

ENVIRONMENT AND HEALTH IN GLOBAL PERSPECTIVE, 1750-2000

9:30 – 10:45 TU/TH
1510 MICROBIAL SCIENCES BUILDING

Why are societies around the world having to confront newly emerging and re-emerging infectious diseases? In what ways have the growth of cities, new industries, extractive economies, mass migrations, and “global colonialism” shaped human well-being? Is it fair to claim that we are now facing health and environmental emergencies on a planetary scale? If so, who or what is being hardest hit and can these patterns be reversed? To what extent are international health policies influenced by the presence of different medical cultures and practices around the world?

This course places these questions in historical perspective by exploring the dynamic interplay among local and global environments and human and non-human health over the last two hundred and fifty years. We will consider both the history of *ideas* about environment and health as well as the ways in which *changing environments* have affected well-being. In addition, we will examine how *places* – as sites of study, experimentation, and intervention – have mattered to the production of knowledge and the maintenance of health. We will also investigate various social, economic, and political phenomena that have impinged upon and influenced health and healing at the global and regional levels.

In particular we will:

1. Explore the emergence of international health regimes in the 19th and 20th centuries and their relationship to more recent concerns with environmental justice and human rights; (3 sessions)
2. Consider how scientific and medical knowledge have been constructed across cultures and over time with attention to the political economy of health and the significance of medical pluralism; (4 sessions)
3. Examine the eighteenth century foundations of medical and environmental sciences and their intersections with ideas about race and place in the Americas, the Caribbean, Africa, and Asia; (6 sessions)
4. Analyze the development of germ theories of disease and tropical medicine in the late nineteenth century and their relationship to ideas of disease ecology and eradication campaigns in the twentieth century; (4 sessions)
5. Review the interplay among industrialization, urbanization, and workers' health; (4 sessions)
6. Study scientific interests in the therapeutic properties of plants (aka “bioprospecting”) and their imbrications with pharmaceutical developments, birth control, and concerns about rising population levels; (3 sessions)
7. Explore intersections between environment and health in processes of energy extraction and production. (2 sessions)

DISCUSSIONS AND ASSIGNMENTS:

Each class is designed to examine a single topic with some thoroughness, which means everyone should come prepared having done the readings and ready to discuss and debate the material. As you read, pay attention to your own curiosity about the subjects being addressed since this is often the best entry point for making a comment or posing a question. And as you listen in class be aware of those things you agree with, disagree with, or are confused by and consider what you would like to explore further. An active discussion depends upon everyone engaging seriously and respectfully with each other and the material.

The writing assignments are intended to help you deepen your analysis and refine your ideas and prose. They are kept short intentionally so that you can learn to express yourself succinctly and precisely.

	<i>% of grade</i>	<i>Due date</i>
Participation	20%	Attendance and discussion each week
Response Papers (4)	40%	Must be completed <i>before</i> Thanksgiving
Organizational Analysis	10%	17 th of November
Final Take-Home Exam	20%	13 th of December
Place-Based Analysis	10%	This will be included in the final take-home

**PART I - INTRODUCTION:
THE BIG PICTURE**

During the first two weeks the readings and discussions will offer a preliminary overview of two things: the history of international or global health diplomacy and contemporary analyses of the intersections between environment and health on a global scale.

In the twenty-first century, students and scholars sometimes take for granted that such a thing as “global health” exists, but what are its constituent components? How did it come into being and in what ways has it changed? Who has shaped its priorities and what kinds of social, economic, legal, epidemiological, intellectual, and political phenomena influenced these developments?

Numerous social and geographical inequalities are at the root of today’s “environmental health” problems. To some advocates of global health, focusing on these inequalities can divert us from pursuing specific and achievable public health measures. To others, however, unless these global divisions are addressed, alleged solutions run the risk of offering merely technical or short-term fixes.

WEEK 1

6 September *Course Overview - Key Concepts and Questions*

8 September *Global Burdens of Disease and Environmental Crises*

Carolyn Stephens, “Environmental Justice: a Critical Issue for All Environmental Scientists Everywhere,” *Environmental Research Letters* v. 2 (2007), 2pp.

Danny Dorling et al, "Health Impacts of an Environmental Disaster: a Polemic," *Environmental Research Letters* v. 2 (2007), 11pp.

Optional: Enrique Cifuentes and Howard Frumkin, "Environmental Injustice: Case Studies from the [Global] South," *Environmental Research Letters* v. 2 (2007) 9pp.

WEEK 2

13 September *Global Health Diplomacy – Past and Present*

David Fidler, "The Globalization of Public Health: the First 100 Years of International Health Diplomacy," *Bulletin of the World Health Organization* v. 79 (2001), pp. 842-849.

Vincanne Adams, Thomas Novotny, and Hannah Leslie, "Global Health Diplomacy," *Medical Anthropology* v. 27 (2008), pp. 315-323.

15 September *Historical and Cultural Critiques*

Anne-Emanuelle Birn, "The Stages of International (Global) Health: Histories of Success or Successes of History," *Global Public Health* v. 4 (2009), pp. 50-68.

Turn in first response paper by the 15th of September.

PART 2 – THEORETICAL AND METHODOLOGICAL INTERLUDE

Part 2 of the course introduces the questions of what it means to *frame* disease and *construct* medical knowledge. The readings draw our attention to the role of language, ideas, and historical context in shaping the way we think about and, in turn, intervene in the natural world. These perspectives force us to consider how different groups and institutions have created the norms and dominant perspectives that constitute human reality. They also highlight how various research priorities and truth claims (about diseases, for example) have changed over time.

In the second week we move on to explore the ways in which structural factors and cultural differences matter to human well-being. These readings review the literature that falls under the headings "political economy of health" and "medical anthropology," two fields that are especially important for making sense of global trends and phenomena.

WEEK 3

20 September *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-xxvi.

22 September *Constructing Medical Knowledge*

Ludmilla Jordanova, "The Social Construction of Medical Knowledge," in Frank Huisman and John Harley Warner, eds., *Locating Medical History: The Stories and Their Meanings* (Baltimore: Johns Hopkins University Press, 2004), 338-363.

WEEK 4

27 September *Political Economy and the Social Costs of Production*

Anne-Emanuelle 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), pp. 132-191.

29 September *Cultural Differences and Medical Pluralism*

Robert Hahn and Marcia Inhorn, "Introduction," in Hahn and Inhorn, eds., *Anthropology and Public Health* (Oxford: Oxford University Press, 2009 revised edition), pp. 1-31

Turn in second response paper by the 29th of September.

PART 3 - ENLIGHTENMENT FOUNDATIONS,
INTERCONTINENTAL CONNECTIONS

The next six sessions are devoted to an extended examination of intercontinental phenomena, focusing largely on the period between 1700 and 1850, which allowed for much wider circulations of pathogens, people, and ideas. We will learn more about: European and Asian forms of colonial expansion; the trans-Atlantic slave trade; the globalization of disease; and the rise of race and place-based theories of disease. As outdated as some of the ideas of the past may seem, they are worth our careful attention because they have a tendency to linger and even reappear in new forms. Likewise, the readings help us appreciate that efforts to seize other people's lands and emphasize their differences were not limited to Europeans.

WEEK 5

4 October *Environmental Medicine and Medical Geographies*

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.

6 October *Pathogens and Pandemics – Europe and the Americas*

Mark Harrison, "The World Beyond Europe," in Harrison *Disease and the Modern World* (Macmillan, 2004) pp. 72-90.

Film Clips - "Horseman on the Roof" (1995)

WEEK 6

11 October *Slavery, Forced Migration, and African Natures*

Philip Curtin, "Epidemiology and the Slave Trade," *Political Science Quarterly*, v. 83 (1968), pp. 190-216. [only pp. 190-199 assigned]

Philip Curtin, "The African's Place in Nature," and "The Promise and Terror of a Tropical Environment," in *The Image of Africa* (1964).

13 October *Airs, Waters, and Races – South Asia and the Caribbean*

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*, v. 70 (1996), pp. 68-93.

WEEK 7

18 October *Disease and Identity in East Asia*

David Bello, "To Go Where No Han Could Go For Long: Malaria and the Qing Construction of Ethnic Administrative Space in Frontier Yunnan," *Modern China* v. 31 (2005), pp. 283-317.

20 October *Overview of Key Topics to Date*

Turn in 3rd response paper by October 20th.

PART 4 – GERM THEORY, DISEASE ECOLOGY, AND ERADICATION CAMPAIGNS

At what point in human history did medical theorists begin to argue that various diseases stemmed from specific causative agents and what were the consequences for the ways they tried to control or stem these diseases? Part 4 examines the transition from miasmatic to germ theories of disease at the turn of the twentieth century and their relationship to newly emerging disciplines of bacteriology, tropical medicine, ecology, and epidemiology. In keeping with the global emphasis of the course, the readings move us from China and India to British Africa and Brazil and cover malaria, tuberculosis, sleeping sickness, and smallpox. This breadth of fields and places, though challenging, ought to help us appreciate that intellectual developments were not inevitable and depended on a range of factors related to each location and time period. The emphasis on disease ecologies should also force the question of whether disease eradication is a utopian dream.

WEEK 8

25 October *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.

27 October *Contagion and Germ Theories of Disease*

Bridie Andrews, "Tuberculosis and the Assimilation of Germ Theory in China, 1895-1937," *Journal of the History of Medicine and Allied Sciences* v. 52 (1997), pp. 114-157.

WEEK 9

1 November *Ecologies of Disease*

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

3 November *Eradication Campaigns*

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

Turn in 4th response paper by November 3rd.

**PART 5 – INDUSTRIALIZATION, URBANIZATION,
AND WORKERS' BODIES**

Europeans often justified empire-building in the 19th and 20th centuries by arguing that it would help civilize less advanced cultures. Yet the cities and industries they professed to be so proud of were often as much a curse as a blessing to the poor laborers living and working in them. Part 5 takes up the issue of "diseases of civilization" and the consequences of industrial and urban developments. We will explore not just the literal experiences of these populations, but also the new ideas relating to hygiene and disability that became increasingly pervasive in this era.

WEEK 10

8 November *Cities and Pathologies*

Roy Porter, "Diseases of Civilization," in W. F. Bynum and R. Porter (eds), *Encyclopaedia of the History of Medicine* (London, Routledge, 1992), 585-602.

John McNeill, "The Footprints and Metabolisms of Cities," in *Something New Under the Sun: an Environmental History of the Twentieth Century* (New York: Penguin Books, 2000), pp. 281-295.

10 November *Cross-cultural Currents of Hygiene*

Ruth Rogaski, "Hygienic Modernity in Tianjin," in Joseph Esherick, ed., *Remaking the Chinese City: Modernity and National Identity* (Honolulu: University of Hawai'i Press, 1999), pp. 30-46.

WEEK 11

15 November *Factories and Industrial Hygiene*

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

Optional: Steve Sturdy, "The Industrial Body," in R. Cooter and J. Pickstone, eds. *Medicine in the Twentieth Century* (Amsterdam: Harwood Publishers, 2000), pp. 217-234.

Film Clips: Charlie Chaplin, "Modern Times" (1936)

17 November *Bodies and Modern Times*

Alexander McCall Smith, *The No. 1 Ladies' Detective Agency* (1998) excerpts from chapter 2.

Julie Livingston, "Insights from an African History of Disability," *Radical History Review* v. (2006), pp.

Turn in Organizational Analysis by November 17th

PART 6 – POPULATIONS, BIOPROSPECTING, AND REPRODUCTION

How are population concerns and the study of plant therapeutics related? Part 6 unpacks the multilayered history of the ideas and research underpinning the development of 'the Pill.' We begin by considering the origins of ideas about the "third world" and their links to burgeoning fears of overpopulation in these regions. This is a transnational story that ultimately affected every country on earth, but which owes special debts to Mexico, where a source of natural progesterone was first located, and Puerto Rico, where the pill was first tested on a large scale.

WEEK 12

22 November *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.

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

24 November *Thanksgiving*

WEEK 13

29 November *Bioprospecting and Steroids*

Gabriela Soto Laveaga, "Uncommon Trajectories: Steroid Hormones, Mexican Peasants, and the Search for a Wild Yam," *Studies in History and Philosophy of Biological and Biomedical Sciences*, v. 36 (2005): 743-760.

1 December *Biomedical Experimentation*

Laura Briggs, "Demon Mothers in the Social Laboratory: Development, Overpopulation, and 'the Pill,' 1940-1960," in Briggs, *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico* (Berkeley: University of California Press, 2002), pp. 109-141.

Documentary: Ana Maria Garcia, "La Operación" (1982) 40 min

PART 7 ENERGY AND ENVIRONMENTS

Petrochemical and nuclear energies are by now well-known to take their toll on human and environmental health. This final section explores some of these costs by considering the cases of oil production in the Niger Delta (Nigeria) and the Chernobyl nuclear accident in Russia. To what extent are the peoples affected by these problems included in global health agendas?

WEEK 14

6 December *Petrochemical Poisons*

Michael Watts, "Sweet and Sour," in Watts, ed., *Curse of the Black Gold: Fifty Years of Oil in the Niger Delta* (New York: Powerhouse, 2008).

Film: "Sweet Crude: A Film About the Niger Delta" (2009)

8 December *Nuclear Disasters*

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

WEEK 15

13 December *Reserved for review*

15 December *Reserved for review*