

**The Iron Maiden:  
Technology, Coercion, and the Body**

**Graduate Seminar HSci 8930, Spring 2008  
Wednesdays 3:35-5:30, Tate Lab. of Physics 143  
Program in History of Science, Technology, and Medicine  
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**Overview:** The Iron Maiden is the symbol of torture, the most extreme variety of physical coercion. This seminar uses categories in technology studies and the philosophy of technology (especially concerning the invention, construction, and use of technologies) to analyze the history of technologies of coercion and strategies of resistance to them from the early modern period through the twentieth century. Torture is only one of the seminar's themes; also at issue are discipline in the industrial and post-industrial workplace, quarantines as a public health response to disease, perceptions of criminality and urban design, and the physical culture of athletic and military training. The seminar will also consider the metaphor of the body and the rhetoric of coercion that some historians argue was characteristic of early modern science, for example in Francis Bacon's depiction of nature as a body to be tortured into revealing her secrets. We will conclude with a discussion of the coercion of the personal body within the larger context of violence sanctioned by the state, for example in the genocidal practices of the violent twentieth century.

**Format:** The seminar is a readings and discussion course, and students are expected to attend and participate in the weekly discussions. Discussion is worth 40% of the course grade.

**Weekly Reports:** Each student will prepare and pre-circulate a one-page report on the readings for each week. In addition, each student will lead three of the weekly discussions, by giving an overview of the reading and by posing questions to begin discussion. We will assign weeks at the first seminar meeting. Weekly reports are worth 20% of the course grade.

**Journal Review:** Each student will prepare a report on the last decade of a journal in the field of history, philosophy, or science studies discussing if and how it has addressed the theme of technology and coercion. Examples include *History and Technology*, *History of Technology*, *Technology and Culture*, *Isis*, and *Social Studies of Science*. Students are encouraged to propose other journal titles. The journal review is due in class on March 26, and is worth 20% of the course grade.

**Issue Report:** Each student will write an issue report of approximately 1,500 words, based on the assigned course readings and chosen from these themes: the state; disease and quarantine; labor; or modernity. A proposal is due in class on February 20, the draft is due in class on April 9, and the final report is due via email or in the instructor's mailbox on May 14. The issue report is worth 20% of the course grade.

**Grading:** Grading will be based on participation in discussion (40%), weekly reports (20%), issue report (20%), and the journal review (20%). Please note that students may not pass the course without completing all assignments, and that a grade of incomplete (I) will be given only if a student has already satisfactorily completed the majority of the coursework and if there is a compelling and emergency reason.

**Books:**

Most of the books we are using will be placed on reserve in Wilson Library. Most of the journal articles are available on-line; where they are not they will be scanned and made available on the course website. You may wish to purchase these books, all of which are available at a substantial discount from on-line sources:

Michel Foucault, *Discipline and Punish* (New York: Vintage, 1977 – trans. by Alan Sheridan)

A classic treatment of coercion and its cultural function.

Carolyn Merchant, *The Death of Nature* (New York: HarperCollins, 1989)

A controversial study of the Scientific Revolution from an ecological and feminist viewpoint.

Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (Cambridge: Cambridge University Press, 2005)

A panoply of diseases and governmental responses, and a virtuoso display of research.

Lisa Silverman, *Tortured Subjects: Pain, Truth, and the Body in Early Modern France* (Chicago: University of Chicago Press, 2001)

A disturbing and revealing analysis of experience under instruments of torture.

Michael Allen, *The Business of Genocide* (Chapel Hill: University of North Carolina Press, 2002)

The practical and business uses of coercion in the Third Reich.

Mitchell B. Merback, *The Thief, The Cross, and the Wheel: Pain and the Spectacle of Punishment in Medieval and Renaissance Europe* (Chicago: University of Chicago Press, 1998)

A study of the ritualization of death and suffering, and of iconographic uses of the technologies of punishment.

Carl Mitcham, *Thinking Through Technology: The Path Between Engineering and Philosophy* (Chicago, University of Chicago Press, 1994)

Very helpful overview of the principle philosophies of technology, and their development and paths of intersection.

James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven, Yale University Press, 1998)

A study of planning at the deepest level, and an analysis of how planning can go awry. Includes excellent studies of agricultural collectivization and “villagization” in Tanzania, and a provocative discussion of technique and practical knowledge.

### **Schedule of discussions and readings:**

**Jan. 23      Introduction: technology and making things work**

**Jan. 30      How might we characterize technology?**

Carl Mitcham, *Thinking through Technology: The Path Between Engineering and Philosophy*

**Feb. 6      Technology and freedom: Andrew Feenberg’s project.**

Andrew Feenberg, *Alternative Modernity: The Technical Turn in Philosophy and Social Theory*

Simon Cooper, ”The Post-Human Challenge to Andrew Feenberg,” in Tyler J. Veak, ed., *Democratizing Technology: Andrew Feenberg’s Critical Theory of Technology* (Albany: State University of New York Press, 2006), pp.19-36

**Feb. 13      Technology and instruments: was early modern science coercive? The controversial thesis of Carolyn Merchant.**

Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution : A Feminist Reappraisal of the Scientific Revolution* (New York: HarperCollins, 1989)

Selections from Thomas L. Hankins and Robert J. Silverman, *Instruments and the Imagination* (Princeton: Princeton University Press, 1995), esp. “Instruments and Images: Subjects for the Historiography of Science” (chap. 1), “The Aeolian Harp and the Romantic Quest of Nature” (chap. 5), “Vox Mechanica: The History of Speaking Machines” (chap. 8), and “Conclusion” (chap 9).

**Feb. 20 Technology and coercion: Michel Foucault's idea of discipline.**

Michel Foucault, *Discipline and Punish* (New York: Vintage, 1977 – trans. Alan Sheridan)

William H. McNeill, *Keeping Together in Time: Dance and Drill in Human History* – selections

**Issue report proposal due in class****Feb. 27 The concept of social control**

David J. Weber, Jesus F. de la Teja, and Ross Frank, eds, *Choice, Persuasion, and Coercion: Social Control on Spain's North American Frontiers*

**Mar. 5 The social function of technologies of punishment**

Mitchell B. Merback, *The Thief, The Cross, and The Wheel: Pain and the Spectacle of Punishment in Medieval and Renaissance Europe*

**Mar. 12 Technology, coercion, and the law**

Lisa Silverman, *Tortured Subjects: Pain, Truth, and the Body in Early Modern France*

**Mar. 19 SPRING BREAK****Mar. 26 Considering the state: disease and quarantine**

Peter Baldwin, *Contagion and the State, 1830-1930*

J. Robert Charles, "What are we to make of the state?" *Menmonite Quarterly Review* 80 (2006): 391-414

**NOTE: Journal review due in class****Apr. 2 Surveillance, politics, and quarantine**

"The Great Epidemic," chap. 4 of Richard J. Evans, *Death in Hamburg: Society and Politics in the Cholera Years, 1830-1910*

"Preface," "Introduction: Surveillance and the Landscape of Privacy in 20<sup>th</sup> Century America," and "Counting All Kids: Immunization Registries and the Privacy of Parents and Children," chaps 1 and 8 of Amy L. Fairchild, Ronald Bayer, and James Colgrove, *Searching Eyes: Privacy, the State, and Disease Surveillance in America*

**Apr. 9 Coercion and labor**

Moon-Kie Jung, "Symbolic and physical violence: legitimate state coercion of Filipino workers in prewar Hawai'i," *American Studies* 45 (2003): 107-137.

Jeffrey Adler, "On the Border of Snakeland": Evolutionary Psychology and Plebeian Violence in Industrial Chicago, 1875-1920" *Journal of Social History* 36.3 (2003) 541-560  
[http://muse.jhu.edu/journals/journal\\_of\\_social\\_history/v036/36.3adler.html](http://muse.jhu.edu/journals/journal_of_social_history/v036/36.3adler.html)

Alison Gilmour, "The Trouble with Linwood: Compliance and Coercion in the Car Plant, 1963-1981," *Journal of Scottish Historical Studies* 27 (2007): 75-93

**Issue report draft due in class****Apr. 16 Labor and technologies of discipline**

Cornelia Usborne, "Rhetoric and Resistance: Rationalization of Reproduction in Weimar Germany," *Social Politics: International Studies in Gender, State & Society* 4 (1997), nr 1, pp. 65-89

Anne Kelly Knowles, "The White Hands 'Damn Them ... Won't Stick': Labor Scarcity and Spatial Discipline in the Antebellum Iron Industry", *Journal of Historical Geography* 32 (1): 57-73.

Jennifer Karns Alexander, "Efficiency and pathology: Mechanical discipline and efficient worker seating in Germany, 1929-1932," *Technology and Culture* 47 (2006): 286-310

**Apr. 23 Social visions and the technology of genocide**

Eric D. Weitz, *Century of Genocide: Utopias of Race and Nation*

Michael Thad Allen, *The Business of Genocide: The SS, Slave Labor, and the Concentration Camps*

**Apr. 30 Reconsidering the state: technology and experiments in coercive order**

James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*

Lucan A. Way and Steven Levitsky, "The Dynamics of Autocratic Coercion After the Cold War," *Communist and Post-Communist Studies* 39 (2006): 387-410

**May 7            Reconsidering Feenberg: democracy, coercion, and technology**

Selections from Tyler J. Veak, ed., *Democratizing Technology: Andrew Feenberg's Critical Theory of Technology* (Albany: State University of New York Press, 2006)

**NOTE: Issue reports are due on May 14. Please send them to the instructor by email or leave them in her mailbox in 1100 Mechanical Engineering.**