

THE SOCIAL LIFE OF CLEAN ENERGY
Rice University, Spring 2014
ANTH 332/532 and ENST 332/532
tuesdays 2 – 4:59p., Herring Hall #126



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Sewall Hall 584 office hours:
t. & th. 12:30-1:30p.
or by appointment

In May 2013 the U.S. National Oceanic and Atmospheric Administration reported that the atmosphere's average daily level of carbon dioxide had exceeded 400 parts per million; this represents a density of heat-trapping gases that has not existed for at least three million years, long before human beings evolved. The reality of increased global energy consumption and its concomitant climatological effect has made local practices into universal concerns. In the past few years, public and political awareness regarding energy has increased immensely and energy policy, energy security and energy technology continue to be topics of fervent debate across the world. Renewable energy has become an increasingly important site of scientific research, political debate, corporate investment and social concern as states, corporations, NGOs and social movements all seek, or at least claim to seek, what is often described as a transition to a "sustainable" energy future. This seminar considers "clean energy" as a global social phenomenon and draws upon the conceptual and ethnographic techniques of anthropology to analyze the various forces and interests intersecting in projects of solar power, hydropower and wind power development in both the global North and the global South. In seminar readings and discussions, we pay special attention (1) to the contingencies of climate change, global warming skepticism and the politics of adaptation; (2) to the historical and contemporary importance of electricity for western modernity and the significance of intensive electricity usage as an index of social and political "development;" (3) to the rise of discourses, markets and a politics of "clean energy" across the world; (4) to how the politics of clean energy development, usage and transition differ in distinct case studies and social contexts; (5) to the impact of governmental intervention and state-craft upon energy resources, economies, technologies and institutions; (6) and finally, to what an "anthropology of energy" can and should bring to studies of clean, green, and renewable energy development.

* All required readings are posted on owlspace in "resources" by week.

EVALUATION GUIDELINES

Attendance, mini field projects & contributions to discussion	10%
Weekly reading questions & comments	10%
Leading discussion and synopsis of assigned readings	10%
Mid-semester essay	20%
Final Research Paper and presentation	50%

PROCEDURES

° *Learning Differences and Support Services*: Any student with a disability requiring accommodations in this course should contact me at the beginning of the semester. Students who have not already been in contact with the Disability Support Services in the Allen Center should do so.

° *Academic Integrity*: The work you submit must be your own. Plagiarism or other violations of academic integrity will be addressed with the disciplinary actions mandated by Rice University. It is the students' responsibility to be familiar with the obligations of academic integrity.

COURSE REQUIREMENTS

° *Submitting work for Evaluation*: All of the work you do for this course is due as noted in the syllabus. Late work may be accepted, but for much reduced credit, unless you have a medical emergency or a death in the family. Please plan carefully.

ATTENDANCE, MINI-FIELD PROJECTS AND DISCUSSION

If you miss a class: contact another student in the course to find out what occurred in class that day and what you will need to prepare for the next meeting.

Being prepared for class: In order to receive an excellent grade in this course, you will need to attend and be prepared for all class meetings. Your participation in discussion is critical; each student is expected to participate in the discussion, every class.

Mini-Field Projects: Every other week (according to prearranged groups #1 and #2, see syllabus below) students will be asked to carry out informal surveys and/or research projects that will be incorporated into class discussion. These will not be particularly time-intensive, but are a required element of participation.

Note: In lieu of class and readings for the week of April 22, you must attend both of the lectures listed below in the syllabus (Harmon and Gupta) and write up a brief set of notes on each, which will be due on the class meeting following the lecture. Your notes will consist of the talk's content as well as three questions you would have posed to the speaker based. These lectures are part of Rice's Center for Energy and Environmental Research in the Human Sciences and all lectures will be held in Sewall Hall #309.

WEEKLY READING QUESTIONS & COMMENTS

* *due every Tuesday, posted in forums on owlspace, by 8am.*

Every week students will post 2-3 questions or comments directly related to the reading assignments for that week. These are to be posted on owlspace by 8am on Tuesday mornings (so that others can read them prior to class). Your questions/comments should cover the range of readings for that week (in other words, do not focus all of your questions on one article or chapter). These questions/comments are meant to be useful in class discussion. The best questions often create links between readings or discussions in class. Less useful questions are those that are too general or that are not clearly linked to the reading. Your questions can be 1-3 sentences, whichever works best for you. For questions that are posted on time, and well-conceived, you will receive an "A". If your questions are not on target I will contact you by email and suggest ways to improve your questions.

FACILITATING DISCUSSION AND SYNOPSIS OF ASSIGNED READINGS

* *synopsis is due by noon, posted in forums on owlspace, on the Tuesday that you are presenting.*

Each student will present on 2 or 3 of the reading assignments over the course of the semester. To prepare for facilitating discussion you want to carefully read your chapter or article and prepare a synopsis that will be posted on owlspace, by noon on the Tuesday that you are presenting. The synopsis will be anywhere from half of a page to a full page, outlining the key elements of the chapter or article; it can be in bullet point form. You also want to look over other students' comments/questions on owlspace and develop responses or thoughts on some of the postings. Your presentation of your chapter/article in class should provide a very brief overview of the reading material (don't go into too much detail since everyone else in the class will have read it too and we don't want too much repetition). If you can make connections between the reading you are describing and other works we have discussed or other relevant topics, that is great.

MID-SEMESTER ESSAY

* *due in dropbox, on owlspace, by noon, 5p., Wednesday, February 19*

This essay is a trial run for your final research paper. The essay will be 3-4p. (double-spaced) in length for undergraduates and 5-7p. (double-spaced) for graduate students. Guidelines and prompts for the essay will be posted on owlspace, where citation information and style guidelines will be detailed. The essay will be an opportunity to reflect on one or more of the themes or topics we have covered at that point in the semester.

FINAL RESEARCH PAPER AND PRESENTATION

* *due in dropbox on owlspace on the day/time of the final exam as scheduled by Rice, to be announced later in the semester.*

Your final research paper will focus on a renewable energy project that has been completed, or is in process, anywhere in the world. The substance of your paper will focus on the social impacts, political dynamics or other cultural elements related to renewable energy development. You can choose to do an anthropological research paper (ethnographic material, interviews, etc.) for your final project, or you can do a textual paper based on library/on-line research and review of pertinent materials. The paper itself will be worth 40% of your grade and the presentation will constitute 10% of your grade in the class. For this reason, and others, you want to begin thinking about and researching your topic early-on in the semester so that you have time to successfully complete the project. We will have time to discuss projects in class. The paper will be 10-12p. (double-spaced) for undergraduates and 15-20p. (double-spaced) for graduate students. Style and citation guidelines will be posted on owlspace. The materials you will draw from, and which will constitute your bibliography, will be works in anthropology or in the humanities or social sciences more broadly. While you can use some engineering or other scientific material where necessary, you want to utilize social scientific approaches to the greatest extent you are able. You can use journal articles, books or edited volumes. Your bibliography should be somewhere between 10-12 sources total (for undergraduates) and approximately 20 for graduate students. The presentation of research projects will take place in the last two weeks of class and will be scheduled in advance, with times and timing to be worked out.

FOR GRADUATE STUDENTS: Please select one of the following texts (or suggest an alternative of your own) to be read in addition to the assigned reading listed below in the syllabus. You will provide a presentation on your chosen text, with discussion and interactive elements included on the date listed below. Graduate students should be prepared to discuss all of the reading assignments listed in syllabus and particularly the 532 reading listed below.

- Breglia, Lisa. 2013. *Living with Oil: Promises, Peaks and Declines on Mexico's Gulf Coast*. Austin: University of Texas Press.
- Edwards, Paul. 2010. *A Vast Machine: Computer Models, Climate Data and the Politics of Global Warming*. Boston, MA: The MIT Press.
- Huber, Matthew. 2013. *Lifblood: Oil, Freedom, and the Forces of Capital*. Minneapolis: University of Minnesota Press.
- Latour, Bruno. 2013. *An Inquiry into Modes of Existence: An Anthropology of the Moderns*. Cambridge, MA: Harvard University Press.
- LeMenager, Stephanie. 2014. *Living Oil: Petroleum Culture in the American Century*. Oxford: Oxford University Press.
- Mitchell, Timothy. 2013. *Carbon Democracy: Political Power in the Age of Oil*. London: Verso.
- Morton, Timothy. 2013. *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press.

Week 1	anthropos and others in the anthropocene	january 14
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Introductions and sign up for reading facilitation
 Screen in class: *An Inconvenient Truth*

Week 2	planetary warming: doubts and accommodations	january 21
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Oreskes, "Introduction" (p. 1-10), "Doubt is Our Product" (p. 10-35), "The Denial of Global Warming" (p. 169-215)
 Klein, "Capitalism vs. the Climate" (p. 1-16)

532 students: Chakrabarty, "The Climate of History"
 Group 1: field project presentation
 Screen in class [portions]: *Climate Refugees*

Week 3	climate politics, global and local	january 28
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Mitchell, "Carbon Democracy"
 Giddens, "Introduction" (p. 1-16), "A Return to Planning?" (p. 91-128)

532 students: Hulme, "Cosmopolitan Climates"
 Group 2: field project
 Screen in class: *Fighting Goliath: Texas Coal Wars*

Week 4	the power of electricity, modernization and development	february 4
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Nye, Preface (p. ix-xi), [portions of] Chp. 2 (p. 29-57), chp. 4 (p.138-157 &182-184), chp. 5 (p. 185-193 & 232-237), conclusion (p. 381-391).
 Winther, "Introduction" (skim p. 1-21), "The Electricity Company in the Village" (p. 104-128), "Uroa by Night" (p. 129-146)

532 students: Alatorre and Schelly, "Rural Electrification as a Bioterritorial Technology"
 Group 1: field project

Week 5	sun: rooftops and shortened supply chains	february 11
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Scheer, "Scenario: From Fossil Fuels to Solar Power" (p. 1-36) "Exploiting Solar Resources" (p. 62-89)
 Behar, "Selling the Sun" (p. 488-497)
 McKay, "Sociocultural Dimensions of Cluster vs. Single Home Photovoltaic Solar Energy Systems in Rural Nepal" (p. 494-504)

532 students: Harmon, TBD
 Group 2: field project

** February 13, 4p CENHS Lecture, Graham Harmon - attendance required barring a scheduled course conflict, Sewall Hall #309

Week 6	water: dams, tides and steam	february 18
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Pasqualetti, "Social Barriers to Renewable Energy Landscapes" (p. 201-223)
 Turner and Fajans-Turner, "Political Innovation and Inter-ethnic Alliance" (p. 3-10)
 Jóhannesson, "Icelandic Nationalism and the Kyoto Protocol: an Analysis of the Discourse on Global Environmental Change in Iceland" (p. 495-509)

532 Students: Gupta, TBD
 Group 1: field project
 Due in class: notes on Harmon's lecture
 Screen in class: *Battle for the Xingu*

** Mid semester essay due in dropbox, on owlspace, by 5p., Wednesday, February 19

Week 7	wind: turbines and territories	february 25
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Kolbert, "The Island in the Wind" (p. 500-513)
 Durbin & Bendixsen, "Wrangling Wind: Speculative Futures among Ranchers in Texas and Wind Energy Companies" (p. 1-8)
 Krauss, "The *Dingpolitik* of Wind Energy in Northern German Landscapes" (p. 195-208)

532 students: Nadaï and Labussiere, "Birds, Wind and the Making of Wind Power Landscapes," (p. 209-233);
 Group 2: field project

* SPRING BREAK: March 1 – March 9, 2014 *

Week 8	theorizing energy	march 11
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332 Students: no reading, but please respond to prompts posted on owlspace by graduate students
 532 students: discussion of your selected text, with prompts posted on owlspace for other students

No Group field project today
 Attendance at Scientia event (optional), 4p

** March 13, 4p CENHS Lecture, Akhil Gupta - attendance required barring a scheduled course conflict.
 Sewall Hall #309

Week 9	governmentalities and resistances	march 18
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Howe, Boyer & Barrera, "Wind at the Margins of the State" (p. 1-26)
 Sawyer, "Empire/Multitude, State/Civil Society: Rethinking Topographies of Power" (p. 64-85)

532 students: no additional reading
 Group 1: field project
 Due in class: notes on Gupta lecture
 Screen in class [portions]: *The Naked Option*

Week 10	conservation and carbon footprints	march 25
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Paterson and Stripple, "My Space: Governing Individuals' Carbon Emissions" (p. 341-362)
 Yergin, "The Fifth Fuel: Efficiency" & "Closing the Conservation Gap" (p. 614-639)

532 students: Pickering, "Asian Eels and Global Warming: A Posthumanist Perspective on Society and the Environment" (p. 29-43)
 Group 1 & 2: field project

Week 11	transitions, controversies and the future of power	april 1
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Szeman, "What the Frack?"
 Newberry, "Mediating Climate Science and Biofuel Policy"

Screen in class: *Gasland: Can You Light Your Water on Fire?*
 Group 2: field project

* Midterm Recess: April 3 - 4, 2014 *

Week 12	student presentations	april 8
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final project presentations

Week 13	student presentations	april 15
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final project presentations

week 14	freedom	april 22
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We will *not* have class today. You can take this time to work on your final research paper and incorporate feedback from your presentation.

* Final Paper will be due on the scheduled final exam date for our class, set by the university (sometime between April 30-May 7, 2014). Final papers will be uploaded to owlspace in dropbox.