

## **Independent Study, Spring 2016**

**STUDENT:** [REDACTED]

**FACULTY MEMBER:** Meg Studer

**TOPIC:** Landscape, Logistics, and Commodity Regionalism

This independent study will probe the evolving formulations of logistics and infrastructure in 20<sup>th</sup> - 21<sup>st</sup> century urbanism, focusing on the different articulations of the networked metropolis formulated by inter-war regionalism, post-war regional planning, and recent landscape urbanism. In addition to contextualizing the roles, scales, and approaches to intervention across the modern era, contemporary design discourses will be read aside recent theorizations of global, neoliberal consumption - in environmental history, sociology, and history of science - each with an eye toward locating critical, material moments for intervention and alteration.

Using the Port of New York/New Jersey, as a springboard, students will develop independent case studies that examine the physical, social, and environmental impacts of global logistics streams. They will examine the organizing infrastructures and well as their negotiated intersections - with environmental regulation, economic incentives, technical adaptation, and the risks accompanying climate change - in order to speculate on opportunities for recalibration.

**INDIVIDUAL FOCUS:** Petroleum Channels

The US Energy Information Administration ranks the New York-New Jersey Port's 75 million-barrel capacity as the largest petroleum product hub in the United States. How might the enlarged Panamax vessel affect the scale of petroleum importation, storage, and transfer in Newark and the northeast? What is the petroleum shed of the northeast, and what does it mean to tie the entire northeast together through the Newark hub? This inquiry will analyze the intersection of the Newark seaport and the Bakken rail supplies, including the internal politics of port, pipe, and inland development. It will contextualize scholarly writings and historic lessons about environmental planning with the contemporary moment of increasing economies of scale in global trade due to the increased size of Panamax vessels.

### **OBJECTIVES**

1. Establish the different ways logistics has been theorized in design discourse, with a focus on how the differential intensity and tectonic components of these distributed systems have been aligned with prototype interventions, hybrid/soft infrastructures, resource/industrial (master) planning, and aggregate, regulatory scenarios.
2. Explore the environmental intersections and feedback between logistical networks, regulatory ambitions, and economic incentives within The Port of NY/NJ's historic and contemporary planning.
3. Develop a case-study analysis: trace the connections and alliances of one particular industry (waste management, landfilling, petroleum processing, edge/dredge control) tied to the Port of NY/NJ. Articulate and map its current components - physical infrastructure, economic impact and environmental footprints - and historical development in order to speculate on meaningful sites of leverage.

**REQUIRED READING:** Group readings, for the initial meetings of the course, are attached as an appendix to this document. Additional readings - independent, peer-reviewed research and technical papers - will be elaborated during the term with an emphasis on individual case studies. In addition to discussion-oriented sources, students will develop their own catalog of relevant statistics, government standards, and topical, journalistic references.

**MEETING SCHEDULE:** The student will meet the faculty member and peers on a weekly basis for discussion. During the first third of the term, the group will focus on theoretical readings and significant, contemporary research. During the remainder of the term, weekly meetings will focus on individual case-study progress and next steps, through one-on-one and peer review. Technical skill acquisition - web mapping, additional visualization tactic/programs - will occur through distributed workshop sessions.

**EXPECTED OUTCOMES:** The independent study should culminate with the production of: A document akin to David Gracia Studios MAP (Manual of Architectural Possibilities) publication, the outreach brochures of Center for Urban Pedagogy or long-form/digital environmental journalism. While final case studies will vary, each students' work will including the following, analytic visualizations and design speculations:

1. A standards catalog of the physical components, economic incentives, and constructed durations in the petroleum trade's logistical system, as it links from regional consumers to import/export streams. These should be annotated with port expansions impacts and embedded environmental costs or services.
2. A diagrammatic mapping of petroleum's contemporary footprint - locating NY/NJ's key storage and processing facilities, corporations, and sites of leverage for different diversions and/or alterations - as well as strategic shifts during the port's past modernization and development.
3. 2-3 sketch design strategies that look at how to take advantage of existing logistical system and their core infrastructure, to propose alternate ends, alliances, or adaptive re-coupling of resources to generate new forms of public space or environmental infrastructure.

**EVALUATION PROCESS:**

Success of the independent study will be evaluated in relation to the completion of research, engagement with weekly readings and peer review, legibility of research graphics, conceptual clarity in problem formulation and articulation, and submission of the final deliverables, as outlined in outcomes.

NUMBER OF CREDITS: 3

[REDACTED]

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## APPENDIX: GROUP READINGS

(Alternates with project reviews & digital workshops)

### Readings Wk1 – Landscape and Logistics, contemporary formulations/formations

James Corner, Clare Lyster, “Terra Fluxus,” “Landscapes of Exchange” in Charles Waldheim, ed. *Landscape Urbanism: A Reference Manifesto*. (New York: Princeton Architectural Press, 2006). 21-34, 219-239.

Lawrence Barthes, “Diagram, Dispersal, Region” in Mohsen Mostafavi and Ciro Najle, eds. *Landscape Urbanism: A Manual for the Machinic Landscape*. (London: Architectural Association, 2003).

Kazys Varnelis, “Introduction: Networked Ecologies” and “Consumers Gone Wild; Distribution” in *The Infrastructural City: Networked Ecologies in Los Angeles*. (Barcelona: Actar, 2009). 04-18, 208-218. (“L.A. River Watershed” is also recommended.)

Keller Easterling, “Introduction” and “Disposition” in Easterling, Keller. *Extrastatecraft: The Power of Infrastructure Space*. (New York: Verso, 2014).

(background: landscape urbanist rhetoric, organizational systems and composite case-studies)

### Readings Wk3 – Networked Agency, Constructed Environments

Bruno Latour, *Reassembling the Social an Introduction to Actor-network-theory*. (New York: Oxford University Press, 2005). 21-25, 63-93.

Stephanie LeMenager, “Introduction” and “Petrolmelancholia” *Living Oil: Petroleum Culture in the American Century*. New York: Oxford University Press, 2016. 3-19, 102-140.

Peter Solterdijk. *Terror from the Air*. (Cambridge, Mass: Semiotext, 2009).

Rachel Carson. *Silent Spring*. (New York: Houghton Mifflin Company, 2002 (reprint)). Descriptive selections tbd.

(background: models of environmental interaction, recent object studies (as compared with material culture, LTS, ANT), evolution of culture studies and eco-critical positions)

### Readings Wk5 – Comparing Approaches and Agendas I: regions, sheds, and industrial systems

Charles Waldheim and Allen Berger. “Logistics Landscape” in *Landscape Journal* Vol.27 No.2 (2008): 219-246.

Lewis Mumford. *Technics & Civilization*. (Chicago: University of Chicago Press, 1934/2010). Selections on the “Cultural Preparations” and “Orientations” tbd. Also watch “The City” (1939) on the internet archive.

Benton MacKaye. “The New Exploration: Charting the Industrial Wilderness” in *Survey Graphic* 7/ *Survey* 54.3 (May 1925), 153-157. And “A Plan for Cooperation between Farmer and Consumer” in *Monthly Labor Review* 11.2, August 1920. 1-21.

Selections from Pinchot, Cooke, Beck, et al., *Giant Power* issue of *Survey Graphic*, 1924. 561-3, 584-594.

(background: progressive planning models, technocratic/infrastructural aspirations, zoning, inter-war economic geography, wwi/wpa/wwii centralizations)

### **Readings Wk7 - Comparing Approaches and Agendas II: regions, environments, and suitability matrices**

Pierre Bélanger. "Regionalisation: Probing the urban landscape of the Great Lakes Region," in *Journal of Landscape Architecture JoLA*. Autumn 2010, 6-23.

Ian McHarg, "Process as Values," "Metropolitan Region," and "Process as Form" in *Design with Nature*. (New York: Wiley and Son, 1969/1992). 103-116, 153-174.

Metabolist/Metabolisms in Mathew Gandy, Volker Welter, and Hadas Steiner in Ibañez, Daniel, and Nikos Katsikis, eds. *New Geographies, 6: Grounding Metabolism*. Harvard Graduate School of Design, 2014. 70-97.

Cowen, Deborah. "The Revolution in Logistics," "From National Borders to Global Seams," *The Deadly Life of Logistics: Mapping Violence in Global Trade*. (Minneapolis: Univ. Of Minnesota Press, 2014.)

(background: divergence/specialization of regional and neighborhood planning, functionalist to feedback theories, post-war industrial planning, post-modern critiques, cybernetic aspirations and systems models)

### **Readings Wk9 – Comparing Approaches and Agendas III: impacts, armatures, and tectonic interventions**

Davis, Holmes, and Milligan. "Isthmus: On the Panama Canal Expansion." *Places Journal*. (Also search Richard Campanella's work on sediment and delta urbanisms, for a sense of a materialist approach to process, within landscape/geography readings of logistics).

Hindle, Richard L. "Levees That Might Have Been." *Places Journal*, May 18, 2015.

Najafi, Sina, ed. *Cabinet 47: Logistics*. Fall, 2012. (See Lyster, Lecavalier, Easterling, Twilley on constructions, interventions)

Davidson, Cynthia, et al. *Log 33*. S.I.: Anyone Corporation, 2015. (See Kwinter on logistics, Object-Oriented-Ontology Interviews)

Project samplings: tbd.

(background: sample of contemporary approaches/focuses within landscape research, architectural articulation)

### **Readings Wk11 – NY/NJ modern logistics/ propositions**

Students will bring specific samples from their research on Newark Port sites/Hackensack Meadowlands alterations.

## Readings Wk13 – Project Draft Reviews, Mark-up for Final Presentations & Site Launches

### INDIVIDUAL READINGS

#### **Petroleum Infrastructure + Politics**

Bhatia, Neeraj, and Mary Casper, eds. *The Petropolis of Tomorrow*. Actar, 2013.

Kim, Janette, and Erik Carver. *The Underdome Guide to Energy Reform*. New York: Princeton Architectural Press, 2015.

*New Geographies, 2: Landscapes of Energy*. Harvard Graduate School of Design, 2010.

Orff, Kate, and Richard Misrach. *Petrochemical America*. Aperture, 2014.

Huber, Matthew T. *Lifblood: Oil, Freedom, and the Forces of Capital*. University Of Minnesota Press, 2013.

*Living Oil: Petroleum Culture in the American Century*. Oxford University Press, 2016.

EIA Weekly Petroleum Status Report. <https://www.eia.gov/petroleum/supply/weekly/>

EIA, *Implications of Increasing Light Tight Oil Production for U.S. Refining*, May 2015

EIA, *U.S. Crude Oil Production to 2025: Updated Projection of Crude Types*, May 2015

*Annual Energy Outlook 2015* (AEO2015)

#### **Contemporary Port Logistics + Post Panamax Alterations**

US Port and Inland Waterways Modernization: Preparing for Post-Panamax Vessels. Institute for Water Resources, US Army Corps of Engineers, June 1012.

Richard A. Lidinsky Jr. Deborah A. Colson. "The Federal Regulation of American Port Activities." *Regulation Maryland Journal of International Law*. Volume 7 | Issue 1 Article 6.

#### **Bayway Refinery History, EPA clean-ups, Contemporary Status (Phillips 66)**

"Bayway Refinery." <http://www.phillips66.com/EN/about/our-businesses/refining/>

"Bayway: Waste." <http://www3.epa.gov/region02/waste/fsexxon.htm>.

Twitter, Joel Rose. "Exxon Settlement Falls Short Of Damage, N.J. Democrats Say." *NPR.org*.

Additional media/clean-up coverage