

# Anthropological Perspectives on Science and Technology

Professor Lisa Messeri

Fall 2017

Meeting Time: W 9:25-11:15

Office Hours: Tu 2-4 and by appointment

Office Location: 10 Sachem St. Rm 308

Not long after anthropology “came home,” the ethnographer began studying science and technology as institutions and cultural forces that pervade both arenas of expertise and the everyday. Science and technology are rich black boxes that, when opened, illuminate how and why knowledge is created and believed, the power we ascribe to this way of knowing, the ways in which the high tech comes to matter in our every day lives, how cosmologies and worldviews are shaped by scientific work, and how, in turn, beliefs shape scientists’ identity and practice.

This course samples across the anthropology of science and technology, mixing in texts from the field of Science and Technology Studies (STS). We will read canonical texts as well as newer entrants to the field. Throughout, we will focus on the theme of **boundaries**. How are ideas, people, communities, and things demarcated? For the most part, we will be breaking down and dissecting boundaries, as the scholars we engage with offer complex representations of the world (and things therein) that trouble cleanly separating this from that, us from them. If boundaries set helpful heuristic limits, as they dissolve what empirical, methodological, and even philosophical questions are raised?

## Assessments

- **Book Review (3-4 pages, double spaced) – 15%**. Twice during the semester, students will write a review of the week’s book (not including any additional readings). The review should explicate the central argument, assess whether this argument was well supported/empirically persuasive, and most importantly be organized around a theme of interest to the student. This theme does not necessarily have to be explicitly stated in the book or even of central importance, but rather one the student as a reader was drawn to/inspired by/reminded of. Please do not provide chapter summaries (though individual chapters can be called out), but rather evaluate the book as a whole. Additionally sources are neither required nor expected, but can be brought in provided that attention remains on the book at hand. Book reviews will be pre-circulated and all students are expected to have read them in advance of class.
- **Presentations (10-15 minutes) – 15%**. Students will present once or twice (depending on class size) during the semester. Presentations will be a response to the readings and the review(s). Presentations should not be summaries, but rather generous engagement with the scholarly and student texts.
- **Final paper (20-25 pages, double spaced) – 50%**. Students may take one of two approaches to the final paper. In either case, a topic proposal and meeting with the professor will be required.

- **Review Essay.** Write a review essay of three or more books in the anthropology of science and technology. The essay should have an argument and be synthetic, not summative, in nature.
- **Research Paper.** S&T is everywhere, and well worth examining. This paper should have an ethnographic component, either by way of extended observation or interview(s).
- **Participation – 20%.** This seminar is discussion based, requiring close reading of the texts and a willingness to share thoughts and ideas. I expect student ideas, as much as my own, to direct and shape our conversation.

### *On Academic Integrity*

You must document all of your source material. If you take any text from somebody else, you must make it clear the text is being quoted and where the text comes from. You must also cite any sources from which you obtain numbers, ideas, or other material. If you have any questions about what does or does not constitute plagiarism, ask! Plagiarism is a serious offense and will not be treated lightly. Fortunately, it is also easy to avoid and if you are the least bit careful about giving credit where credit is due you should not run into any problems. For further information, please consult the Center for Teaching and Learning's website on Academic Integrity: <http://ctl.yale.edu/writing/wr-instructor-resources/addressing-academic-integrity-and-plagiarism>

You may use any citation style, as long as you are self-consistent.

## **Logistics**

Books are available for purchase at the Yale Bookstore and are on reserve at the Bass library. Other course material are available on the Canvas site.

## **Course Schedule**

### **Week 1. Introduction to the Class**

*August 30*

No Reading

### **Week 2. Methodological boundary crossing, the history of science, and the problem of objectivity**

*September 6*

Bordo, Susan. 1987. "The Cartesian Masculinization of Thought and the Seventeenth-Century Flight From the Feminine." In *The Flight to Objectivity: Essays on Cartesianism & Culture* Albany: SUNY Press, pp. 97-118

Daston, Lorraine and Peter Galison. 1992. "The Image of Objectivity." *Representations* 40: 81-128.

Star, Susan Leigh and James R. Griesemer. 1989. "Institutional Ecology, 'Translations,' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907-39." *Social Studies of Science*. 19(3): 387-420.

Gusterson, Hugh. 1997. "Studying Up Revisited." *PoLAR: Political and Legal Anthropology Review*. 20(1): 114-119.

Martin, Emily. 1998. "Anthropology and the Cultural Study of Science." *Science, Technology & Human Values* 23(1): 24-44.

**Unit I. Where is/isn't science?** The first set of boundaries that we will explore concerns where science and technology are located. Ethnographies of science began in the laboratory, the presumed space of scientific knowing. Yet Lab Studies would no sooner become an established sub-discipline than researchers began "following scientists" out of the field and into the larger networks they inhabited.

### **Week 3. The Laboratory**

*September 13*

Traweek, Sharon. 1988. *Beamtimes and Lifetimes: The World of High Energy Physicists*. Cambridge: Harvard University Press.

Latour, Bruno & Steve Woolgar. 1986 [1979]. *Laboratory Life: The Construction of Scientific Facts*. Princeton: Princeton University Press, pp. 43-88.

### **Week 4. The Field**

*September 20*

Hayden, Cori. 2003. *When Nature Goes Public: The Making and Unmaking of Bioprospecting in Mexico*. Princeton: Princeton University Press.

Kohler, Robert. 2002. *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology*. Chicago: University of Chicago Press, pp. 1-22, 212-251.

### **Week 5. The City**

*September 27*

Choy, Timothy. 2011. *Ecologies of Comparison: An Ethnography of Endangerment in Hong Kong*. Durham: Duke University Press.

Gieryn, Tom. 2006. "City as Truth-Spot: Laboratories and Field-Sites in Urban Studies." *Social Studies of Science* 36(1): 5-38.

**Unit II. Identities.** Encounters with scientific findings and interactions with technologies structure our lives almost down to the minute. What, then, is the boundary (if any) between technoscience and our selves? How does it effect our self-conception and how also can technology be a mode of self exploration and expression? Finally, what is modern selfhood and how does that map (or not) on to different kind of knowledges?

### **Week 6. Digital Selves**

*October 4*

Boellstorff, Tom. 2008. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. Princeton: Princeton University Press.

Turkle, Sherry. 1995. *Life on the Screen: Identity in the Age of the Internet*. New York: Simon and Schuster, pp. 9-26.

### **Week 7. Scientific Selves**

*October 11*

Dumit, Joseph. 2004. *Picturing Personhood: Brain Scans and Biomedical Identity*. Princeton: Princeton University Press.

### **Week 8. Modern Selves?**

*October 25*

Latour, Bruno. 1993. *We Have Never Been Modern*. Harvard: Harvard University Press.

**Unit III. Nature/Cultures.** The porosity between self and science/technology feeds into a larger question of whether or not there is any meaningful distinction between Nature and Culture. The theoretical approach that posits “naturecultures” as a meaningful unit of analysis has spurred the methodological approach of multispecies ethnography.

### **Week 9. Life/A-Life**

*November 1*

Helmreich, Stefan. 1998. *Silicon Second Nature: Culturing Artificial Life in a Digital World*. Berkeley: University of California Press.

### **Week 10. Human/Non-Human**

*November 8*

Haraway, Donna. 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.

Kirksey, S. Eben and Stefan Helmreich. 2010. “The Emergence of Multispecies Ethnography.” *Cultural Anthropology* 25(4): 545-576.

Paxson, Heather. 2008. “Post-Pasteurian Cultures: The Microbiopolitics of Raw-Milk Cheese in North America.” *Cultural Anthropology* 23(1): 15-47

**Unit IV. Geopolitics.** One final boundary that we will destabilize is the one thought to divide science and technology from politics. Technoscience is popularly thought to be above or outside of politics. However, it is deeply embedded in, among other things, the making of nation-states. Moreover, sometimes the assumption that a scientific place like Antarctica is apolitical becomes its reason for obtaining political purchase.

### **Week 11. In the Middle**

*November 15*

Bier, Jess. 2017. *Mapping Israel, Mapping Palestine: How Occupied Landscapes Shape Scientific Knowledge*. Cambridge: MIT Press.

**Week 12. Ends of the Earth**

*November 29*

O'Reilly, Jessica. 2017. *The Technocratic Antarctic: An Ethnography of Scientific Expertise and Environmental Governance*. Ithaca: Cornell University Press.

**Epilogue. Assemblages.** To conclude, we will read a recent ethnography that brings many of the classes' themes together.

**Week 13. End of the World**

*December 6*

Tsing, Anna. 2015. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press.