

## History 180A--Automata in History

Think androids (“Bladerunner,” “The Matrix,”), robots, and artificial life, but earlier, from the 17<sup>th</sup> to the 20<sup>th</sup> century. This special topics course will explore the meaning and significance of animal and human machines in science, literature, and art. It will provide a particular focus on traditionally conceived periods in the history of science and culture (Scientific Revolution, Enlightenment, Industrialization, Modernism) paying attention to how “the machine” has changed in meaning over these periods, thereby shedding light on the periods themselves. The central thread will be the question: **Can machines have emotions?** This will be a combined lecture/discussion course. For each week you will be asked to write a response of no more than one page to a question on the reading (or viewing) and to come to class prepared to join the discussion. We will have a final paper in lieu of an exam. The short paragraphs will count **40%** of the grade and the final paper **60%**.

### Books to purchase:

De la Mettrie, *Man a Machine, Man a Plant* (Hackett, 1994)  
Auguste Villier de Lisle-Adam, *Tomorrow's Eve* (Univ. Illinois Pr., 2000)  
H. G. Wells, *The Time Machine*, ed. Ruddick (Broadview Pr., 2001)  
Gaby Wood, *Edison's Eve: A Magical History of the Quest for Mechanical Life* (New York: Knopf, 2002)

Additional Readings: posted on the course website.

### Part One: 17<sup>th</sup> Century Mechanical Philosophy

#### **Week 1.** The Human Body as Automaton

Reading (available on course website):

Descartes, *On Man* (selection)

Steven Shapin, *The Scientific Revolution* (selection)



### Part Two: The Enlightenment

#### **Week 2.** Famed Automata of the 18<sup>th</sup> Century & Materialism

Reading:

Jacques de Vaucanson, *Le mécanisme du fluteur automate: an account of the mechanism of an automaton or image playing on the German-flute*, on course website. Read not to learn the details of construction but to understand Vaucanson's purposes in making his three famous automata.

Gaby Wood, *Edison's Eve*, chapter one.

La Mettrie, *Man a Machine*



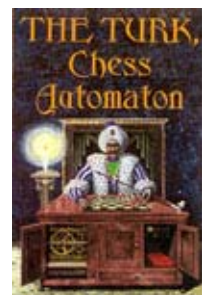
#### **Week 3.** The Chess-playing Turk

Reading:

Gaby Wood, *Edison's Eve*, chapter two.

Gerald Levitt, *The Turk, Chess Automaton* (Jefferson, NC:

McFarland, ??) contains much from original documents, pictures, etc. and many chess games played by the Turk.



## Part Three: Romanticism

### **Week 4.** The Uncanny

#### Reading:

Thomas S. Hall, *Ideas of Life and Matter: Studies in the History of General Physiology, 600 B.C. – 1900 A.D.*, vol. 2, *From the Enlightenment to the End of the Nineteenth Century* (Chicago: Univ. Chicago Pr., 1969) 42-45, 99-106. This will give a little background to romantic science.

E.T.A. Hoffmann, "Automata," pdf file from the web.

E.T.A. Hoffmann, "The Sandman," in Victor Lange (ed.) *E.T.A. Hoffmann, Tales* (New York: Continuum, ?), 277-308.

Heinrich von Kleist, "On the Marionette Theater," in M. Feher, R. Naddaff, & N. Tazi (eds), *Fragments for a History of the Human Body, Part One* (Zone Books, 1989), 415-420.

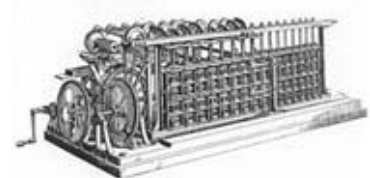
## Part Four: Industrialization

### **Week 5.** Mechanism and Engines

#### Reading:

Charles Babbage, *Economy of Machinery and Manufactures* (selection)

Charles Babbage, *Ninth Bridgewater Treatise* (selection)



### **Week 6.** Edison's Electrical Genius

#### Reading:

Villiers de l'Isle Adam, *Tomorrow's Eve* (Selections)

Gaby Wood, *Edison's Eve*, chapter three.



## Part Five: Evolution

### **Week 7.** Evolutionary Physiology

#### Reading:

T. H. Huxley, "On the Hypothesis that Animals are Automata, and its History"

### **Week 8.** Degenerative Evolution

#### Reading:

H. G. Wells, *The Time Machine*

## Part Six: Modernity

### **Week 9.** Expressionism

Film (view in Powell Library): Fritz Lang, "Metropolis" (1924)

### **Week 10.** The Cyborg Future

#### Film:

Ridley Scott, "Blade Runner" (1982)

