

History of Science 909: Seminar in History of Biology and Medicine

Fall 2017: Nationalism, Internationalism, Transnationalism in the History of Modern Biology
Wednesdays 2:25-5:25 pm, 7121 Helen C. White Hall

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Office Hours: M 1:30-2:45 pm (207 University Club)
T 1:30-3 pm (5118 Humanities)
and by appointment

This graduate seminar has a twofold task: to examine episodes in the history of biology that reflect movements of nationalism, internationalism, and transnationalism (primarily since the French Revolution); and to reflect historiographically on how historians have worked with these concepts. Case studies will be drawn from the history of evolutionary theory, systematics, genetics/eugenics, paleontology, public health, and nutrition science. Geographical emphasis will range the globe but will focus primarily on “Western” science.

Learning Goals: The goals of the seminar are for you to learn leading themes in and approaches to nationalism, internationalism, and transnationalism through the lens of the history of biology; to gain practice in analytical and comparative reading, and thereby to develop your critical understanding of history of science as a scholarly discipline and its relations to broader themes in history and the humanities more generally; and to become comfortable with seminar-style discussions at the graduate level.

Requirements:

Reading and Discussion: This is primarily a reading seminar. We will be reading a book or 4-5 articles or book sections per week; you should come to each week’s meeting prepared to talk about them.

Discussion-launchers and Think-pieces: Each student will be the discussion-launcher for three sessions: two between Sept. 20 and Nov.8 (excluding Sept. 27), and one between Nov. 15 and Dec. 6. To facilitate this, each discussion-launcher is asked to produce a think-piece of 500 words or less, to be circulated by 7 a.m. the day of your discussion. The aim of a think-piece is to raise questions and points for analysis by the group as a whole. What are the historiographic or methodological takeaways from these readings? You should address broader issues that go beyond a single reading, but you aren’t required to synthesize all the readings. For you “Student choice” session (Nov. 15-Dec. 6), you will set your own topic (in consultation with me; most efficiently, one related to your final paper) and lead a discussion of a book or 3-5 articles. Readings must be made available at least 7 days in advance of the session. For **Sept. 27**, each student will be reading and reporting on a single book (in addition to reading one overview article). For this session, you will provide a critical summary of the book of no longer than 600 words, to be turned in by 7 a.m. the day of your session.

Formal Writing: Students may choose a writing assignment of approximately 15 pages (double-spaced) that is suited to their interests and stage of graduate career. Generally this would be either a) a historiographic essay that develops a theme of interest to you, covering a body of work that includes readings from within and beyond the reading list; or b) a detailed proposal for a research project using primary and secondary sources related to the history of nationalism, internationalism, or transnationalism in the history of biology. Students who wish instead to write a primary-source based research paper (e.g. to fulfill a requirement) should consult me early in the course. Dates: proposal 10/4; preliminary bibliography 11/1; draft 12/1 (Friday!); Final 12/15.

OVERVIEW

Introductory:

9/6: Denationalizing History and History of Science

9/13: Ideology, Discourse, and the (Bio)Political Imaginary

Topics:

9/20: Classification

9/27: Evolution

10/4: Eugenics

10/11: Paleoanthropology

10/18: Biomedicine and Public Health

10/25: Green Revolution to GMOs

11/1: Ecology

11/8: Lysenko (and After)

Student Choice:

11/15: student-run student choice

11/22: Check-in/Troubleshooting on final paper

11/29: student-run student choice

12/6: student-run student choice

12/13: last class: Oral Reports on Final Paper and Wrap-up

READING ASSIGNMENTS:

9/6: Introduction: Denationalizing History and History of Science

Elisabeth Crawford, Terry Shinn, and Sverker Sörlin, "The Nationalization and Denationalization of the Sciences: An Introductory Essay," in idem, eds., *Denationalizing Science: The Contexts of International Scientific Practice* (Boston: Kluwer Academic, 1993), 1-42.

Simone Turchetti, Néstor Herran, and Soraya Boudia, "Introduction: Have We Ever Been 'Transnational'? Towards a History of Science Across and Beyond Borders," *British Journal for the History of Science* 45(3) (Sept. 2012): 319-336.

Supplementary:

"AHR Conversation: On Transnational History," *American Historical Review*, Dec. 2006, 1441-1464.

9/13: Ideology, Discourse, and the (Bio)Political Imaginary

themes: political imaginaries of states and empires, political uses of biological language

Frederick Cooper, "Chapter 6: States, Empires, and Political Imagination," in idem, *Colonialism in Question : Theory, Knowledge, History* (Berkeley: University of California Press, 2005), 153-203, 288-304 (notes).

- Geert J. Somsen, "A History of Universalism: Conceptions of the Internationality of Science from the Enlightenment to the Cold War," *Minerva* 46 (2008): 361-379
- Michael A. Osborne, "Parasitology, Zoology, and Society in France, 1880-1920," in Scott Lidgard and Lynn K. Nyhart, *Biological Individuality: Integrating Scientific, Philosophical, and Historical Perspectives* (Chicago: University of Chicago Press, 2017), 206-224.
- Lynn K. Nyhart, "The Political Organism: Carl Vogt on Animals and States in the 1840s and 50s." Forthcoming in *Historical Studies in the Natural Sciences*, December 2017. (40 ms. pages.)

Supplementary:

- Mark Walker, "The 'National' in International and Transnational Science," *British Journal for the History of Science* 45(3) (Sept. 2012): 359-376.

9/20: Classification

themes: forms of circulation: objects, writings, knowledge

- Daniel Margócsy, Chapter 2: Shipping Costs, the Exchange of Specimens, and the Development of Taxonomy," in idem, *Commercial Visions: Science, Trade, and Visual Culture in the Dutch Golden Age* (Chicago: University of Chicago Press, 2014), 29-73, 231-237.
- Jim Endersby, "Corresponding" and "Classifying" in idem, *Imperial Nature: Joseph Hooker and the Practices of Victorian Science* (Chicago: University of Chicago Press, 2008), 84-111, 137-169, and notes to these chapters.
- Jodi Frawley, "Joseph Maiden and the National and Transnational Circulation of Wattle *Acacia* spp.," *Historical Records of Australian Science* 21 (2010): 35-54.
- Libby Robin and Jane Carruthers, "National Identity and International Science: The Case of *Acacia*," *Historical Records of Australian Science* 23 (2012): 34-54.

Supplementary:

- Jung Lee, "Between Universalism and Regionalism: Universal Systematics from Imperial Japan," *British Journal for the History of Science* 48(4) (December 2015): 661-684.
- Melville, R. V. *Towards Stability in the Names of Animals: A History of the International Commission on Zoological Nomenclature, 1895-1995* (London: International Trust for Zoological Nomenclature, 1995).
- Jenny Beckmann, "The Swedish Taxonomy Initiative: Managing the Boundaries of 'Sweden' and 'Taxonomy'," in *Scientists and Scholars in the Field: Studies in the History of Fieldwork and Expeditions* (2012), 395-414.

9/27: Evolution

themes: national styles, comparison, circulation, translation

- All:** Thomas F. Glick, "The Comparative Reception of Darwinism: A Brief History," *Science and Education* 19 (2010): 693-703.

Divide up and report on:

Daniel Todes, *Darwin without Malthus: The Struggle for Existence in Russian Evolutionary Thought* (Oxford University Press, 1989)

Sander Gliboff, *H. G. Bronn, Ernst Haeckel, and the Origins of German Darwinism: A Study in Translation and Transformation* (Johns Hopkins University Press, 2008)

Marwa Elshakry, *Reading Darwin in Arabic, 1860-1950* (Chicago: University of Chicago Press, 2013)

Supplementary:

Thomas F. Glick, "Preface" and "Preface, 1988: Reception Studies Since 1974," in *The Comparative Reception of Darwin*, 2nd ed., edited by T. F. Glick (Chicago: University of Chicago Press, 1988), vii-xxviii

Nicolaas Rupke, "Translation Studies in the History of Science: The Example of 'Vestiges,'" *British Journal for the History of Science* 33(2) (June 2000): 209-222

10/4: Eugenics

themes: comparison, transnationalism, national identity in Europe

Micol Seigel, "Beyond Compare: Comparative Method after the Transnational Turn," *Radical History Review* 91 (Winter 2005): 62-90.

Mark B. Adams, "Chapter 1: Eugenics in the History of Biology" and "Chapter 6: Towards a Comparative History of Eugenics," in *The Wellborn Science: Eugenics in Germany, France, Brazil, and Russia* (Oxford University Press, 1990), 3-7 and PAGES

Marius Turda and Paul J. Weindling, "Eugenics, Race and Nation in Central and Southeast Europe, 1900-1940: A Historiographic Overview," in "'Blood and Homeland': Eugenics and Racial Nationalism in Central and Southeast Europe, 1900-1940," edited by Marius Turda and Paul J. Weindling (Budapest; New York: Central European University Press, 2007), 1-20.

Pers Anders Rudling, "Eugenics and Racial Biology in Sweden and the USSR: Contacts across the Baltic Sea," *Canadian Bulletin of Medical History/Bulletin Canadien d'Histoire de la Médecine (CBMH/BCHM)* 31(1) (2014): 41-75.

Paul J. Weindling, "Race, Eugenics, and National Identity in the Eastern Baltic: From Racial Surveys to Racial States," in Björn M. Felder and Paul J. Weindling, eds., *Baltic Eugenics: Bio-Politics, Race and Nation in Interwar Estonia, Latvia and Lithuania 1918-1940* (New York: Editions Rodopi, 2013), 33-48

Supplementary:

Erika Dyck, "Guest Editor's Introduction: History of Eugenics Revisited," *CBMH/BCHM* 31(1) (2014): 7-16.

Björn M. Felder, "Introduction: Eugenics, Sterilisation and the Racial State: The Baltic States, Russia, and the Global Eugenics Movement," in Björn M. Felder and Paul J. Weindling, eds., *Baltic Eugenics: Bio-Politics, Race and Nation in Interwar Estonia, Latvia and Lithuania 1918-1940* (New York: Editions Rodopi, 2013), 5-29.

Chris Manias, *The Race prussienne Controversy: Scientific Internationalism and the Nation*, *Isis* 100 (2009): 733-757

10/11: Paleoanthropology

themes: a single locus of transnational attention; popular science

Hsiao-Pei Yen, "Evolutionary Asiacentrism, Peking Man, and the Origins of Sinocentric Ethno-Nationalism," *JHB* 2014, 47: 585-625

Chris Manias, "Sinanthropus in Britain: human origins and international science, 1920–1939," *BJHS* 48(2): 289-319

Sigrid Schmalzer, "Chapter 1: 'From 'Dragon Bones' to Scientific Research': Peking Man and Popular Paleoanthropology in Pre-1949 China," in idem, *The People's Peking Man: Popular Science and Human Identity in Twentieth-Century China* (Chicago: University of Chicago Press, 2014), 17-54.

Peter C. Kjaergaard, "The Missing Links Expeditions—or how the Peking Man Was Not Found," *Endeavour* 36(3) (2012): 97-105

Supplementary:

Chris Manias, "Jesuit Scientists and Mongolian Fossils: The French Paleontological Missions in China, 1923-1928," *Isis* 108 (2017): 307-332.

10/18: Biomedicine and Public Health

themes: the Rockefeller Foundation as paradigmatic international health NGO; transfer, transnational exchange

Anne-Emanuelle Birn and Elizabeth Fee, "The Art of Medicine: The Rockefeller Foundation and the International Health Agenda," *The Lancet* 381 (11 May 2013):1618-1619.

Nancy Leys Stepan, "The National and the International in Public Health: Carlos Chagas and the Rockefeller Foundation in Brazil, 1917-1930s," *Hispanic American Historical Review* 91(3) (2011): 469-

Steven Palmer, "Migrant Clinics and Hookworm Science: Peripheral Origins of International Health, 1840-1920," *Bulletin of the History of Medicine* 83(4) (Winter 2009): 676-709.

Quishu Ma, "The Peking Union Medical College and the Rockefeller Foundation's Medical Program in China" in William H. Schneider, ed., *Rockefeller Philanthropy and Modern Biomedicine: International Initiatives from World War I to the Cold War* (Bloomington: Indiana University Press, 2002), 159-183.

Jean-Francois Picard and William H. Schneider, "From the Art of Medicine to Biomedical Science in France: Modernization or Americanization?" in William H. Schneider, ed., *Rockefeller Philanthropy and Modern Biomedicine: International Initiatives from World War I to the Cold War* (Bloomington: Indiana University Press, 2002), 106-124

Supplementary:

Amy L. S. Staples, "Constructing International Authority in the World Health Organization," Chapter 9 in idem, *The Birth of Development: How the World Bank, Food and Agriculture Organization, and World Health Organization Changed the World, 1945-1965* (Kent, Ohio: Kent State University Press, 2006).

10/25: Plant Breeding: Green Revolutions to GMOs

themes: international regulation, governance and governmentality, globalization

Jonathan Harwood, *Europe's Green Revolution and Others Since: The Rise and Fall of Peasant-Friendly Plant Breeding* (New York: Routledge, 2012), Chapters 6 and 7: "The Green Revolution and Its Critics," and "Reforming the Revolution: Peasant-Friendly Innovation, 1970-2010."

Jean-Paul Gaudillère, "Globalization and Regulation in the Biotech World: The Transatlantic Debates over Cancer Genes and Genetically Modified Crops," *Osiris 21: Global Power Knowledge: Science and Technology in International Affairs* (2006): 251-272

Sheila Jasanoff, "Biotechnology and Empire: The Global Power of Seeds and Science," *Osiris 21: Global Power Knowledge: Science and Technology in International Affairs* (2006): 273-292

Ronald J. Herring, "Stealth Seeds: Bioproperty, Biosafety, Biopolitics," *Journal of Development Studies* 43(1) (January 2007): 130-157

Supplementary:

James Lin, "Sowing Seeds and Knowledge: Agricultural Development in Taiwan and the World, 1925-1975," *East Asian Science, Technology and Society* 9 (2015): 127-149.

Elta Smith, "Imaginariness of Development: The Rockefeller Foundation and Rice Research," *Science as Culture* 18(4) (Dec. 2009), 461-82

John H. Perkins, "The Rockefeller Foundation and the Green Revolution, 1942-1956," *Agriculture and Human Values* 7 (304) (June 1990): 6-18

11/1: Ecology

Themes: changing constructions of "international;" institutionalizing global-scale research

Kaat Schulte-Fischedick and Terry Shinn, "International Phytogeographical Excursions, 1911-1923: Intellectual Convergence in Vegetation Science," in *Denationalizing Science: The Contexts of International Scientific Practice* (Boston: Kluwer Academic, 1993), 107-131.

Andrew Jamison, "National Political Cultures and the Exchange of Knowledge: The Case of Systems Ecology," in *Denationalizing Science: The Contexts of International Scientific Practice* (Boston: Kluwer Academic, 1993), 187-208

Aronova, Elena, Karen S. Baker, and Naomi Oreskes. "Big Science and Big Data in Biology: From the International Geophysical Year through the International Biological Program to the Long Term Ecological Research (LTER) Network, 1957–Present." *Historical Studies in the Natural Sciences* 40(2) (2010): 183–224.

Simone Schleper, "Conservation Compromises: The MAB and the Legacy of the International Biological Program, 1964–1974," *Journal of the History of Biology*, 50(1), Feb. 2017, 133-167.

Supplementary:

Geert Somsen, "Universalism in Action: Ideals and Practices of International Scientific Cooperation," *European Studies*, no. 32 (2014): 123–137.

Kwa, Chunglin. "Representations of Nature Mediating between Ecology and Science Policy: The Case of the International Biological Programme." *Social Studies of Science* 17, no. 3

(August 1, 1987): 413–42

11/8: Lysenkoism (and after)

themes: internationalism, national history

Nikolai Krementsov, “A ‘Second Front’ in Soviet Genetics: The International Dimension of the Lysenko Controversy, 1944-1947,” *Journal of the History of Biology* 29 (2) (Summer 1996): 229-250

Loren Graham, *Lysenko’s Ghost: Epigenetics and Russia* (Cambridge, MA: Harvard University Press, 2016). ALL.

Supplementary:

Michael Gordin, “How Lysenkoism Became Pseudoscience: Dobzhansky to Velikovsky,” *Journal of the History of Biology* 45 (2012): 443-68.

11/15: student choice

11/22: [day before Thanksgiving] Individual meetings re: papers

11/29: student choice

12/6: student choice

12/13: last class: Wrap-up