Hist 305: The Industrial Revolution
Wednesdays 4:30-7:20 KY 271

Prof. Katherine Pickering Antonova
Powdermaker Hall 352ZZ
Office Hours: W 3:30-4:30
Katherine.antonova@qc.cuny.edu / kpantonova@gmail.com

Course Description: This seminar course asks students to re-think the industrial revolution in light of the latest research on the history of technology, capitalism and slavery, and globalized information flow as evolution, not revolution. Discussion-based sessions focus on successful reading of secondary sources and historiographical analysis.

Course Goals:

1. Students will gain the ability to identify the argument or thesis in a work of historical scholarship.
2. Students will gain the ability to understand the nature of historical interpretation—that all historical texts are shaped by context, method, and bias; that texts may be internally contradictory and irreducible to a single interpretation; and that the historian's craft includes asking: "what isn't here?" "what is/was the author's agenda(s)?" and "does my point of view inform my reading?"
3. Students will learn to understand and do historiography by comparing and contrasting different interpretations of a shared problem or event, and to situate those interpretations in their own historical time period and intellectual context.

Assignments and Grading:

- **30% participation in class discussion**: be prepared by doing the readings each week and participate in discussing them
- **30% In-class reading reports** (3; 10% each): you will choose which weeks you will select one of the marked readings on the syllabus to read and report on for the class
- **20% Propose an alternative story of development**: in 5-10 pages double-spaced, write a detailed "alternative history," in which you imagine how the world might have developed differently. That is, the alternative to the industrial revolution that took place was not a world frozen in 1750: what were other possible paths and where might they have led us? Your grade will be based on the detail, depth, and thoughtfulness of your paper. Employ ideas, concepts, events, circumstances, or examples from the readings as much as possible, citing them whenever you refer to one directly.
- **20% Propose an alternative definition and narrative**: in 5-10 pages double-spaced, propose your own definition of "industrial revolution," including if you wish a better term for the same phenomena, and then explain at the level of a high school textbook the story of global economic, technological, and social development 1750-1850 in a way that better reflects what we have learned is the latest research. You probably won't directly reference sources (though cite them if you do), but you should include a bibliography of the course sources you relied on and referred to compose your narrative.

Submitting essays: Please submit both essays to me at BOTH the email address listed at top. If you don't receive a response within a few days, please re-submit.

Late essays: there are no late penalties: late papers will be accepted up to 5pm on May 22. If you are still missing an essay at that time, you will need to request an INC or accept the grade based on what you have turned in (which may not be enough to pass).

Academic honesty: Using ChatGPT/AI to write your essays is plagiarism just like having a friend write it for you or copying it from any other source. If you do you, you waste your time and tuition by learning nothing, and you will be reported to the dean for plagiarism, with an F for the course.

SCHEDULE OF MEETINGS AND ASSIGNMENTS

Wednesday, January 29 -- NO CLASSES

Wednesday, February 5 ONLINE ZOOM SESSION **Before: What was there "before"?**

Wednesday, February 12 COLLEGE CLOSED

Wednesday, February 19 **Objects: what were the ~things~ of the industrial revolution, how did they work, why are they so important?**

Required Readings: Broom, *Britain's Industrial Revolution in 100 Objects* (browse only and keep handy for reference); LeCain, *The Matter of History*, Ch. 3 (after the first few pages, skim lightly); David Waller, *Iron Men*, Ch. 1; Carroll Pursell, *The Machine in America*, Ch 1; Sass, *The Substance of Civilization*, "Steel"; Taylor, *Irish Materialisms*, "Flax" and "The Spinning Wheel" excerpts; Maerker, "Anatomizing Trade" (skim).

Readings for Reports:

1. Taylor, *Irish Materialisms,* "Pig" excerpts
2. Cowan, *More Work for Mother* Ch. 1
3. Morrison-Low, *Making Scientific Instruments,* Ch 1

Wednesday, February 26 **Invention: How does invention work? Who does it, under what circumstances, with what motivations?**

Required Readings: Weightman, *The Industrial Revolutionaries*, Intro and Ch. 1; Weightman, *Eureka*, introduction and Ch. 3; Murmann, *Knowledge and Competitive Advantage*, introduction excerpts (read just marked passages); Mi Gyung Kim, "Invention as Social Drama"; Hilaire-Perez, "'What Is Technology?': An Enquiry into the Science of the Arts at the Dawn of Industrialisation"; Hannah Gay, "East End, West End: Science Education, Culture and Class in Mid-Victorian London"

Readings for Reports:

1. Russell and Vinsel, "After Innovation, Turn to Maintenance" (2018)
2. Karen Johnson Freeze, "Innovation and Technology Transfer during the Cold War: The Case of the Open-End Spinning Machine from Communist Czechoslovakia" (2007)
3. Graeme Gooday, "'Vague and Artificial': The Historically Elusive Distinction between Pure and Applied Science" (2012)

Wednesday, March 5 **Governments: What was the role of governments in the industrial revolution? What did government funding or sponsorship do, and what motivated it?**

Required Readings: Ashworth, *The Industrial Revolution: The State, Knowledge, and Global Trade* Chs. 5-7; and Vivek Chibber, *Locked in Place: State-Building and Late Industrialization in India*, Part I.

Readings for Reports:

Bradley, *Guns for the Tsar*, introduction and conclusion

THURSDAY March 6 Classes follow a Wednesday Schedule
Film Screening in Classroom: Matewan (1987)
If you cannot be on campus, watch any of the list below on your own time

Strike (1925)	Criterion, AmazonPrime, kanopy
Metropolis (1927)	AppleTV; fubo; kanopy, Crackle, plex
Modern Times (1936)	AmazonPrime; HBOMax, Criterion

How Green Was My Valley (1941)	AppleTV; AmazonPrime
The Pajama Game (1957)	AppleTV; AmazonPrime; hoopla, plex, freevee
The Organizer (1963)	Criterion
Norma Rae (1979)	
Silkwood (1983)	
Gung Ho (1986)	fubo; AppleTV
Matewan (1987)	
Germinal (1993)	AmazonPrime; AppleTV
Human Resources (1999)	AmazonPrime
The Machinist (2004)	AmazonPrime; Paramount; hoopla; pluto
Peterloo (2018)	AmazonPrime; freevee
Dark Waters (2019)	AmazonPrime; AppleTV

Wednesday, March 12 **Miracles: Those who experienced the industrial revolution often recorded new technologies as miracles, making what had seemed impossible possible**

Required Readings: Webber, *Power Trip: The Story of Energy* Preface and Ch. 1; Gillin, *An Empire of Magnetism: Global Science and the British Magnetic Enterprise in the Age of Imperialism*, Ch. 3; Gillespie, *The Early American Daguerreotype* Ch. 4; Wood, *The Scenic Daguerreotype* foreword and Ch. 1"; Rohrbach, "Sojourner Truth in Black and White" in Wallace and Smith, eds., *Pictures and Progress;* Tomory, *Progressive Enlightenment,* intro and Ch. 1; Zallen, *American Lucifers,* Ch. 5; Phalen, *How the Telegraph Changed the World*, Ch. 1.

Readings for Reports:

1. Gough, Winecraft and Chemistry in 18th-Century France
2. Wade, The Great Exhibition and the Crystal Palace
3. Wade, Shocking Cures and the Great Stink

Wednesday, March 19 **Disasters & Poisons: The other side of miracles was when innovation when wrong and mistakes were made**

Required Readings: Aldrich, *Death Rode the Rails* introduction and conclusion; Barrow, "Rape on the Railway"; Milne-Smith, "Shattered Minds: Madmen on the Railways, 1860-80"; Tucker, "Dangerous Exposures: Visualizing Work and Waste in the Victorian Chemical Trades"; Whorton, *The Arsenic Century*, Chs. 7-12; Kelly, Grada and Solar, "Safety at Sea during the Industrial Revolution"; Rosenow, "Dying with Their Boots on: Illinois Miners and the Pursuit of a Good Death, 1861-1909."

Readings for Reports:

1. Jay, *Cyanide & Spirits*, introduction
2. Raintree, *Horrible Jobs of the Industrial Revolution,* browse
3. Schenk, "Attacking the Empire's Achilles Heels: Railroads and Terrorism in Tsarist Russia

Wednesday, March 26 **Engines: What were the engines of the revolution itself? What drove industrial innovation and development?**

Required Readings: Kelly, Mokyr, and Grada, "Could Artisans Have Caused the Industrial Revolution?""; Osamu Saito, "Machinery, Labour Absorption, and Small Producer Capitalism in the Comparative History of Industrialisation"; Anne Gerritsen, "Who Knew How? Visual Representation of the Ceramics Production Process on Porcelain Vessels"; Pereira, "Rise of the Brazilian Cotton Trade"; Pearson, "Shareholder Democracies?" Satia, *Empire of Guns,* Ch. 3-4; Knight, *Britain against Napoleon* Ch. 12; O'Brien, "Exploring Connections between the Revolutionary and Napoleonic Wars, State Formation and the Growth of European Economies"; Pacey and Bray, *Technology in World Civilization* Ch. 7

Readings for Reports:

1. Maxine Berg, "Useful Knowledge, 'Industrial Enlightenment,' and the Place of India"
2. Johnson, Warriors into Workers*,* Ch. 4

Wednesday, April 2 **Movement: Industrial revolution made people and goods move faster: across continents and oceans. With this movement came incredible new exposures to ideas, cultures…and diseases.**

Required Readings: Karuka, *Empire's Tracks,* Ch. 3; Peckham, "Panic Encabled: Epidemics and the Telegraphic World", *Philosophy of Railways* Ch. 1; Finn, "Frictions of Empire: Colonial Bombay's Probate and Property Networks in the 1780s"; Dearinger, *Filth of Progress*, Ch. 1; Steere-Williams, "Carbolic Colonialism: Plague, Public Health, and Disability in British India"; Headrick, *Power over Peoples*, Ch. 5-6; Leeder, *Measure for Measure* Ch. 5

Readings for Reports:

1. Pholsena, "Technology and Empire: A Colonial Narrative of the Construction of the Tonkin-Yunnan Railway"
2. Martin, "'Affirmative Signaling': Dickens's Railway Journalism and Victorian Risk Society"
3. Block, "Designing the Nation: The Belgian Railway Project 1830-1837"

Wednesday, April 9 **Use: The industrial revolution put people to use in the vast networks of interconnected machines. With infinite consequences.**

Required Readings: Cooper, *A Century of Female* Revolution, Ch. 4-5; Soderlund, "Resistance from the Margins"; Burnette, *Gender, Work and Wages in Industrial Revolution Britain,* Ch. 7; Turner and Blackie, *Disability in the Industrial Revolution*, Ch. 5; Humphries, *Childhood and Child Labour in the British Industrial Revolution* Ch. 11; Griffin – "Diets, Hunger, and Living Standards,"; Schermerhorn, The Business of Slavery, Ch. 7 & conclusion; Headrick, *Power over Peoples,* Ch. 7; Blackburn, "What the Second Slavery?" and Marquese and Salles, "Slavery in 19th-century Brazil" in Tomich, ed., *Slavery and Historical Capitalism during the Nineteenth Century;* Burnard and Riello, "Slavery and the New History of Capitalism"

Readings for Reports:

1. Taillon, "Casey Jones, Better Watch Your Speed! Workplace Culture, Manhood and Protective Labor Legislation"
2. Bulstrode, "Black Metallurgists and the Making of the Industrial Revolution"
3. Mueller, *Breaking Things at Work: The Luddites Were Right about Why You Hate Your Job*, introduction & Ch. 4

>>>>>(April 12-20 Spring break)<<<<<

Wednesday, April 23 **Display: New wealth meant new opportunities to display wealth and the leisure it afforded.**

Required Readings: Cohen, *Household Gods,* Chs.1, 2, 4 and 5; Barker, *Family and Business during the Industrial Revolution*, Ch. 6; Esterby-Smith, "Botany as Useful Knowledge"; Clifford, "Trade Cards and the Art of Selling"; Robertson, "The Aesthetics of Authenticity"

Readings for Reports:

1. Cunningham, *Leisure in the Industrial Revolution* Ch. 1
2. Cunningham, *Leisure in the Industrial Revolution* Ch. 5
3. Godelier, "Myths of the Entrepreneurial Elite"

Wednesday, April 30 **Quality: Making more things faster does mean the things made are better. What is sacrificed with mechanized production? Does profit and growth always mean losing quality and sustainability? Are there alternatives?**

Required Readings: Washbrook, "Is Small Beautiful? Workshop Organization, Technology, and Production in South India, 1700-1960""; Cookson, *The Age of Machinery*, Ch. 5; Haynes, *Small Town Capitalism in Western India*, Ch.

6; Edwards, "'Improving' the Decoration of Furniture"; Raman, "From Hand to Machine"; Roy, *The Crafts and Capitalism*, Ch. 2; Kristofferson, *Craft Capitalism*, Ch. 6.

Readings for Reports:

1. Marx, "Technology: The Emergence of a Hazardous Concept"
2. Mazzotti, "Enlightened Mills: Mechanizing Olive Oil Production"
3. Carnevali, "Golden Opportunities: Jewelry Making in Birmingham between Mass Production and Specialty"

>>>>>Due Friday, May 2: Alternative history of the industrial revolution

Wednesday, May 7 **Landscape: What are the environmental impacts of industrialization? How has the surface of our world changed?**

Required Readings: Johnson, *The Feather Thief*, Chs. 3-4; Hopkins, *Industrialisation and Society*, Ch, 4; Zahar, "'Historical Responsibility' for Climate Change in Historical Perspective"; Evelev, *Picturesque Literature and the Transformation of the American Landscape, 1835-1874*, introduction; Leeder, *Measure for Measure*, Chs. 13-14; Mitman, "In Search of Health"; Chhabria, *Making the Modern Slum* introduction and Ch. 1; Pritchard & Zimring, *Technology and the Environment in History* Ch. 2

Readings for Reports:

1. Guttmann-Bond, "Sustainability out of the Past: How Archaeology Can Save the Planet"
2. Ensmenger, "The Environmental History of Computing"
3. White, "Globalized Pig Breeds to Capitalized Pigs"

Wednesday, May 14 **Information: Was there an industrial revolution 1750-1850 or does information about science, technology, and the development it drives evolve over time, from the so-called "agricultural revolution" or even earlier to our present digital age? Is information a better framework to analyze human development of tools than "technology"?**

Required Readings: Standage, *The Victorian Internet;* Chs 5-10; Marks, *The Information Nexus* Ch. 5; Waller, *Iron Men*, Ch. 6; Cookson, *The Age of Machinery*, Ch. 6; Rubery, *The Novelty of Newspapers*, introduction; Smith," Silence and Secrecy in Britain's 18th Century Ceramics Industry".

Readings for Reports: Robert Forrant, "The Rise, Fall, and (Possible) Resurrection of Lowell, MA"

>>>>>Due May 22 by 5pm: Revised Definition and narrative of the industrial revolution