

Deserts, Islands, and Other Energy Infrastructures

Crossroads 2.0, College of Creative Studies

University of California, Santa Bárbara

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MW: 4pm- 5.50 PST, CCS Room 160B

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Office Hours: Tuesday, 2-4pm; CCS, Room 148



“Fossil fuels require sacrifice zones: they always have. And you can’t have a system built on sacrificial places and sacrificial people unless intellectual theories that justify their sacrifice exist and persist: from manifest destiny to terra nullius to orientalism, from backward hillbillies to backward Indians.”

Naomi Klein

Course Descriptions:

This course proceeds from the observation that our contemporary moment—defined by climate disaster—needs an uncomfortable coming to terms with our energy systems. From the early twentieth century innovations such as the electric grid and the automobile to the contemporary technologies comprising the tiniest of batteries in our cell phones and our enormous data centers, to even the promised future of self-driving cars and smart cities, energy has been the invisibilized substrate of our society and culture. We are surrounded by energy infrastructures, the basic physical and organizational structures and facilities that both rely on and fuel modernity. It is an accepted truth now that the warming of the planet has been largely facilitated by racial and capitalist economy of fossil fuels. Other major energy systems that are no less innocent have included hydropower, nuclear energy, and various forms of renewables. Our energy conversations are dominated either by this sad acknowledgment or by the false promise of greener and more sustainable futures. But how did we get here? At what cost? And where are we heading?

In this course, we will approach the study of energy infrastructures through an environmental justice framework. Indeed, as David Pellow defines it, critical environmental justice studies calls us to pay attention to intersectionality and how particular populations, species, and places are consistently marginalized under racial, capitalist and colonial modernity. Deserts and islands, which Stephen and Surojit respectively research about in various international contexts, have often been subject to colonial rule and infrastructural experiments. However, these environments are by no means the only ones. In this course, we will collectively explore the intersections between "natural" environments and energy infrastructures with attention to the material and lived realities of environmental injustice as well as the efforts of local communities to resist unjust infrastructures and build just futures. The central questions that will animate our explorations include: how do energy infrastructures intersect with social and environmental realities? Who are included or excluded in the design and worldview of energy infrastructures? How can we sense, study, and represent infrastructural systems? And finally, how can we build better infrastructures for more just futures?

The course is primarily organized around the keywords of extraction, distribution, and accidents—a triad of concepts that seeks to understand how certain places and people are rendered as disposable. These three concepts, for us, stand in for the three temporal and operational modes in the life of an infrastructure. Finally, the last two weeks are devoted to a fourth temporal category: the problems and promises of future infrastructures. Furthermore, each week is focused around a particular type of energy infrastructure. We will approach the various modes and types of energy systems through a combination of conceptual reading, case studies, artworks, and creative workshops in class. The course largely falls under the emerging fields of energy and environmental humanities as well as critical infrastructure studies while drawing its approaches from the more established disciplines of English, Film and Media, and Global Studies. Finally, in both the readings, classroom activities, and assignments, the course will emphasize a combination of creative and critical thinking. At the end of the course, students will be able to

1. gain an understanding of the history of various energy systems, their global dimensions, and their future implications.
2. analyze the representation of energy infrastructures in various media ranging from advertisements and press releases to literary and cinematic representations.
3. research and communicate about particular site-specific energy infrastructures as material and political processes with social and environmental impact.
4. design, collaborate, and communicate creative-critical projects on energy infrastructures with their peers.

Required Texts:

1. Mark Nowak and Ian Teh. *Coal Mountain Elementary* (2009). ISBN 978-1-56689-228-5
2. *Unknown Fields. The Breastmilk of the Volcano* (2016). ISBN: 9781907896842
3. Ralph Ellison. *Invisible Man* (1952). ISBN : 978-0679732761

You are required to purchase copies of these three books. All other texts and films will be made available on Gauchospace.

Assignments

Attendance and General Participation

In a seminar course each participant's contribution is deeply valued. You will be permitted two excused absences ("excused" means that you must have contacted us prior to class to inform us of your absence) in the quarter in addition to the days for group work that we have already set aside. More than three excused absences, or more than two unexcused absences, will prevent you from passing the course. A pattern of late arrivals is likewise detrimental.

We will all come to class prepared, remain engaged, and participate thoughtfully in class discussions, group exercises, screenings, etc. Be conscious of your "power of presence," and make room for others to contribute. Engage respectfully and with care with the ideas of others. This means that language or behavior that compromises the ability of *any* student to participate fully in section is not acceptable.

Starting during week two, students will also lead the introduction to the week's readings. Students will introduce one text via a brief summary and craft at least four questions for us to propel the discussion. During weeks that students are not presenting, in addition to bringing notes, students should also have one passage selected from any of the readings that they wish to discuss.

Group Journals

During the first week we will divide the class into three working groups. Beginning in week two, each group will be responsible to maintain a living document on the three central concepts of the course: **Energy**,

Infrastructure, and Environmental Justice. The documents will be accessible to the whole class to observe how our understanding of the three concepts evolve over the quarter. Each group will have the complete freedom to experiment with the design of their living document but the minimum responsibility involves **weekly updates** and a final collective synthesis at the end of the course. We welcome each group to discuss design and content ideas for the document with us over office hours. This document is designed to be a place where groups can summarize and synthesize notes and reflections—and not be an onerous task. The final version of the journal will be **due by Friday, week 10 on June 9th.**

Midterm: Create an Energy Infrastructure Starter Kit

Students will be responsible to create a “starter kit” for students of energy infrastructures. The starter kit will feature a description, a gallery of objects with clear captions, and annotated bibliographies on relevant works. Comprehensive directions will be provided during week three. The starter kit will be **due by Friday, week 6 on May 12th.**

Project Proposal/Final Project

You will submit via email a one-paragraph description of your final project, along with any relevant graphic explanations during week 7. We may discuss these proposals in small groups during the following week’s class. This proposal is **due by Friday, week 7 on May 19th.**

The topic and format of this final project are completely self-determined between the student and the instructors. However, the project should be driven by research, engage with at least three authors we have read or referred to in class, and include a creative component. We strongly suggest chatting with us prior to the proposal being due. Some suggested formats include:

For the academic purists, something like a 10-page paper (not including citations) on a topic of your choosing alongside original images. For adventurous students: a creative project – a photo essay, an installation, a short film, a series of drawings or paintings, a board or card game, a graphic novel, an interactive story – and an accompanying critical text. This final project is **due June 14th.**

Course Policies:

Office Hours

We strongly encourage all students to visit us during office hours and talk through the development of your starter kits, group work, and the final project. Please also drop by at any time if you’d like to discuss your own learning, difficulties, and enjoyments. We always appreciate getting to know our students beyond the classroom and address their specific needs and questions. If you are unavailable during the regular office hours, please reach out to us, and at least one of us will make sure to meet with you at a time that works for you.

Deadlines

Assignment deadlines are fixed unless otherwise noted. However, if you have a case of a documented emergency, feel free to reach out to us. We will be setting aside substantial blocks of time for assignment review, and providing substantial feedback, therefore, your timely submissions will ensure timely feedback from our end as well.

CCS Grading Policy

Courses taken in the College are reported in terms of Passed/No Record. This course can only be taken for 4 units and as such all assignments have to be completed to pass the course. Only in exceptional circumstances, will a different number of credits will be allowed (such as three or five) which will be decided on a case-by-case basis in consultation with the instructors should a student decide to pursue an additional layer of complexity for the individual project. If the course is not passed, it is removed from the student's record and no credit is given.

Academic Honesty

All students are expected to familiarize themselves with the University's Student Conduct Code. Plagiarism or cheating of any form will result in immediate failure of the course. If you have any questions regarding proper citation of sources or other academic integrity matters, consult your instructors, the code, or the writing center.

STUDENT RESOURCES

While most of you may be familiar with the wealth of resources available on campus, this page is meant to encourage you make fullest use of them, and to familiarize yourself with these resources if you haven't so entirely. These resources could help with fundamental concerns like housing, food security, mental health, and also with academic concerns around writing, plagiarism etc. Please feel free to suggest resources and sites that might be useful to your and your peers.

Disabled Students Program (DSP) - how to apply for disability status and services like notetaking, exam accommodations, and so on: <https://dsp.sa.ucsb.edu/>. If you're having difficulties, or have special requirements would be glad to communicate with DSP and help coordinate on your behalf.

Campus Advocacy, Resources & Education (CARE) - CARE's 'mission is to provide professionally designed services for the prevention and intervention of sexual assault, relationship violence, stalking and harassment. All services are free and confidential and are available to students, staff, and faculty of all identities.' (Our Mission, CARE webpage). Their office is now located on the 2nd floor of the Student Resource Building, in Suite 2145, on the corner closest to Pardall Tunnel. Feel free to contact them on their 24/7 Confidential Phone: 805-893-4613

Resource Center for Sexual & Gender Diversity (RCSGD): ‘facilitates the intersectional inclusion and representation of the identities, experiences, and concerns of lesbian, gay, bisexual, trans, queer, intersex, and asexual (LGBTQIA+) students, staff, faculty, alumni, and community members.’ They are shaped by trans and queer justice concerns and offer resources and help likewise - <http://rcsgd.sa.ucsb.edu>

Counseling & Psychological Services (CAPS) - offers mental health services to all UCSB students, as well as to faculty, staff, and families. All registered students are eligible for services at CAPS: <https://caps.sa.ucsb.edu/>. Services include single session therapy, short- and long-term counseling, and group counseling. CAPS is also a resource for ‘learning new skills in building self-confidence, relating to others, reducing stress, solving problems, and identifying options.’ (CAPS Homepage)

Basic Needs Resources - (<https://food.ucsb.edu/>) offers resources and resource guides on basic campus living requirements like food, housing, technological and financial assistance. They can help you find local sustainable pantry resources or help with emergency or transitional housing needs.

Student Health Service: <https://studenthealth.sa.ucsb.edu/>

COVID-19 Information:: <https://www.ucsb.edu/COVID-19-information/health-wellbeing>

Campus Learning Assistance Services (CLAS) offers resources and help with your language and writing needs (including how to proof read, write abstracts, structure essays and do proper citations), peer tutoring, and other subjects : <https://clas.sa.ucsb.edu/>

Multicultural Center: <https://mcc.sa.ucsb.edu/>

First-Gen Support Programs (EOP, McNair, ONDAS, etc.):

<https://firstgen.ucsb.edu/undergraduates/resources>

Office of International Students & Scholars: <https://oiss.ucsb.edu>

Chicanx/Latinx Cultural Resource Center (CLCRC) & El Centro: <https://eop.ext-prod.sa.ucsb.edu/cultural-centers/chicanxlatinx-cultural-resource-center-clcrc-el-centro>

Las Maestras Center: <https://www.lasmaestrascenter.ucsb.edu/>

Undocumented Student Services (USS): <http://www.sa.ucsb.edu/dreamscholars/>

SCHEDULE

Week 1: Introductions and Key Concepts (Infrastructures/Energy/Justice)

Monday, April 3

Infrastructural introductions!

Wednesday, April 5

Read: Dominic Boyer. "Energopower: An Introduction" in *The Energy Humanities: An Anthology* (2017).

Brian Larkin. "The Politics and Poetics of Infrastructure."

Week 2: Extraction I: The Blessing and Curse of Oil

Monday, April 10

Read: Michael Watts. "Petro-violence" in *Fueling Culture* (2017).

Ken Saro-Wiwa. "Chapter 5: The Shell-BP Role," *Genocide in Nigeria* (1992).

Rob Nixon. "The Anthropocene and Environmental Justice," in Libby Robin et al, ed., *Curating Cultures: Museums, Communities and Climate Change* (2015).

Pablo Neruda. "Standard Oil Co." in *The Energy Humanities: An Anthology* (2017).

Watch/Navigate: Brenda Longfellow and Glenn Richards, *Offshore* (2013). <https://offshore-interactive.com/>

Visit: [*A Field Guide to Oil in Santa Barbara*](#)

Wednesday, April 12

Read: Macarena Gomez-Barris. "The Intangibility of the Yasuní," in *The Extractive Zone: Social Ecologies and Decolonial Perspectives* (2017).

Excerpts from James Marriott and Mika Minio-Paluello, *The Oil Road: "Journeys from the Caspian Sea to the City of London,"* Verso, 2012 (**optional**).

In-Class Screening: *Louisiana Story*, 78 minutes (1958).

Week 3: Extraction II: Coal-onialism

Monday, April 17

Read: “Coal” in *Fueling Culture* (2017)

Mark Nowak and Ian Teh. *Coal Mountain Elementary* (2009)

Wednesday, April 19

Read: Timothy Mitchell. “Carbon Democracy,” in *The Energy Humanities: An Anthology* (2017).

[Victor Seow. "Sights of Extraction."](#)

[Tanmay Das and Malay Tewari. "Resistance Report: Deocha-Pachami Coal Mine Project."](#)

Week 4:

Extraction III: Minerals for False Solutions

Monday, April 24

Read: Toby Miller, “Green” in *Fueling Culture* (2017).

Unknown Fields. The Breastmilk of the Volcano (2016).

Wednesday, April 26

Read: Manuel Tironi. “Rocks Have History.”

Pablo Neuda. “Anaconda Copper Mining Co.” in *Canto General* (1950)

In-Class Screening: *Neptune Frost* (2021)

Week 5:

Distribution I: Hydrocolonialism

Monday, May 1

Read: Peter Hitchcock. “Dams” in *Fueling Culture* (2017).

Arundhati Roy. "The Greater Common Good."

Jason Cons. "The Times of Chokepoints." *Limn*, Issue 10

Watch: Sanjay Kak. *Words on Water* (2002)

Wednesday, May 3

Read: Rafico Ruiz. "Living Arctic Infrastructures."

Maximo Anderson and Aaron Vincent Elkaim. "Belo Monte legacy: harm from Amazon dam didn't end with construction (photo story)," *Mongabay*, Feb 26, 2018

Carolyn Cowan. "As hydropower dams quell the Mekong's life force, what are the costs?," *Mongabay*, 29 March, 2023.

Watch: R. Lane Clark and Stefan Mischeher. *Ghana's Electric Dreams* (2019)

Week 6: Midterm Presentations and Potential Site Visit

Monday, May 8

Presentations of Starter Kits

Wednesday, May 10

Field/Archive Visit (TBD)

Begin reading Ralph Ellison, *The Invisible Man* (1952).

Week 7

Distribution II: The Grid and the Cloud

Monday, May 15

Read: Ralph Ellison. *The Invisible Man* (1952) at least until chapter 17.

Sage Gerson. "Siphoning and Sabotage: Ralph Ellison's Invisible Man and US Electricity Theft."

Wednesday, May 17

Read: Finish reading Ralph Ellison's *The Invisible Man* (1952)

Nicole Starosielski. "Strangling the Internet."

Navigate: Starosielsky et al. *Surfacing*. <https://surfacing.in/>

Week 8:

Accidents and Maldistribution: Nuclear Energy and the "Accidentem"

Monday, May 22

Read: Claire Colebrook. "Disaster" in *Fueling Culture* (2017).

Joseph Masco. "Fallout" in *Fueling Culture* (2017)

Gabrielle Hecht, "Nuclear Ontologies," in *The Energy Humanities: An Anthology* (2017).

"The Myth of Isolates: Ecosystem Ecologies in the Nuclear Pacific" by Elizabeth M. DeLoughrey

Paul Virilio. "The Accident Argument" in *The Original Accident* (2005) by Paul Virilio

Wednesday, May 24

Read: Gabrielle Hecht. "The African Anthropocene."

Stephen Borunda. "Sensing Radioactive Deserts: Mediating Florae and Rocks in New Mexico's Anthropocene."

"Tularosa Basin Downwinders Profile" in the Atomic Heritage Foundation."

Watch: "Tularosa Downwinders Try Again" Video.

"Anointed" Video by Dan Lin & Kathy Jetnil-Kijiner (2018)

Week 9: Futures I: The Politics of Green Energies

Monday, May 29

Read: Todd Dufresne, "Future," in *Fueling Culture* (2017).

Werner Hofer, "Renewable," in *Fueling Culture* (2017).

Solarpunk story (TBD)

Read the first six pieces from the series “Green Capitalism and Its Others,” in *Cultural Anthropology* (2020).

Wednesday, May 31

Read: Read the remaining six pieces from the series “Green Capitalism and Its Others,” in *Cultural Anthropology* (2020).

Watch: ARTE.tv. *Mexico - the Angry Wind* (2021)

Week 10: Futures II: Making Art, Building Futures

Monday, June 5

Read: Anne Pasek, “Solar Powered Media.” <http://lowcarbonmethods.com/zine.html>

Watt et al. “Unda: A Graphic Novel of Energy Encounters,” in *Energy Worlds in Experiment*, edited by James Maguire, Laura Watts & Brit Ross Winthereik

In-class workshop: Zine making in collaboration with Pujita Guha’s class (film and media studies)

Wednesday, June 7

Zine presentations of final projects

Break off into the future!

***Please, be aware that this document is subject to future modifications as we progress throughout the course!*