

COLLOQUIUM IN SCIENCE, TECHNOLOGY, ENVIRONMENT AND HEALTH:

EARLY MODERN ATLANTIC AND GLOBAL EXCHANGES

History 16:510:535
Spring 2015
Tuesdays 1.10-4.10
Van Dyck Hall 011
Prof. J. Delbourgo
jdelbourgo@history.rutgers.edu

Office Hours: VD 104 Thursdays 1.30-4.30

DESCRIPTION

This colloquium is designed to serve the needs of graduate students with interests in early modern Europe, colonial America, the Atlantic world, global history, and the history of science, technology, environment and medicine. It seeks to introduce them to the intellectual excitement of combining the methodologies of science and technology studies with colonial and global histories. It asks what kinds of histories we should write about the natural world in the age of the 'Columbian Exchange' and the 'First Globalization' that draw together humans, animals, environments and objects. We will not isolate scientific knowledge but see it as embedded in specific cultures, environments, infrastructures and economies. We will address classic imperial themes like bio-prospecting and natural history, as well as consider perspectives and encounters not centered on European actors. We will engage with the methodologies of science and technology studies and examine key terms and questions concerning the process of knowing about and intervening in the natural world, such as the construction of knowledge as local or universal; the relationship between theory and practice, or science and technology; the fruitfulness and limitations of colonial and imperial paradigms; and the agency of animals, objects, microbes and climates.

BOOKS ORDERED VIA BARNES AND NOBLE, 100 SOMERSET STREET

Bruno Latour, *We Have Never Been Modern*, Harvard
Alfred Crosby, *The Columbian Exchange*, Greenwood or Praeger
Kenneth Pomeranz, *The Great Divergence*, Princeton
Richard Grove, *Green Imperialism*, Cambridge
Alan Mikhail, *The Animal in Ottoman Egypt*, Oxford
Jennifer Anderson, *Mahogany*, Harvard
Londa Schiebinger, *Plants and Empire*, Harvard
Carla Nappi, *The Monkey and the Inkpot*, Harvard
Judith Carney, *Black Rice*, Harvard
James Sweet, *Domingos Álvares*, North Carolina
Jorge Canizares-Esguerra, *How to Write the History of the New World*, Stanford
Daniela Bleichmar, *Visible Empire*, Chicago
Neil Safier, *Measuring the New World*, Chicago
Laura Hostetler, *Qing Colonial Enterprise*, Chicago
Florence Hsia, *Sojourners in a Strange Land*, Chicago
Joyce Chaplin, *Subject Matter*, Harvard
Serge Gruzinski, *What Time is it There?*, Polity

ASSIGNMENTS

- (i) Verbal participation is expected on a weekly basis, especially raising questions for discussion
- (ii) Leading at least one, perhaps two, discussions on a book or set of readings
- (iii) Short response paper on the readings either from weeks 1 or 2: 4-pp. double-spaced max.
- (iv) Book review: 1,000 words – due ideally before Spring Break
- (v) 15-20 page paper on topic of student's choice, agreed by consultation with professor during office hours; 3-page prospectus with bibliography and key questions due by **Tues 10 March**; may draw entirely from syllabus or not; hard copy due by last class, **28 April**

50% of the course grade will derive from participation & short papers; 50% from the term paper

CLASS PROTOCOLS

The aim of graduate seminar discussions is above all to enjoy the play of ideas; find what is interesting in the readings; to generate positive intellectual excitement at the potential for innovative work; and to encourage each other to think creatively. Therefore we will enforce **THE STERNE RULE**: “we want to avoid ‘seek and destroy’ sessions. If you have something critical to say, be ready to explain how the piece could be improved.” There is of course a fundamental role for critique in discussion; but this must be complemented by attention to what better stories we might tell, how, and with what materials. **NOTE ON READINGS**: each week, students are expected to complete readings marked “*ALL*” and in addition one of the set of readings (grouped by geography). Students may wish to read both but this is not expected. **PRESENTATIONS**: presentations will begin week 3 and be assigned by the professor in consultation with students. Each presenter will email 2-3 questions to the class by noon on the day before class (Monday) and will be asked to lead discussion with 15 minutes max. in which they will be asked to do 3 things: summarize the main **argument**(s) of the assigned reading; refine their 2-3 discussion **questions**; and pick one **object** (or image) from the reading as a show-and-tell example that materially embodies the questions/issues they see as most interesting in the reading.

SCHEDULE

All Books (including anthologies) on Reserve in Alexander Library

† distributed via email

Tues 20 Jan: INTRODUCTIONS + Framings I – Imperial, Postcolonial, Global ***ALL READ:***

- George Basalla, “The Spread of Western Science,” *Science* 156 (1967): 611-622
- James Delbourgo and Nicholas Dew, eds., *Science and Empire in the Atlantic World*, Routledge, 2007, “The Far Side of the Ocean” (introduction)
- Warwick Anderson, “Postcolonial Technoscience,” *Social Studies of Science* 32 (2002)
- Sandra Harding, ed., *The Postcolonial Science and Technology Studies Reader*, Duke, 2011, introduction

- Sujit Sivasundaram, ed., "Focus: Global Histories of Science," *Isis* 101 (2010): introduction
- Marwa Elshakry, "How Science Became Western," *Isis* 101 (2010)

Tues 27 Jan: Framings II – Humans, Nonhumans & Hybrids

ALL:

- Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter, Harvard, 1993
- Dipesh Chakrabarty, "The Climate of History," *Critical Inquiry* 35 (2009)

Tues 3 Feb: Columbian Exchange and Great Divergence

ATLANTIC:

Alfred Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492*, Greenwood, 1973

GLOBAL:

Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy*, Princeton, 2000

*Short Response Paper due in class: hard copy please

Tues 10 Feb: Environmental Histories

BRITISH EMPIRE/ GLOBAL:

Richard Grove, *Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1800*, Cambridge, 1996

ATLANTIC:

Jennifer Anderson, *Mahogany: The Costs of Luxury in Early America*, Harvard, 2012

Tues 17 Feb: Animals

ALL:

† Rohan Deb Roy, "Nonhuman Empires," unpublished journal introduction, 2014

ATLANTIC:

John McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914*, Cambridge, 2010 (Rutgers e-book)

OTTOMAN:

Alan Mikhail, *The Animal in Ottoman Egypt*, Oxford, 2013

Tues 24 Feb: Natural History & Bio-Propecting

EUROPE/ EMPIRE:

-- Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy*, California, 1994, chs. 1-2

-- Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World*, Harvard, 2004, chs. 1-3

-- Harold Cook, *Matters of Exchange: Commerce, Medicine, & Science in the Dutch Golden Age*, Yale, 2007, chs. 1, 9

INDIA AND CHINA:

-- Kapil Raj, "Surgeons, Fakirs, Merchants, and Craftsmen: Making L'Empereur's *Jardin* in Early Modern South Asia", in Londa Schiebinger and Claudia Swan, eds., *Colonial Botany: Science, Commerce, and Politics in the Early Modern World*, U Penn Press, 2005, 252-69

-- Carla Nappi, *The Monkey and The Inkpot: Natural History and its Transformations in Early Modern China*, Harvard, 2009

Tues 3 March: African Knowledges: Diaspora & Slavery

ALL:

-- Susan Scott Parrish, "Diasporic African Sources of Enlightenment Knowledge," in James Delbourgo and Nicholas Dew (eds.), *Science and Empire in the Atlantic World* (Routledge, 2007), 281-310

-- Jill Casid, *Sowing Empire: Landscape and Colonization*, Minnesota, 2005, ch. 5, "Countercolonial Landscapes"

AGRICULTURE:

Judith Carney, *Black Rice: The African Origins of Rice Cultivation in the Americas*, Harvard, 2001
[Roundtables in *AHR* in 2007 and 2010]

MEDICINE AND MICROHISTORY:

James Sweet, *Domingos Álvares: African Healing and the Intellectual History of the Atlantic World*, North Carolina, 2011

Tues 10 March

No Class: * Term Paper Prospectus due by Email

Tues 17 March

No Class: SPRING BREAK

Tues 24 March: Creole Epistemology

ALL:

Ralph Bauer, *The Cultural Geography of Colonial American Literatures: Empire, Travel, Modernity*, Cambridge, 2003, "Prospero's Progeny" (introduction)

TEXTUAL KNOWLEDGE:

Jorge Cañizares-Esguerra, *How to Write the History of the New World: Histories, Epistemologies and Identities in the Eighteenth-Century Atlantic World*, Stanford, 2001

VISUAL KNOWLEDGE:

Daniela Bleichmar, *Visible Empire: Botanical Expeditions and Visual Culture in the Hispanic Enlightenment*, Chicago, 2012

Tues 31 March: What is a Global Network, Really?

ALL:

Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society*, Harvard University Press, 1987, ch. 6

BRITAIN, GLOBAL AND WEST AFRICA:

-- Simon Schaffer, "Newton on the Beach: The Information Order of Principia Mathematica," *History of Science* (2009)

-- † Simon Schaffer, "Golden Means: Assay Instruments and the Geography of Precision in the Guinea Trade," in Christian Licoppe, et al, eds., *Instruments, Travel and Science: Itineraries of Precision from the Seventeenth to the Twentieth Century*, Routledge, 2002, 20-50

ATLANTIC/ SOUTH AMERICA:

-- † Michael Dettelbach, "Global Physics and Aesthetic Empire: Humboldt's Physical Portrait of the Tropics," in David Miller & Peter Hanns Reill, eds., *Visions of Empire: Voyages, Botany, and Representations of Nature* (Cambridge, 1996), 258-92

- Mary Louise Pratt, *Imperial Eyes: Transculturation & Travel Writing*, Routledge, 1992, ch. 6
- Jorge Cañizares-Esguerra, "How Derivative was Humboldt?: Microcosmic Nature Narratives in Early Modern Spanish America and the (Other) Origins of Humboldt's Ecological Sensibilities," in Schiebinger and Swan, *Colonial Botany*, 148-165

Tues 7 Apr: Go-Betweens and Indigenes

ALL:

Simon Schaffer, et al., eds., *The Brokered World: Go-Betweens and Global Intelligence, 1770-1820*, Science History Publications, 2009: introduction

ATLANTIC:

-- James Delbourgo, "Fugitive Colors: Shamans' Knowledge, Chemical Empire and Atlantic Revolutions," in *Brokered World* (Guiana/London)

-- Cameron Strang, "Indian Storytelling, Scientific Knowledge, and Power in the Florida Borderlands," *William and Mary Quarterly*, 2013

-- Miles Ogborn, "Talking Plants: Botany and Speech in Eighteenth-Century Jamaica," *History of Science* 2013

PACIFIC:

-- *Brokered World* essays by Robert Liss (Japan) and David Turnbull (Australasia)

-- Florence Hsia, *Sojourners in a Strange Land: Jesuits and their Scientific Missions in Late Imperial China*, Chicago, 2009

Tues 14 Apr: Mapping Peoples: Cartography and Ethnography

ALL:

David Turnbull, *Masons, Tricksters and Cartographers: Comparative Studies in the Sociology of Scientific and Indigenous Knowledge*, Taylor & Francis, 2000, ch. 3

ATLANTIC:

Neil Safier, *Measuring the New World: Enlightenment Science in South America*, Chicago, 2008

CHINA:

Laura Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China*, Chicago, 2001

Tues 21 Apr: Technique, Technology & Instrumentation

ALL:

Lissa Roberts, et al., eds., *The Mindful Hand: Inquiry and Invention from the Late Renaissance to Early Industrialization*, Royal Netherlands Academy of Arts and Sciences, 2007, preface, xiii-xxvii:

<http://www.dwc.knaw.nl/wp-content/HSSN/2007-9-Mindfull%20Hand.pdf>

ATLANTIC:

-- Joyce Chaplin, *Subject Matter: Technology, the Body, and Science on the Anglo-American Frontier, 1500-1676*, Harvard, 2000

-- Molly Warsh, "A Political Ecology in the Early Spanish Caribbean," *William and Mary Quarterly* (2014)

INDIA, PACIFIC AND ASIA:

-- Simon Schaffer, "'On Seeing Me Write': Inscription Devices in the South Seas," *Representations* (2007)

-- David Turnbull, *Masons, Tricksters and Cartographers*, ch. 4 (Pacific Islanders)

-- Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650-1900*, Palgrave, 2010, ch. 6: "When Human Instruments Become Travellers"

Tues 28 Apr: Conclusion – What Time is it There?

ALL:

Serge Gruzinski, *What Time is it There?: America and Islam at the Dawn of Modern Times*, 2008, trans. Jean Birrell, Polity, 2010