

The Nature
of Evidence
How well
do 'facts'
travel?

Annual report
2007 - 2008

**The Nature of Evidence: How Well Do 'Facts' Travel?
Funded by the Leverhulme Trust and ESRC (Grant F/07004/Z)**

**4th Year Progress Report
Period 1st September 2007-31st August 2008**

This fourth year of the project has seen three successful workshops and a major conference at the British Academy and these group activities form the basis of our report this year. As in previous years, we have maintained a seminar programme at LSE and organised a number of symposia on our project work at international conferences while all the project members have continued their own individual research.

Research Personnel

The project team this year has consisted of the following (post-doc fellows indicated by *), with their main research topics within the project noted beside them (Dr Ramsden continues to do research with the project though he has now joined Exeter University):

Dr Jon Adams*: popularizations of science in science writing and in fiction
Dr Peter Howlett: the transfer of facts during the Green Revolution and in current agricultural extension work in India
Dr Sabina Leonelli*: travelling of small facts in the development of bigger ontologies in biology
Dr Erika Mansnerus (formerly Mattila)*: epidemiological models as a site where facts are transferred and transformed
Professor Mary S. Morgan: travelling facts in social sciences, particularly economics
Dr Ed Ramsden*: how facts about rat behaviour travel to discussions about human behaviour
Dr Simona Valeriani*: transfer of technological facts in building and architectural history
Dr Patrick Wallis: tacit knowledge facts in assessing the quality of materials and in apprenticeship training in early modern period

Four PhD students have continued to work in the group this year (* indicates funded by the project).

Albane Forestier: knowledge transfer networks amongst merchants trading the Atlantic
Julia Mensink*: the marketing and use of poverty measures as facts that travel
Ashley Millar: the European reception for facts about China's political economy in the early modern period
Aashish Velkar: industrial standardization during the mid nineteenth century, and agricultural extension facts in modern India with P. Howlett

The project has continued to benefit from the participation of academic visitors:
Dr Rachel Ankeny, School of History and Politics, University of Adelaide, Australia
Dr Ir Marcel Boumans, University of Amsterdam, Faculty of Economics

Dr David Boyd Haycock, National Maritime Museum, Greenwich
Professor Martina Merz, Department of Sociology, University of Luzern, Switzerland

Research Workshops

Following the original project design and the format established last year, we held three further workshops, each organised by one of the post-docs around their own research question. Each event involved not only members of the expert community in that researcher's field, but others – particularly our project visitors – whose expertise was complementary and whose papers and commentary had wider relevance to our project as a whole.

The first of these three workshops during the reporting year (the fourth workshop of the whole project) was held on Monday 17 and Tuesday 18 December 2007. It was designed and hosted by Dr Simona Valeriani under the title *Facts and Artefacts: What Travels in Material Objects?* with its main focus on material objects as vehicles for 'facts'. While the development, uptake, and transmission of aesthetic styles and figurative elements is well documented in the history of architecture - much less has been said about the technical skills related to the architectural language – and hence, how technical knowledge is transferred between different actors and through time and space, and in particular, how such facts are transferred through the materials of buildings. This is the main question for Dr Valeriani's research and she introduced the workshop by discussing a number of examples of such transfers of European building methods and designs in the early modern period. A number of invited speakers at the workshop dealt explicitly with these questions in the fields of building and architecture: Nicola Navone (Universita della Svizzera italiana) discussed the role of Swiss-Italian architects and craftsmen in building work for the Russian Tsars; Vaughn Hart (Bath University) spoke on the role of geometry in English architecture; David Yeomans on mistakes made in technology transfer in modern building work; and Edward Chaney (Southampton Solent University) on looting of obelisks from Egypt by both ancient and modern societies to make civic and political statements. Werner Oechslin (Institut für Geschichte und Theorie der Architektur, Zurich) gave a broad talk about the role of the material world in the world of ideas while Alison Wylie (University of Washington) used the example of North American archaeological sites to discuss how material remains travelled from sites to museums and how facts drawn from such material objects were subject to re-interpretation as more materials were gathered. The discussion focussed not just on the travelling of such facts across both space and time but the nature of facts found embedded in materials.

The second day of the workshop extended its reach through presentations from five specialists who work with objects by restoring them, or by analysing or caring for them in museums. Marta Ajmar-Wolheim (V&A) discussed the various ways in which new forms of ceramics inspired both competition and copying, the latter to the extent of various techniques used to falsify the identity of either materials or sources so that ceramics became both carriers of facts and of fakes. Frances Halahan (restoration consultant, Dar Al Athar Al-Islamiyah, Kuwait) discussed a project that involved sifting through the many small remains of a burnt house and the difficulty of establishing identity and ownership of these many little remains; Rick Steckel (Ohio

State University) discussed how modern techniques extract information about diet and disease from ancient human bones; Susan La Niece (British Museum) showed us how she analysed the methods of production of ancient weapons to say something about their function and provenance; and Andrew Nahum (Science Museum) passed around some model engines to teach us how to draw facts (such as country of origin and tools of production) out of salient details of their design. Through this very unusual, but successful, series of presentations and interactions, the project team gained a strong sense of the multiple ways that facts can be carried in and by artefacts, and the many different expertises required to see, understand, and draw them out again. These issues were reflected in the final discussion led by Harro Maas (University of Amsterdam) and Antoine Picon (Harvard).

The second workshop was held on Thursday 27 and Friday 28 March 2008 and was organised by Dr Sabina Leonelli to focus on *Making Small Facts Travel: Labels, Vehicles and Packages*, those elements needed to make small facts (such as data) travel to, and be used in, new scientific domains as inputs to further research, thus supporting the development of bigger factual claims (such as “smoking causes lung cancer - a big factual claim which rests upon many smaller facts both statistical and physiological). Despite this crucial importance of circulating small facts across research contexts - particularly in the modern biological sciences - the means and consequences of such travel are not well understood. On the one hand, travelling strategies need to be efficient, so as to make results available to any researcher who might be interested in them. On the other hand, the labels, packages and vehicles used for travel might compromise the content of small facts, insofar they involve the modification and re-interpretation of facts to fit the new research context in which they are received and used.

Invited participants discussed and compared various ways of packaging small facts, including classification systems and taxonomies; standardisation procedures and modelling techniques; material artefacts such as digital databases and repositories; and various kinds of agency involved in the construction and maintenance of these packaging tools. The workshop opened with Dr Leonelli's discussion of databases in model organism research, and the workshop themes were taken up first by Steffan Mueller-Wille (Exeter), who discussed Linnaeus's attempts to classify, label and organise his information in order that he could retrieve such facts again, and Filippa Lentzos (LSE) who discussed security issues of facts in the context of life-sciences. More specific questions about the onward travels of the small facts created in model organism research were taken up in terms of the packaging of such facts by Midori Harris (European Bioinformatics Institute, Hinxton) and Janet Higgins (John Innes Centre, Norwich) and the unpacking of those facts for use by Chris Taylor (European Bioinformatics Institute, Hinxton), (Chris Laminie's (GlaxoSmithKline) talk on extracting and integrating biological data was delayed to a later seminar). On the second, more general, day of discussions, James Griesemer (UC Davis) talked about the problem of colligating small facts and James McAllister (University of Leiden) about the issue of pattern finding in small facts; Joan Fujimura discussed political aspects of individual genomic information about disease, while Tom Stapleford talked about the commodification of small facts in marketing statistics; and finally Geoffrey Bowker (University of California, Santa Clara) gave a general talk about computers and information transfer. The final discussion was led by two

further visitors: Stephen Turner (University of Florida)) and Hasok Chang (UCL) who helped us to digest and otherwise parse the many different issues that had come into the discussion about labels and packaging of small facts.

The third workshop was held on Monday 31 March and Tuesday 1 April 2008 and hosted by Erika Mansnerus (ex-Mattila) on *Life Histories of Facts: Biographies, Cycles and Metamorphoses*. Her opening paper explored how scientific facts "live their lives": both how facts progress through rather slow changes and through radical transformations as they travel and on the relative functions that such facts play at various stages of their life cycle. During the two days, in connection with this opening paper, there was a strong focus on medical facts, with Kari Auranen and Tuija Leino (University of Helsinki) discussing their use of facts in modelling infectious diseases, Alberto Cambrosio (McGill) discussing facts in relation to clinical trials; Helen Lambert (Bristol) considering facts in relation to the spread of "evidenced-based medicine"; and Olga Amsterdamska (University of Amsterdam) on the attempts to pin down some facts about autism; (Brian Rappert (Exeter) on concealing facts as a way to get them to travel was delayed until a later seminar). These papers on the travels and functions of facts in various medical domains were interspersed with related papers on the life of facts and particularly in relation to experimental and modelling modes of doing science. Thus Hans-Jorg Rheinberger (Max Plank Institute for History of Science, Berlin) discussed the travelling relationships between the traces that come from experimental systems, the data that they produce and facts - in a paper which related strongly to the previous workshop about the travels of small facts. Lenny Smith (LSE) discussed the issues of travelling facts that arise in simulations within climate science while Sarah Whatmore and Catharina Landström outlined the very interesting history of "Manning's n", a measure of river-bed roughness as a way to understand the changing status of this object as a measure or fact about particular rivers versus a term in an equation to estimate such a measure. The discussion lead by Marcel Boumans (University of Amsterdam) enabled us to bring together these ideas about the intersection of life histories and functions fulfilled by facts that mapped the papers from such diverse fields together.

In four out of five of our specialised workshops over the last two years we had the benefit of interactions with practitioners in various fields - those whose jobs involved travelling facts either as senders, receivers, retrievers, and multiple kinds of uses - as well as academics studying such processes from the standpoint of history, philosophy, or sociology of science. These interactions have proved extremely fruitful in challenging our conceptual framework (discussed in last year's report) and helping us to push it further along. In general, our many visitors to the project have begun intrigued and sometimes sceptical, but have found our workshops extremely stimulating, and left with a positive view of the value of the research we are doing. From our point of view, they have not only alerted us to examples, cases, and surprising occurrences of travelling facts that have provided a depth and breadth of materials that we could not have gained from within the research team itself; but their willingness to argue with our ideas has been invaluable in enabling us to frame and communicate our project findings.

The major public communication event of our grant was the British Academy Conference: Enquiry, Evidence and Facts: An Interdisciplinary Conference held 13-14 December 2007, at the British Academy. This conference was jointly hosted and organised by ourselves, our UCL sister project under the Nature of Evidence grant: "Evidence, Inference and Enquiry" and the British Academy. Each project outlined its general findings in the introductory session, with our agenda focussing on two claims that facts needed "good companions" and a certain amount of "character" (as attested by the various adjectives that were used to describe them) before they could travel well. It is of course very difficult to assess the impact of such conferences on those who attend, but we know at least one outcome: we were surprised and delighted that Professor Susan Hunston (Birmingham) was prompted by the event to study our project's idea about the character of facts as denoted in adjectives by analysing various corpora of materials from the Bank of English.

This heavily over-subscribed BA conference was designed to showcase the work of both grants and to communicate not only the main findings, but also the work of the individuals involved in the teams, along with a number of invited visitors who spoke to the themes of "evidence". All the post-docs (as well as faculty) had the opportunity to present their own research at the meeting, and all projects under our grant, including our four PhD students, had poster accounts of their work on display. These posters, constructed by Jon Adams for the group, have since featured in our communication materials, and are on display at the LSE.

Full coverage of the BA meeting including long abstracts of the talks can be found at: <http://www.britac.ac.uk/events/2007/evidence/index.html>

Full details of all our workshops, including programmes, participants and speakers' abstracts, and a link to the British Academy conference can be found on our website <http://www.lse.ac.uk/collections/economicHistory/Research/facts/Default.htm>

The project also received press attention in the Guardian of April 15th 2008 at <http://www.guardian.co.uk/education/2008/apr/15/highereducation.research>

Other Research Activities

The research group has been very active in dissemination this year, with a full programme of seminars and several mini-symposium at LSE, and have, as before, organised several conference sessions on the project.

Conference Sessions Organised by Project Members and Attached Visitors

February 2008

Science Futures: SwissSTS (The Swiss Society for Science and Technology Studies) Meeting 2008, ETH Zurich and University Zurich, member of the programme and organization committee. Martina Merz

July 2008

Organized panel: "The psychopathology of stress in the military, the city, and the self". (Three Societies Meeting: British Society for the History of Science, Canadian

Society for the History and Philosophy of Science and History of Science Society),
Oxford. Ed Ramsden

August 2008

Acting with 'Facts'. Session organised in the Joint Conference of the European Association for Study of Science and Technology (EASST) and Society for Social Studies of Science (4S) in Rotterdam. Presentations by: Jon Adams, Peter Howlett and Aashish Velkar, Sabina Leonelli, Erika Mansnerus, Julia Mensink and Ed Ramsden. Commentator: Marcel Boumans.

Working papers 2007/08 (Editor: Jon Adams)

Nº34 'On a Mission' with Mutable Mobiles
Mary S. Morgan

Nº33 Travelling With the GDP Through Early Development Economics' History
Daniel Speich

Nº32 Dilemmas in the Constitution of and Exportation of Ethological Facts
Richard Burkhardt

Nº31 'Voice' and the Facts and Observations of Experience
Mary S. Morgan

Nº30 What Happens to Facts After Their Construction? Characteristics and Functional Roles of Facts in the Dissemination of Knowledge Across Modelling Communities
Erika Mansnerus (formerly Mattila)

Nº29 Behind the Façade: Elias Holl and the Italian Influence on Building Techniques in Augsburg
Simona Valeriani

Nº28 A Journey Through Times and Cultures? Ancient Greek Forms in American Nineteenth-Century Architecture: An Archaeological View
Lambert Schneider

Nº27 Regulating Data Travel in the Life Sciences: The Impact of Commodification
Sabina Leonelli

Nº26 The Lives of 'Facts': Understanding Disease Transmission Through the Case of *Haemophilus influenzae* type b bacteria
Erika Mattila

Nº25 Circulating Evidence Across Research Contexts: The Locality of Data and Claims in Model Organism Research
Sabina Leonelli

Nº24 Travelling in the Social Science Community: Assessing the Impact of the Indian Green Revolution Across Disciplines
Peter Howlett

Nº23
Escaping the Laboratory: The Rodent Experiment of John B Calhoun and Their Cultural Influence
Edmund Ramsden & Jon Adams

2007

Nº22 Apprenticeship and Training in Premodern England
Patrick Wallis

Nº21 Carlyle and the French Enlightenment: Transitional Readings of Voltaire and Diderot
T. J. Hochstrasser

Seminars and symposia 2007-2008

Michaelmas Term 2007:

10 October Joe Cain, University College London
"You must be joking!" Pranks, Jokes, and Silliness in Science

24 October Abigail Woods, Imperial College London
'Ruined by disease': Farmers, vets, and the brucellosis problem in Britain, 1906-45

7 November Lambert Schneider, University of Hamburg
A journey through times and cultures? Ancient Greek forms in American architecture

21 November John Onians, University of East Anglia
'Facts in Neuroarthistory; The Hundred Years War between English Perpendicular and French Flamboyant architecture'

Lent Term 2008:

9 January 2008: Dr. Oliver Volckart, Economic History Department, LSE
Information costs and financial market integration in 14th to 16th century Northern Europe?

23 January 2008: Dr Jim Tomlinson, Department of History, University of Dundee
Re-inventing the "moral economy" in post-war Britain

6 February 2008: Dr Sabina Leonelli, Economic History Department, LSE
Labels, Vehicles and Packages: Making Facts Travel in Model Organism Biology

20 February 2008: Dr Ruth McNally, ESRC Centre for Economic and Social Aspects of Genomics, Lancaster University
From Boa Vista to Dunstable: On the circulation of facts in science and forensic science – Case study on DNA profiling

Summer Term 2008:

30 April: Dr Daniel Speich, ETH Zurich
Travelling with the GDP through early development economics' history (abs)

28 May: Professor Charles Stafford, Department of Anthropology, LSE
Anthropological and macroeconomic perspectives on learning & economy in Taiwan

11 June: Professor Martina Merz, University of Luzern
Facts Revealed and Packaged: Image Travels in Nanoscience

Minisymposia:

Travelling 'Facts' in Economics 5 March 2008

* Dr Peter Rodenburg, University of Amsterdam: The Construction of Representations of the European Economy

* Prof Mary Morgan, LSE and University of Amsterdam: On a Mission: Mutable Mobiles and The Fact/Fiction Relation

Travelling 'Facts' in Biotechnology Wednesday 14 May

* Christopher G. Larminie (GlaxoSmithKline): 'Making the Most of What You've Got: Extracting and Integrating Knowledge from the Universe of Biological Data'

* Dr Gísli Pálsson, Department of Anthropology, University of Iceland Biosocial Relations of Production

Biosecurity: When Facts Should Not Travel Wednesday 18 June

* Dr Nick Wright, University of Nottingham: Biosecurity and the UK Poultry Industry

* Dr Brian Rappert, University of Exeter: Getting Facts to Travel by Making them Secret; Or Concealment as a Strategy for Revelation

Reading group 2007-2008

October 18, 2007

The historical method

Reading(s): Carlo Ginzburg, Clues Myths, and the Historical Method, Johns Hopkins University Press, Baltimore 1992 Chapter: "Clues: Roots of an Evidential Paradigm" (pp. 96-125) and "From Aby Warburg to E.H. Gombrich: A Problem of Method" (pp. 17-58)

November 1, 2007

From Nature to architecture through the human body

Readings : Primary source: (short) Extract from Sebastiano Serlio, *Il cinque libri dell'architettura*, book V. Commentary: "The Corinthian order" from Joseph

Ryckwert, The necessity of Artifice, Academy Editions, 1982 London, pp.33-42.
Joseph Ryckwert: On Adam's house in paradise,

November 15, 2007

Building Archaeology

Reading: Manfred Schuller: Building Archaeology, Monuments and Sites VII, ICOMOS, Munich 2002, p. 6-40

January 17, 2008

Reading: "Antiquaries and the interpretation of ancient objects, 1770-1820", by Susan Pearce (in: Susan Pearce (ed.), Visions of antiquity, volume 111 of Archaeologia, the society of antiquaries of London, London 2007, pp 147-171.

January 31, 2008

Reading: Bowker, G. C. (2000) Biodiversity Datadiversity. Social Studies of Science 30, 5: 643-683

February 14, 2008

Reading: Staffan Mueller-Wille "Joining Lapland and the Topinambes in flourishing Holland: Center and periphery in Linnaean botany." Science in Context 16/4 (2003), 461-488.

February 28, 2008

Towards life-histories

Reading: Mendelsohn, A (2003): "Lives of the Cell", Journal of the History of Biology 36, 1-37

March 13, 2008

Experimental systems and platforms

Reading: Rheinberger, Hans-Jörg (1994/1999): "Experimental Systems: Historiality, Narration and Deconstruction" (in Biagioli, M (ed.): The Science Studies Reader, Routledge: New York). Keating, P. and A. Cambrosio (2000): "Biomedical Platforms" in Configurations (8: 337-387) [Biomedical Platforms: Realigning the Normal and the Pathological in Late-Twentieth-Century Medicine, The MIT Press: Cambridge MA, 2003]

Individual Research Activities Associated with the Project by Faculty, Post-Doc Fellows, PhD Students, and Project Visitors: Seminars, Conferences and Publications

Dr Jon Adams

Seminars/Conferences:

Aug 2008: "Cartels and Collaborations in the Popularisation of Science," EASST, Rotterdam.

Jun 2008: "Finding Humanity in Rat City" Society for Literature, Science, and the Arts (European Conference), Berlin.

Apr 2008 "Value Judgements and Functional Roles: Carroll's Quarrel With Pinker" paper presented at The Evolution of Literature, Institute for Advanced Study, Durham University.

Mar 2008: "The Evidential Status of Fiction," paper presented to the British Society for Literature and Science, Keele University.

Feb 2008: "Popularisation and Fictionalisation," Discussing Popular Science workshop, Imperial College, London.

Dec 2007: "Science Facts vs. Folk Facts" Enquiry, Evidence and Facts: An Interdisciplinary Conference, The British Academy, London.

Conferences attended:

ESRC and Academy of Social Sciences report launch and conference on "Knowledge Transfer and Public Engagement: What do the learned societies have to offer?" (26 June 2008)

Other Research Activities:

May 29-April 20: Research trip to 3 US libraries (with Ramsden) – Architectural archives at UPenn, Philadelphia, for archives of landscape architect Ian McHarg; National Library of Medicine, Bethesda, Maryland, for archives of John B. Calhoun, Paul D. MacLean, and Bertram Brown; archives of the University of Wyoming, Laramie, for archives of early work and correspondence of John B. Calhoun. This visit collected material in preparation for a book (see proposal, below) on John Calhoun, and an essay (currently in progress) on "Beehive Worlds and Rat Cities." The research trip also included an interview with the widow and daughter of John Calhoun.

Book proposal (with Ramsden) submitted to OneWorld Publishing, Oxford, for monograph on *John B. Calhoun and the history of crowding* (Sept 2008).

Knowledge transfer/ general promotional activities:

45 min telephone interview with journalist John Crace for Education Guardian, plus meeting with editor of Education Guardian, Donald MacLeod, resulting in "facts" projecting receiving attention in the national press:

<http://www.guardian.co.uk/education/2008/apr/15/highereducation.research>

Article co-written with Mary Morgan for LSE Magazine (see publications, below)

Material from Working Paper #9 prepared and dispatched for inclusion in book by architect Alistair Lansley, *The Transformation of St Pancras Station* (Laurence King Publishing, 13 Oct 2008).

12 posters summarising the various strands of research that compose the “Facts” project designed and produced for British Academy conference, Dec 2007, and subsequently on permanent display at LSE, and online at:

<http://www.lse.ac.uk/collections/economicHistory/Research/facts/Posters.htm>

Publications (and writings):

“Value Judgements and Functional Roles: Carroll’s Quarrel With Pinker” – conference paper for Durham, April 2008.

“How Well Do ‘Facts’ Travel?” (with Mary S. Morgan) LSE Magazine, Summer 2008: 14-15, and online at:

<http://www.lse.ac.uk/resources/LSEMagazine/pdf/Summer%202008/Facts%20Travel.pdf>

“Escaping the Laboratory: The Rodent Experiments of John B. Calhoun and their Social Influence” (with Edmund Ramsden) *Journal of Social History*, 42.3 (Spring 2009)

“Exposing the Mechanics of Popular Science,” review of *Reading Popular Science* by Elizabeth Leane, *Metascience* (forthcoming, 2008)*

Review of Peter Swirski’s *Of Literature and Science*, British Society for Science and Literature, online at: http://www.bsls.ac.uk/?page_id=80

“Plot Taxonomies and Intentionality,” *Philosophy and Literature* 32.1 (April 2008): 102-118. Online at:

http://muse.jhu.edu/journals/philosophy_and_literature/v032/32.1.adams.pdf

Dr Peter Howlett

Seminars/Conferences:

August 2008. 4S/EASST Annual Conference, Rotterdam. ‘Transfer of Agri-Technologies: A Study of Agricultural Extension Education in Tamil Nadu’ (with A. Velkar).

December 2007. British Academy conference on Enquiry, evidence and facts, London 13-14 December: ‘Travelling in the social science community: assessing the impact of the Indian Green Revolution across time and disciplines.’

Organised sessions:

April 2007. Workshop on Facts at the frontier: crossing boundaries between natural and social, animal and human, London School of Economics 16-17 April: organised and chaired brainstorm session on How Well Do 'Facts' Travel.

April 2007. Workshop on The fact/fiction ratio in science writing, London School of Economics 12-13 April: organised and chaired session on Reflections.

Other Research Activities:

February 2008: field trip to Bangalore and Tamil Nadu

Publications:

'Travelling in the social science community: assessing the success of the Indian Green Revolution across social science disciplines and time', *Working Papers on the Nature of Evidence: How Well Do 'Facts' Travel?* (April 2008).

'Trade, convergence and globalisation: the dynamics of the international income distribution, 1950-1998', (with P. Epstein and M-S. Schulze), *Explorations in Economic History*, vol. 44, no. 1 (January 2007), pp.100-13.

Articles currently with Journals:

'Too many, too far, too poor? British export markets in the face of the decline of empire.' Submitted to *Economic History Review*.

'Social Compliance in Wartime Britain and Japan: Rationing, the Black Market and Crime' (with J. Hunter). Submitted to *War and History*.

Articles ready for publication/currently in progress:

'Transfer of Agri-Technologies: A Study of Agricultural Extension Education in Tamil Nadu' (with A. Velkar).

'Sticks and carrots: disciplining railway workers in the Great Eastern before the First World War.'

'Catch-up in the postwar period: a distribution dynamics perspective' (with P. Epstein and M-S. Schulze).

'De-concentration of wartime industry in Britain, 1945-50.'

Dr Sabina Leonelli

Seminars/Conferences:

Invited Lecture at Workshop 'Medical Evidence': 'Circulating Evidence About Organisms' Universidad Complutense, Madrid, Spain (5 October 2007).

Invited Lecture at Egenis Seminar: 'Bio-Ontologies: A New Type of Theory to Make Facts Travel'. University of Exeter, UK (4 December 2007).

Invited Lecture at British Academy Conference 'Enquiry, Evidence and Facts': 'Circulating Small Facts About Organisms: Biological Databases' London, UK (13-14 December 2007).

Public Seminar in the series 'How Well Do Facts Travel': 'Labels, Vehicles and Packages: Making Facts Travel in Model Organism Biology' London School of Economics (6 February 2008)

Presentation in Facts Workshop 'Making Small Facts Travel': 'Making Small Facts Travel: Databases in Model Organism Biology' London School of Economics (27 March 2008).

Invited Lecture at SEMM (European School of Molecular Medicine): 'Assessing the Impact of Bio-Ontologies on Biological Research', with follow-up seminar for doctoral students in the philosophy of biology. Milan, Italy (9 June 2008)

Invited Lecture at BBSRC Workshop 'Data Sharing in the BioMedical Sciences': 'Data Sharing in Model Organism Research', Institute for E-Science, Edinburgh, UK (26 June 2008).

Joint meeting of the Three History of Science Societies, contributed paper within the session 'Collaboration and Interdisciplinarity in the Life Sciences': 'A Happy Marriage? The Introduction of Bioinformatics to Model Organism Biology', Oxford, UK (6 July 2008)

Joint meeting 4S/EAAST, contributed paper within the session 'Governing and Institutionalizing Genomics: An Interdisciplinary and Interorganizational Perspective. I. Impact on Organizations, Healthcare and Work': 'Governing Data Sharing: Bio-Ontologies and the Creation of Labelling Centres', Rotterdam (23 August 2008)

Organised sessions:

International Workshop 'Making Small Facts Travel: Labels, Packages and Vehicles' (27-28 March 2008, LSE)

Mini-Symposium 'Travelling Facts in Biotechnology' (14 May 2008, LSE).

Together with Edmund Ramsden, I co-organised the 'facts' seminar series, hosting guests speakers on a fortnightly basis.

Conferences attended:

Annual Garnet Meeting (Genomic Arabidopsis Resource Network), John Innes Centre, Norwich, UK (10-11 September 2007)

International Conference 'Genomics and Society: Today's Answers, Tomorrow's Questions', Royal Society of Engineering, London, UK (25-26 October 2007)

International Conference 'Nature and its Classification', Birmingham, UK (13–14 October 2007)

International Conference 'Governing Biobanks', Oxford, UK (24 June 2008)

Other Research Activities:

Attendance of the Garnet Committee Meeting, University of Edinburgh (16 March 2008).

Invitation to be a member of the Garnet steering committee (Genomic Arabidopsis Resource Network), reporting to the BBSRC and to the wider plant science community, starting from the fall of 2008.

Publications:

Leonelli, S. (2008) Bio-Ontologies as Tools for Integration in Biology. *Biological Theory*. 3:1.

Leonelli, S. (2008) Growing Weed, Producing Knowledge. An Epistemic History of *Arabidopsis thaliana*. *History and Philosophy of the Life Sciences* 29, 2: 55-87.

Leonelli, S. (2008) Regulating Data Travel in the Life Sciences: The Impact of Commodification. *LSE Working Papers on the Nature of Evidence: How Well Do 'Facts' Travel?*, No. 27/08.

Leonelli, S. (2008) Circulating Evidence Across Research Contexts: The Locality of Data and Claims in Model Organism Biology. *LSE Working Papers on the Nature of Evidence: How Well Do 'Facts' Travel?*, No. 25/08.

Forthcoming publications:

Leonelli, S. Packaging Data for Re-Use: Databases in Model Organism Biology.

Leonelli, S. On the Locality of Data and Claims About Phenomena. *Philosophy of Science*.

Leonelli, S. (forthcoming) Centralising Labels, Distributing Governance: The Regulatory Role of Data Sharing Practices. In *Handbook for Genomics and Society*. Routledge.

de Regt, H., Leonelli, S. and Eigner, K. (forthcoming) (eds.) *Scientific Understanding: A Philosophical Perspective*. Pittsburgh University Press, including

- de Regt, H., Leonelli, S. and Eigner, K. 'Introduction'
- Leonelli, S. 'The Impure Nature of Biological Knowledge'.

Leonelli, S. (forthcoming) *The Commodification of Knowledge Exchange: Governing the Circulation of Biological Data*. In: Radder, H (ed.) *The Commodification of Academic Research*. Pittsburgh University Press.

Dr Erika Mansnerus (formerly Mattila)

Seminars/Conferences:

Invited lectures:

September 2007

Artificial Nature of Technoscientific World. Invited lecture in Blankensee-Colloquium: The Societal and Cultural Influence of Computer-Based Simulation, at Wissenschaftskolleg zu Berlin. Organised by Dr. Gabriele Gramelsberger.

October 2007

Nature of evidence in infectious disease models. Invited lecture in Evidence and Philosophy of Medicine Workshop organised by Dr. David Teira and Dr. Julian Reiss, University of Madrid.

December 2007

Life of a 'Fact' in Infectious Disease Transmission. Invited lecture in Enquiry, Evidence and Facts: An Interdisciplinary Conference organised by the British Academy. December 2007.

Conferences and seminars with a presentation:

February 2008

Predicting the Future by Modelling the Past. Case of Pandemic Influenza Preparedness Planning. ScienceFutures, Science and Technology Studies Conference, Zurich, Switzerland

2008 April

Life histories of 'facts': Biographies, cycles and metamorphoses. Introductory lecture in an international workshop organised by Dr Erika Mattila and "The Nature of Evidence: How Well Do 'Facts' Travel?" research project, at Economic History Department, LSE

2008 June

Life-histories of epidemiological models: How did epidemiological research become mathematized? Presentation in an international symposium "Standardising objects, stabilising categories" 3rd Annual Symposium of the Postgraduate Network on Life Sciences and Society, Helsinki

August 2008

Re-modelling vaccination policies: How are 'facts' about MMR established and circulated to renew policies? Case of MMR in the UK. EASST/4S 2008 International conference, Rotterdam, the Netherlands.

Organised sessions:

August 2008

Acting with 'Facts'. Session organised in the EASST/4S Conference in Rotterdam. Presentations by: Jon Adams, Peter Howlett and Aashish Velkar, Sabina Leonelli, Erika Mansnerus, Julia Mensink and Ed Ramsden. Commentator: Marcel Boumans.

Conferences attended:

July 2008

Participant at the What (Good) Is Historical Epistemology? An international conference organised by Max Planck Institute for the History of Science, Berlin.

Other Research Activities:

July-October 2008

Archive work and interviews with infectious disease modellers and epidemiologists at Health Protection Agency, Colindale, London.

Elected member of EASST Council (European Association for the Study of Science and Technology)

Referee for *Science Studies* and *Public Understanding of Science*

Publications:

2008 "What happens to 'facts' after their construction? Characteristics and functional roles of facts in the dissemination of knowledge across modelling communities" Working Paper 30/08, Nature of Evidence: How Well Do 'Facts' Travel? Department of Economic History, London School of Economics and Political Science.

2008 "The Lives of 'facts': Understanding disease transmission through the case of *Haemophilus influenzae* type b bacteria". Working Paper 26/08, Nature of Evidence: How Well Do 'Facts' Travel? Department of Economic History, London School of Economics and Political Science.

In preparation:

"Explanatory and predictive functions of simulation models: Perspectives from infectious disease studies". Forthcoming in G. Gramelsberger (ed.): *The Societal and Cultural Influence of Computer-Based Simulation*.

"The lives of facts: understanding disease transmission through the case of *Haemophilus influenzae* type b bacteria" Submitted to *BioSocieties* for review
19.9.2008

Professor Mary S Morgan

Seminars/Conferences

20th September 2007 (Invited speaker)

“From Laws to Models, via Frisch and Haavelmo”, *75th Anniversary of the Economics Institute*, University of Oslo

28th September 2007 (Seminar speaker)

“How Well Do ‘Facts’ Travel?” Seminar, Economics Department, Duke University, USA

22nd October, 2007 (Invited speaker)

“Models as Mediators? From Laws to Models”, ZEF, Centre for Development Research, Bonn, Germany.

13th December 2007 (Keynote speaker)

“The Nature of Evidence: How Well Do ‘Facts’ Travel?” at Conference: *Enquiry, Evidence and Facts: An Interdisciplinary Conference*, British Academy, December 13-14th, 2007 Conference

6-8th February 2008 (Keynote speaker)

“On a Mission” with Mutable Mobiles” at Conference *ScienceFutures*, ETH Zurich, Switzerland

13th February, 2008 (Seminar speaker)

“How Well Do ‘Facts’ Travel? Culture and Cognition Seminar, LSE.

5th March, 2008 (Seminar speaker)

“On a Mission’: Mutable Mobiles and the Fact/Fiction Relation” Nature of Evidence Seminar, LSE

15th May, 2008 (Seminar speaker)

“From Laws to Models, via Frisch, Tinbergen and Haavelmo”, Econometrics Seminar, Erasmus University, Rotterdam, The Netherlands

23rd May, 2008 (Invited speaker)

“When Economic Facts Travel Free”, Workshop: *The Role and Evaluation of Evidence in Economic Analysis*, University of Bologna, Italy

17th June, 2008 (Invited speaker)

“From Laws to Models”, Workshop: *Cultures and Styles of Scientific Practice*, Fondation des Treilles, France.

8th July, (Workshop paper)

“Seeking Parts, Looking for Wholes” Workshop: *History of Scientific Observation*, Max Plank Institute for History of Science, Berlin.

Conference organisation:

Enquiry, Evidence and Facts: An Interdisciplinary Conference, British Academy, December 13-14th, 2007

Publications/Working Papers:

"Models" (2008) in *The New Palgrave Dictionary of Economics*, 2nd edition, eds: S.N. Durlauf and L.E. Blume (Palgrave Macmillan), online.

"'Voice' and the Facts and Observations of Experience" Working Paper 31, *The Nature of Evidence: How Well Do 'Facts' Travel?* project, Department of Economic History, LSE; forthcoming in *New Methodological Directions in Experiment* (ed W. Gonzales)

"'On a Mission' with Mutable Mobiles" Working Paper 34, *The Nature of Evidence: How Well Do 'Facts' Travel?* project, Department of Economic History, LSE

"Seeking Parts, Looking for Wholes" forthcoming in *A History of Scientific Observation*, edited L. J. Daston and E. Lunbeck (volume about to be submitted to publishers for review)

Dr Edmund Ramsden

Seminars/Conferences:

"The stress of space and numbers: crowding experiments and the built environment" (Three Societies Meeting 2008: British Society for the History of Science, Canadian Society for the History and Philosophy of Science and History of Science Society), Oxford, July 2008.

"Travelling Facts about Crowded Rats: Rodent Experimentation and the Human Sciences" SSSS, Rotterdam, August 2008.

with Jon Adams. Finding Humanity in Rat City. European Conference of the Society for Literature, Science, and the Arts, Berlin, June 2008.

Invited:

"Confronting the stigma of eugenics". Seminar. London School of Hygiene and Tropical Medicine, November 2007.

"Remodelling the boundaries of normality: Lionel Penrose and the genetic demography of mental ability" Workshop, Egenis, University of Exeter, April 2008.

"Finding Humanity in *Rat City*: John B. Calhoun's Experiments in Crowding at the NIMH." Public lecture. National Institutes of Health, Bethesda, April 2008:
http://nihrecord.od.nih.gov/newsletters/2008/07_25_2008/story1.htm

"Experimental methods in social and behavioural psychology: travelling facts in human and animal experiments in overcrowding". Workshop, Centre for the History of Medicine and Disease, University of Durham, June 2008.

Organised sessions:

Organized panel: "The psychopathology of stress in the military, the city, and the self". (Three Societies Meeting: British Society for the History of Science, Canadian Society for the History and Philosophy of Science and History of Science Society), Oxford, July 2008.

Other Research Activities:

May 2008

Archival research trip to Washington DC, Philadelphia and Wyoming.

Publications:

Working Paper (forthcoming):

"From Rodent Utopia to Urban Hell: Crowding Experiments in Animals and Man"

Working Paper:

with Jon Adams: "Escaping the Laboratory: The Rodent Experiment of John B Calhoun and Their Cultural Influence"

Forthcoming publications:

"Managing the human zoo" Society, *Animals & Gender*. Springer Press. 2010.

"Confronting the stigma of eugenics: genetic demography and the problems of population". *Social Studies of Science*, forthcoming, 2009.

with Jon Adams, "Escaping the Laboratory", *Journal of Social History*, forthcoming, 2009.

The Quest for a Democratic Eugenics: Demography and the Problems of Population Quality and Quantity in the Twentieth Century United States. Philadelphia: American Philosophical Society, forthcoming 2009.

"Regulating populations and disciplining science". Harvie Ferguson (ed.) *Festschrift for Gianfranco Poggi* (Bologna: Il Mulino, forthcoming 2009).

'Eugenics from the New Deal to the Great Society: genetic demography and relations between social and biological scientists of population', *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, in print, 2008

Dr Patrick Wallis

Seminars/Conferences:

'How fluid were labour markets in pre-industrial Britain? New evidence from apprenticeship records', 6th World Congress of Cliometrics, Dalkeith, Scotland, 17-20 July, 2008

Discussant. 'Technology and Human Capital Formation in the East and West'. LSE, 19-21 June 2008.

Knowledge Acquired and Displayed: Apothecaries and Natural Knowledge in Seventeenth Century London. Wellcome Trust, 13 June 2008.

Discussant. Secrets and Knowledge: Medicine, Science and Commerce, 1500-1800, CRASSH, Cambridge University, 15-16 Feb 2008.

'Pharmacy, Quackery and the Growth of Medicine in Early Modern England'. Public Lecture, British Society for the History of Pharmacy, 14 November 2007

'The Mystery of the Disappearing Apprentices: Explaining the Failure of Apprenticeships in Late Seventeenth-Century London', NACBS, San Francisco, 10 November 2007.

'Don't Try This at Home: Medicines in Early Modern England', Public Lecture, U3A, St Albans, 12 June 2007.

Other Research Activities:

I was on sabbatical for two terms in 2007-8. My research time was largely divided between three projects, two of which (below) are linked to the Facts research group.

The first of these was work on premodern apprenticeship and the intergenerational transmission of skills. This links to the agenda being developed by Dr Valeriani. The core research carried out in this regard focused on (1) information, mobility and opportunity in premodern English apprenticeship (2) structures of training and the transmission of knowledge. The project is based on a new, large dataset of apprenticeship records and has led to some significant findings about the movement of knowledge in the premodern economy.

The second project was research on the establishment and transmission of knowledge of goods in the premodern economy.

Publications:

In print

Editor. *Medicine and the Market in England and its Colonies, 1450-1850* (Palgrave, 2007). (with M. S. R. Jenner)

'Apprenticeship and Training in Premodern England', *Journal of Economic History* 68: 3 (2008), 832-861.

'Consumption, retailing and medicine in early modern London', *Economic History Review* 61: 1 (2008), 26-53

'The Politics of Regulation: from local to national guilds in England, 1500-1700', chapter in *Guilds, Innovation and the Economy in Europe 1500-1800*, ed. S. R. Epstein and M. Prak (Cambridge, 2008), (with I. A. Gadd).

In preparation

'The practice of apprenticeship in early modern England' (with C. Minns)

'How fluid were labour markets in pre-industrial Britain?' (with T. Leunig & C. Minns)

Dr Simona Valeriani

Seminars/Conferences:

Paper at the conference *Enquiry, Evidence and Facts*, British Academy, London, 13-14 December on "Building on the page – Building on the Site: Christopher Wren's Italian Sources".

Introduction to the Workshop and Paper on "Architectural Facts under the Skin. Travelling Objects and Travelling People in 17th Century Europe", at my workshop (*Facts and Artefacts. What Travels in Material Objects?*) London, December 17-18.2008.

Invited lecture at the Meeting of the Institute of Structural Engineers - History of Structural Engineering Study Group, on "Beyond Palladio. Italian Carpentry Tradition in the European Context"; London, February 4.2008

Paper at the Conference of the Koldewey Gesellschaft *Bauhütte, Bauschule, Baufirma – Organisation und Überlieferung von Wissen im Bauwesen* on „Fernlernen und Überliefern im Bauwesen – Italienische Dächer und englische Bautradition,,; Regensburg April 30 - May 4.2008,

Invited paper at the Conference: *Verwendet und Verwandelt*. Kolloquium zu Ehren von Lambert Schneider, Hamburg, 5 July 2008, paper on: „Im Kern antik? Zur Rezeption und Erfindung antiker Baukonstruktionen in der frühen Neuzeit“.

Discussant in the *Epstein Memorial Conference: "Technology and Human Capital Formation in the East and West"*, London June 19-21.2008

Organised conferences:

Conception and organisation of the Workshop "*Facts and Artefacts. What Travels in Material Objects*, LSE, December 17-18.2007.

Research Trips:

Berlin, 11-13.2.2008: Research work in libraries (Saatsbibliothek und Kunstbibliothek); Visit to the Max Plank Institute for the History of Science. Meeting with Dagmar Schaefer, Director of the Independent Junior Research Group "Concepts and Modalities: Practical Knowledge Transmission"

Paris: Archive and Library work (INHA – Institute national d'histoire de l'art, and Bibliothèque national de France)

New or intensified Scientific contacts:

Global History and Culture Centre in Warwick, prof. Maxine Berg and Dr. Giorgio Riello.

Liliane Hilaire-Perez, Centre D'Histoire des Techniques (CDHT), Conservatoire National des Arts et Métiers (CNAM), Paris, France.

Victoria and Albert Museum, dr. Marta Ajmar curator of the exhibition "At Home in Renaissance Italy".

Alison Wylie, Department of Philosophy, University of Washington

Publications:

Working papers

Behind the Façade: Elias Holl and the Italian influence on building techniques in Augsburg

Forthcoming publications

Behind the Façade: Elias Holl and the Italian influence on building techniques in Augsburg, in "architectura", 2008, in press

Im Kern antik? Zur Rezeption und Erfindung antiker Baukonstruktionen in der frühen Neuzeit, Festschrift zu Ehren von Lambert Schneider, forthcoming.

Wren, Palladianism and the introduction of Italianate building techniques to England, paper requested by the Journal of the Institution of Civil Engineers "Engineering History and Heritage", forthcoming.

Rules of the Art on the Building Site in early modern Europe, Proceedings of the Third International Congress on Construction History, Cottbus, May 20-24.2009, forthcoming

PhD Students:

Albane Forestier

Seminars/Conferences:

July 2008: World Orders in Global History: Second European Congress in World and Global History, Dresden, Graduate Student panels "Mercantilism in practice: the role of private enterprise in shaping the eighteenth-century Atlantic World", University of Dresden, Germany

July 2008: EH 590, Economic History Seminar, LSE

April 2008: Early-Modern Atlantic Symposium "Commercial networks in the Atlantic colonial trade: a study of the Bristol-based West Indian firm of Tobin & Pinney. University of Nottingham, UK

February 2008, British Asia and the British Atlantic, c. 1600-1820: Two Worlds or One?, "Commercial networks in the Atlantic colonial trade: a study of the Bristol-based West Indian firm of Tobin & Pinney, 1784-90", Swansea University, UK

December 2007, "The role of personal connections in the late eighteenth-century West Indian trade: a comparison of two business networks", "Cosmopolitan Networks in Commerce and Society 1660-1914," German Historical Institute, London

Conferences attended:

May 2008, Global Trends and Comparative Analysis, workshop organised by the Centre for Globalisation Research, Queen's Mary, University of London.

May 2008, seminar "Les représentations du crédit", IHMC, Paris.

May 2008, conference "Gen se des marches", IGPDE Département Histoire, Paris.

Other Research Activities:

Fieldwork in Nevis, July-August 2008 in the Nevis Court House, researching 18th century legal records.

Publications:

"'Your character and your situation': networks and the circulation of credit in the eighteenth century Atlantic", *Graduate Journal of Social Science*, Special Issue "Moving facts around the world: agents and institutions" (forthcoming).

Julia Mensink

Seminars/Conferences:

May 2008 Thesis Workshop in Economic History, London School of Economics

May 2008 International seminar: 'Globalisation of poverty measures: the case of the Human Development Index.' Lyon, France

Aug. 2008 International Workshop Happiness and capability: measurement, theory and policy. Nijmegen, the Netherlands

Aug. 2008 Annual meeting of the Society for Social Studies of Science. Rotterdam, the Netherlands

Conferences attended:

May 2008 'International Development and Evidence-based Policy' workshop organised by CPNSS and ODI, London School of Economics

June 2008 'Styles and Ways of Knowing' Third Annual Integrated History and Philosophy of Science Workshop, University College London.

October 2007- July 2008 Thesis Workshop in Economic History, London School of Economics

Ashley Millar

Seminars/Conferences:

"Encouraging scepticism and enabling consensus: the expansion of information on China in eighteenth century Europe" "Globalisation and Cultural Transmission", CRASSH Cambridge, 25-26 May 2007

"Your Beggarly Commerce! Reassessing British views of the eighteenth century China trade". "World Orders in Global History", 2nd European Congress in World and Global History, 3-5 July 2008

Conferences attended:

"Cosmopolitanism: Theories, Perspectives and Readings", Global Arts 4, University of Warwick, 29 February 2008

"Global Cities and The Sea: Highway of Change", The 17th Annual World History Association Conference London, 25-29 June 2008

Other Research Activities:

Research Assistant. Proprietary medicines and the emerging medical market in England, c.1640-1740 (Wellcome Trust), LSE Economic History, February 2008-Present

Editorial Assistant: Global Economic History Network, LSE Economic History, January 2008 – June 2008

Publications:

“The Jesuits as Knowledge Brokers Between Europe and China (1582-1773): Shaping European views of the Middle Kingdom” *Economic History Working Paper Series*, No. 105 (2007)

Accepted. “Small Facts and Big Ideas: How facts on China’s political economy travelled in the British Enlightenment”. *Graduate Journal of Social Science* (June, 2009)

Aashish Velkar

Seminars/Conferences (Papers Presented):

June 2008. ‘Measurement Standards and Institutional Packages’, International Society for New Institutional Economics 12th Annual Conference, Toronto, Canada

December 2007 ‘Design Standards and Travelling Facts: Lessons from the standardization of British wire sizes (c1880), British Academy Conference on *Enquiry, Evidence and Facts*, London, UK

October 2007. ‘Gauging Accurately: Competition and Engineering Standards in the British Wire Industry in the late 19th Century’, Business History Unit seminar series, London School of Economics

October 2007. ‘Gauging Accurately: Negotiation, Competition and the Standardization of the British Wire Gauge (1883)’, Society for the History of Technology Annual Conference and 50th Anniversary meeting, Washington D.C.

Conferences attended:

June 2008, International Workshop on "Institutions, Technology and their Roles in Economic Growth", University of Hertfordshire (UK)

Other Research Activities:

Submitted Doctoral Thesis in September 2008

Publications:

'*Caveat Emptor*: Abolishing Public Measurements, Standardizing Quantities and Enhancing Market Transparency in the London Coal Trade c1830', was published in *Enterprise and Society*, Vol. 9 No. 2 (2008), p. 281-313

Project Visitors' Relevant Activities:

Associate Professor Rachel A. Ankeny (University of Adelaide)

Seminars/Conferences:

"Cases as a Means for Comparing and Transporting Facts Across Scientific Domains: Comparing Medicine and Biology," Department of History, Oregon State University, Corvallis, OR, 9 November 2007

Publications:

"Model Organisms as Fictions" in Mauricio Suarez, ed., *Fictions in Science: Philosophical Essays on Modelling and Idealisation* (New York: Routledge, 2008, forthcoming, accepted February 2008)

Associate Professor Dr Ir Marcel Boumans (University of Amsterdam)

Seminars/Conferences:

Boumans, M. The Problem of Finding Evidence Outside the Laboratory. First Biennial Conference SPSP 2007, August 23-25, University of Twente, Netherlands.

Boumans, M. New Classical Grey-box Models of General Equilibrium Systems. International Conference 'General Equilibrium as Knowledge. From Walras Onwards', September 6-8, University of Paris, France.

Boumans, M. Dynamizing Stability. 2008 HOPE Conference 'Robert Solow and the Development of Growth Economics', 25-27 April 2008, Duke University, Durham, US.

Boumans, M. Dynamizing Stability. History of Economics Society Annual Conference 2008 June 27-30, York University, Toronto Canada.

Organised sessions:

Co-organiser First Biennial Conference SPSP 2007, August 23-25, University of Twente, Netherlands.

Stabilizing Evidence, Session at First Biennial Conference SPSP 2007, August 23-25, University of Twente, Netherlands.

Conferences attended:

Discussant at two travelling facts workshops: Sabina's , Erika's.

Publications:

Boumans, M. (2008, forthcoming). Measurement and error problems (1800-1900): Buys Ballot and Landré's critique on the method of least squares (2008). In *Statistical Mind 1850-1940 in the Netherlands. Volume II: Statistics and Scientific Work*, eds I.H. Stamhuis, P.M.M. Klep and J.G.S.J. van Maaseveen, pp. 179-197. Aksant.

Boumans, M. (2008, forthcoming). Battle in the planning office: Field experts versus normative statisticians, *Social Epistemology* 22.4.

Boumans, M. (2008). Measurement Theory. In *The New Palgrave Dictionary of Economics, 2nd Edition*, eds L.E. Blume and S.N. Durlauf. Palgrave Macmillan.

Boumans, M. (ed.) (2007). *Measurement in Economics: A Handbook*. Elsevier.

Boumans, M. (2007). Introduction. In *Measurement in Economics: A Handbook*, ed. M. Boumans, pp. 3-18. Elsevier.

Boumans, M. (2007). Invariance and calibration. In *Measurement in Economics: A Handbook*, ed M. Boumans, pp. 231-248. Elsevier.

Battle in the Planning Office: Biased Experts versus Normative Statisticians. The Nature of Evidence: How Well Do 'Facts' Travel? No. 16/07, London School of Economics, 2007.

Dr David Boyd Haycock (National Maritime Museum)

Seminars/Conferences:

Paper on William Stukeley (1687-1765) at the tricentenary conference at the Society of Antiquaries of London, 'Antiquaries and Archaists: Explorations of Cultural Memory', October 2007.

Organised sessions:

Co-organiser of the conference 'Secrets and Knowledge: Medicine, Science and Commerce, 1500—1800', Centre for Research in the Arts, Social Sciences and Humanities', Cambridge University, February 2008.

Other Research Activities:

Continuing research on Wellcome Trust funded project in the history of seventeenth-century medicine in London.

Research associated with my new position of Curator of Seventeenth-Century

Imperial and Maritime History, the National Maritime Museum, Greenwich, London.

Publications:

Mortal Coil: A Short History of Living Longer (London and New Haven: Yale University Press), published May 2008.

Prof Dr Martina Merz (University of Lucerne)

Seminars/Conferences:

Proliferation of Images. Report from and coordination of *Break-out Group "Proliferation of Images"*. Workshop Images of the Nanoscale: From Creation to Consumption, NanoCenter, University of South-Carolina, Columbia SC (USA); October 2007 (with A. Krewani)

Ein Labor erfindet sich neu: Nanotechnologie als Ressource organisatorischen Wandels. Research Colloquium at the Institute of Sociology, University of Berne; November 2007

Diversity in Fact Production: Confronting Natural and Social Sciences. British Academy Conference "Enquiry, Evidence and Facts", London; December 2007

Images en contexte: Le cas des nanosciences. Journées pluridisciplinaires: les images scientifiques, de leur production à leur diffusion, Strasbourg; January 2008

Designed for Travel: Communicating Facts Through Images. Economic History Department, LSE, London; June 2008

Image Travels in Nanoscience: Facts Revealed and Packaged. 2008 Annual Meeting, Society for Social Studies of Science (4S) and European Association for the Study of Science and Technology (EASST), Rotterdam; August 2008

Technological Platforms: Concepts and Practical Realizations. 2008 Annual Meeting, Society for Social Studies of Science (4S) and European Association for the Study of Science and Technology (EASST), Rotterdam; August 2008 (with P. Biniok)

Technological Platforms between Science and Industry. European Workshop "Doing Science-Industry. The Consequences of Spin-Off Activities for Parenting Research Organizations Group", Sofia, Bulgaria; September 2008 (with P. Biniok)

Organised sessions:

The Image as a Model. International Workshop at the University of Lucerne, responsible for the scientific concept, organised with the National Centre of Competence in Research EIKONES, University Basel (January 2008)

Science Futures: Swiss STS Meeting 2008, ETH Zurich and University Zurich, member of the programme and organization committee (February 2008)

Publications:

M. Merz (2008): Dem Hasard auf die Sprünge helfen? Eine Professur auf Probe. In: *universelle* 8, Exzellenz und Chancengleichheit, 72-80

T. Knuuttila, M. Merz: Understanding by Models: An Objectual Approach. In: H. de Regt, S. Leonelli, K. Eigner (eds.), *Scientific Understanding: A Philosophical Perspective* (Pittsburgh: Pittsburgh University Press), forthcoming

M. Merz: Reinventing a Laboratory: Nanotechnology as a Resource for Organizational Change. In: M. Kaiser et al. (eds.), *Assessment Regimes of Technology – Sociology of the Sciences* 27 (Dordrecht: Springer), forthcoming

M. Merz: Designed for Travel: Communicating Facts Through Images. In: M.S. Morgan, P. Howlett (eds.), *How Well Do 'Facts' Travel?* (Cambridge UK: Cambridge University Press), forthcoming

M. Merz (2008): The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico (by Joseph Masco), Book review. *Historische Anthropologie*, forthcoming