

Environmental Studies 233 – Spring 2015

The Industrial Animal

Monday, Wednesday, Friday – 9:00-9:50 am

Rm. Clark 204

Professor Adam Romero



This class is inspired by a January 2015 New York Times exposé written by the food journalist Michael Moss. “At a remote research center on the Nebraska plains,” Moss wrote, “scientists are using surgery and breeding techniques to re-engineer the farm animal to fit the needs of the 21st-century meat industry. The potential benefits are huge: animals that produce more offspring, yield more meat and cost less to raise. There are, however, some complications.” There are always complications. In this class, we examine the historical development of the industrial animal. Exploring the physical, scientific, and political infrastructures that support American industrial meat production, we pay critical attention to the biological complications that have arisen in shaping animal life to fit the needs of the modern factory. We examine the methods—from synthetic vitamins and artificial light to refrigeration and mechanization—industrial producers use to try to tame the obstacles of biology. Finally, we consider the industrialization of the animal in the context of the industrialization of feedstuff crops like corn and soy, changing US consumption patterns, local and national food politics, and the human labor that makes it all possible.

Goals of the Class

The cultivation of food and fiber is the single most important arena of human interaction with the environment. Animal husbandry and the consumption of animals, is arguably, even more so, as it spans across the entire industrial system. From corn economies to cancer wards, meat touches all.

Over the last twenty-five years, in the US and across the world, there has been a tremendous increase in studying and practicing alternatives forms of agriculture, including more “humane” forms of meat production. However, the turn to alternative forms of agriculture also has its detractors and critics, particularly around questions of food production, inclusion, equity, and labor.

My teaching goal is to provide a new generation of agricultural scholars, activists, and practitioners with a critical and self-reflexive understanding of US agricultural history, food politics, and agrarian political economy. While this class is focused on the trying to understand and theorize the present state of meat production and consumption in the US, we will be spending a great deal of time on US agrarian history. I believe, as the 19th Century Swiss historian Jacob Burckhardt did, that the purpose of studying history is not make to us smarter next time, but wiser forever.

My objective for students in the class is fourfold:

- to be able to put yourself in the shoes of people and times we read about
- to gain perspective, to see how things have changed, and to be able to take the long view
- to be able ask complex questions about the past and the future
- to better understand and think critically about our own times

While we draw from diverse fields of knowledge, this course begins from the proposition that human-environment relations are always social relations. How food and other natural resources are produced, distributed, valued, consumed, conserved and degraded are historically - and geographically - specific questions whose answers cannot be reduced to simple formulas.

Office Hours and Email

I will hold office hours on Tuesdays from 10 am -12 pm at the Eco Cafe in the atrium of the Science Center and Wednesdays from 4 pm to 6 pm in Environmental Center Rm. 212. Email me if you want to meet and you can't make these hours. My email address is amr6@williams.edu. I am not the best at responding to emails and prefer to meet in person, but please feel free to contact me with any questions or concerns.

Resources

Williams College offers an extensive array of academic resources, including writing help, peer tutoring, and study skills. I encourage you to take advantage of these resources. More information can be found at: <http://academicresources.williams.edu>

Disability and Special Accommodations

Students with disabilities who may need accommodations for this course are encouraged to contact the Director of Academic Resources at ext. 4672 as soon as possible to ensure that accommodations are provided in a timely manner. More information can be found at: <http://academicresources.williams.edu/disabilities/>

Academic Integrity

Students are expected to follow the Williams Honor Code. While I strongly encourage discussion and debate, any test, paper, report or homework submitted under your name is presumed to be your own original work that has not previously been submitted for credit in another course. All words and ideas by other people must be properly attributed: fully identified as to the source and the extent of your use of their work. Cheating, plagiarism, and other academic misconduct will result in a failing grade on the assignment, paper, quiz, or exam in question and will be reported to Student Honor Committee.

College Recording Policy

Williams College seeks to protect the integrity of what transpires in the classroom among students and professor, any course materials prepared by the professor, and the privacy of students and faculty. With this in mind, Williams College prohibits any recording (audio or video) of lectures, seminars, or other classroom activities without the express permission of the instructor. Authorized recordings (including any made in order to accommodate ADA considerations) and all other course materials (including any materials posted on Glow or other Course Management site) may only be used for the purposes of an individual's (or group's) study in the course, and may not be shared with any wider audience on or off campus unless the instructor has explicitly given such permission. Violations of this policy would be considered a violation of community standards and would fall under the disciplinary processes in place at the College.

Assignments and Grading

Students are expected to come to class to come prepared. That includes not just reading the assigned material but also thinking about what you didn't understand and what related questions it raised for you. It may help to write down a few of your reactions to or questions about the reading. Many of the readings are challenging but I will do my best in lecture to guide you through them.

Your overall grade is based on the following:

- *4 Reading Responses* (10%) – Four must be turned in before Spring Break. A guide will be handed out on **February 8**.
- *My Trip to the Grocery Store* (15%) – Assignment will be handed out in class on **March 4** and due in class on **March 7**.

- *Current Events Analysis* (20%) – A short paper assignment will be handed out in class on **March 18** and due in class on **May 13**.
- *Dinner With Friends* (15%) – Assignment will be handed out in class **on May 4** and due in class on **May 9**.
- *Take Home Midterm* (20%) – To be handed out in class on **March 11** and due in class **March 18** at the beginning of lecture.
- *Take Home Final Exam* (20%) – To be posted to GLOW on **May 14** and due by email on or before **May 23**.

GLOW, Reading Packets, and Computers in the Classroom

Lecture slides and assignments will be made available on GLOW following class. There are no books to purchase for class. All readings are found in the ENVI 311 reading packet, available for pickup at the Print & Mail Room, 51 Park St. Numerous studies have shown that taking class notes by hand leads to better learning outcomes, therefore I do not allow computers in the classroom. If you need to use a computer to take notes, please see me.

****Reading****

Week 1 – The Contemporary Moment

- *February 5*

- Bunge, J. 2015. "Tastes Like Chicken: How to Satisfy the World's Surging Appetite for Meat." *Wall Street Journal*.
- Agrimoney.com. 2015. "Chicken Industry Must Tackle Oversupply, Warns Rabobank." *Agrimoney.com*, March 12.
- Na, D, and T Polansek. 2015. "U.S. Hogs Dead Pig Remains, Manure to Fend Off Deadly Virus." *Reuters*, December 14.
- Waters, T. 2015. "Cheap Feed Reduces Use of Hog Growth in U.S., Opens Markets." *Reuters*, December 11.
- Richey, W. 2015. "'Ag-gag' laws head to court: So far, animal rights activists are winning." *The Christian Science Monitor*, December 31.
- Charles, D. 2015. "FDA Tests Turn Up Dairy Farmers Breaking The Law On Antibiotics." *National Public Radio*, March 8.
- Purdy, C. 2015. "Attack on Meat Has Industry Seeing Red: Industry Sharpens Its Knives Over a Nutrition Panel's Advice." *Politico*, February 19.
- Covert, B. 2015. "The Hellish Conditions Facing Workers At Chicken Processing Plants." *ThinkProgress.org*, October 27.
- Runyon, L. 2016. "World's Largest Meatpacking Company Tests Out Robot Butchers." *NPR: Harvest Public Media*, January 2.
- USDA. 2015. FDA News Release: FDA Approves First Drug to Treat a Rare Enzyme Disorder

in Pediatric Adult Patients.

Week 2 – Factory Farming?

- February 8

Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Glasgow. pp. 6-22

Pachirat, T. 2011. "Appendix A: Division of Labor in the Kill Floor." In *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight*, 257-270. New Haven, CT: Yale University Press.

- February 10

Giedion, S. 1948. "Mechanization and Death: Meat." In *Mechanization Takes Command: A Contribution to Anonymous History*, 209-246. New York: Oxford University Press.

- February 12

Boyd, W, W C Prudham, and R A Schurman. 2001. "Industrial Dynamics and the Problem of Nature." *Society and Natural Resources* 14 (7):555-570.

Week 3 – Animals As Technology

- February 15

Giedion, S. 1948. "Mechanization and Growth." In *Mechanization Takes Command: A Contribution to Anonymous History*, 246-256. New York: Oxford University Press.

Carson, R. 1964. "Foreword." In *Animal Machines*, R. Harrison. London: Vincent Stuart Publishers Ltd.

Boyd, W. 2001. "Making Meat: Science, Technology, and American Poultry Production." *Technology and Culture* 42 (4):631-664.

- February 17

Bugos, G E. 1992. "Intellectual Property Protection in the American Chicken-Breeding Industry." *Business History Review* 66 (1):127-168.

- February 19 (Winter Carnival, no class)

Week 4 – American Agriculture 101

- February 22

Skaggs, J M. 1986. "Colonial Times to 1865." In *Prime Cut: Livestock Raising and Meatpacking in the United States 1607-1983*, 11-49. College Station, TX: Texas A&M University Press.

- February 24

White, S. 2011. "From Globalized Pig Breeds to Capitalist Pigs: A Study in Animal Cultures and Evolutionary History." *Environmental History* 16:94-120.

- **February 26**

Cochrane, W. 1993. "'From Pioneering to Commercialization: 1820-1860, and The Last Frontier: 1860-1897.'" In *The Development of American Agriculture: A Historical Analysis* 57-77, 78-98. Minneapolis, MN: University of Virginia Press.

Week 5 – Making the Midwest, Its Markets, and Its Hinterlands

- **February 29**

Cronon, W. 1991. "Pricing the Future: Grain." In *Nature's Metropolis: Chicago and the Great West*, 97-147. New York: W.W. Norton & Company.

- **March 2**

Fields, G. 2004. "The Railroad and Telegraph as Commerce System and Market Space." In *Territories of Profit: Communications, Capitalist Development, and the Innovative Enterprises of G.F. Swift and Dell Computers*, 63-90. Palp Alto, CA: Stanford University Press.

NYT. 1882. "Dressed Meat From Chicago: A New Branch of Trade That Promises To Reach Vast Proportions." *NYT*, August 25.

- **March 4**

Cronon, W. 1991. "Annihilating Space: Meat." In *Nature's Metropolis: Chicago and the Great West*, 201-261. New York: W.W. Norton & Company.

Pachirat, T. 2011. "Appendix B: Cattle Body Parts and Their Uses." In *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight*, 271-273. New Haven, CT: Yale University Press.

Week 6 – Hearts and Minds v. Stomachs and Pocketbooks

- **March 7**

Sinclair, U. 1906. *The Jungle.*, 1-72. New York: Grosset & Dunlap.

- **March 9**

NYT. 1967. "Still A Jungle." *New York Times*, November 16.

Cohen, A. 2007. "100 Years Later, The Food Industry Is Still 'The Jungle'." *New York Times*, January 2.

NYT. 1920. "Housewife Boycott Cuts Meat Prices: Wholesalers Reduce Costs 3 to 10 Cents a Pound From High Figures." *New York Times*, July 3.

NYT. 1937. "High Meat Process Irk the Housewife: Beef in Particular is Costly, and Pork Holds 12 Per Cent Above 1936 Level." *New York Times*, October 3.

Brown, E. 1946. "A Housewife Speaks On Meat." *Los Angeles Times*, October 7.

Schiebe, D. 1973. "Housewives, Fed Up With Rising Meat Prices, to Boycott Markets." *Los Angeles Times*, March 6.

- **March 11**

Huleback, K L, and W Schlosser. 2002. "Hazard Analysis and Critical Control Point (HACCP) History and Conceptual Overview." *Risk Analysis* 22 (3):547-552.

Week 7 – A Chicken in Every Pot

- March 14

Striffler, S. 2005. *Chicken: The Dangerous Transformation of America's Favorite Food*, vii-viii, 1-52. New Haven, CT: Yale University Press.

- March 16

Gisolfi, M R. 2006. "From Crop Lien to Contract Farming: The Roots of Agribusiness in the American South, 1929-1939." *Agricultural History* 80 (2):167-189.

- March 18

Striffler, S. 2005. *Chicken: The Dangerous Transformation of America's Favorite Food*, 53-90. New Haven, CT: Yale University Press.

*****Spring Break*****

March 19 - April 3

Week 8 – The “Southern Model”

- April 4

Boyd, W, and M Watts. 1997. "Agro-Industrial Just-In-Time: The Chicken Industry and Postwar American Capitalism." In *Globalizing Food: Agrarian Questions and Global Restructuring*, edited by D Goodman and M Watts, 139-161. New York: Routledge.

- April 6

Striffler, S. 2005. *Chicken: The Dangerous Transformation of America's Favorite Food*, 93-154. New Haven, CT: Yale University Press.

Kandel, W, and E A Parrado. 2005. "Restructuring of the US Meat Processing Industry and New Hispanic Migrant Destinations." *Population and Development Review* 31 (7):447-471.

- April 8

Furuseth, O J. 1997. "Restructuring Of Hog Farming In North Carolina." *The Professional Geographer* 49 (4):391-403.

Week 9 – Development of CAFOs

- April 11

Forsling, C L. 1924. Saving Livestock From Starvation on Southwestern Ranges. *USDA Farmer's Bulletin No. 1428*, 1-11.

Gregor, H F. 1963. "Industrialized Drylot Dairying: An Overview." *Economic Geography* 39 (4):299-318.

- *April 13*

Ogle, 2013. "How Can we Go Wrong?." In *In Meat We Trust: An Unexpected History of Carnivore America*, 123-152. New York: Houghton Mifflin Harcourt.

- *April 15*

Marcus, A I. 1993. "The Newest Knowledge of Nutrition: Wise Burroughs, DES, and Modern Meat." *Agricultural History* 67 (3):66-85.

Week 10 – Sight, Concealment, and (Conscious) Ignorance

- *April 18*

Pacyga, D A. 2015. "Spectacle: Facing the Modern World." In *Slaughterhouse: Chicago's Union Stockyard and the World It Made*, 1-27. Chicago, IL: The University of Chicago Press.

Pachirat, T. 2011. "Hidden in Plain Sight." In *Every Twelve Seconds: Industrialized Slaughter and the Politics of Sight*, 1-19. New Haven, CT: Yale University Press.

- *April 20*

Ashwood, L, D Diamond, and K Thu. 2014. "Where's the Farmer? Limiting Liability in Midwestern Industrial Hog Production." *Rural Sociology* 79 (1):2-27.

- *April 22*

Peck, S L. 2010. "Death and the Ecological Crisis." *Agriculture and Human Values* 27 (1):105-109.

Week 11 - Manufacturing Ecological Crisis, Enforcing Biosecurity

- *April 25*

Mole, B. 2013. "Farming Up Trouble." *Nature* 499 (7459):398-400.

Hvistendahl, M. 2015. "Avian Influenza: Enigmatic Bird Flu Strain Races Across the U.S. Midwest." *Science* 348 (6236):741-742.

Juska, A, L Gouveia, J Gabriel, and K P Stanley. 2003. "Manufacturing Bacteriological Contamination Outbreaks in Industrialized Meat Production Systems: The Case of E. coli 0157:H7." *Agriculture and Human Values* 20 (1):3-19.

- *April 27*

O'Neil. 2005. "How Two Cows Make A Crisis: U.S.-Canada Trade Relations and Mad Cow Disease." *The American Review of Canadian Studies* 35 (2):295-319.

- *April 29*

Blanchette. 2015. "Herding Species: Biosecurity, Posthuman Labor, and the American Industrial Pig." *Cultural Anthropology* 30 (4):640-669.

Week 12 - Eating Animals?

- *May 2*

Grandin, T. 2013. "Animals are Not Things: A View of Animal Welfare Based on Neurological Complexity." *Trans-Scripts* 3:140-147.

- *May 4*

Specter, M. 2011. "Test-Tube Burgers: How Long Will It Be Before You Can Eat Meat That Was Made In A Lab?" *The New Yorker*, May 23.

- *May 6*

Atwood, M. 2003. *Oryx and Crake*, 50-58, 173-183, 199-207, 252-243. New York: First Anchor Books.

Week 13 – Let's Talk It Out

- *May 9*

- *May 11*

- *May 13*

****Reading Period****

May 14 - 17

****Final Exam Period****

May 18 - 23