

Instructors:

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Course Description:

Together with the laboratory, museum, specialized society, and scientific journal, the expedition is one of the central institutions of modern science. One can hardly imagine the history of astronomy and geodesy without Maupertuis in Lapland, La Condamine in Peru, and the Venus transit observations reiterated throughout the eighteenth and nineteenth centuries; botany and physical geography absent Linnaeus' peripatetic students, Cook and Bougainville in the South Seas, Ruiz and Pavón in South America, and Humboldt in his tours of the Americas and Russia; or the theory of natural selection without the voyages of the *Beagle*. At the same time, the history of organized scientific travel is also necessarily the history of cultural encounter, globalization, and colonialism, and so of networks, accumulation, circulation, translation, and transculturation. Through close examination of historical case studies from the 18th through the 20th century, analysis of theoretical frameworks, and the exploration of digital resources, this seminar asks students to reassess the ways in which the history of scientific travel can inform our understanding of the scientific enterprise and its place in changing institutional, economic, and political relations across the globe.

Course Requirements:

(a) Take turns leading discussion of assigned readings (the number will depend on the number of seminar participants). A typed summary/critique/reaction (1 page in length) should accompany your discussion.

(b) Submit a preliminary prospectus & bibliography for your own research on October 14th, present a joint research proposal in the expedition workshops on Nov. 22/29, and make a formal presentation of your own research-in-progress on Dec. 6/13. Be sure to distribute any readings or paper drafts to seminar participants at least a week in advance of your presentation.

(c) Complete 15-20 pages of prose writing in connection with this course – ideally a research paper which relates to the themes of this course, analyses two or more primary sources, and makes use of some conceptual and/or methodological insight gained through the readings. Other possibilities include a critical discussion of some historiographical issue in the secondary literature; two or more book reviews (situating the book with respect to existing scholarship and critiquing the author's use of source material); or a bibliographic survey in preparation for a prelim field. Please meet with us as early as you can in the semester to discuss how you propose to fulfill the writing requirement.

Grading will be based on class participation (25%), in-class presentations (~25%), and your written work (~50%). All of your written work is due on Tuesday, Dec. 20.

Topics and Schedule of Readings:

FRAMEWORKS

Sept. 6: center-periphery

- George Basalla, "The spread of western science," *Science* 156:3775 (5 May 1967): 611-22.
- Bruno Latour, *Science in action: how to follow scientists and engineers through society*, Cambridge: Harvard University Press, 1987, 215-57.
- Lissa Roberts, "Situating science in global history: local exchanges and networks of circulation," *Itinerario* 33 (2009): 9-30.
- Neil Safier, "Global knowledge on the move: itineraries, Amerindian narratives, and deep histories of science," *Isis* 101 (2010): 133-45.
- Antonio Lafuente and Nuria Valverde, "Linnaean botany and Spanish imperial biopolitics," in *Colonial botany: science, commerce, and politics in the early modern world*, ed. by Londa Schiebinger and Claudia Swan, Philadelphia: University of Pennsylvania Press, 2004, 134-47, 305-307.

Sept. 13 no meeting (work on paper topics)

Sept. 20 national/multinational capitalism

- David Arnold, "Plant capitalism and Company science: the Indian career of Nathaniel Wallich," *Modern Asian studies* 42 (2008): 899-928.
- Steven J. Harris, "Long-distance corporations, big sciences, and the geography of knowledge," *Configurations* 6:2 (1998): 269-304.
- Daniela Bleichmar, "Atlantic competitions: botany in the eighteenth-century Spanish empire," in *Science and empire in the Atlantic world*, ed. by James Delbourgo and Nicholas Dew, New York: Routledge, 2008, 225-52.
- Camilo Quintero, "Trading in birds: imperial power, national pride, and the place of nature in U.S.-Colombia Relations," *Isis* 102 (2011): 1-25.
- Andrew Zimmerman, *Alabama in Africa: Booker T. Washington, the German Empire, and the globalization of the New South*, Princeton: Princeton University Press, 2010, 112-172.

Sept. 27 exchange relations

- Harold J. Cook, *Matters of exchange: commerce, medicine, and science in the Dutch Golden Age*, New Haven: Yale University Press, 2007, 42-81.
- Richard White, *The middle ground: Indians, empires, and republics in the Great Lakes region, 1650-1815*, Cambridge: Cambridge University Press, 1991, 94-141.
- David Turnbull, "Boundary-crossings, cultural encounters, and knowledge spaces in early Australia," in *The brokered world*, ed. by Simon Schaffer et al., Sagamore Beach, MA: Science History Publications, 2009, 387-428.
- Warwick Anderson, *The collectors of lost souls: turning Kuru scientists into Whitemen*, Baltimore: Johns Hopkins University Press, 2008, 91-115.

Oct. 4 personae

- Mary Terrall, "Heroic narratives of quest and discovery," *Configurations* 6:2 (1998): 223-42.
- Kathleen S. Murphy, "Translating the vernacular: indigenous and African knowledge in the

eighteenth-century British Atlantic,” *Atlantic studies* 8:1 (2011): 29-48.

- Fa-ti Fan, *British naturalists in Qing China: science, empire, and cultural encounter*, Cambridge, Mass.: Harvard University Press, 2004, 122-153.
- Jane R. Camerini, “Wallace in the field,” *Osiris* 11 (1996): 44-65.
- Christopher Ries, “Lauge Koch and the mapping of North East Greenland: tradition and modernity in Danish Arctic research, 1920-1940,” in *Narrating the Arctic: a cultural history of Nordic scientific practices*, ed. by Michael Bravo and Sverker Sörlin, Canton, MA: Science History Publications, 2002, 199-231.

Oct. 11 circulation

- Nicholas Dew, “Scientific travel in the Atlantic world: the French expedition to Gorée and the Antilles, 1681-1683,” *British journal for the history of science* 43:1 (2010): 1-17.
- Harold J. Cook, “Conveying Chinese medicine to seventeenth-century Europe,” *Boston studies in the philosophy of science* 275 (2011): 209-32.
- Jordan Kellman, “Nature, networks, and expert testimony in the colonial Atlantic: the case of cochineal,” *Atlantic studies* 7:4 (2010): 373-95.
- Richard Grove, *Green imperialism: colonial expansion, tropical island Edens and the origins of environmentalism, 1600-1800*, Cambridge: Cambridge University Press, 1995, 95-152.
- Bruno Latour, “Circulating reference,” in *Pandora’s hope: essays on the reality of science studies*, Cambridge: Harvard University Press, 1999, 24-79.

TECHNOLOGIES

Oct. 18 texts

- Anke te Heesen, “Accounting for the natural world: double-entry bookkeeping in the field,” in *Colonial botany: science, commerce, and politics in the early modern world*, ed. by Londa Schiebinger and Claudia Swan, Philadelphia: University of Pennsylvania Press, 2004, 237-51, 321-24.
- Daniela Bleichmar, “Exploration in print: books and botanical travel from Spain to the Americas in the late eighteenth century,” *Huntington library quarterly* 70:1 (2007): 129-51.
- Charles W. J. Withers and Innes M. Keighren, “Travels into print: authoring, editing and narratives of travel and exploration, c.1815-c.1857,” *Transactions of the Institute of British Geographers* 36:2 (2011): 1-14.
- Michael Bravo, “Measuring Danes and Eskimos,” in *Narrating the Arctic: a cultural history of Nordic scientific practices*, ed. by Michael Bravo and Sverker Sörlin, Canton, MA: Science History Publications, 2002, 235-73.

Oct. 25 instruments

- Nicholas Dew, “Vers la ligne: circulating measurements around the French Atlantic,” in *Science and empire in the Atlantic world*, ed. by James Delbourgo and Nicholas Dew, New York: Routledge, 2008, 53-72.
- Richard Sorrenson, “The ship as a scientific instrument in the eighteenth century,” *Osiris* 11, 2nd ser. (1996): 221-36.
- Emma Spary, “Self preservation: French travels between cuisine and industrie,” in *The brokered world*, ed. by Simon Schaffer et al., Sagamore Beach, MA: Science History Publications, 2009, 355-86.

- Kapil Raj, "When human travelers become instruments: the Indo-British exploration of Central Asia in the nineteenth century," in *Instruments, travel and science: itineraries of precision from the seventeenth to the twentieth century*, ed. by Marie-Noëlle Bourguet, Christian Licoppe, and Heinz Otto Sibum, London: Routledge, 2002, 156-88.
- Robert E. Kohler, *All creatures: naturalists, collectors, and biodiversity, 1850-1950*, Princeton: Princeton University Press, 2006, 137-181.

Nov. 1 maps

- Miles Ogborn and Charles W. J. Withers, "Travel, trade, and empire: knowing other places, 1660-1800," *A concise companion to the Restoration and eighteenth century*, ed. by Cynthia Wall, Malden, MA; Oxford: Blackwell Publishers, 2005, 13-35.
- Neil Safier, *Measuring the new world: Enlightenment science and South America*, Chicago: University of Chicago Press, 2008, 123-65, 300-308.
- David Turnbull, "(En)-countering knowledge traditions: the story of Cook and Tupaia," *Humanities research* 1 (2000): 55-76.
- D. Graham Burnett, *Masters of all they surveyed: exploration, geography, and a British El Dorado*, Chicago: University of Chicago Press, 2000, 25-66.
- Paul Carter, *The road to Botany Bay: an exploration of landscape and history*, New York: Knopf, 1998, 1-33, 99-135.

Nov. 8 visual technologies I -- from paintings to photography

- Kay Dian Kriz, "Curiosities, commodities, and transplanted bodies in Hans Sloane's 'Natural history of Jamaica'," *William and Mary quarterly* 57:1 (2000): 35-78.
- Daniela Bleichmar, "Visible empire: scientific expeditions and visual culture in the Hispanic enlightenment," *Postcolonial studies* 12:4 (2009): 441-66.
- Ann Shelby Blum, *Picturing nature: American nineteenth-century zoological illustration*, Princeton: Princeton University Press, 1993,
- Robin E. Kelsey, "Viewing the archive: Timothy O'Sullivan's photographs for the Wheeler Survey, 1871-1874," *The art bulletin* 85 (2003): 702-723.

Nov. 15 visual technologies II – home movies, expedition, and ethnographic film

- Robert Gordon, *Picturing Bushmen: the Denver African expedition of 1925*, Athens: Ohio University Press, 1997,
- Alison Griffiths, *Wondrous difference: cinema, anthropology, and turn-of-the-century visual culture*, New York: Columbia University Press, 2002, 127-179.
- Gregg Mitman and Paul Erickson, "Latex and blood: science, markets, and American empire," *Radical history review* 107 (2010): 45-73.

Nov. 22 Expedition I

Nov. 29 Expedition II

Dec. 6 Student Presentations

Dec. 13 Student Presentations