

*SPRING 2021 COURSE SYLLABUS – GEOG 804.001*  
**GEOGRAPHIES OF INFRASTRUCTURE**

**Technology, Agency, Materiality, Storytelling**

Wednesdays 5:30-8:30

Remote course via:

<https://unc.zoom.us/j/97588427058?pwd=QUFGcVRsaVBkL3FFQTN0TVlydzJLZz09>

Meeting ID: 975 8842 7058

Passcode: 359001



**Professor Scott Kirsch**

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**office hours** (via <https://unc.zoom.us/my/kirsch.geography>): Tues and Fri 1-230pm; and by appt.

Overview

Located at the intersection of surface and structure, infrastructure has been on the agenda in recent years in the critical social sciences, history, and cultural studies. Roads, ports, power plants, and pipelines; infrastructures of extraction, transportation, information, and communication; and built environments of commerce, military and policing power, science, technology, and health, have all been identified as transformative social (or socio-natural) sites, and key settings around which processes of urbanization, neoliberalism, nationalist identity formation, war, security, and geopolitics have pivoted. As Cowen (2019) suggests, “Infrastructure, almost by definition, reproduces relations, though sometimes in queer ways,” reflecting or making visible the persistence of hegemony, resistance, and social struggle.

The seminar takes “geographies of infrastructure” as a starting point for exploring the ongoing remaking of the earth’s surface, and reworking of social relations, spaces, and flows, across multiple sites and scales. Its approach is interdisciplinary, drawing on cultural and historical geography, science and technology studies, historical geographical materialism, labor history, political ecology, planetary urbanization, and “inhuman geography.” A number of workshops, mixed media activities, and project assignments will be integrated into the seminar format to emphasize elements of storytelling, research method, and writing practice.

Requirements

- Close reading and discussion of texts. Participants will take turns leading discussions. Plan to read ~75-125 pages per week for regular seminar meetings. (50%)

- ☐ Project participation: creative contribution to a class atlas of infrastructures project (the name is a place-saver!) Will involve some additional research and writing, collaboration, and imaginative uses of mapping and new media. (15%)
- ☐ Term paper. In which students are encouraged to examine aspects of their own graduate research projects in relation to course themes. Papers will be developed in workshop settings throughout the semester. Alternately, students may choose to write a review paper, or to expand their work on the collaborative project. (35%)
- ∞ Please inform the instructor if you have special needs which require accommodations in order for you to fully participate in this course.

### Required Texts

Available: <https://unc.bncollege.com/shop/BNCBTBListView?catalogId=10001&langId=-1&storeId=88196>

Martin Arboleda, *Planetary Mine: Territories of Extraction under Late Capitalism* (Verso, 2020)

Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City* (MIT Press, 2002)

Kathryn Yusoff, *A Billion Black Anthropocenes or None* (University of Minnesota Press, 2018)

*Additional texts are listed in the schedule below to be read in advance of class meetings – pdfs or links will be provided via sakai.*

### Schedule

#### I: INTRODUCTION: STRUCTURE AND INFRASTRUCTURE

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|---------|--|
| Jan. 20 | Introductions  |
| Jan. 27 | Keywords <ul style="list-style-type: none"> <li>• Ashley Carse, “Keyword: infrastructure. How a humble French engineering term shaped the modern world” in P. Harvey, C. Jensen, and A. Morita (eds.), <i>Infrastructures and Social Complexity: A Companion</i> (Routledge, 2017), 27–39.</li> <li>• Deborah Cowen, “Following the infrastructures of empire: notes on cities, settler colonialism, and method” <i>Urban Geography</i> 41(2020): 469-486.</li> <li>• Arboleda, ch. 1 “Openings: The mine as transnational infrastructure” (1-34)</li> <li>• Yusoff, Preface (xi-xiv); “Geology, race, and matter” (1-22)</li> </ul> |
| Feb. 3  | Planetary stories <ul style="list-style-type: none"> <li>• Donna J. Haraway, “Sympoiesis: Symbiogenesis and the lively arts of staying with the trouble” in Haraway, <i>Staying with the Trouble: Making Kin in the Chtulucene</i> (Duke University Press, 2016), 58-98.</li> <li>• Nicole Starosielski, “A network of islands: Interconnecting the Pacific” ch. 5 in Starosielski, <i>The undersea network</i> (Duke University Press, 2015), 170-197.</li> <li>• Arboleda, ch. 2 “Empire: Resource imperialism after the West” (35-74)</li> <li>• Gandy, “Introduction” (1-18)</li> </ul>  |
| Feb. 10 | Ruins, waste, and strata   |

- Mazen Labban, "Rhythms of wasting/unbuilding the built environment" *New Geographies* 10 (2020): 33-41.
- Fraser MacDonald, "The ruins of Erskine Beveridge" *Transactions, Institute of British Geographers* 39(2014): 477-489.
- Vinay Gidwani and R.N. Reddy, "The afterlives of 'waste': Notes from India for a minor history of capitalist surplus" *Antipode* 43(2011): 1625-1658.
- Yusoff, "Golden spikes and dubious origins" (23-64).

## II. A SPACE OF FLOWS?

Feb. 17

Road stories

- Simón Uribe, "Illegible infrastructures: Road building and the making of state-spaces in the Colombian Amazon" *Environment and Planning D: Society and Space* 37 (2019): 886-904.
- Simón Uribe, Joaquín Uribe, and María E. Balen. *Suspension* (Icarus Films, 2020). Documentary available via <https://catalog.lib.unc.edu/catalog/UNCb9832901>
- Albert Perry Brigham, "Good roads in the United States" *Bulletin of the American Geographical Society* 36 (1904): 721-735.
- Alex Lichtenstein, "Good roads and chain gangs in the Progressive South: "The Negro convict is a slave" *Journal of Southern History* 59 (1993): 85-110.
- "Good roads movement" in North Carolina, archival exercise *tba*\*

Feb. 24

Planetary urbanization

- Timothy Mitchell, "Carbon democracy" *Economy and Society*, 38 (2009): 399-432.
- Gandy, ch. 1 "Water, space, and power"
- Arboleda, ch. 3 "Labor: Bodies of extraction and the making of urban environments" (75-108)
- Kathryn Furlong "Geographies of infrastructure II: Concrete, cloud and layered (in)visibilities" *Progress in Human Geography*. May 2020.  
Doi:[10.1177/0309132520923098](https://doi.org/10.1177/0309132520923098)

Mar. 3

Ethnographies of infrastructure

- Ashley Carse, "The Feel of 13,000 Containers: How Pilots Learn to Navigate Changing Logistical Environments" *Ethnos* (2020), DOI: 10.1080/00141844.2019.1697337
- Malini Ranganathan, "Paying for pipes, claiming citizenship: Political agency and water reforms at the urban periphery" *International Journal of Urban and Regional Research* 38 (2014): 590-608/
- Peter Redfield, ch. 6 "The margin of the future" in Redfield, *Space in the Tropics: From convicts to rockets in French Guiana* (University of California Press, 2000), 149-183.
- Jim Johnson\*, "Mixing humans and nonhumans together: The sociology of a door-closer" *Social Problems* 35 (1988): 298-310.

Mar. 10

Productions of space

- Henri Lefebvre, "Space: Social product and use value" in Lefebvre, *State, Space, World* (University of Minnesota Press, 2009), 185-195.

- Neil Brenner with Martín Arboleda, “Coda: Critical urban theory, reloaded?” in Brenner, *Critique of Urbanization: Selected Essays* (Birkhauser Verlag, 2017), 268-289.
- Julie Greene, “Spaniards on the silver roll: Labor troubles and liminality in the Panama Canal Zone, 1904-1914” *International Labor and Working-Class History* 66 (2004): 78-98.
- Gandy, ch. 2 “Symbolic order and the urban pastoral”

Mar. 17      \*\*WORKSHOP #1

### III. INFRASTRUCTURAL SCIENCES

Mar. 24      Technology

- Yours Truly, “Technology as a keyword” in M. Domosh, M. Heffernan, C.W.J. Withers (eds.), *The SAGE Handbook of Historical Geography* (Sage, 2021), pp. 680-697
- Lisa Björkman and Andrew Harris, “Engineering cities: Mediating materialities, infrastructural imaginaries and shifting regimes of urban expertise” *International Journal of Urban and Regional Research* (2018): 244-262.
- Arboleda, ch. 5 “Expertise: Technocracy and expropriation” (140-174)
- Gandy, ch. 3 “Technological modernism and the urban parkway”

Mar. 31      Geology

- Yusoff, “The inhumanities” (65-85); “Insurgent geology” (87-101)
- Mabel Gergan, “Geological surprises: State rationality and Himalayan hydropower in India” *Roadsides* collection no. 001 (February 2019): 35-41.
- Bruce Braun, “Producing vertical territory: Geology and governmentality in late Victorian Canada” *Ecumene* 7 (2000): 7-46.

Apr. 7      Ecology

- Arboleda, ch. 4 “Circulation: State power and the logistics turn in the extractive industries” (109-139)
- Christine Keiner, “A two-ocean bouillabaisse: science, politics, and the Central American sea-level canal controversy” *Journal of the History of Biology* 50 (2017):835–887
- Carse A, Lewis JA. New horizons for dredging research: The ecology and politics of harbor deepening in the southeastern United States. *WIREs Water*. 2020;e1485. <https://doi.org/10.1002/wat2.1485>
- Gandy ch. 5 “Rustbelt ecology”

Apr. 14      WORKSHOP #2

### IV: POLITICS, AGENCY, CHANGE

Apr. 21      Circulations

- Andueza L, Davies A, Loftus A, Schling H. The body as infrastructure. *Environment and Planning E: Nature and Space*. July 2020. doi:10.1177/2514848620937231
- Alex Loftus, Reification and the dictatorship of the water meter. *Antipode* 38 (2006): 1023-1045.
- Arboleda, ch. 6 “Money: Debts of extraction” (175-205)]
- Colin Flint and Cuiping Zhu, “The geopolitics of connectivity, cooperation, and

hegemonic competition: The Belt and Road Initiative” *Geoforum* 99 (2019): 95-101.

- David Harvey, “Anti-capitalist politics in the time of Covid-19” Anti-Capitalist Chronicles (podcast) <https://anticapitalistchronicles.libsyn.com/anti-capitalist-politics-in-the-time-of-covid-19> (March 9, 2020)

Apr. 28

Liquid cities and sensing infrastructures

- Matthew Gandy (dir.) *Liquid City* (documentary) <https://www.youtube.com/watch?v=mhAk-E3Jico> and Gandy, “Liquid city: Reflections on making a film” *Cultural Geographies* 16 (2009): 403-408
- Gandy, Epilogue
- Jennifer Gabrys, *Program Earth: Environmental Sensing Technology and the Making of a Computational Planet* (University of Minnesota Press, 2016), selections
- Yusoff, “Writing a geology for the storm next time” (103-108)
- Arboleda, “Epilogue—toward an emancipatory science in the city of extraction” (243-259)

May 5

Workshop #3: Project presentations

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May 10

“FINAL” (7pm): Term papers due.

