

## Science Otherwise: Queer and Anti-Colonial STS

Upper-division Seminar  
Ashton Wesner  
Office Hours: [TIME] // [LOCATION]  
[EMAIL ADDRESS]

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### OUR ANIMATIONS

What does it mean to analyze science as culture and culture as constituted through science? How does scientific discourse and practice produce difference—specifically along the lines of race, gender, sexuality, and the human—with what consequences, and for whom? Can we hope to transform our practices that are destructive to the Earth and ultimately to humanity? Can we imagine doing science differently, together? How do scientists, artists and activists grapple with making life in the context of ecological devastation, and in ways that dismantle the cultures of purity, property, and racialized exploitation that brought us here?

### COURSE CONTENT

This seminar asks you to engage with, and undertake, interdisciplinary academic work at an advanced level. Our discussions depart from a foundational argument: That dichotomous thinking about “humans” vs. “nature” coproduces scientific practices that have privileged the lives and perspectives of “First World” men in particular, at the expense of the views and realities of historically marginalized subjectivities. We will examine how queer, feminist, critical race, crip and indigenous theoretical approaches have historicized and disrupted common understandings of scientific research and practices, human and nonhuman bodies, and environments and ecologies. Far from a comprehensive genealogy of these lines of thought and practice, this seminar weaves a multidisciplinary set of cases and analyses that allows us to borrow from, and create with, the diversity of interventions in STS.

This course provides tools to engage with environmental sciences as historically developing, socially and cultural situated practices of inquiry, conceptual understanding, and problem solving. We will develop tools to analyze the often violent power relations emergent in scientific practice and knowledge production. But we will also focus just as much on the slippages, incoherence, and spaces of alternative and/or empowering possibility within these dominant dichotomies. This leads us to imagine together the liberatory and revolutionary possibilities in scientific and technological research and practice.

Importantly, we weave together our theoretical inquiries with science and research *praxis*. The units that bookend our more theoretically dense readings help us to keep in mind who “counts” as a researcher/scientist/expert, and how we might challenge hierarchical arrangements of knowledge production. Special attention will be given to what we learn from, and interrogate within, the cases of community-engaged research, science shop models, and the work of organic intellectuals like artists and activists. Through this investigation, we will interrogate ourselves, too. Turning the critical gaze we develop back on our own positionalities, we will investigate the historical context and implications of our own academic training and methodological and theoretical choices. Always with generous and productive analyses and critiques with each other.

## OBJECTIVES

Refine interdisciplinary modes of learning and research.

Synthesize key theoretical and methodological approaches to the analysis of race, gender, sexuality, class, and nature in the context of science and technology studies.

Demonstrate fluency in discourses and debates surrounding community-engaged scholarship and activist-science.

Successfully navigate the scholarly research process through the final project (defining a problem, writing a literature review, finding scholarly sources, etc).

Demonstrate proficiency in critical scholarly engagement, including self-reflexivity and the process of peer review and revision.

## ASSIGNMENTS AND GRADING

Grading will be relative to where you are when you begin the course. Successful progress toward the degree always requires both insight and effort, but the proportions vary from student to student. Following are rough proportions for each area of activity, to help you apportion your efforts:

35% Class participation and Attendance

15% Discussion Lead and Reading Response

Sign up to pose discussion questions and present cultural texts (photos, images, poem, activist print, etc.) based on your two page reading responses to the class. No more than two people per week for weeks 2-9.

15% Reading Responses

Select 5 additional weeks for which to write a reading response to share with your classmates by Monday before seminar. Write no more than 1 page, with 1.15 spacing, 12 point font, and decent tabs. Provide a paragraph summarizing the main claims and arguments of all the authors read for that week, each in relation to the others. Provide a second or third paragraph that assesses the authors' positions, their use of evidence to make their points, and their arguments in relation to one another, their empirical material, and/or the current or previous ideas covered in class.

35% Final project (Due by 3:00 PM March 24[[DATE]])

Because we all can perform well but perhaps under various circumstances, I want you to choose your own direction for a final assessment: 1) Activist Analysis. If you lead or participate in any activist or workshop event (Science March in Oakland, for example), 2) Synthesizing Paper: If a particular topic we covered really compels you, you can use this paper to bring together the ideas of the course to analyze that topic. This paper should draw entirely on the materials in this course. No research is necessary. I want to see synthesis here; how do some of the materials speak to each other? What new lines of inquiry do they open up for you? 3) Students' Design. What else is there? Group Research Projects? A film review? You should be thinking about what kind of project you want to do and you will propose it for approval early in the semester. I will need to approve your choice by the date indicated in the schedule below or there will be a grade deducted from the project's final grade.

**ACCESS/ACCESSIBILITY**

I am committed to making success in my classes possible for all students. On the first day of class we will establish a Community Agreement about how to be accountable to one another – respectful, participatory, generous and empowering – that we can refer to throughout the semester. If at any point in the semester you find that success is a challenge for you—because of my teaching style, the arrangement of the class, life constraints, technology issues, or a disability—please talk to me. It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact their instructor to discuss their individual needs for accommodations. Resources for ensuring access can be found at \_\_\_\_\_.

## **SCHEDULE AND MATERIALS**

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### **WEEK 1: INTRODUCTIONS: WHY STUDY SCIENCE DIFFERENTLY?**

#### **Read**

Roger Pielke Jr. "After April's March for Science, what next for Anti-Trump scientists?" *The Guardian*. [https://www.theguardian.com/science/political-science/2017/feb/22/after-aprils-march-for-science-what-should-come-next-for-anti-trump-scientists?CMP=share\\_btn\\_fb](https://www.theguardian.com/science/political-science/2017/feb/22/after-aprils-march-for-science-what-should-come-next-for-anti-trump-scientists?CMP=share_btn_fb)

Shay Akli. "We Need Decolonial Scientists."

<https://decolonizeallthethings.com/2016/11/10/we-need-decolonial-scientists/>

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

*selection: Introduction, and Chp. 2 Tentacular Thinking*

#### **Bring**

Questions about the syllabus, thoughts on your personal relation to science and technology.

#### **Themes**

Science as culture and practice, science as political, analytics of power.

#### Recommended

Sandra Harding. *Sciences from Below: Feminisms, Postcolonialities, and Modernities*, Duke University Press, 2008.

### **WEEK 2: RESEARCHER SUBJECTIVITIES AND THE POLITICS OF KNOWLEDGE PRODUCTION**

#### **Read**

Donna D. Haraway. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies*, No 14 v 3. 1988.

Gillian Rose. "Situating Knowledges: Positionality, Reflexivities and Other Tactics."

*Progress in Human Geography*, No 21 v. 3. 1997.

Sandra Harding. "'Strong Objectivity': A Response to the New Objectivity Question."

*Synthese*, Vol 104. 1995.

Vine Deloria. "Anthropologists and Other Friends," in Vine Deloria Jr. Custer Died for Your Sins: An Indian Manifesto. Norman: University of Oklahoma Press, 1988.

S. Eben Kirksey. "Don't Use Your Data as a Pillow," in Waterston and Vesperi (eds.)

*Anthropology off the Shelf*. Blackwell Publishing, 2009.

#### **Themes**

Situated knowledge, politics of knowledge production, troubling subject/object, (re)thinking research.

**WEEK 3: SITUATING SCIENCE AND TECHNOLOGY STUDIES****Read**

Bruno Latour, We Have Never Been Modern, trans. Catherine Porter. Cambridge, Massachusetts: Harvard University Press, 1993.

*selections: Sections 1 and 2.*

Kimberly TallBear. Native American DNA: Tribal Belonging and the False Promise of Genetic Science. University of Minnesota Press, 2013.

*selection: Introduction*

**Themes**

STS as a field, coproduction, historicization, modernity and the scientific production of difference.

Recommended

Donna Haraway. Primate Visions: Gender, Race, and Nature in the World of Modern Science. New York, Routledge, 1989.

**WEEK 4: FEMINIST CRIP NATURECULTURES****Read**

Donna Haraway. Companion Species Manifesto: Dogs, People, and Significant Others. Prickly Paradigm Press, 2003.

Sarah Jaquette Ray. The Ecological Other. The University of Arizona Press, 2013.

*selections: Introduction, Chp. 1 "Maimed Away from the Earth"*

**Themes**

Naturecultures, disability, environmental politics.

Recommended

Angela Willey, David Rubin, Kristina Gupta, and Cyd Cipolla (eds). Queer Feminist Science Studies: A Reader. University of Washington Press (under contract)

Donna Haraway. When Species Meet. University of Minnesota Press, 2008.

*selection: Introduction*

---- Companion Species Manifesto: Dogs, People, and Significant Others. Prickly Paradigm Press, 2003.

Alison Kafer. Feminist, Queer, Crip. Bloomington: Indiana University Press, 2013.

**WEEK 5: QUEERING ECOLOGIES, QUEERING SCIENCE****Read**

Catriona Mortimer-Sandilands and Bruce Erickson, eds. Queer Ecologies: Sex, Nature, Politics, Desire. Bloomington and Indianapolis: Indiana University Press, 2010.

*selections: Intro, Chp. 1 “Eluding Capture: The Science, Culture and Pleasure of ‘Queer’ Animals”*

Angela Willey and Sara Giordano. ““Why Do Voles Fall in Love?”: Sexual Dimorphism and Monogamy Gene Research” in Jill Fisher (ed.) Gender and the Science of Difference: Cultural Politics of Contemporary Science and Medicine. New Brunswick, NJ: Rutgers University Press, 2011.

### **Themes**

Ecology, queer ecology, scientific practices, production of difference.

Recommended

Stacy Alaimo and Susan Hekman, eds. Material Feminisms. Bloomington and Indianapolis: Indiana University Press, 2008.

Angela Willey. Undoing Monogamy: The Politics of Science and the Possibilities of Biology, Raleigh: Duke University Press, 2016.

## **WEEK 6: RACIAL MATTERING**

### **Read**

Mel Chen. Animacies: Biopolitics, Racial Mattering, and Queer Affect. Durham and London: Duke University Press, 2012.

*selections: Introduction, and Chp. 5 Lead’s Racial Matters*

Zakiyyah Iman Jackson, “Animal: New Directions in the Theorization of Race and Posthumanism.” *Feminist Studies*. Vol 39, no. 3. 2013.

### **Bring**

Preliminary ideas for your final project.

### **Themes**

Biopolitics, racialization, animacies.

Recommended

Alexander G. Weheliye. Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human. Durham, NC: Duke University Press, 2014.

Simone Browne. Dark Matters: On Surveillance and Blackness. Durham, NC: Duke University Press, 2014.

## **WEEK 7: IMAGINING NEW MATERIALISMS?**

### **Read**

Jane Bennett. Vibrant Matter: A Political Ecology of Things, Durham, NC: Duke University Press, 2010.

*selection: Introduction*

Diana Leong. “The Mattering of Black Lives: Octavia Butler’s Hyperempathy and the Promise of New Materialisms,” *Catalyst*. Vol 2, No 2. 2016.

Angela Willey. "A World of Materialisms: Postcolonial Feminist Science Studies and the New Natural" (under review).

### **Themes**

New materialisms, posthumanism, animal studies.

Recommended

Ruha Benjamin. "Racial Fictions, Biological Facts: Expanding the Sociological Imagination through Speculative Methods." *Catalyst*. Vol 2, No 2. 2016.

Octavia Butler. Parable series.

## **WEEK 8: UNDOING EXPERTISE: ACTIVIST, ARTIST AND WRITER SCIENCES**

### **Read**

eds Walidah Imarisha and adrienne marie brown. Octavia's Brood: Science Fiction Shorts from Social Justice Movements. AK Press, 2015.

*selections: choose several stories that speak most to you*

Maya Lin. "What is Missing." <http://www.whatismissing.net/>

Communities for a Better Environment. "Toxic Tours." <http://www.cbecal.org/get-involved/toxic-tours/>

Angela Willey. Undoing Monogamy: The Politics of Science and the Possibilities of Biology, Raleigh: Duke University Press, 2016.

*selection: Epilogue "Dreams of a Dyke Science"*

### **Do**

Attend a demonstration, action event, exhibit or performance.

### **Bring**

Materials from your activity or an image to share.

### **Themes**

Artist and activists, expertise and non-expert science, cultural production, archives of resistance and alternatives.

Recommended

Stacy Alaimo. Bodily Natures: Science, Environment and the Material Self. Bloomington and Indianapolis: Indiana University Press, 2010.

e. Rachel Stein. New Perspectives on Environmental Justice: Gender, Sexuality and Activism. New Jersey: Rutgers University Press, 2004.

## **WEEK 9: COMMUNITY PARTICIPATION AND SCIENCE SHOP METHODS**

### **Read**

Assil, R., Kim, M., & Waheed, S. "An Organizer's Guide to Research Justice. And Introduction to Research Justice," A free, popular education toolkit for community organizations working towards social justice. 2013.

Balazs, C. L., & Morello-Frosch, R. "The Three R's: How Community Based Participatory Research Strengthens the Rigor, Relevance and Reach of Science," *Environ Justice*, 6(1). 2013.

Jørgensen, M. S. "Perspectives of NGOs, universities, researchers and students on co-operation through science shops," Paper presented at the Community Research Network Conference, Sandstone, Minnesota, USA. 2003.

Leydesdorff, L., & Ward, J. "Science shops: a kaleidoscope of science-society collaborations in Europe," *Public Understanding of Science*, Vol 14, no 4. 2005.

### **Themes**

Research justice, community participation, transformative research, science shops.

## **WEEK 10: DOING RESEARCH DIFFERENTLY**

### **Read**

Alice Walker. "Don't Despair." <http://alicewalkersgarden.com/2016/11/dont-despair/>

Augie Fleras. "'Researching Together Differently': Bridging the Research Paradigm Gap," *Native Studies Review*, Vol 15, no 2. 2004.

D. Edmunds, R. Shelby, A. James, M. Baker, Y. Perez, and K. Tallbear. "Tribal Housing, Co-Design & Cultural Sovereignty." *Science, Technology & Human Values*. 2013.

John Bohannon. "A Home for Maori Science." *Science*, Vol 318, no 9. 2007.

Laura Pulido, "FAQs: Frequently (Un)Asked Questions about Being a Scholar Activist," In Charles R. Hale (ed.) Engaging Contradictions: Theory, Politics, and Methods of Activist Scholarship. Berkeley and London: University of California Press, 2008

### **Bring**

Updates on, and "fragments" of, final project to share.

### **Themes**

Scholar activism, envisioning together, positionality in fieldwork.

### Recommended

Linda Tuhiwai Smith. Decolonizing Methodologies: Research and Indigenous Peoples. London and New York, Zed Books, 2012.

**\*\*\* Final Project Due by 3:00 PM [[DATE]] \*\*\***