

History of Medicine/History of Science/IES  
513/713

Environment and Health in Global Perspective  
Spring 2016  
2:30-3:45 MW, 155 Van Hise

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Office Hours: Tuesdays, 1415 MSC, 10:00 am – noon, or by appointment

**Course Description:**

Why are societies around the world having to confront newly emerging and re-emerging infectious diseases? What are the economic, political, and social forces that have shaped landscapes of health and illness across the globe? In what ways have the growth of cities, new industries, extractive economies, and development shaped human well-being?

This course places these questions in historical context by exploring the relationships between environmental change and human health from the 17<sup>th</sup> century to our time. It brings together historical, anthropological, and sociological perspectives to consider the history of ideas about environment and health as well as the ways in which changing environments have shaped experiences of health and illness. In addition, we will examine how places have mattered in the production of knowledge about health and illness, the politicization of disease, and global health interventions. We will also investigate the social, economic, and political determinants that have impinged upon and influenced health and healing at the regional and global levels.

**Expectations:**

This course is based on a seminar-discussion format. Each one in class needs to assume the responsibility of an active participant and learner. Success in the class depends largely upon the time, energy, and commitment you invest. You will be required to arrive at class having read the material assigned for the day and prepared to engage in a thoughtful and constructive conversation that is respectful of others in the classroom and takes seriously the issues and themes presented in the readings. You will also be expected to post one comment or question on the readings 12 hours in advance of each class session.

If any problem arises, either academic or personal, that might jeopardize your performance in the course you must try to inform me of the problem at the next available office hour, or by leaving a message with the Department of Medical History and Bioethics (262-1460).

In compliance with the Americans with Disabilities Act, I urge any student in this course with a disability to inform me as soon as possible, so that I may make any necessary accommodations to ensure full participation and facilitate your educational opportunities. All such requests are confidential.

Students are expected to familiarize themselves with the UW policies on plagiarism and to assume responsibility for honesty in all course work.

**Requirements:**

Undergraduates:	Attendance/Class participation	30%
	Critical Response papers (2)	20%
	Take-Home Exams	50%
	or Research paper	
Graduate Students:	Class/seminar participation	25%
	Book reviews (2)	30%
	Research Paper	45%

**Readings:**

All the materials for the course are posted electronically on the Learn@UW site for the course: <https://uwmad.courses.wisconsin.edu/d2l/home/3191737>

**Class Schedule, Topics, and Readings**

1/20 *Introduction*

**Issues & Approaches**

In the first two weeks of the class, our readings and discussions will focus on methodological and theoretical approaches that will serve as useful guides in our efforts to understand the changing historical relationships between environment and health across the globe. How do we define what constitutes health and illness? Is disease the result of pathology within the body, or might it be understood within a broader set of physical, economic, and social relationships in which human bodies are embedded? How does the very framing of an “environmental health” problem determine what are the solutions sought?

1/25 *Framing Diseases Over Time*

Charles Rosenberg, “Framing Disease: Illness, Society, and History,” in Rosenberg and Janet Golden, eds., *Framing Disease: Studies in Cultural History* (Rutgers University Press, 1992), pp. xiii-xxxvi

1/27- *Ebola: Autopsy of an Outbreak*

2/1 Nicholas Kristof, “Fighting Ebola for Us All,” *New York Times*, 6 August 2014.

Gregg Mitman, “Ebola Thrives in a Stew of Fear,” *New England Journal of Medicine* 2014; 371:1763-1765.

Teju Cole, “The White-Savior Industrial Complex,” *The Atlantic*, 21 March 2012.

Richard Preston, “Crisis in the Hot Zone,” *New Yorker* (October 26, 1992), pp. 58-81

2/3 *Ecologies of Health and Illness*

David B. Morris, “The White Noise of Health,” in *Illness and Culture in the Postmodern Age* (Berkeley: University of California Press, 1998), pp. 78-106.

Gregg Mitman, Michelle Murphy, and Christopher Sellers, “Introduction: A Cloud over History,” *Osiris* 19 (2004): 1-20.

2/8 *Political Economy and the Social Costs of Production*

Anne-Emmanuelle Birn, Yogan Pillay, and Timothy Holtz, "The Political Economy of Health and Development, in *Textbook of International Health: Global Health in a Dynamic World* (Oxford: Oxford University Press, 2009): 132-191.

**Airs, Waters, and Places**

In these four sessions, we explore the historical roots of medical, biological, and geographic ideas about disease that were both an outgrowth of, and shaped European interactions with new worlds and peoples. We will learn more about the place of disease in colonial expansion, the trans-Atlantic slave trade, the construction of biological conceptions of race, and the lasting legacy of environmental and biological determinism in explaining new world encounters. While many of these ideas may seem outdated, they tend to linger and reappear in new forms, as we will see throughout the course.

2/10 *The Legacy of Hippocrates*

G. E. R. Lloyd, ed., "Airs, Waters, and Places," in *Hippocratic Writings* (New York: Penguin Books, 1978), pp. 148-170.

L. J. Jordanova, "Earth Science and Environmental Medicine: the Synthesis of the late Enlightenment," in *Images of the Earth: Essays in the History of the Environmental Sciences*, edited by L. J. Jordanova & Roy S. Porter, BSHS Monographs, 1 (1979): 120-146.

2/15 *Acclimatization, Race, and Disease*

Mark Harrison, "'The Tender Frame of Man': Disease, Climate and Racial Difference in India and the West Indies, 1760-1860," *Bulletin of the History of Medicine* 70 (1996): 68-93.

James Lind, *An Essay on Diseases Incidental to Europeans in Hot Climates*, 6<sup>th</sup> ed. (London: J. and J. Richardson, 1808). Pp. 170-173.

J. C. Nott, "Acclimation; or the Comparative Influence of Climate, Endemic, and Epidemic Diseases on the Races of Man," in Indigenous Races of the Earth (Philadelphia: J. P. Lippincott & Co., 1857), pp. 353-368.

2/17 *Slavery, the "Dark Continent," and the White Man's Grave*

Philip Curtin, *The Image of Africa: British Ideas and Action, 1780-1850* (Madison: University of Wisconsin Press, 1964), pp. 58-87, 177-197.

James H. Sweet, "Passages," in *Domingo Álvares, African Healing and the Intellectual History of the Atlantic World* (Chapel Hill: University of North Carolina Press, 2011), 27-52.

2/22 *Revisiting New World Encounters*

Jared Diamond, "Lethal Gift of Livestock," in *Guns, Germs, and Steel: The Fate of Human Societies* (New York: W. W. Norton, 1997), pp. 195-214.

William Cronon, "Commodities of the Hunt," in *Changes in the Land: Indian Colonists and the Ecology of New England* (New York: Hill & Wang, 1983), pp. 82-107.

## FEBRUARY 24TH, FIRST CRITICAL RESPONSE PAPER DUE

### **Germ Theory, Disease Ecology, and the Promise of Eradication**

At what point did medical theorists begin to argue that various diseases stemmed from specific causative agents and what were the consequences for the way they tried to control the spread of disease? This section examines the transition from miasmatic to germ theories of disease at the turn of the twentieth century and the relationship to newly emerging disciplines of bacteriology, tropical medicine, ecology and epidemiology in the context of British and American imperialism. We will also explore the "golden age of medicine" in the post-WWII era that led to a confidence in the ability to globally eradicate diseases from smallpox to malaria, and the consequences that the success and failures of such programs have had in addressing newly emerging diseases.

#### 2/24 *The Colonial World of Tropical Medicine*

Michael Worboys, "Germs, Malaria, and the Invention of Mansonian Tropical Medicine: From 'Disease in the Tropics' to 'Tropical Diseases,'" in *Warm Climates and Western Medicine: The Emergence of Tropical Medicine, 1500-1900*, edited by David Arnold (Amsterdam: Rodopi, 1996), pp. 181-207.

Helen Tilley, "Ecologies of Complexity: Tropical Environments, African Trypanosomiasis, and the Science of Disease Control in British Colonial Africa, 1900-1940," *Osiris* 19 (2004): 21-38.

#### 2/29 *Markets, Quarantines, and American Empire*

Mark Harrison, "Yellow Fever Resurgent," in *Contagion* (New Haven: Yale University Press, 2012), pp. 107-138.

Gregg Mitman, "Ecological Imperialism Revisited: Entanglements of Disease, Commerce, and Knowledge in a Global World," typescript.

Benjamin Baker. "Panama as a Disease Spreader." *Boston Evening Transcript*, 15 April 1914.

#### 3/2 *Magic Bullets*

Nancy Stepan, "'The Last Inch': Smallpox Eradication," in *Eradication: Ridding the World of Disease Forever?* (Ithaca: Cornell University Press, 2011).

Randall M. Packard, "Malaria Dreams," in *The Making of a Tropical Disease: A Short History of Malaria* (Baltimore: Johns Hopkins University Press, 2007), pp. 150-176.

#### 3/7 *The Global Threat of Emerging Diseases*

Nicholas B. King, "'Disease Knows No Borders': The Scale Politics of Emerging Diseases," *Osiris* 19 (2004): 62-78.

Laurie Garrett, "The Return of Infectious Disease," *Foreign Affairs* (1996): 66-79.

Mike Davis, *The Monster at Our Door* (New York: The New Press, 2005): 69-95, 186-189.

MARCH 14th, FIRST TAKE-HOME ESSAY DUE

### **The Health of the City**

More than half of the 7 billion people on the planet live in cities, and the number of those urban dwellers is estimated to double by 2050. How have the footprints and metabolism of cities -- from industrialization, to transportation, to inequality -- shaped the sciences of public health, environmental engineering, and toxicology; perceptions of disease risk and exposure; as well as social movements oriented around environmental justice and health? These are the questions we will be addressing in this section of the course.

#### 3/9 *Cities and Pathologies*

Charles Rosenberg, "Pathologies of Progress: The Idea of Civilization as Risk," *Bulletin of the History of Medicine* 72 (1998): 714-730.

John R. McNeill, "The Footprints and Metabolisms of Cities," in *Something New Under the Sun* (New York: W. W. Norton, 2000), pp. 281-295.

Mike Davis, "Slum Ecology," in *Planet of Slums* (New York: Verso, 2006), 121-150.

#### 3/14 *Inefficiency, Waste, and the Bacteriological Revolution*

Martin V. Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* (Baltimore: Johns Hopkins University Press, 2000), pp. 103-116, 456-460. CP

Nancy Tomes, "The Private Side of Public Health: Sanitary Science, Domestic Hygiene, and the Germ Theory, 1870-1900," *Bulletin of the History of Medicine* 64 (1990): 509-539. CP.

Jane Adams, *Twenty Years at Hull-House with Autobiographical Notes* (New York: MacMillan Co., 1945), pp. 281-299. CP.

#### 3/16 *Workplaces of Death*

David Rosner and Gerald Markowitz, "The Early Movement for Occupational Safety and Health, 1900-1917," in *Sickness and Health in America: Readings in the History of Medicine and Public Health*, 3<sup>rd</sup> ed., edited by Judith W. Leavitt and Ronald L. Numbers (Madison: University of Wisconsin Press, 1997), pp. 467-482.

Christopher Sellers, "Factory as Environment: Industrial Hygiene, Professional Collaboration and the Modern Sciences of Pollution," *Environmental History* 18 (1994): 55-83.

Alice Hamilton, *Exploring the Dangerous Trades* (Boston: Little, Brown & Co., 1943), pp. 114-119, 125-137. CP.

## SPRING BREAK

### 3/28 *Matters of Air*

Devra Davis. *When Smoke Ran Like Water: Tales of Environmental Deception and the Battle Against Pollution* (New York: Basic Books 2002), pp. 5-30.

Tim Choy, "Air's Substantiations," in *Ecologies of Comparison: An Ethnography of Endangerment in Hong Kong* (Durham: Duke University Press, 2011), 139-168.

### 3/30 NO CLASS

### 4/4 *Community Empowerment and the Politicization of Disease*

Mitman, "Choking Cities," in *Breathing Space: How Allergies Shape our Lives and Landscapes* (New Haven: Yale University Press, 2007), pp.130-166, 275-281.

Phil Brown et. al., "The Health Politics of Asthma: Environmental Justice and Collective Illness Experience in the United States," *Social Science and Medicine* 57 (2003): 453-464.

### 4/6 *Toxic Towns*

S. Ravi Rajan, "Toward a Metaphysics of Environmental Violence: The Case of the Bhopal Gas Disaster," in *Violent Environments*, edited by Nancy Lee Peluso and Michael Watts (Ithaca: Cornell University Press, 2001), pp. 380-398

Ellen Griffith Spears, *Baptized in PCBs: Race, Pollution, and Justice in an All-American Town* (Chapel Hill: University of North Carolina Press, 2014), 1-17, 202-234.

## Landscapes of Energy and Illness

One of the biggest footprints of cities is the energy sources required to fuel their metabolism. In this section of the course, we look at the global impact of three of the largest energy sources—coal, oil, and uranium—used to sustain modern urban environments on the health and well-being of workers and communities whose livelihoods are tied to these extractive landscapes.

### 4/11 *Black Lung*

Daniel M. Fox and Judith F. Stone, "Black Lung: Miners' Militancy and Medical Uncertainty, 1968-1972," *Bulletin of the History of Medicine* 54 (1980): 43-63.

Barbara Ellen Smith, *Digging Our Own Graves: Coal Miners and the Struggle over Black Lung Disease* (Philadelphia: Temple University Press, 1987), pp. 205-218, 254-258.

United States Congress. House. Committee on Education and Labor. Subcommittee on Labor Standards. *Field Hearings on Black Lung: Hearings before the Subcommittee on Labor Standards of the Committee*

*on Education and Labor, House of Representatives, One Hundred First Congress, second session : hearings held ... March 30 ... April 20 ... June 25 ... August 27, 1990.* (Washington: GPO, 1990), pp. 17-18, 260-265.

4/13 FILM SCREENING: *Babushkas of Chernobyl*

4/18 *Being Nuclear*

Gabrielle Hecht, "Nuclearity at Work," in *Being Nuclear: Africans and the Global Uranium Trade* (Cambridge: MIT Press, 2012), pp. 219-250.

Adriana Petryna, "Biological Citizenship: An Anthropology of Chernobyl-Exposed Populations," *Osiris* 19 (2004): 250-265.

4/20 *Petrochemical Poisons*

Michael Watts, "Sweet and Source: The Curse of Oil in the Niger Delta," adapted from *Curse of the Black Gold: Fifty Years of Oil in the Niger Delta* (New York: PowerHouse, 2008), pp. 1-6.

Rob Nixon, "Pipedreams," in *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011), pp. 103-127.

APRIL 25th, SECOND CRITICAL RESPONSE PAPER DUE

### **Feeding a Hungry World: The Politics of Population**

Overpopulation is one of the most contentious of environmental issues. We take up this problem from a number of angles: from Cold War politics, to modern agriculture, to biomedical research. Our intent is to explore how issues of overpopulation and well-being have been framed and the consequences of corresponding interventions to try and lessen the size of the world's population. How, for example, was the origin of ideas about the "third world" linked to burgeoning fears of overpopulation that emerged in the context of the Cold War? What have been some of the environmental and health costs to laborers immersed in the chemically laden environments manufactured by the Green Revolution, whose methods were intended to feed a growing and hungry world? And what are some of the ethical and human rights issues that have arisen in the experimentation and implementation of population control efforts in the developing world?

4/25 *Third World Politics*

Matthew Connelly, "Birth of the Third World," in *Fatal Misconceptions: The Struggle to Control World Population* (Cambridge: Harvard University Press, 2008), pp. 115-154.

Alison Bashford, "Global Biopolitics and the History of World Health," *History of the Human Sciences* v. 19 (2006): 67-88.

4/27 *The Costs of the Green Revolution*

Nick Cullather, "Mexico's Way Out," in *The Hungry World: America's Cold War Against Poverty in Asia* (Cambridge: Harvard University Press, 2010), pp. 43-71.

Linda Nash, "The Fruits of Ill-Health: Pesticides and Worker's Bodies in Post-World War I California," *Osiris* 19 (2004): 203-219.

5/2 *Reproductive Experiments*

Laura Biggs, "Demon Mothers in the Social Laboratory: Development, Overpopulation, and 'the Pill,' 1940-1960," in *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico* (Berkeley: University of California Press, 2001), pp. 109-141.

Michelle Murphy, "Traveling Technology and a Device for Not Performing Abortions," in *Seizing the Means of Reproduction: Entanglements of Feminism, Health, and Technoscience* (Durham: Duke University Press, 2012), pp. 150-176.

**Activism and Hope**

5/4 Giovanna DiChiro, "Living is For Everyone: Border Crossings for Community, Environment, and Health," *Osiris* 19 (2004): 112-132.

May 8th, 2<sup>ND</sup> TAKE HOME ESSAY DUE. 5:05 PM