?*

Claire Sewell- *Giving a Voice to Sufferers from Mental Illness and their Carers': The Carer Movement in Britain, c.1970-90.*

4b- Textual Practices (MS.04)

Ashleigh Blackwood- *Dissecting Discourse: The Implications of Gendered Practice in Obstetric Writing*

Hannah Ridge- *'Falsehood and Error': Medical Morality on Page and Stage*

Greg Wells- *What did James Cooke think he was doing?*

Caroline Gillan- *The Function and Nature of Eighteenth-Century Scientific Dedications*

11:20-11:40 Coffee & tea (atrium)

11:40-13:00

5a- Philosophy and Science (MS.03)

Andreas Sommer- *Science and the supernatural: Changing functions of the occult from Francis Bacon to William James*

Barnaby Hutchins- *The mechanics of subvisible bodies in Descartes' late physiology: a methodological problem*

Laura Georgescu- *Processes of experimentation: the parallel of exploratory experimentation to experientia literata*

Jane Orton- *Beyond the Shadows: Plato's Mathematical Journey to the World of the Forms*

5b- Publishing Workshop (MS.04)

Christopher Tancock (Elsevier Publishing)

13:00-14:00 Lunch (atrium)

14:00-15:20

6a- Consensus and Controversy (MS.03)

Martin Moore – *Creating a New Consensus of Care: Diabetes and General Practice in Britain, 1970-1992*

Alessandro Allegra- *The definition problem of the "gene": an historical perspective*

Jordi Mora Casanova- *The appropriation process of a model for the structure of matter: Berthelot, Luanco and the unity of matter*

Mar Cuenca-Lorente- *Invisible crimes?: Poisons, Experts and the Shaping of Nineteenth-century Toxicology in Spain*

6b- Constructing Scientific and Political Cultures (MS.04)

Jacob Halford- *Semantic Shifts and the Scientific Revolution*

Clara Florensa- *Appropriation of evolutionary theory in Francoist Spain. The case of La Vanguardia Española (1939-1978)*

James Goodchild- *Boffins, Wonks and Egg-heads: Culturing the Heroes of Twentieth Century Science*

Carolyn Dougherty- *Gravity and Power*

15:20-15:50 Coffee & tea (atrium)

15:50-16:50

7a- Visualisation and Medicine/Science (MS.03)

Hsiang-Fu Huang- *The Universe in a Cockpit: popular astronomy lectures and displays in nineteenth century Britain*

Claire Trevien- *The Spectacle of Science : illusion in prints of the French Revolution*

Marius Buning- *Proofing inventions: Privilege drawings and scale modelling in the early modern Dutch Republic*

7b- Ancient Traditions (MS.04)

Olga Sapozhnikova & Vaclav Paral- *Animals in the Old Testament: Anatomical View*

Abdulrahman A. Aqra - *Gods of healing in Canaanite civilization*

Shazia Jagot- *Chaucer's 'loveris maladye/Of hereos' and the Arabic Medical Tradition*

19:00 Conference dinner (Scarman House)

Friday 6th January

09:30-10:00 Coffee & tea (atrium)

10:00-11:20

8a- Responses to Disease (MS.03)

Jane Hand- *The Crusade to 'Conquer Cancer': Public and Voluntary Health Education Initiatives in the Campaign against Lung Cancer in Ireland 1958-1978*

Josette Duncan- *Prostitution and Isolation - the Contagious Diseases Acts as practised in the Mediterranean British Colonies*

Barbara C. Canavan- *Predicting the Next Pandemic*

Yolana Pringle- *Explaining epidemics of 'mass hysteria' in East Africa, 1962-4*

8b (Panel)- Encounters with Social and Economic History (MS.04)

Matthew Paskins- *Stoves, Ventilators and Flat Socialities*

Michael Weatherburn- *Towards a History of Industrial Production: the inter-war National Institute of Industrial Psychology*

William Burns- *Apple cultures: Pests, pumps, and pipes in interwar British orchards*

11:20-11:50 Coffee & tea (atrium)

11:50-13:00

9a- Science and the Public (MS.03)

David Hirst- *From Conference to Conference: Climate Change Gets Political, 1979-1992*

Miquel Carandell- *Getting a Different Dimension: The Orce Man Controversy in Spanish Newspapers*

Alice White- *Selling Social Science Solutions: Making the Case for Human Relations in Post-War Britain*

9b (Panel)- The Board of Longitude 1714-1828: Science, Innovation and Empire in the Georgian World (MS.04)

Katy Barrett- *Longitude Inscrib'd: Early pamphlet solutions to the longitude problem*

Eoin Phillips- *Between Astronomer, Timekeeper and Logbook: Moving between the discovery and production of Longitude*

Sophie Waring- *The Nautical Almanac: An Instrument of Controversy*

13:00 Lunch (atrium) & close

Abstracts

1- 'Colonial Visions, Postcolonial Interventions'

James Hall- *The Races of Cattle: Acclimatization and Classification between India and Britain*

This paper examines attempts to classify wild and domestic cattle and acclimatize bodies (human and non-human), cultural practices and expertise in nineteenth-century colonial India. Hitherto the exchange of non-exotic animals between Britain and the subcontinent has received only limited historical attention. Histories of ethno-zoology in India have often focused on emblematic animals such as tigers and elephants, yet domestic animals have received little attention despite the potential richness of exploring a unique relationship between man and beast. I explore some of the practical obstacles to scientifically classifying the Indian cattle, for example, competing centres of authority, hierarchies of knowledge, and the reliance of naturalists upon intermediaries including hunters and animal traders. The delineation of wild Indian cattle informed discussions about the possibilities of successfully acclimatizing and improving livestock in India. But the animal kingdom also provided powerful analogies for human society, and concepts and terminology traversed the porous boundary between human and non-human. As well as considering the practicalities of attempts to introduce European cattle to India and vice versa, I also examine some of the wider cultural implications of the scientific interrogation of Indian cattle for beef-loving Anglo-Indians.

Rebecca Williams- *Family Planning, the Khanna Study, and "The Epidemiology of Population"*

In 1953, a group of Public Health specialists from the Harvard School of Public Health arrived in the Ludhiana district of Punjab, India. The group consisted of John Gordon, Professor of Epidemiology at the HSPH, and his two graduate students Carl Taylor and John Wyon, both ex-mission doctors who had previously practised medicine in India. They established a headquarters in the market town of Khanna, from where they regularly visited a handful of nearby villages to gather information on the menstrual cycles and sexual practices of the villages' inhabitants. What were these Public Health experts doing in Khanna, and what was the purpose of their prolonged and intimate information-gathering exercise? My paper seeks to explain their activities by placing it in the context of the growing concern with 'overpopulation' in the Cold War-era US; the neo-Malthusian desire of Taylor and Wyon to ease the suffering of their poor medical mission patients by reducing their fertility; and Gordon's ambitions to apply the tools of epidemiology to new and uncharted territory. The result in Khanna was a study which framed 'overpopulation' as a disease which caused poverty and ill-health, not only within individuals but within families and nations. The consequence of such a conceptualisation was the targeting of the poor, and the treatment of poor (particularly poor female) bodies merely as susceptible 'hosts' for the disease of fertility.

Orla Mulrooney- *Exploring Medical Tourism c1976-2011*

Until recently the prospect of having surgery in India would most likely have invoked trepidation in any potential patient. Those who could, sought surgery elsewhere. The facilities were grim, expertise lacking, and many procedures were simply not available. India now imports medical tourists to a growing number of 'high-tech' hospitals, some of which are rated on par with the best in the world for many advanced surgical procedures. What contributed to India's transformation, in less than 40 years, from totally lacking state-of-the-art medical facilities to the importation of medical tourists to high-tech hospitals? My research explores the social, economic and political history of the modern medical tourism industry through concentrating on the development of medical tourism to India's high-tech hospitals.

The phenomenon of medical tourism is a major development in the history of medicine, relatively unexplored by medical historians despite its widespread ramifications. In many countries around the world, medical tourism is now big business, forecast to grow massively while transforming the face of healthcare in the process.

Currently at the early stages of my research, I will present an overview of my research plan and highlight the importance of a historical examination of this rapidly growing commercial enterprise.

2a- The Cold War Era

Josh Moulding- *How They Eat Children': Rumour, Myth and Folklore in INCAP's Guatemalan Anti-Kwashiorkor Initiatives, 1949-1964*

The Institute of Nutrition of Central America and Panama (INCAP) is one of nine PAHO (Pan American Health Organisation) biomedical research centres currently active across Latin America and the Caribbean. From 1949

to 1964, INCAP sought to combat rising levels of infant kwashiorkor in Guatemala through a combination of nutritional surveys, treatment campaigns and extensive educational propaganda. Such Cold War-era initiatives strategically deployed western biomedical knowledge so as to transpose ideals of modern selfhood onto Guatemalan bodies. Officials rendered citizenship of various communities dependent upon the individual's dismissal of indigenous healing practices and their subscription to eating and cooking habits deemed rational. However INCAP's endeavours to alter entrenched local cultural traditions were often limited by the spread of potent rumours concerning the aims and practices of the institute's campaigns. This paper will explore how chitchat within rural social networks encouraged Guatemalans to categorise INCAP officials as Communist devils, obsessed with fattening up children for consumption in the United States. It will also examine how indigenous narratives concerning health and disease, passed down from generation to generation, determined the responses of Guatemalans to the blood tests and nutritional supplements offered by INCAP. The paper will conclude by analyzing how the institute's officials reworked such narratives in the hope of securing an enduring commitment to their anti-kwashiorkor projects across rural Guatemala.

Daniele Macuglia- *Nuclear Secrets and Environmental Consciousness in the US during the Cold War: Hidden Histories at Oak Ridge, Hanford Works and the Savannah River Site, 1945-1984*

The Oak Ridge National Laboratory, together with the Hanford Engineer Works and the Savannah River Test Site are important examples among the major US nuclear weapons sites in 20th century. Although intended to turn the US into a stronger military force during the Cold War, biological consequences of the nuclear research carried out in the facilities ended up overshadowing their original political purpose. Particularly significant is the case of Hanford Works, where high-level of radioactive waste harmed thousands of people living in the area, causing remarkable environmental disasters that make the site the most contaminated region in the US even today. Despite what is stated in the current secondary literature, which considers Oak Ridge, Hanford and Savannah River as silent facilities that operated without any kind of public awareness or involvement, this study shows that some citizens long suspected that the management of the radioactive waste at these sites was not really safe. By means of extensive archival research on national and local newspapers' article archives, this paper investigates the boundary between "science" and the "public," providing significant insights for both philosophical and historical studies on the production and transmission of knowledge and its impact on society.

Roberto Cantoni- *The American shadow: Italian oil between continuity and change*

On the night of 27 October 1962, while the Cuban missile crisis reached its apex and threatened to precipitate the world into a third world conflict, the President of the Italian public oil company Eni (formerly, Agip), Enrico Mattei, died in a plane sabotage. In a Cold War setting where Italy was an ally of the US, Mattei had been guilty, some claimed, of encumbering American oil companies' interests in the peninsula. Around Mattei's life and death, as well as around his love-hate relationship with the US, a whole mythology would be built in the years that followed, which has often impeded accurate analyses. In particular, the importance attributed to Mattei obliterated the work of Agip and Eni's personnel. According to the mythology, between 1945 and 1948 Mattei alone would have fought, and won, a battle against the Anglo-American war command and Agip's directorate, who aimed at dismantling the Agip in order to favour local and foreign private companies. I claim this interpretation is incorrect: first, as it greatly underrates the role played in Mattei's favour by Agip's geologists and geophysicists; second, as the conflict was rather between two managing policies than between Mattei and "the Americans".

2b- Museums and Collections

Ruth Horry- *Babylonian gods as ancestors of modern medicine? Disciplinary self-identity in Wellcome's Historical Medical Museum, 1913*

In 1913, pharmaceuticals entrepreneur Henry Wellcome opened a Historical Medical Museum in London where doctors could learn about the 'evolution of their art'. Displays presenting a narrative of progress culminated in a hall of statuary where Babylonian healing deities rubbed shoulders with their ancient Greek counterparts. Literate civilization flourished in Mesopotamia (Assyria and Babylonia)—the geographical area that is now modern Iraq from c.3500-75 BCE. This paper discusses how Wellcome's Historical Medical Museum integrated Mesopotamian sources into disciplinary medical histories dominated by ancient Greek ancestry.

In displaying Mesopotamian material for a medical audience, Wellcome drew on specialised knowledge of Assyriologists who studied this ancient culture. Babylonian gods were presented as subordinate to Classical deities, but were nonetheless adopted into Western medicine's lineage. The Museum's visual displays reflected this process; Mesopotamian imagery was manipulated to become 'classicized' in style. Ultimately, however, Wellcome's audiences remained unconvinced regarding the non-Classical elements of his narratives.

Wellcome's Museum reflects an early twentieth-century trend in historicizing medicine and creating medical self-identities. Studying this institution reveals the negotiations involved in transferring specialised knowledge from the discipline of Assyriology into a non-specialist, medical context. Further, we gain a deeper understanding of how doctors utilized new knowledge to construct identities with cross-cultural components.

Michael Kay- *Painting Perpetual Motion: The curious story of the Museum of History, Science and Technology's most prominent artefact*

This paper will introduce the work of the up-and-coming student and staff led Museum of the History of Science Technology and Medicine at the University of Leeds through a discussion of an item into which research is currently ongoing, an oil painting in the university's art collection depicting a perpetual motion machine. Examination of the painting will provide a window onto the museum's work, which will be detailed.

The search for perpetual motion, a closed system producing sufficient energy to sustain its own motion indefinitely, continued through the nineteenth-century. Many inventors remained unperturbed by protestations from men of science that it was impossible. This paper will examine why this machine and the painting were produced, and how the university acquired the painting; its significance for the museum as a piece of history of science and history of art will be evaluated.

Drawing on the work of writers such as Henry Dircks, Arthur W. J. G. Ord-Hume and F. W. Westaway, this paper will identify the tradition from which this machine arose and consider its designer, Robert Hainsworth, including his relationship to the Leeds Philosophical and Literary Society. The story will be augmented by examinations of the contemporary periodical press.

Rebecca Elizabeth Bowd- *Priestley's legacy? The subscription library movement in the north of England in the mid-eighteenth century*

Joseph Priestley is traditionally associated with natural philosophical experimentation and the discovery of 'oxygen', but this paper will examine another aspect of Priestley's life: his contribution to the development of subscription libraries. In assessing Priestley's role in the provincial subscription library movement, this paper will examine three subscription libraries – Warrington, Leeds, and Birmingham. It will examine the literature surrounding Priestley's involvement in these institutions and argue that, while Priestley was instrumental in the shaping of these libraries, there are a number of other contributing factors which have not been previously considered. An in-depth study of the library at Leeds for example has shown that for this provincial town the origins of the movement can be found in middle-class investment, an increasing number of institutions for reading and sociability in Leeds, and the growing availability of books and printed literature in the town from the mid-century. I will argue that all these factors are equally crucial in the development of the Leeds Library and show that the mono-causal Priestley explanation for the spread of this movement through the north of the country in the mid-eighteenth century is overly simplistic.

3a- Technology and Industry

Roland John Edwards- *A Short Review of the History of Ergonomics in the UK*

The International Ergonomics Association defines ergonomics as "the scientific discipline concerned with the understanding of interactions among humans and other elements of a system (e.g. human computer interaction, manual materials handling) ... in order to optimize human well-being and overall system performance." As ergonomics addresses issues that underpin interactions between people, technology, process and output, it is both pervasive and profoundly relevant to all elements of the human enterprise.

Early ergonomic studies were first undertaken during the late 19th century but it was not until 1945 that the discipline began to appear as a mainstream science. Papers dealing with the history of ergonomics have been chronological studies of national learned societies, the lives of influential scientists or the formation and work of military and industrial research units. There has yet to be an in-depth analysis of the wider political, social and financial drivers which helped shape and nurture the formation and growth of ergonomics, particularly after 1945, in government, industry and academia in the UK. This paper will review the published literature and highlight the key events in the history of ergonomics and will discuss the nature of the current gaps in our knowledge.

Advait Deshpande- *The dream of a Digital Britain: the proposal to renationalise British Telecom in the 1980s*

In the late 1980s, to reduce the partly privatised British Telecom's (BT) market dominance, Office of Telecommunications (OfTel) prohibited BT from offering TV services on its main network. Consequently, BT held back the rollout of optical fibre in the access network, citing inability to recoup its investment.

In 1989, fearing that Britain would lag behind in the optical fibre race, sections of the Conservative government wanted to renationalise BT to rollout a nationwide optical fibre network. Labour, the main opposition party even stated its intent to revert BT to government control in a 1990 policy document.

Although the Conservatives remained in power, a recession in the early 1990s and the prohibitive cost of renationalising BT meant remaining Government stake in BT was sold to complete its privatisation. However, the OfTel restrictions on BT from offering TV services remained until 1999 and the optical fibre rollouts by BT largely focussed on the core network.

This paper looks at the intrigue involved in the proposed renationalisation of BT and examines the motivations of the participating groups. It also reflects on the role of regulation in a liberalised economy and assesses the impact of the events on the dream of a Digital Britain.

Katherine Platt- *Technology and Regional Identity: Siemens in the North of England*

The engineering company Siemens has played a major role in the UK electrical industry since Sir William Siemens's arrival in the UK in 1843. Many of its activities have taken place in the north of England. My research aims to chart the role of Siemens in shaping regional industrial development and regional identities through its UK operations in the twentieth century. Siemens activities in the north of England reflect wider changes in the north in the twentieth century, allowing the exploration of issues faced when new industry moves into areas linked with traditional industrial practices.

This talk will outline the activities of Siemens in the UK and in the north of England and explore the possible impacts on the region in terms of, amongst others, recruitment issues and worker relations. The talk will also consider the exploration of regional industrial policy and the location of industry as ways of investigating changes in technological operations in the north during the twentieth century.

Session 3b- Science of the Sea

Lisa Taramaschi- *The history of oceanography: ancient roots, modern definition*

The oceanography, the science of the sea, was the subject of a modern development but by virtue of ancient origins. For this reason, some scholars believe that a formalized oceanologic science begins to grow only from the XIXth century, with some basic discoveries and research, as the Challenger campaign (1872-1874). But, as observed from one of the most important scholars of this science, Margaret Deacon, the historical development of a science is a slow process, with stops and starts, but it's always possible to see a continuity of ideas and methods. The interest and the relation between man and sea is very old, and we have evidences of a study about the sea from the early civilizations: from the Greek philosophers, the naturalists and Aristotle, from Latin authors like Pliny the Elder and Strabo, we can trace a path of growth and developing of this science very interesting and surprising, through scientist, ages e technological revolutions, sometimes very known and famous, others unfamiliar and anonymous, till its institutionalization and canonization in the modern oceanography.

Rebecca Whyte & J. M. Goodchild- *Maritime Disinfection: The Historical Problem of Infection at Sea*

The sparse archival documentation on the experimentation and application of varied processes of maritime disinfection during the last two centuries vividly demonstrate that the eradication of infection at sea was indeed a problem. This archival documentation further highlights just how Whitehall dealt with such matters as imported plague and Yellow Fever, the fumigation of rat-infested cargoes and bacteria-infested cattle, horse, troop and hospital ships, the need for a uniform disinfecting agent aboard state vessels, and the delegation of experimentation and application to local port authorities.

Our paper charts this archive material and summarises our narrative of British state application of maritime disinfection through the eighty year period from the 1840s to the 1920s. Such a timeframe at the peak of modernity ensures that this narrative raises very interesting questions concerning the rationality of medical science (public and private); the technology adopted (or adapted) to apply such rationality; the rapid advances in commercial chemical science (encouraged by state need); the naivety surrounding the differences between fumigant, disinfectant, and anti-bacterial agents and processes; the transformation of maritime vessels (and the problems this itself created to the health of crews and passengers); as well as the exigencies of health at sea in both peace and war caused by infection.

Samuel Robinson- *Gobbling up the Discovery Committee: changing perspectives in postwar British Oceanography*

When the National Institute of Oceanography was founded in 1949, the Discovery Committee was absorbed into this new body along with two previously Royal Navy controlled physical oceanographic research groups. The Discovery Committee had been at the forefront of British Oceanography during the interwar period and had an international reputation predominantly for research into biological oceanography. Under the new regime the Discovery Committee found itself sidelined under the new institutes physical oceanography programme. In a process that closely resembled asset stripping, any resemblance of the Discovery committee disappeared under the directorship of an ex-discovery committee member, George Deacon, who sought to push oceanographic research in the British Isle towards the physical rather than the biological. This paper will look at the decline of the Discovery Committee; analyzing the impact of patronage; geopolitics; and changing designs for Empire, which brought about the subdued end of a well respected body. Historians consider Oceanography to have been fundamentally altered by the events of the Second World War, but the realities of this have seldom been studied in a British context, something which this paper aims to readdress

4a- Health in Twentieth-Century Britain?

Thomas Bray- *The Rush Down Handcross Hill": The Transformation of Cycling in England, 1890-1939*

This paper will discuss the changing fortunes of cycling in England, from its explosion in popularity at the end of the nineteenth century until the end of the larger interwar cycling craze. Principally, it will focus on how shifts in the practice and perception of this leisure activity and its advocates were influenced by the technological, scientific and health-related aspects of cycling. In this period, the bicycle as an object was radically altered; the introduction of pneumatic tyres in 1889, for example, transformed ideas about the possible terrains of the cyclist. Crucially, however, the bicycle became cheaper and more obtainable, meaning that cycling could be practiced by a wider range of people, including women and working-class males. This new popularity aroused criticism from the middle-class, male cycling enthusiasts and correspondents, who saw themselves as the guardians of this leisure activity; this criticism often intersected with ideas about science and health. Cycling was designated as a technology which could help its proponents to better health and happiness, but which could also be easily abused by the 'subversive' cyclist; it is this tension which the paper aims to explore.

Gregory Hollin- *The Curious Case of Autism in the 80s: How a social disorder was desocialised*

The proposed aetiology of autism has been in constant flux since the disorder was christened in the 1940s. This flux has mirrored changes in the dominant psychological paradigm over the same time period. Initially a psychoanalytic perspective on the aetiology of autism was common, followed by the rise of behaviourism, and now cognitive psychology and neuroscience dominate the field. This paper will look at a short period of time (1985-1989) in which the modern conception of autism was formed by three new theories of autistic aetiology originating in cognitive psychology; executive dysfunction, metarepresentation impairment, and weak central coherence. It will be proposed that not only did our modern conceptualisation of autism crystallise in this very short period of time, but that this modern form is historically peculiar. Prior to 1985 autism had been understood as a social disorder, inherently caused by and affecting interpersonal relations. All three of the new cognitive theories rejected this view and made social deficits purely symptomatic of an asocial cognitive impairment. The paper will conclude with a brief discussion into the effects of this aetiological shift and what the episode may teach us about the philosophical basis of cognitive psychology.

Gareth Millward- *Invalid definitions: who was "really" disabled, 1965-1995?*

There is a feeling in Britain today that many people fraudulently claim to be disabled. This is not a new anxiety, and has existed even before benefits were paid to those who were unable to work. But in order to prove fraud, abuse, scrounging or skiving one first has to define what disability actually is.

In this paper I will take a brief look at the ways in which the British government has defined disability in the social security system. It will show the various bureaucratic, legal and medical tools which have been used to separate the "really" disabled from those who are not. In doing so, I will question what this says about the concept of disability, the problems it poses for the welfare state and whether or not this tallies with individual claimants.

This forms part of my PhD thesis which investigates the government's conceptions of disability between 1965 and 1995 by analysing government policy and its interactions with voluntary organisations who campaigned on disability issues.

Claire Sewell- *Giving a Voice to Sufferers from Mental Illness and their Carers': The Carer Movement in Britain, c.1970-90.*

Historians of psychiatry have become increasingly interested in the perspective of service-users, following the work of Roy Porter and Dale Peterson. However, further historical study is warranted into the relationship between mental illness and the family in post-war Britain, including the history of informal carers. This paper will use the case study of the voluntary organisation, the National Schizophrenia Fellowship (now Rethink), to focus on the origins and development of the Carer Movement which became increasingly mobilised from the 1970s onwards. This development will be examined in relation to the concurrent rise of the Service-User Movement, using the example of another voluntary organisation, MIND. During the 1970s and 1980s these voluntary organisations, which constituted a major element of both movements, worked collaboratively on a local scale, but experienced considerable tension on a national level. The factors contributing to this tension, including differing motives and priorities, will be examined. However, from the mid-1980s onwards the relationship between Service-User and Carer groups became one of increasing accord and the reasons for this will be addressed. Ultimately, this paper will suggest that the study of the Carer Movement can contribute a new dimension to the history of mental illness in the post-war period.

4b- Textual Practices

Ashleigh Blackwood- *Dissecting Discourse: The Implications of Gendered Practice in Obstetric Writing*

'Words are but the shell, that we oftentimes break our Teeth with them to come at the kernel,' Jane Sharp's *The Compleat Midwife's Companion: or, the Art of Midwifry Improv'd*, published in 1671, conveys her own self-conscious awareness of her work as both medical research and women's writing. This paper explores the connections between gendered practice and obstetrical development in the seventeenth century through the lens of printed literature. Looking at two different approaches, the paper specifically questions the impact of gender difference dividing male scholars and physicians from female midwives in their approach to reproductive medicine. In providing a case-study through which these ideas can be closely tested, comparisons are made between Sharp's work and William Harvey's 1651 publication *Exercitationes de Generatione Animalium*. Both have been selected to demonstrate gender issues present and their impact on areas including their diverging perspectives of obstetric discourse and the source materials available to each, factors which have influenced our understanding of what constituted obstetric studies of the period. Evident throughout is the difference in interpretation between the two groups as to what defined their 'Art' and the vital, yet undervalued role played by female practitioners in the development of knowledge on reproductive science with repercussions for gender relations more widely.

Hannah Ridge- *'Falsehood and Error': Medical Morality on Page and Stage*

The early modern period was a time of intense worry about the advances of medical science, and the emergence of the medical profession. This was intensified in England by the relative powerlessness of the College of Physicians as a regulatory body. Both Johan Oberndorf's 'The Anatomy of the True Physician' (1602) and John Securis's 'A Detection and Querimonie' (1556) are examples of conduct manuals written by physicians. They both contain descriptions of how physicians should behave and explicitly contrast morally upright physicians against other more transgressive members of the medical marketplace. This paper explores how Securis and Oberndorf are concerned with delineating the limits of acceptable medical behaviour and also explores contemporary tensions over publishing medical works in English and attempting to assert authority. Thomas Middleton's *Patient Man* and *The Honest Whore* (also known as *Honest Whore Part One*), William Shakespeare's *Cymbeline* and Thomas Dekker's *Match Me In London* present three physicians with diverse relationships to the codes of their profession. The paper, therefore, also discusses Securis's presentation of the Hippocratic Oath and how the playwrights represent doctors struggling with the competing demands of their professional adherence to the Oath and the power structures of their respective societies. Finally the paper aims to investigate the link between societal constructions of medical morals and the textual voices given to them, both through writing in the vernacular and translation, and also deconstructed upon the stage in order to comment upon the prevalence of these contemporary concerns.

Greg Wells- *What did James Cooke think he was doing?*

In 1657 a surgeon, James Cooke, published a medical textbook based on the casenotes of physician John Hall of Stratford upon Avon. A comparison of Cooke's book, "Select Observation on English Bodies" with Hall's original, shows considerable differences. I intend to explore the reason for Cooke's changes, and in particular whether they were dictated by practical considerations such as space, or by deliberate policy. To the extent that the latter occurs, is it possible to identify what motivated Cooke to make his changes?

Caroline Gillan- *The Function and Nature of Eighteenth-Century Scientific Dedications*

This paper which is based on my PhD project aims to examine scientific dedicatory practices in eighteenth-century Britain. Dedications were an important way for authors of signalling a connection such as gratitude or an appeal for continuing support to a particular patron. A leading patron like the third Earl of Bute received a multitude of dedications.

An examination of the scholarly work dedicated to Bute can largely be completed through the 17th-18th Century Burney Collection Newspapers and Eighteenth Century Collections Online. In his dedication, Sir William Fordyce praised the Earl of Bute his zeal and liberality in patronizing every discovery, or attempt, which may conduce to the promotion of the sciences and arts’.

I will examine whether there was an increase in the number of dedications made to Bute during his political career and period of influence with Royal Family. By analysing the careers and dedications of Bute’s clients it may be possible to ascertain how many were successful in gaining his patronage. An examination of dedications would provide a useful insight into the patronage system during the eighteenth century.

5a- Philosophy and Science

Andreas Sommer- *Science and the supernatural: Changing functions of the occult from Francis Bacon to William James*

In the last decades, historians of science have addressed fundamental problems with the modern standard view regarding the intrinsic dichotomy of science and its modern anti-figures: religion, magic and the occult. This paper investigates attitudes to the ‘supernatural’ by early modern natural philosophers such as Francis Bacon and Robert Boyle and outlines the origins of certain enlightenment ideologies, which came to full rise in the nineteenth century. It sketches changes of attitudes in the intellectual elite from the scientific revolution to the making of modern psychology in the nineteenth century, where a new wave of empirical studies of alleged occult phenomena threatened the fragile scientific image of nascent psychology from within. Utilizing historical debates around competing research programmes of the founders of modern psychology Wilhelm Wundt and William James it will be argued that modern enlightenment myths and resulting attitudinal prescriptions regarding the supernatural have produced a distorted historiography of nineteenth-century psychical research and its relationship to nascent academic psychology.

Barnaby Hutchins- *The mechanics of subvisible bodies in Descartes’ late physiology: a methodological problem*

This paper claims that there are two distinct, fundamentally different types of subvisible phenomenon in Descartes’ natural philosophy: individual subvisible phenomena and phenomena produced by subvisible mechanical systems. The former have been thoroughly examined in the literature. The latter have not, and they present new methodological problems: they cannot be dealt with using the kind of methodology previously attributed to Descartes’ subvisible mechanics. Subvisible mechanical systems arise most clearly in Descartes’ late physiology (in the Description of the Human Body and Treatise on the Passions of the Soul), which I claim is primarily concerned with systems built up of interdependent components. This produces previously unrecognised methodological problems for Descartes’ treatment of subvisible mechanism: specifically, when dealing with mechanical systems, inference from visible to subvisible is not the type of problem it first appears to be. It is not a problem of inference from the behaviour of visible bodies to the behaviour of subvisible bodies. Instead, it is a problem of determining the subvisible organisation of the bodies that compose a mechanism.

Laura Georgescu- *Processes of experimentation: the parallel of exploratory experimentation to experientia literata*

In recent philosophy of scientific experimentation, a new concept has been identified: exploratory experimentation. Exploratory experimentation refers to a specific process of experimentation whose distinctive feature is the systematic variation of the experimental parameters that plays a productive role in the scientific inquiry. I suggest that Bacon’s proposal of experientia literata is a forerunner of exploratory experimentation: similarities between the two methods of experimentation can be identified both at the level of their respective theoretical structures and at the level of the epistemic functions they perform.

Jane Orton- *Beyond the Shadows: Plato's Mathematical Journey to the World of the Forms*

According to Plato, we live in a substitute world. The things we see around us shadows of reality, imperfect imitations of perfect originals. Beyond the world of the senses, there is another, changeless world, more real and more beautiful than our own.

But how can we get at this world, or attain knowledge of it, when our senses are useless and the perfect philosophical method remains out of reach? In the Divided Line passage of the Republic, Plato is clear that mathematics has a role to play, but the debate about the exact nature of that role remains unresolved.

My reading of the Divided Line might provide the answer. The mathematical method, adapted to philosophy, is a central part of the Line's way up to the definitions of Forms that pure philosophy requires. I shall argue that this method is not, as some scholars think, the geometric method of analysis and synthesis, but reduction. On this reading, mathematics is pivotal on our journey into the world of the Forms because it gives us the stepping stones we need, before we reach the bridges of Platonic definitions.

6a- Consensus and Controversy

Martin Moore, *Creating a New Consensus of Care: Diabetes and General Practice in Britain, 1970-1992*

Prior to the 1960s, no standard criteria or locus of care existed for patients with diabetes mellitus in Britain - though many in larger cities would have been cared for within hospital-based 'diabetic clinics'. By 1992, the NHS and Department of Health had begun to offer general practitioners both guidelines and financial incentives as a way to encourage and control diabetes care in the community. This paper looks to chart this change from hospital to surgery, and from individualised clinician preference to the beginnings of bureaucratic, state-management. By laying out the schemes proposed by a handful of leading general practitioners and diabetologists during the 1970s and 1980s, I seek to explore how a mix of professional identities, changing political agendas, new technologies and old visions of diabetes mellitus collided to create a new consensus of care with regards to disease management programmes.

This paper forms part of a larger project considering the role of chronic illness in reforming British medical practice in the twentieth century.

Alessandro Allegra- *The definition problem of the "gene": an historical perspective*

In its current usage, the term "gene" has not an univocal definition. It will be claimed here that it is the result of various (and sometimes contradictory) definitions accumulated during its historical development having been subsumed under a unique label.

The classical concept of the gene, spanning the period from the invention of the term gene in 1909 to the advent of molecular biology in the 1940s, provided the gene with most of its functional characteristics, remaining however agnostic about its material structure.

The molecular concept of the gene on the other hand, exploded in 1953 with the DNA based model of heredity, when it was thought that all the concepts of genetics could be explained on a molecular basis.

Starting from the 1970s however, the amount of knowledge acquired in the fields of molecular and developmental biology led to the point that none of the previous definitions held, thus leading to a fragmentation of the concept.

Because of the fact that none of these concepts are completely reduced to the following, it will be proposed that the term gene in its modern usage has to be intended as a "cluster" aggregating all the different conceptions of the gene historically presented by the different points of view, namely the traditional, the nominal and the postgenomic gene concept.

Jordi Mora Casanova- *The appropriation process of a model for the structure of matter: Berthelot, Luanco and the unity of matter*

The Spanish chemist José Ramón de Luanco (1825-1905) was one of the introducers of atomistic notation in the Spanish universities. Despite he believed in the physical existence of atoms, his view of the constitution of matter was not based on Dalton's atomic model, because he was not fully convinced about the rigid axioms proposed by the English chemist. On the other hand, Marcellin Berthelot (1827-1907) was the main supporter of the equivalentist notation on his time. Despite his opposition towards the hypothetical concept of atom, he accepted some kind of chemical atomism. Surprisingly, Luanco and Berthelot shared a common theoretical

background: the unity of matter. On this theory, there exists only one kind of substance which makes up all the elements. Their approach differed from that of William Prout and was based in an alchemical tradition. Although the French chemist affirmed that he followed the Byzantine alchemists, Luanco suggested that Berthelot used the theories of the Spanish alchemist Arnold of Vilanova. This point of agreement shows that there existed many chemical atomist theories in 19th century and even atomists and equivalentists could share the same model for the structure of matter, as their differences were mostly formal.

Mar Cuenca-Lorente- *Invisible crimes?: Poisons, Experts and the Shaping of Nineteenth-century Toxicology in Spain*

This paper aims to give an overview of Spanish toxicology in the nineteenth-century. It is focused on a poisoning trial which achieved a great impact at the time. Around the middle of 1844, Pilar Campé was accused of poisoning her friend, María Bonamot by using opium or one of its derivatives. One of the expert witnesses was Pere Mata i Fontanet (1811-1877), chair of Legal Medicine in the Faculty of medical sciences of Madrid, and a key-figure in the development of Spanish toxicology. The study deals with the diverse definitions of poison in the scientific and legal contexts. It also tackles the problem of the detection of new substances like alkaloids which defied nineteenth-century chemical tests. The debates that arose during the trial unveiled the everyday practices of toxicologists and the puzzling problems that they had to face. The controversy also produced a great amount of historical records which can be employed to analyze a broad range of questions about experts, science and law in the peripheral context of nineteenth-century Spain: What was the role of experts in nineteenth-century courtrooms, and how peripheral situation shaped the definition of experts? How is knowledge transferred from the laboratory to the courtroom? What happens when experts disagree and how are scientific controversies produced?

6b- Constructing Scientific and Political Cultures

Jacob Halford- *Semantic Shifts and the Scientific Revolution*

Natural Philosophy underwent a significant conceptual change during the seventeenth century. It saw the traditional philosophy of Aristotle rejected and replaced with the new experimental philosophy. This paradigm shift was accompanied by linguistic changes, as words were utilised in the rhetoric of writers and the meanings over what certain words and phrases meant contested. In this paper I will outline the way in which the phrase “new philosophy” was invented and the subsequent conceptual changes and debates over its meaning that occurred as part of the creation of experimental philosophy within natural philosophy. It will explore the constellation of ideas associated with ‘new philosophy’ at three moments of time to examine the conceptual shift that occurred during this century and how it went from it being used as a derogatory term to a badge of accolade and honour by the proto-scientists at the end of the century. This semantic shift demonstrates the way in which paradigm shifts such as the scientific revolution can be detected through looking at linguistic patterns. This is insightful into understanding the trajectory and decimation of new ideas and how radical concepts are normalised and accepted by society.

Clara Florensa- *Appropriation of evolutionary theory in Francoist Spain. The case of La Vanguardia Española (1939-1978)*

The roles of communicators and receptors and their epistemological activity, the directionality of circulation of knowledge and reception or appropriation of this knowledge are key concepts in science communication that emerge in every case study of new knowledge being “imported” from center (where the knowledge is created) to periphery. The reception of Darwinism in Spain is a good example: far from being a simple transmission of a scientific aseptic knowledge, evolutionary theory is adopted by some segments of the society and used both as a symbol for their own ideals and as instrument to back a host of often very different arguments. Such a process of appropriation is ongoing and hardly ever “finished”: the theory can be used for different propagandistic purposes when the political and social environment changes. This paper analyses the treatment of evolutionary theory in La Vanguardia, one of the oldest and most widely read newspapers in Spain during Franco’s regime and the political transition thereafter, when the paper changed its name into La Vanguardia Española. Darwinism was seen as a dangerous knowledge that should be managed carefully while Neo-Darwinism, characterized by a genetic “more scientific” jargon, might have benefitted from a phase of openness of the dictatorship, eager to develop a discourse of modernity and opening to outside, using science communication in the press in a propagandistic effort.

James Goodchild- *Boffins, Wonks and Egg-heads: Culturing the Heroes of Twentieth Century Science*

This paper will examine the origins and impact of the 'boffin' in popular and scientific culture. Contemporary British cultural perception defines a boffin as a 'bookworm' drawn blinking into the white heat of technology; the hesitant intellectual whose penchant for science and technology is utilised for grander, more ideological purposes than pure unfettered research.

Scientific servants of the state hold their place in the historical laboratories of national research establishments – post-war and post-cold war. Such histories have explored the pursuits of scientific possibilities for state application, societal consumption, and the use of science for good or ill. Popular culture has further explored the characteristics of these servant scientists, technicians and engineers in many disparate ways: for war in *The Small Back Room*; for Intelligence in the Q-Labs of the espionage world (real and imagined); for industry in *The Man in the White Suit*; and in 'Big Science' with Dr. Strangelove et al are good examples.

Yet popular culture has broken the 'Big Science' harness for the boffins, and freed the wonks and eggheads from their corporate shackles, by generating other, more transformative ideas, which in many cases, and through many mediums, have generated by-products of the implicit societal fear of science and applied technology. Exposure of the roots of the popular image of the 'boffin' will allow us to understand more about the cultural perception of twentieth century science. Through appreciation of how popular culture has treated the scientific developments of the twentieth century, this paper will question the fundamental meanings behind the cultural constructions of boffins, wonks, and eggheads.

Carolyn Dougherty- *Gravity and Power*

In his *Principia Mathematica* Isaac Newton described a force he labelled 'gravity', the magnitude of which depended on the masses of the objects involved and the distance between them. Although they were able to precisely calculate its effects, neither Newton nor later physicists proposed any explanation for such 'influence at a distance'. Newton's conception of gravity remained virtually unchanged until the early 20th century, when Albert Einstein developed new understanding of it as the observed effects of a space-time matrix shaped by the masses within it.

The 17th century idea of gravity resembles the traditional description of political power, in that power resides within entities, only the strongest of these entities exert measurable power, and the magnitude of power exerted depends on the size or strength of the entities involved and the distance (physical or social) between them. A generation after Einstein, philosophers began to redefine our understanding of power, from a property that entities possess to a matrix of influence within which multiple stakeholders act.

This paper describes this change in the understanding of gravity, compares it with changes in ideas about power, and sets the interaction between these concepts within the broader context of the interaction between prevailing scientific and cultural ideas in the 20th century.

7a- Visualisation and Medicine/Science

Hsiang-Fu Huang- *The Universe in a Cockpit: popular astronomy lectures and displays in nineteenth century Britain*

Scientific spectacles were common scenes in nineteenth century Britain. In succession to the eighteenth century's public philosophical lectures and experimental demonstrations, scientific displays at this age evolved into a larger, more theatrical, and more entertaining venture to a broad audience. Among the subjects in scientific spectacles, astronomy was always the chief attraction. From the discourses delivered by professional astronomers (e.g. Robert Ball's lectures in the Royal Institution) to the staged shows managed by businessmen (e.g. the large transparent orrery 'Eidouranion' of the Walkers), nineteenth century astronomy popularisers and their activities had a variety of levels and aspects. This differentiation of popular astronomy became a significant phenomenon in this period. To survive in a competitive marketplace, no matter what kind of activity was, the common art shared by these popularisers was the showmanship for grabbing the attention of the audiences. Different categories of visual aids, such as orreries, planetariums, lantern slides, and dioramas, were used in these popular displays. By investigating the visual aids of astronomy lectures and displays, this study will look into the material culture and the transition of contemporary astronomy popularisation.

Claire Trevien- *The Spectacle of Science : illusion in prints of the French Revolution*

In this paper, I will discuss prints from the French Revolution that utilize scientific instruments as political metaphors. France's fascination with science during the Enlightenment has been well documented, notably by

Bernadette Bensaude-Vincent and Christine Blondel, but there is still work to be done on the relationship between Revolutionaries and science. Whether it was seen as an ally or a foe, the spectacle of science attracted Revolutionary artists. This pull reveals not only an understanding of scientific material thanks to the groundwork of the Enlightenment, but also a need to reposition science within a Revolutionary context. What the prints have in common is 'spectacle' in the sense that they are pre-occupied with the idea of illusion, not just as a negative act of deception but as a creative and potentially empowering process, allowing the viewer to see beyond reality into a brighter future.

Marius Buning- *Proofing inventions: Privilege drawings and scale modelling in the early modern Dutch Republic*

In this paper I shall be concerned with the use of drawings and scale models in the process of obtaining invention privileges' in the early modern Dutch Republic. Invention privileges were the precursors of what we nowadays call patents. Just as patents have to be disclosed by means of so-called patent specifications, early modern inventions were disclosed by something like a "privilege specification". The general view is that these privilege specifications were of secondary importance, since they were notoriously inaccurate. In my paper I shall discuss some examples of drawings and models that do not fit in with the traditional view on privilege specifications. Thus I want to open up a set of questions that explore how administrative obligations led up to the entanglement of technical drawings with truth finding procedures.

7b- Ancient Traditions

Olga Sapoznikov & Vaclav Paral- *Animals in the Old Testimony: Anatomical View*

The Bible - the most popular book in the entire world - mentions animals. In those times, animals had an important role in people's lives. They were used for work, transportation, food; they were exchanged, traded and used in religious rituals. The Old Testimony not only names the animals, but describes their body parts and how they were used. Some of the descriptions show good anatomical knowledge. A use of an animal body part as a weapon was made by Samson who used the jawbone of an ass to slaughter one thousand Philistines. The old Testimony refers to animals metaphorically - David the King of Israel said: "The LORD that delivered me out of the paw of the lion and out of the paw of the bear" (1 Samuel 17:37). Another metaphor could be found in the Book of Genesis, where the heel of the horse is mentioned as a sensitive location on its body. Other Books describe in detail animal sacrifice and could show us the origin of slaughter in general and kosher slaughter in particular. It is possible to say that even in biblical times people dealt with some extent of animal morphology.

Abdulrahman A. Aqra - *Gods of healing in Canaanite civilization*

The role of gods in Canaanite civilization in healing is similar to that of gods in ancient Egypt and ancient Greece as well. The Canaanite discovered manuscripts in Syria have revealed a role for the major Canaanite God El in healing, but there are other gods who have specifically dealt with the healing process and health care, and causing diseases as well, especially God Eshmun and God Resheph, the later was god of plague and healing too.

The mentioned gods have also been considered as tutelary gods of given regions in ancient land of Canaan, which also confirm their role in healing.

In Egyptian iconography we also read about a relationship between the Egyptian gods and those of Canaanites which explore a kind of cooperation between the old civilizations of the Near East not only between people but also between gods of the old civilizations. This also sheds a light on the influence of more powerful neighborhood on the Canaanite civilization.

Some of religious rites of Canaanites contain health care meanings, including some hygiene procedures, which reveal the role of gods in healing and health care in the old civilization of Canaan.

Shazia Jagot- *Chaucer's 'loveris maladye/Of hereos' and the Arabic Medical Tradition*

Arabic medical works, in their Latin translations, by such authorities as Avicenna (Ibn Sina), Haly Abbas (Ali ibn al-Abbas al-Majusi), Rhazes (al-Razi) and the infamous Averroes (Ibn Rushd) formed part of the core curriculum of the nascent universities of Paris, Oxford, Bologna and Padua from the twelfth-century onwards. Textual evidence in Geoffrey Chaucer's *The Canterbury Tales* points to his awareness of the Arabic medical tradition, particularly his portrait of the Doctor of Phisik in the General Prologue which explicitly names each of these scholars. It is my contention that Chaucer had more than a fleeting awareness of the Arabic medical tradition and this is explicitly shown in his depiction of the medieval literary convention of amor hereos, love as a malady, which is accurately diagnosed as an illness complete with prescribed medical treatment in *The Knight's*

Tale and Troilus and Criseyde. Focusing on these works this paper will illustrate the Arabic medical sources of Chaucer's treatment of amor hereos, which has thus far been overlooked in scholarship, in medical compendiums such as Avicenna's Canon of Medicine and Constantine the African's Latin translation of Haly Abbas's The Complete Book of Medical Art, the Liber Pantegni. Furthermore, this paper will examine the appropriation and assimilation of Arabic medicine into the Medieval West and its manifestation in literature.

8a- Responses to Disease

Jane Hand- *The Crusade to 'Conquer Cancer': Public and Voluntary Health Education Initiatives in the Campaign against Lung Cancer in Ireland 1958-1978*

In post-Emergency Ireland mounting international evidence asserting a causative relationship between cigarette smoking and lung cancer formed a central component of a new health ideology. This was characterised by a burgeoning relationship between scientific enquiries and the formulation of state health policy. With chronic, rather than epidemic or infectious diseases beginning to dominate the health problems of the nation from the 1950s, a need for interventionist and educative policies rather than curative practices was championed by both central government and a number of voluntary organisations. This paper will analyse the development of Irish health education campaigns concerned with the cigarette smoking and lung cancer issue from the late 1950s until the introduction of the Tobacco Products (Control of Advertising, Sponsorship and Sales Promotion) Act, 1978. It intends to argue that the international debate surrounding the association between cigarette smoking and the incidence of lung cancer proved pivotal in facilitating the formulation of an Irish policy response to chronic disease, whilst positioning the role of voluntary health organisations in legitimising the public health case with specific reference to cancer care. Ultimately the overall aim is to deepen understanding of the scientific position of public health through the prism of statutory and voluntary health education campaigns during the post-Emergency period.

Josette Duncan- *Prostitution and Isolation - the Contagious Diseases Acts as practised in the Mediterranean British Colonies*

George Sandys in his book in 1673 described the asylums in existence in the capital city of Malta. He said "Here be also three Nunneries, the one for Virgins, another for penitent Whores, (of penitent here are store) and the third for their Bastards". This very crude and apt description of some of the asylums in Valletta reveals more than meets the eye. In this paper I will endeavour to give a brief description of the asylums for prostitutes in Malta, the Ionian Islands and Cyprus. I will also explain Foucault's paradigm of sexuality in the context of the Islands' prostitution and sex workers. I also wish to explain briefly the diversity of prostitution and the Contagious Diseases Act across the British Empire in particular the Mediterranean and explain how regulationism was aimed at containing the prevalence of venereal diseases throughout the Empire.

Barbara C. Canavan- *Predicting the Next Pandemic*

The history of medicine plays a critical role in contemporary public health. This paper examines the history of medical theories used to predict the "next" influenza pandemic. Virologists have attempted to forecast pandemics based on virus characteristics and/or natural cycles, factors that continue to present daunting challenges. The 1976 swine flu in the United States is used as a case study to examine how well pandemic predictions worked politically in a time of crisis. In the broader social context, predictions that are imprecise can undermine public confidence about the risks and benefits of vaccination. Based on past history, there is no reliable basis for predicting when and where pandemics might arise. The links between rapid environmental change and novel pathogens suggest we are entering a transition in the history of emerging infectious disease and related medical treatments. Lessons from the past suggest the need to integrate public health preparedness with climate and other environmental conditions. In our current world of instant social media, the public expectations of pandemic prediction and response have changed. Real-time disease surveillance and international collaboration provide opportunities to anticipate but not predict the next influenza pandemic.

Yolana Pringle- *Explaining epidemics of 'mass hysteria' in East Africa, 1962-4*

During the early 1960s health officials in Uganda and Tanzania received a number of reports of 'mass hysteria' in the areas around Lake Victoria. Investigations revealed a number of competing explanations, including witchcraft, poisoned food, and social strains resulting from independence from colonial rule. Moreover, researchers drew attention to the fact that there were no reported cases among teachers, policemen, or other authority figures in order to fuel debates on the stability of the African mind'.

Using medical reports and interviews conducted during recent fieldwork in Uganda, this paper examines the ways officials, psychiatrists, and local villagers explained and continued to explain 'mass hysteria'. It considers the ways in which medical officers at the time attempted to balance local explanations for the epidemics with wider concerns over the inability of Africans to cope with 'civilisation'. It also explores the difficulties of using oral history to examine epidemics in the past, arguing that we cannot understand how people conceive of these epidemics without considering popular understandings of HIV/AIDS. In so doing, the paper contributes to our historical understanding of mental illness in Africa, a field that to date has been dominated by studies of the colonial asylum.

8b- (Panel) Encounters with Social and Economic History

History of science and technology shares many concerns with social and economic history. In many respects, though, these sub-disciplines have diverged, offering different approaches to argument and to evidence, and for contingent reasons as well as because of substantive differences of approach. Some influential recent economic history, notably that by Joel Mokyr, has been extremely dismissive of recent history of science; metaphors of technological evolution abound in economic histories but are taboo among most historians of technology. Recent social history, similarly, has found rich approaches to matters of material culture and new knowledge far from the laboratory and standard centres of novelty. One question is whether this matters; another is what if anything we have to learn from other kinds of history. This panel will provide worked examples of work which draws on social, economic and history of science approaches, with the aim of challenging and enriching all three.

Matthew Paskins- *Stoves, Ventilators and Flat Socialities*

Stoves, Ventilators and Flat Socialities: drawing on the recent work of Carolyn Steedman, this paper argues for the significance of simple and domestic technologies to the technological history of the eighteenth century. We cannot understand how contemporaries thought of machines without understanding the machines they thought with: and these belonged to the kitchen, the prison, the workhouse and the ship, servants and the unskilled poor not only to the mine and the factory and the new-minted working class.

Michael Weatherburn- *Towards a History of Industrial Production: the inter-war National Institute of Industrial Psychology*

Towards a History of Industrial Production: the inter-war National Institute of Industrial Psychology" Historians of science have shied away from production, and industrial sociology has all but disappeared. The paper will discuss a conceptual recasting of industrial history, which will synthesise elements of the history of science, economics, and business. Long the domain of public museums, school classrooms, and tales of dark, satanic mills, the history of industry can tell us a lot about how and why certain items and processes became successful, and why others did not. Manufacturing processes, distribution, packaging, and even storage were as important, if not more important, than the novelty of the actual products being made.

William Burns- *Apple cultures: Pests, pumps, and pipes in interwar British orchards*

In the interwar period, British consumers switched from eating largely imported apples from North America and Australasia to eating varieties grown in Kent and other parts of southern England. The de-globalisation of apple supply was driven by growers and agricultural scientists who 'modernized' their methods of cultivation, storage, packing and marketing. Inspired by John Soluri's work on 'banana cultures', I will recount how new practices of disease and pest control, based on chemical sprays containing copper sulphate, lime sulphur, lead arsenate, tar oil and nicotine, were developed in interwar British orchards. These chemicals, sometimes distributed among the trees via networks of buried pipes, were used to suppress epidemics of fungal blight and of arthropod pests such as the aphid, codling moth and apple blossom weevil, thus stabilizing yields in Britain's inhospitable climate of late frosts and damp summers. As I will describe, pest control practices were shaped by pesticide makers, agricultural suppliers and experimental stations that appeared in the major apple producing areas.

9a- Science and the Public

David Hirst- *From Conference to Conference: Climate Change Gets Political, 1979-1992*

This paper will trace the transition of climate change from a fringe component of the United Nations Conference on the Human Environment in 1972, to its position centre stage at the 1990 Second World Climate Conference. Whilst, the 1972 Conference on the Human Environment is commonly recognised as heralding the

birth of international environmental politics, it wasn't until the 1980s that climate change was pushed to the fore-front of international environmental policymaking. The piecemeal acquisition of knowledge about the global climate was supported in this period by the WMO, ICSU and UNEP through the newly formed (b. 1979) World Climate Program (WCP). Through the regular meetings and expert conferences, organised under the auspices of the WCP, an epistemic community' began to coalesce around a number of prominent meteorologists, such as Joseph Smagorinsky and Bert Bolin, who began to discuss and advocate policy measures. This paper will ask how and why the context of the 1980s, set against the backdrop of the discovery of the Antarctic o-zone hole and public warnings of future environmental apocalypse due to nuclear fall-out, and a series of conferences and workshops prompted scientists to speak out to policymakers warning of a still highly uncertain threat of anthropogenically induced climate change.

Miquel Carandell- *Getting a Different Dimension: The Orce Man Controversy in Spanish Newspapers*

In 1983, a cranial fragment attributed to Homo sp. was found in Venta Micena, Orce (Granada, south Spain) by Josep Gibert, Salvador Moyà-Solà and Jordi Agustí, paleontologists from the Institut de Paleontologia de Sabadell. The bone was named "the Orce Man" by Spanish mass-media where it had a great impact. One year later, the same cranial fragment was attributed to a donkey, genre Equus, by the French scientist Marie Antoinette de Lumley, as reported by the newspaper El País. A very harsh controversy began. Only Josep Gibert continued to claim that the Orce fragment was human. The mass-media, especially newspapers were the scenario for the scientific debate. Three years later, Agustí and Moyà-Solà announced in Spanish newspapers the forthcoming publication of the first scientific paper following de Lumley's attribution. Agustí then stated in El País that "the scientific debate should have been limited to scientific publications, but the media treatment of the issue has given it a different dimension". Due to the controversy, public institutions denied Gibert excavation permits and funding and was marginalized by his colleagues.

The early scientific popularization and the later controversy in the press changed the status of the debate from a scientific to a public debate. Through a profound study of the main Spanish newspapers of that period and of scientific publications concerning the Orce Man, this paper attempts to analyze the role of science communication in the shaping of scientific research around the Orce Man during that twenty-four years of controversy, from 1983 to 2007, when Josep Gibert, the main defender of the Orce Man, died.

Alice White- *Selling Social Science Solutions: Making the Case for Human Relations in Post-War Britain*

Human Relations could stop workers taking time off sick. Human Relations could even help to create world peace. These were just two of the claims made for the discipline by its social scientists after the Second World War, and directed at industry and government, the main providers of funding in an age of "Big Science". This paper will consider how Human Relations expertise was justified, how its social scientists sought to shape modern citizens' minds, and what contemporary problems this expertise sought to address.

9b- (Panel) The Board of Longitude 1714-1828: Science, Innovation and Empire in the Georgian World

The AHRC-sponsored Board of Longitude Project proposes a panel consisting of Eoin Phillips, Katy Barrett and Sophie Waring. In this panel we will discuss some of the work that the Project is doing to consider how government funding of science worked in the eighteenth and nineteenth centuries. With the theme of navigational science and instrumentation the panel will contain talks on early longitude schemes, astronomers and the trialling of timekeepers, and the Nautical Almanac.

Katy Barrett- *Longitude Inscrub'd: Early pamphlet solutions to the longitude problem*

The 1714 Act which founded the Board of Longitude initiated a flood of pamphlets proposing new methods of measuring longitude accurately at sea. These are one means of looking at attitudes to the 'problem' of longitude in the period before the first minuted Board meeting in 1737. This paper considers the function of the images that accompanied many of these early schemes, using Latour's idea of inscription with Bender's idea of 'diagram.' Inscribed lines – of cartography, of illustration, of print, and of mechanism tied together the instruments, texts and images which collectively articulated possible solutions.

Eoin Phillips- *Between Astronomer, Timekeeper and Logbook: Moving between the discovery and production of Longitude*

Timekeepers at sea in the eighteenth century have been given a neat two-phase history: following a period on land in which their identity was intertwined with the characteristics of their proponents and subject to contested claims and appeals between their artisanal makers and apparently often reluctant representatives of

the Board of Longitude, Government, or Admiralty, marine timekeepers could move aboard ships in which they could be unambiguously trialled and tested, and their performance unproblematically translated into the language of the logbook. Through focusing on the role and practices of astronomers onboard voyages of discovery, this paper will argue that the trialling of timekeepers and other methods of finding longitude were as deeply immersed within the dynamic and contested space of authority and ritual on a ship as they were on land.

Sophie Waring- *The Nautical Almanac: An Instrument of Controversy*

In 1818 the superintendency of the Nautical Almanac fell to Thomas Young and till his death in 1828 the Almanac was connected to larger issues of reform in science. The Almanac's tables were essential to navigation, yet it was also an instrument for astronomers; these two demands resulted in the Almanac being one of the most controversial instruments of the period. This talk will demonstrate how technological developments can affect state policy in addition to scientific thought; we can hope to discover what it meant in its original setting, as both a scientific instrument and a government sponsored publication.

Delegate List:

Name	E-mail address	University affiliation
Abdulrahman A. Aqra	zahrawynet@gmail.com	Najah National University
Advait Deshpande	a.deshpande@open.ac.uk	The Open University
Alessandro Allegra	a.allegra@lse.ac.uk	LSE- Philosophy, Logic and Scientific Method
Alice White	aw380@kent.ac.uk	University of Kent - History
Andreas Sommer	a.sommer@ucl.ac.uk	University College London - Centre for the History of Psychological Disciplines
Anna Jenkin	anna.jenkin@balliol.ox.ac.uk	Oxford University - History
Ashleigh Blackwood	ashleigh.blackwood@northumbria.ac.uk	Northumbria University
Barbara C. Canavan	canavanb@onid.orst.edu	
Barnaby Hutchins	barnaby.hutchins@ugent.be	Universiteit Gent, Philosophy
Caroline Gillan	c.gillan1@nuigalway.ie	NUI Galway - History
Carolyn Cobbold	cac85@cam.ac.uk	Cambridge University - History
Carolyn Dougherty	cd143@york.ac.uk	University of York--Railway Studies
Charlie Small	R.C.Small@warwick.ac.uk	University of Warwick- History
Claire Sewell	C.S.L.Sewell@warwick.ac.uk	Warwick University- History
Claire Trevien	c.l.trevien@warwick.ac.uk	Warwick University - French Department
Clara Florensa	cflorensa@gmail.com	Autonomous University of Barcelona - CEHIC (Studies Center for the History of Science)
Daniele Macuglia	macuglia@uchicago.edu	The University of Chicago- Morris Fishbein Center for the History of Science and Medicine
David Beck	D.C.Beck@warwick.ac.uk	Warwick University- History
David Hirst	david.hirst-3@postgrad.manchester.ac.uk	University of Manchester- CHSTM
Elizabeth Gray	liz.lizann@gmail.com	Queen Mary, University of London - History
Eoin Phillips	eoin.e.phillips@gmail.com	University of Cambridge - HPS
Gareth Millward	Gareth.Millward@lshtm.ac.uk	London School of Hygiene and Tropical Medicine - Centre for History in Public Health
Greg Hollin	gregory.hollin@nottingham.ac.uk	University of Nottingham - Institute for Science and Society
Greg Wells	greg.wells.2@warwick.ac.uk	Warwick University- History
Hannah Ridge	ridge.hannah@googlemail.com	Leeds University - English
Hsiang-Fu Huang	hsiang-fu.huang.10@ucl.ac.uk	UCL- Science and Technology Studies
Jacob Halford	J.J.S.Halford@warwick.ac.uk	Warwick University- History
James Goodchild	jmg218@exeter.ac.uk	University of Exeter - History
James Hall	jh567@cam.ac.uk	University of Cambridge - HPS
Jane Hand	J.Hand@Warwick.ac.uk	Warwick University- History
Jane Orton	J.Orton@sms.ed.ac.uk	Edinburgh/Bologna - Classics/Philosophy
Jesse Olszynko-Gryn	jo312@cam.ac.uk	University of Cambridge, Department of History & Philosophy of Science
Jordi Mora Casanova	jmora1981@gmail.com	Universitat Autònoma de Barcelona - Department of Philosophy

Josette Duncan	Josette.Duncan@warwick.ac.uk	Warwick University- History
Josh Moulding	J.Moulding@warwick.ac.uk	Warwick University- History
Julie Hipperson	j.hipperson11@imperial.ac.uk	Imperial - Centre for History of Science, Technology and Medicine
Katherine Platt	kathfplatt22@yahoo.co.uk	University of Manchester - CHSTM
Katy Barrett	kleb2@cam.ac.uk	University of Cambridge, Department of History and Philosophy of Science
Laura Georgescu	mailgeorgescu.laura@gmail.com	University of Bucharest, Philosophy
Lesley Steinitz	lh435@cam.ac.uk	Uni of Cambridge, History
Lisa Taramaschi	lisa.taramaschi@gmail.com	Genoa University (Italy) - History
Mar Cuenca-Lorente	cuenloma@alumni.uv.es	Institute for the History of Medicine and Science "López Piñero" (CSIC-UV)
Marius Buning	marius.buning@eui.eu	European University Institute, HEC department
Martin Moore	martin.moore@warwick.ac.uk	Warwick University- History
Matthew Paskins	m.paskins@ucl.ac.uk	UCL - STS
Michael Kay	ph06mk@leeds.ac.uk	University of Leeds, History and Philosophy of Science
Michael Weatherburn	michael.weatherburn08@imperial.ac.uk	Imperial College - Centre for the History of Science, Technology, and Medicine
Mike Buttolph	m.buttolph@ucl.ac.uk	UCL STS
Miquel Carandell Baruzzi	m_baruzzi00@hotmail.com	Pompeu Fabra University - Barcelona
Olga Sapoznikov	olga_sap@hotmail.com	University of Veterinary and Pharmaceutical Sciences Brno - Morphology
Orla Mulrooney	O.Mulrooney@warwick.ac.uk	Warwick University- History
Rebecca Bowd	his5r2eb@leeds.ac.uk	University of Leeds- Centre for History and Philosophy of Science
Rebecca Whyte	rmw44@cam.ac.uk	Cambridge University, History
Rebecca Williams	R.J.Williams@warwick.ac.uk	Warwick University- History
Roberto Cantoni	realecomplesso@gmail.com	University of Manchester - CHSTM
Roland John Edwards	dfedwards@btinternet.com	The University of Manchester, Centre for History in Science, Technology and Medicine
Ruth Horry	rah54@cam.ac.uk	University of Cambridge, History & Philosophy of Science
Sam Robinson	samuel.robinson-3@postgrad.manchester.ac.uk	University of Manchester - CHSTM
Shazia Jagot	sj82@le.ac.uk	University of Leicester-School of English
Sophie Waring	sjew2@cam.ac.uk	Cambridge University- History and Philosophy of Science
Teresa Chilton	teresa.chilton@manchester.ac.uk	University of Manchester
Thomas Bray	t.bray@warwick.ac.uk	Warwick University- History
William Richard Burns	w.burns10@imperial.ac.uk	CHOSTM, Imperial College, London
Yolana Pringle	yolana.pringle@jesus.ox.ac.uk	University of Oxford - History