TECHNOLOGY, SCIENCE & SOCIETY
SOCIOLOGY 400 SEC 001
SPRING 2010

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Stephen Pfohl, *Hottech*

Course Description   This course explores the intimate entanglements of technology, science, culture, bodies, and power, with a focus on post-World War II U.S. society. We will investigate the importance of historical and cultural contexts in shaping the dreams, the practices, and the products of contemporary technoscience. Drawing on the work of

sociologists, historians, anthropologists, novelists, performance artists, and filmmakers, we will develop a set of interrelated questions:

- How is human perception (or 'ways of seeing') a kind of technology—and what are our dominant 'technologies of perception' today?
- How does what counts as 'nature' get produced via history, science and culture?
- What is the 'cyborg' and how has it become a powerful contemporary myth, and a new kind of material (and imaginary) relation between humans and machines?
- What role do globalization, capitalism, and a new international division of labor play in the emergence of digital culture and an 'information society'?
- How are hierarchies and power dynamics of gender, race, sexuality, class and nation reproduced or transformed by technoscience?
- What would it mean to explore technoscience as both a site of power and of complex pleasures in our own everyday lives?

During the last several weeks of the class, we will turn to three specific technoscientific fields: psychopharmacology, the military, and genetics. Using these as concrete case studies, we will explore what pleasures, dangers, and transformations they present to contemporary society, and our selves.

Course Expectations & Grading   While there are no course prerequisites, and students arrive with different academic backgrounds and interests, ALL students are expected to share an advanced curiosity and serious engagement with course materials.

Our class motto will be: **"We are not bored! We are amazed!"** Repeat as necessary.

Active class participation is a course requirement. Students will read all assignments before class, and come prepared to question and discuss. Class will be composed of lecture, discussion, and occasional small group activities and viewing of visual materials. Class attendance is required; more than two unexcused absences will begin to affect your class participation grade. Please be on time for class.

Course grades will be based on class participation, a semester-long journal, a mid-term essay, and a final paper. **Class participation** includes attendance and your thoughtful engagement during class. This requires careful reading of the assignments and coming to class with questions, criticisms, and sustained curiosity. During the semester, you will compose an ongoing intellectual **journal** of your engagement with the weekly readings and course concepts/ideas; journals will be handed in three times throughout the semester for evaluation. A 7-8 page **mid-term essay** on an assigned topic is due at mid-term. And, finally, each student will design a **final paper,** 10-12 pages, which will involve the application of course readings/ideas on a specific technoscientific topic. Additional guidelines for the journal, the mid-term essay, and the final paper will be handed out in class.

Grading will be weighted as follows:

Class participation	20%	
Journal	30%	due: Feb. 11; March 25; May 4
Midterm essay	20%	due: March 9
Final paper	30%	due: TBA

Students with Disabilities   If you believe that you need accommodations for a disability, please contact the Office of Disability Services (ODS), http://disabilityservices.syr.edu, located in Room 309 of 804 University Avenue, or call (315) 443-4498 for an appointment to discuss your needs and the process for requesting accommodations. ODS is responsible for coordinating disability-related accommodations and will issue students with documented disabilities Accommodation Authorization Letters, as appropriate. Since accommodations may require early planning and generally are not provided retroactively, please contact ODS as soon as possible.

Required Texts   A required course reader will be available at Campus Copies in Marshall Square Mall (phone #: 472-0546). All assignments from the reader are marked in the syllabus with an (**).

A small number of readings will be posted and available only on Blackboard. These texts are marked in the syllabus with a (**BB**). Please print out all e-file texts!

The following books are required reading and available at SU Bookstore in Schine Student Center:

1. Robert D. Romanyshyn, *Technology as Symptom & Dream*.
2. William Gibson, *Neuromancer*.

   A third book, Octavia Butler's *Dawn* will be available in a scanned electronic file on Blackboard for print out (it is NOT available at the bookstore!)

<u>Reading Assignments</u>

I.   **Introductions**

> *"The technological world is a work of reason, but of a reason which reaches deeply into dream."* —Robert Romanyshyn

Tuesday, January 19

Openings

Thursday, January 21

Robert Romanyshyn, <u>Technology as Symptom & Dream</u>, pp. 1-31.

Mary Shelley, excerpt from <u>Frankenstein</u>, in Nancy R. MacKenzie, ed., <u>Science and Technology Today</u>. New York: St. Martin's Press, 1995, pp. 157-162 (**BB)**.

Laurie Anderson, "Stories From the Nerve Bible" in Gretchen Bender and Timothy Druckrey, eds., <u>Culture on the Brink: Ideologies of Technology</u>. Seattle: Bay Press, 1994, pp. 221-225 (**BB**).

http://www.koerperwelten.com/en.html This is the website for the popular *Body Worlds* exhibitions designed by Gunther von Hagens. Please spend about 15-20 minutes online exploring this website….including the online images of von Hagens' plastinated human corpses.

II.   **Historical (Re)Visions: Science as Culture?**

> *"Arguably a good way to begin to understand—and to interpret critically—the idea of Western science is to return to the origin tale. Keep in mind that there are many ways of telling the story..."* --David Hess

Tuesday, January 26

David Hess, "The Origins of Western Science: Technototems in the Scientific Revolution" in <u>Science & Technology in a Multicultural World: The Cultural Politics of Facts & Artifacts</u>. New York: Columbia U Press, 1995, pp. 54-86 **(BB)**.

Thursday, January 28

Romanyshyn, pp. 32-70,101-102.

III. Trafficking Between Nature and Culture

"How are love, power, and science intertwined in the constructions of nature in the late twentieth century? What may count as nature for late industrial people? . . . Who may contest for what the body of nature will be?" –Donna Haraway

Tuesday, February 2

Carolyn Merchant, <u>The Death of Nature: Women, Ecology and the Scientific Revolution</u>. HarperSanFrancisco, 1980, pp. 1-6, 29-41. **

Ward Churchill, "Geographies of Sacrifice: The Radioactive Colonization of Native North America," in <u>Struggle for the Land: Native North American Resistance to Genocide, Ecocide and Colonization</u>, San Francisco: City Lights, 2002, pp. 239-251, 256-263, 274-279. **

Thursday, February 4

Neil Smith, "The Production of Nature" in George Robertson, Melinda Mash et al., eds., <u>FutureNatural: Nature/Science/Culture</u>. New York: Routledge, 1996, pp. 35-54. **

Tuesday, February 9

Jennifer Terry, "'Unnatural Acts in Nature': A Look at the Scientific Fascination with Queer Sexual Behavior in Animals," <u>GLQ</u>, 6:2 (2000), pp. 151-193 (**BB**).

Thursday, February 11
Journal #1 due in class
Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science*. NY: Routledge, 1989, pp. TBA, **(BB)**.

Film excerpts (in class): *King Kong* (1933)

IV.   Cyborgs, CyberSpaces, & Technoscientific Embodiments

"Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts . . . A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding . . ." --William Gibson

Tuesday, February 16

Chris Hables Gray, *Cyborg Citizen: Politics in the Posthuman Age*. NY: Routledge, 2002, pp. 1-38, 193-201.**

Thursday, February 18

Manfred Clynes and Nathan S. Kline, "Cyborgs and Space" in Chris Hables Gray, ed., The Cyborg Handbook. New York: Routledge, 1995, pp. 29-33. **

Romanyshyn, Technology as Symptom & Dream, pp. 103-124.

Tuesday, February 23

Romanyshyn, Technology as Symptom & Dream, pp. 133-138, 148-175.

Victoria Pitts-Taylor, "Cosmetic Surgery Television" in *Surgery Junkies: Wellness and Pathology in Cosmetic Culture*. New Brunswick, NJ: Rutgers U Press, 2007, pp. 39-58.**

Thursday, February 25

Coco Fusco, "At Your Service: Latin Women in the Global Information Network" in The Bodies That Were Not Ours…, NY: Routledge, 2002, pp. 186-201. **

Tuesday, March 2

Gibson, Neuromancer, pp. 1-223.

Thursday, March 4

Gibson, Neuromancer, pp. 225-271.

Film excerpts: *Ghost in the Shell 2* (2004)

V. Digital Economies, Digital Cultures

> *The Internet . . . is a contested terrain. The political battles of the future may well be fought in the streets, factories, parliaments, and other sites of past conflicts, but all political struggle is now mediated by media, computer, and information technologies and increasingly will be so.* –Best and Kellner

Tuesday, March 9
Mid-term essay due in class
　　　Steven Best and Douglas Kellner, "Globalization and the Restructuring of Capital," in <u>The Postmodern Adventure: Science, Technology, and Cultural Studies at the Third Millennium</u>, NY: The Guilford Press, 2001, pp. 205-219, 226-248. **

Thursday, March 11

　　　Ben Williams, "Black Secret Technology: Detroit Techno and the Information Age," in <u>Technicolor: Race, Technology, and Everyday Life</u>, pp. 154-175.**

SPRING BREAK MARCH 14-21　　NO CLASS

Tuesday, March 23

　　　Nick Dyer-Witheford, <u>Cyber-Marx: Cycles and Circuits of Struggle in High-Technology Capitalism</u>, Univ. of Illinois Press, 1999, pp. 130-164. **

Thursday, March 25
Journal #2 due in class
　　　<u>Online assignment</u>: Using Dyer-Witheford's notion of "information activism" or "other globalization," research a specific instance of struggle, resistance, and/or activism online and be prepared to discuss in class!

VI. PSYCHOpower & Psychopharmacology

> *"Amphetamines...turned German pilots into living, speeding machines. Speed, then known as 'blitz,' made the Luftwaffe's pilots as high as the new speeds at which their planes could fly. Already strapped into the cockpit, wired up to devices, and surrounded by controls, pilots were now changed from the inside out, their bodies optimized, their brains attuned to the speeds and heights of flight."* --Sadie Plant

Tuesday, March 30

Sadie Plant, <u>Writing On Drugs</u>. NY: Farrar, Straus and Giroux, 1999, pp. 93-139, 174-182. **

Thursday, April 1

Emily Martin, "Pharmaceutical Personalities" in *Bipolar Expeditions: Mania and Depression in American Culture*. Princeton U Press, 2007, pp. 150-173.**

VII. War Games

"There is no war…without representation….Weapons are tools not just of destruction but also of perception—that is to say, stimulants that make themselves felt through chemical, neurological processes in the sense organs and the central nervous system."
--Paul Virilio

Tuesday, April 6

Chris Hables Gray, "Cyborg Warriors" in *Cyborg Citizens*, pp. 55-65.**

Thursday, April 8

Jackie Orr, "The Militarization of Inner Space" in Hartmann, Subramaniam, and Zerner, eds. *Making Threats: Biofears and Environmental Anxieties*. Rowman & Littlefield, 2005. **(BB)**

Tuesday, April 13

Paul Virilio, *War and Cinema: The Logistics of Perception*. London: Verso, 1989, pp. 11-30.**

<u>Online assignment</u>s:
<u>1)</u> Read Eyal Weizman's "Control in the Air" at:
http://www.opendemocracy.net/conflict-politicsverticality/article_810.jsp
<u>2)</u> Spend a few minutes 'Google Earthing' your home/city

Thursday, April 15

Heather Chaplin & Aaron Ruby, excerpts from *Smartbomb: The Quest for Art, Entertainment, and Big Bucks in the Videogame Revolution.* Algonquin Books, 2005 **[BB]**.

Joseph DeLappe, "dead-in-iraq" View on-line performance piece at:
http://www.unr.edu/art/DELAPPE/DeLappe%20Main%20Page/DeLappe %20Online%20MAIN.html

VIII.   Genetic (Dis)orderings: Re-engineering Evolution?

> *"You can't control it," Nikanj said, "but we can. Your body...can awaken genes that most humans never use after birth. We have comparable genes that go dormant after metamorphosis. Your body showed mine how to awaken them, how to stimulate growth of cells that would not normally regenerate. The lesson was complex and painful, but very much worth learning."*
>
> *"You mean . . ." She frowned. "You mean my family problem with cancer, don't you."*
>
> *"It isn't a problem anymore," Nikanj said, smoothing its body tentacles. "It's a gift..."* –Octavia Butler

Tuesday, April 20

     Troy Duster, "Inherited Genetic Disorders and Inherited Social Orders" in Backdoor to Eugenics. NY: Routledge, 1990, pp. 1-18. **

Thursday, April 22

     Octavia E. Butler, Dawn, pp. 3-111.

Tuesday, April 27   **NO CLASS   -- SU SHOWCASE**

Thursday, April 29

     Evelynn M. Hammonds, "New Technologies of Race" in Terry and Calvert, eds., Processed Lives, pp. 108-121. **

     Butler, Dawn, pp. 115-151.

Tuesday, May 4
Journal #3 due in class

     Romanyshyn, Technology as Symptom & Dream, pp. 199-215, 221-229.

     Butler, Dawn, finish book

Final paper due: date TBA