

## ANTH 4350: Build it, Hack it, Fix it

### Infrastructure. Technology. Connection.

Professor: Dr. Maryann R. Cairns

Time: Mondays 2-4:50

Location: Heroy 25

Office Hours: Tues 10-12 or by appointment

Location: Heroy 402



### Course Description:

Infrastructures connect people, places, ideas, and resources (think: water, transportation, and communication systems). This class draws on issues in anthropology, environmental studies, and infrastructure studies/STS to examine the politics and impacts of infrastructures, especially related to social difference and resource access. The course covers the relationships between environments and infrastructures, and asks how we can manage these systems in the Anthropocene. Themes include materiality, sociotechnical systems, cities, communication technologies, differential access to resources, roads/transits, water, energy, maintenance & repair, and nature as infrastructure. The course asks you to look at infrastructure as politics, and to become more attuned to the webs that we rely on in day-to-day life. This is an advanced, seminar-style course.

### Required Texts and Readings:

Nikhil Arnad's *Hydraulic City: Water and the Infrastructures of Citizenship in Mumbai*. Duke University Press. ISBN 978-0822362694.

Ashley Carse's *Beyond the Big Ditch: Politics, Ecology, and Infrastructure at the Panama Canal*. MIT Press. ISBN9780262537414.

This course relies on multiple scholarly journal articles, as well as some audio and web materials. For the course bibliography/schedule for required and recommended readings please see the syllabus and the modules page.

### Assignments and Grading:

1. Class Discussion Leadership: 20% -- 2@ 10%/10 points each each student will be assigned 2 days as discussion leader. This student will work with the professor to ensure a fruitful seminar. Powerpoints are unnecessary, but any supporting material you want to share with the class is welcomed. Discussion leaders must circulate 5 discussion questions as well as a short outline of the readings' most salient points [no more than 1 page] by Sunday at 11:59 p.m. before their discussion leadership day. The outlines must include a 2-sentence summary of the central concept of each reading as well as a bulleted list of central points from the text. Student discussion leaders will come to class ready to give a quick overview of what they felt were the most salient points of each reading for the day. [What did you find interesting? What do you have questions about? What do you think is fruitful for connecting to other

issues we have or will cover in class?]. You do not need to summarize each text, as we can assume that all have read the material.

2. Participation/Pop Course Additions: 10% -- 2 @ 5%/5 points each. -- All students should be prepared for every class, ready to speak about the readings. As well, before class, each student should find an item [whether it be a media article, a work of art, a review, a podcast—whatever] that gives us a little bit of extra insight into the day's readings and theme, and write a 250 word blurb about how it relates to course readings. I will choose a student at random before the start of each class to provide their course addition and to discuss those connections. This will not be the discussion leader. Students will be graded on course additions only when they are called. In the event that a student is not participating in class, they will receive one warning and then will lose 5% for each subsequent event of non-participation.

2. Fieldnote Writeup on Infrastructure Experiences: 10% 10 points total. Toward the beginning of the course, you will be asked to really think through your interactions with infrastructure(s) that you usually take for granted—you may choose what you write about, but use the early class readings to inform your fieldnotes/commentary—and clear your topic ideas with the professor if you have any concerns. Provide a 500 word writeup of your experience for the class. \*If you have not yet taken anthro methods please see the professor for fieldnote/writeup resources.

3. Book Review 20% 20 points total. We will read two books in this class, and each student will be assigned one of them for a book review [you can sign up for these in class]. You will then write a quality 1500 word book review for the class.

5. Semester-long Project 40% 40 pts total – 5 for progress updates, 25 for Short Essay, 10 for rapid seminar presentation. Throughout the semester, you will work toward a final project that is a detailed (but concise) discussion of a current infrastructures topic of your choosing. Students can choose to use an anthropological text or article as a jumping off point for their work, which they will find on their own. This should not be something that they are already reading for the course.

The project will proceed in 3 parts:

Part 1: *Progress Updates*- At 5 points during the semester, you will have a short assignment (through Canvas) about your progress on the topic. This ongoing engagement blog will be 5% of your grade (1pt for each blog entry, 5 pts total). Pay special attention to how course themes may inform your writeup. Each progress update will have a different question that you'll answer. These are meant to keep you on track and are based on completion. These are not spaces for professor feedback—if you need help from the professor, visit office hours.

Part 2: *Short Essay*-- As a final product, you will need to write a short essay on your socio-environmental topic. Your paper must engage anthropological and other disciplinary work (at least 15 scholarly references), and can include media pieces or other data and information types in addition. The essay may be no more than 3,000 words (the approx length of a mini-review article)—and every word must count. A more detailed rubric will be provided. This will be 25% of your grade/25 pts.

Part 3: *Seminar and Pecha Kucha Presentation*- Students will, toward the end of the course, give a Pecha Kucha 5-minute presentation on their topic. The instructor will provide a specific rubric. This will be 10% of your grade/10 pts. You will also be asked to give peer review feedback prior to and after the seminar.

### Grading Scale:

A: 92.50-100

A-: 90-92.49

B+: 87.50-89.99

B: 82.50-87.49

B-: 80-82.49

C+: 77.50-79.99

C: 72.50-77.49

C-: 70-72.49

D+: 67.50-69.99

D: 62.50-67.49

D-: 60-62.49

F: 00-59.99

Grading scale is non-negotiable. Do not ask for a change in your grade.

### **What to expect in class:**

The professor will always start off the class with a short introductory lecture/discussion, which will be followed by a seminar-style discussion of readings and/or active learning exercises. PowerPoints will not be shared unless there is a clear need that is communicated through DASS or in the case of an excused absence—in the case of excused absence powerpoints are only shared in office hours.

Readings assigned should be completed before class meetings unless specified otherwise in the syllabus.

Attendance will be taken, and students are expected to not only attend but also participate in discussions and activities based on readings.

You can use your computer/tablet, but please try not to let it distract you—use for course purposes. See participation grade.

Enrolling in this class means that you may, depending on your sensibilities, encounter subject matter that you find controversial. Please realize that's the whole point, and please be prepared for this possibility.

Course employs the Socratic method for all class discussions in order to encourage critical reasoning. Students are expected to be able to participate in dialectical debates related to issues and ideas in the course. Logical discussion of facts and ideas presented in the readings is expected.

tl;dr: I *will* call on you directly. Cold calling is a science-backed pedagogical tool to improve student learning outcomes.

Canvas: this course relies on your use of Canvas. I will communicate with you through Canvas and/or email. You will be responsible for any and all information communicated to you through canvas and email. You will need to access canvas or readings, assignments, etc. All registered students have access to Canvas.

Tips for doing well in this course:

1. Come to every class—this is an upper-level course and attendance is expected at every meeting

unless there is a documented excuse.

2. Always do the readings *and* think beyond them.
3. Make use of interactions with your fellow students—discussion, study group participation, and cooperation is encouraged.
4. Ask questions.
5. Come by the instructor's office hours.

### **Course Policies**

**Email etiquette:** Do not expect the instructor to email responses to student questions outside of the work week or day (M-F 9-5). Please leave at least 48 hours for a response via email from the instructor (exception: see above for questions regarding graded tasks, which should be emailed at least 1 week ahead). If after 48 hours (occurring during the work week) you have not yet heard back, please feel free to send follow-up email as your request may have been missed.

**Assignment Format:** Assignments can be in any recognized format (e.g., Chicago, MLA, etc.). All assignments will be submitted electronically. Please include a word count at the top of the page along with your name. Please include page numbers.

**Grading Format:** I will give you feedback on assignments using Canvas. Please note that you will need to click on the assignment file next to the grade in order to see tracked changes & comments.

**Questions regarding graded tasks:** Students are expected to communicate with the instructor if there are any questions or comments about graded discussions, assignments, activities, or expectations at least 1 week before the assignment/task is due. Do not leave these questions to the last minute.

**Policy for late, makeup, or missed work:** Assignments will not be accepted late unless there is a documented emergency.

*However*—your professor is a human being that understands sometimes stuff happens. My policy is that I do not make case-by-case exceptions or offer extensions individually, rather I work with the Dean of Students to make sure that we have a good way forward for students facing such circumstances. So, in the event that you are experiencing a difficult life event at any time during the semester (or a combination of small events that are leading to either emotional or physical difficulty), please reach out to the Dean of Students. The office will notify professor(s) of any needs you may have without relaying specific and/or confidential circumstances if you do not wish to do so. They will also connect you with necessary resources. They're a great office and are there full-time to help students through difficult times, so don't hesitate to reach out to them. I can also connect you to the office directly if you prefer. The Dean of Students is also a resource for discussing absences related to non-SMU sanctioned sports travel, volunteer events, etc. [See CCC info below.]

### **University Information:**

**Caring Community Connections (CCC) program:** This is a resource for anyone in the SMU community to refer students of concern to the Office of the Dean of Students. Faculty play a critical role in identifying students who are experiencing challenges, as you may be the first to notice a change in behavior such as class attendance or performance. The online referral form can be found at [smu.edu/deanofstudentsccc](http://smu.edu/deanofstudentsccc). After a referral is submitted, students will

be contacted to discuss the concern, strategize options, and be connected to appropriate resources. Additionally, should you have concerns about students and are unclear about what to do, please see the [CCC Reference Guide](#), or contact the Office of the Dean of Students at 214-768-4564.

**Disability Accommodations:** Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit <http://www.smu.edu/Provost/SASP/DASS> to begin the process. Once approved and registered, students will submit a DASS Accommodation Letter to faculty through the electronic portal *DASS Link* and then communicate directly with each instructor to make appropriate arrangements. Please note that accommodations are not retroactive and require advance notice to implement.

**Religious Observance:** Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. ([See University Policy No. 1.9](#))

**Excused Absences for University Extracurricular Activities:** Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (See [2018-2019 University Undergraduate Catalogue](#))

**Student Academic Success Programs:** Students needing assistance with writing assignments for SMU courses may schedule an appointment with the Writing Center through Canvas. Students wishing support with subject-specific tutoring or success strategies should contact SASP, Loyd All Sports Center, Suite 202; 214-768-3648; <https://www.smu.edu/sasp>.

**Southern Methodist University Code on Academic Integrity:** Cheating, plagiarism, academic sabotage, fabrication, and facilitating academic dishonesty are violations of the SMU Honor Code ([http://smu.edu/studentlife/studenthandbook/PCL\\_05\\_HC.asp](http://smu.edu/studentlife/studenthandbook/PCL_05_HC.asp)) and will not be tolerated. Any detected case of plagiarism or of cheating on any assignment or exam will result in a score of zero for that grade category, and will automatically result in the submission of a Faculty Disposition form to the Honor Council. The instructor may utilize plagiarism detection software through Canvas and request students submit their assignments through that software.

In accordance with Texas Senate Bill 11, also known as the “campus carry” law, following consultation with entire University community SMU determined to remain a weapons-free campus. Specifically, SMU prohibits possession of weapons (either openly or in a concealed manner) on campus. For more information, please see: [http://www.smu.edu/BusinessFinance/Police/Weapons\\_Policy](http://www.smu.edu/BusinessFinance/Police/Weapons_Policy).”

**Changes to Syllabus:** I reserve the right to change, add to, and/or edit the syllabus and schedule as needed.

## Course Schedule:

Aug 26	Module 1: Introduction and Course Overview	Last Week Tonight with John Oliver's <a href="#">Infrastructure Power Trip</a> [Film]	
Sept 2	No Class, Labor Day *Readings are in conjunction with first day's materials—pls read in full.	Larkin, Brian 2013. The Politics and Poetics of Infrastructure. <i>Annual Review of Anthropology</i> 42(1).  Star, S.L. "The Ethnography of Infrastructure." <i>American behavioral scientist</i> 43, no.3 (1999): 377-391.  Carse's <a href="#">The Anthropology of the Built Environment: What can Environmental Anthropology learn from Infrastructure Studies (and Vice Versa)?</a>  Arnad's <a href="#">Infrastructure Introduction</a>	
Sept 9	Module 2: Connectivity, Citizen Science, and Critical Making	Hembrooke, Helene. The laptop and the lecture: The effects of multitasking in learning environments. <i>Journal of computing in higher education</i> 15(1): 46-64.  Wylie, Sara Ann, et al. "Institutions for civic technoscience: How critical making is transforming environmental research." <i>The Information Society</i> 30.2 (2014): 116-126.  Adrian Mackenzie <a href="#">Data</a>  Kirk Jalbert's <a href="#">Tactics of Power and Empowerment in Knowledge-Making Infrastructures</a>  NPR's <a href="#">Instagram has a Problem With Hate Speech and Extremism, 'Atlantic' Reporter Says.</a>  <i>Recommended:</i>  Edwards, Paul N. 1998. Y2K: Millennial Reflections on Computers as Infrastructure. <i>History &amp; Technology</i> 15:7-29.  Matthew Zook, "The Geographies of the Internet," <i>Annual Review of Information Science and Technology</i> 40 (2006), 53-78.	Discussion Leadership Begins  Leader(s): Meredith Perot
Sept 16	Module 3: Communications Infrastructure and Critical Making	Guest Lecture/Presentation SMU Data Science  Begin Infrastructural Experience Fieldnotes & Writeup	*Note—meet in Fondren Library Room 306  *No Discussion Leader
Sept 23	Module 4: Water, Waste & Access	Eichelberger, Laura Palen 2010. "Living in utility scarcity: energy and water insecurity in Northwest Alaska." <i>American Journal of Public Health</i> 100.6: 1010-1018.  Cairns, Maryann 2018. "Metering Water: Analyzing the concurrent pressures of conservation, sustainability, health impact, and equity in use. <i>World Development</i> 100:411-421.	Infrastructural Experience Write-up Due  Leader(s): Melanie Ekizian Kat Munoz

		<p>Chalfin, Brenda. "Public Things, Excremental Politics, and the Infrastructure of Bare Life in Ghana's City of Tema." <i>American Ethnologist</i> 41(1):92-109.</p> <p>Radiolab's <a href="#">Poop Train</a></p> <p><i>Recommended:</i> Cairns, Maryann. What water are you drinking? Infrastructure, Perception and the Raw Water Trend. <i>Anthropology Now</i> 10:59-69</p> <p>Barbara Quimby's <a href="#">Walking over Water</a></p>	
Sept 30	Module 5: Transit & Difference	<p>Fisch, Michael 2013. Tokyo's Commuter Train Suicides and the Society of Emergence. <i>Cultural Anthropology</i> 28(2):320-43.</p> <p>Khan, Naveeda 2006. Flaws in the Flow: Roads and Modernity in Pakistan. <i>Social Text</i> 24(4):87-113.</p> <p>Brian Larkin <a href="#">Form</a></p> <p>Listen: Freakonomics' <a href="#">What Can Uber Teach us about the Gender Pay Gap?</a></p>	<p>Update 1 Due</p> <p>Leader(s): Andrea Nguyen Hillary Barron</p>
Oct 7	Module 6: Power & Politics	<p>Boyer, Dominic 2014. "Energopower: An Introduction." <i>Anthropological Quarterly</i> 87(2) 309-33.</p> <p>Grubler, A. 2012. Energy transitions research: Insights and cautionary tales. <i>Energy Policy</i> 50:8-16.</p> <p>Anita von Schnitzler 2003. "Traveling Technologies: Infrastructure, Ethical Regimes, and the Materiality of Politics in South Africa" <i>Cultural Anthropology</i> 28(4) 670-693.</p> <p>NPR's <a href="#">The World's Biggest Battery</a></p> <p><i>Recommended:</i> Bille, Mikkel and Tim Flohr Sorensen. An Anthropology of Luminosity the Agency of Light. <i>Journal of Material Culture</i> 12(3): 263-284.</p> <p>Ozden-Schilling, Canay. 2015. Economy Electric. <i>Cultural Anthropology</i>, 30(4), pp. 578-588</p>	<p>Update 2 Due</p> <p>Leader(s): Raul Estrada</p>
Oct 14	<b>No Class, Fall Break</b>	Read books.	
Oct 21	Module 7	Nikhil Arnad's <i>Hydraulic City: Water and the Infrastructures of Citizenship in Mumbai</i> . Duke University Press. ISBN 978-0822362694. [Full Book]	Book Review for Arnad Due
Oct 28	Module 8	Ashley Carse's <i>Beyond the Big Ditch: Politics, Ecology, and Infrastructure at the Panama Canal</i> . MIT Press. ISBN9780262537414. [Full book]	Book Reviews for Carse Due
Nov 4	Module 9: Oil & Capitalism	<p>Appel, Hannah 2012. Offshore Work: Oil, Modularity, and the How of Capitalism in Equatorial Guinea.</p> <p>Willow, Anna, and Sara Wylie. "Politics, ecology, and the new anthropology of energy: exploring the emerging frontiers of</p>	<p>Update 3 Due</p> <p>Leader(s): Raul Estrada</p>

		<p>hydraulic fracking." <i>Journal of Political Ecology</i> 21.12 (2014): 222-236.</p> <p>James Ferguson, "Seeing Like an Oil Company: Space, Security, and Global Capital in Neoliberal Africa," <i>American Anthropologist</i>, 107-3, 2005, p. 377-382.</p> <p>James Maguire's <a href="#">Infrastructural Recursions: Volcanic Landscapes, Instability and Energy Production</a></p>	Melanie Ekizian
Nov 11	Module 10: People as Infrastructure & The Anthropocene	<p>Simone, AbouMaliq. Pirate Towns: Reworking social and symbolic infrastructures in Johannesburg and Douala. <i>Urban Studies</i>, volume 42.2.</p> <p>Barry, Andrew 2010 <i>Materialist Politics: Metallurgy. Political Matter: Technoscience Democracy and Public Life</i> 2010: 89-117.</p> <p>Elyachar, Julia. 2010. "Phatic Labor, Infrastructure, and the Question of Empowerment in Cairo." <i>American Ethnologist</i> 37 (3): 452-64.</p> <p>Timothy Elfenbein's <a href="#">Cultural Anthropology and the Infrastructure of Publishing</a></p>	<p>Leader(s):</p> <p>Meredith Perot Hillary Barron</p>
Nov 18	Module 11: Cities & Sustainable Futures	<p>Matthews, Andrew and Barnes, Jessica 2016. Environmental Futures. <i>Journal of the Royal Anthropological Institute</i>, 22(S1):46-66.</p> <p>Estache, A., Gomez-Lobo, A. And Leipziger D. 2001. Utilities privatization and the poor: lessons from Latin America. <i>World Development</i> 29(7):1179-1198.</p> <p>Fennell, Catherine 2011. "Project Heat and Sensory Politics in Redeveloping Chicago Public Housing." <i>Ethnography</i> 12(1): 40-64.</p> <p>Explore the <a href="#">Next City</a> Website</p> <p>Explore MIT's <a href="#">Senseable Cities Lab</a></p>	<p>Update 4 Due</p> <p>Leader(s): Kat Munoz</p>
Nov 25	Module 12: Maintenance & Repair	<p>Chu, Julie. 2014. "When Infrastructures Attack: The Workings of Disrepair in China. <i>American Ethnologist</i> 41.2: 351-67.</p> <p>The agency of assemblages and the North American Blackout. 2005 <i>Public Culture</i> 17(3):445-465.</p> <p>Howe, Cymene et al. Paradoxical Infrastructures 2016. Ruins, Retrofit, and Risk. <i>Science, Technology &amp; Human Values</i> 41(3):547-565.</p> <p>Stephen Jackson's <a href="#">Repair</a></p> <p>Recommended: Hackson, S.J., Pompe, A. and Krieshok 2012. <i>Repair Worlds: Maintenance, Repair, and ICT for Development in Rural Namibia</i>. In <i>Proceedings of the ACM 2012 Conference on Computer Supported Cooperative Work</i>.</p>	<p>Update 5 Due</p> <p>Leader(s): Andrea Nguyen</p>

Dec 2	<p>Module 13:</p> <p>Part 1: Current Issues in Infrastructure</p> <p>Part 2: Peer Review/Feedback</p>	<p>*Readings will reflect real-time issues in infrastructure studies, will be posted two weeks prior to this class. Expect a half reading load.</p> <p>Second half of the class will be devoted to peer review/feedback.</p>	Draft of Final Paper/Presentation Due
Dec 9	Module 14: In-Class Presentations and Symposium	See Canvas for Details	Final Paper and Presentation Due
Finals Week	Optional Meetings with Professor by Appointment	No in-class meeting	