

PLAN A6011 CITIES, NATURE, TECHNOLOGY
Graduate School of Architecture, Planning, and Preservation
Program in Urban Planning

Instructor: R. Beauregard
Mondays, 11-1 200 Buell

The purpose of this course is to explore the city as a socio-technical-ecological network. The focus is on how humans, nature, infrastructural and regulatory technologies, and built forms negotiate, accommodate, and collaborate among themselves to produce large, dense human settlements. We will be concerned not just with people and their organizations (e.g., governments, corporations) but also with buildings, sewers and streets, billboards, wetlands and rivers, plants and animals. The perspective of the course is derived from actor-network theory, science and technology studies, and urban political ecology. The goal is to provide the student with an historical and neo-materialist understanding of the evolution of cities that gives precedence to heterogeneous networks; that is, assemblages of human and non-human things. Explicitly rejected is any intervention designed for humans acting alone to engage the assumed passive materiality of the city.

Course Readings

The required course readings are available in a course packet that is available at Village Copier at 1181 Amsterdam Avenue at 118th Street.

Assignments

Students are expected to do the course readings prior to class and be ready to discuss them. There will also be two assignments: one asks you to investigate an urban object and through this object consider the materiality of the city. The other consists of three take-home examinations focused on course readings and lectures. The due dates for the assignments are shown on the Schedule below. Specific guidelines are available on the Courseworks web site under Files & Resources.

Grading

Assignment 1	30 percent
Examination 1	20 percent
Examination 2	20 percent
Examination 3	20 percent
Class Participation	10 percent

Consultations

If you wish to meet individually about the course, please contact me. My e-mail address is rab48@columbia.edu and my office telephone is (212) 854-6280. My office is 305

Buell Hall. Office hours will be Monday 2-5 and Tuesday 3-5. Best would be for you to make an appointment.

COURSE SCHEDULE

1. September 8	Cities as Socio-Technical-Ecological Networks
2. September 15	Materiality, Heterogeneity, and Assemblages
3. September 22	Ecology of Cities Examination 1 Due
4. September 29	Cities as Socio-Ecological Assemblages Selection of Object Due
5. October 6	Urban Political Ecology
6. October 13	Infrastructural Technologies
7. October 20	Regulatory Technologies
8. October 27	Cyborg Urbanization
November 3	No Class Draft of Paper Due
9. November 10	Buildings Examination 2 Due
10. November 17	Obsolescence and Life-Cycles
11. November 24	Obduracy Final Version of Paper Due
12. December 1	Demolition
13. December 8	Adaptive Re-Use
December 8	Last Day of Classes
December 11	Examination 3 Due

ASSIGNED READINGS

1. Cities as Socio-Technical-Ecological Networks

Walter Isard. 1942. "Transport Development and Building Cycles," *Quarterly Journal of Economics* 57:90-112.

Anders Gullberg and Arne Kaijser. 2004. "City-Building Regimes in Post-War Stockholm," *Journal of Urban Technology* 11, 2:13-39.

Sherry H. Olson. 1979. "Baltimore Imitates the Spider," *Annals of the Association of American Geographers* 69, 4:557-574.

2. Materiality, Heterogeneity, and Assemblages

Bernward Joerges. 1999. "Do Politics Have Artefacts?" *Social Studies of Science* 29, 3:411-431.

Nadia Abu El-Haj. 2001. *Facts on the Ground: Archaeological Practice and Territorial*

- Self-Fashioning in Israeli Society*. Chicago: University of Chicago Press, pp. 73-82.
- Ian Frazier. 2014. "Streetscape: Do Not Cross," *The New Yorker*, 90, 15:26-27.
- Robert Beauregard. 2012. "In Search of Assemblages," *Crios* 4:9-16.
3. Ecology of Cities
- Christopher Kennedy, John Cuddihy and Joshua Engel-Yan. 2007. "The Changing Metabolism of Cities," *Journal of Industrial Ecology* 11, 2:43-59.
- William Rees and Mathis Wackernagel. 1996. "Urban Ecological Footprints: Why Cities Cannot Be Sustainable – and Why They Are a Key to Sustainability," *Environmental Impact Assessment Review* 16:223-248.
- Peter Baccini. 1997. "A City's Metabolism: Towards a Sustainable Development of Urban Systems," *Journal of Urban Technology* 4, 2:27-39.
- Simon Davoudi. 2012. "Resilience: Bridging Concept or Dead End?" *Planning Theory & Practice* 13, 2:299-333.
4. Cities as Socio-Ecological Assemblages
- Adam Rome. 2001. *The Bulldozer in the Countryside*. Cambridge: Cambridge University Press, pp. 189-219.
- Terry Schwarz. 2008. "The Cleveland Land Lab: Experiments for a City in Transition," pp. 72-83 in S. Rugare and T. Schwarz, eds., *Cities Growing Smaller*. Cleveland, OH: Kent State University.
- Chris Tramutolo. 2014. "The Movement to Daylight Streams," *Planning* 80, 2:15-19.
- Joseph Schilling and Jonathan Logan. 2008. "Greening the Rust Belt," *Journal of the American Planning Association* 74, 4:451-466.
5. Urban Political Ecology
- Roger Keil. 2003. "Urban Political Ecology," *Urban Geography* 24, 8:723-738.
- Richard A. Walker. 2007. *The Country in the City: The Greening of the San Francisco Bay Area*. Seattle, WA: University of Washington Press, 2007, pp. 35-57.
- Robert B. Olshansky and Laurie A. Johnson. 2010. *Clear as Mud: Planning for the Rebuilding of New Orleans*. Chicago: Planners Press, pp. 3-12.
- Eric Klinenberg. 2002. *Heat Wave: A Social Autopsy of Disaster in Chicago*. Chicago: University of Chicago Press, pp. 14-32.
6. Infrastructural Technologies
- Stephen Graham. 2000. "Introduction: Cities and Infrastructure Networks," *International Journal of Urban and Regional Research* 24, 1:114-119.
- Stephen Graham and Simon Marvin, *Splintered Urbanism*. London: Routledge, 2001, pp. 39-68.
- Thomas P. Hughes. 1983. *Networks of Power: Electrification in Western Society, 1880-1930*. Baltimore, MD: Johns Hopkins University Press, pp. 175-200.

W.F. Cottrell. 1951. "Death by Dieselization: A Case Study in the Reaction to Technological Change," *American Sociological Review* 16 (3):358-365.

7. Regulatory Technologies

Geoffrey . Bowker and Susan Leigh Star. 2000. *Sorting Things Out: Classification and It Consequences*. Cambridge, MA: The MIT Press, pp. 68-87.

Patrick Joyce. 2002. "Maps, Blood, and the City," pp. 97-114 in P. Joyce, ed., *The Social in Question*. London: Routledge.

Douglas C. Baker, et al. 2006. "Performance-Based Planning," *Journal of Planning Education and Research* 25, 4:396-409.

Margaret A. Corwin. No Date. *Street-Naming and Property-Naming Systems*. Chicago, IL: Planning Advisory No. 332, pp. 1-2.

Glenn Collins. 2009. "Diners to Get a Quick Guide to Cleanliness," *The New York Times*, January 31.

8. Cyborg Urbanization

Matthew Gandy. 2005. "Cyborg Urbanization: Complexity and Monstrosity in the Contemporary City," *International Journal of Urban and Regional Research* 29, 1:26-49.

Eric Swyngedouw. 1996. "The City as a Hybrid: On Nature, Society and Cyborg Urbanization," *Capitalism, Nature, Socialism* 7 (2):65-80.

Maria Kaika and Eric Swyngedouw. 2000. "Fetishizing the Modern City: The Phantasmagoria of Urban Technical Networks," *International Journal of Urban and Regional Research* 24, 1:120-138.

Hari Kunzru. 1997. "You Are Cyborg," *Wired* 5, 2.

T.W. Luke, 1997. "At the End of Nature: Cyborgs, 'Humanmachines,' and Environment in Postmodernity," *Environment and Planning A* 29, 8:1367-1380.

9. Buildings

Stephen Cairns and Jane M. Jacobs. 2014. *Buildings Must Die*. Cambridge, MA: The MIT Press, pp. 11-17.

Bruno Latour and Alben Yaneva. 2008. "'Give Me a Gun and I Will Make All Buildings Move': An Ant's View of Architecture," pp. 80-89 in R. Geiser, ed., *Explorations in Architecture*. Basel:Birkhauser.

Nicholas Adams. 1993. "Architecture as the Target," *Journal of the Society of Architectural Historians* 52, 4:389-390.

Catherine Fennel. 2011. "'Project Heat' and Sensory Politics in Redeveloping Chicago Public Housing," *Ethnography* 12, 1:40-64.

10. Obsolescence and Life-Cycles

Stephen Cairns and Jane M. Jacobs. 2014. *Buildings Must Die*. Cambridge, MA: The MIT Press, pp. 102-115.

- Daniel M. Abramson. 2003. "Obsolescence: Notes Towards a History," *Praxis* 5: 106-112.
- Alan Ashworth. 1996. "Assessing the Life Expectancies of Buildings and Their Components in Life Cycle Costing," *Cobra '96*. The Royal Institution of Chartered Surveyors.
- Andrew C. Lemer. 1996. "Infrastructure Obsolescence and Design Service Life," *Journal of Infrastructure Systems* 12, 4:153-161.

11. Obduracy

- Anique Hommels. 2000. "Obduracy and Urban Sociotechnical Change: Changing Plan Hoog Catharijne," *Urban Affairs Review* 35, 5: 649-676.
- Dieter Rink, et al. 2012. "Urban Governance in Leipzig and Halle, Germany," D10 Research Report, Shrink Smart FP7 Research Project, Leipzig, Germany, pp. 79-96.
- Robert Kirkman. 2009. "At Home in the Seamless Web: Obduracy and the Ethics of Metropolitan Growth," *Science, Technology, and Human Values* 34, 2:235-258.
- Robert Beauregard. Forthcoming. "Towards a Politics of Obduracy," in L. Lieto and R. Beauregard, eds., *Planning for a Material World*. London: Routledge.

12. Demolition

- Frank Wassenberg. 2011. "Demolition in Biljmermeer: Lessons for Transforming a Large Housing Estate," *Building Research and Information* 39, 4:363-379.
- Bengt O.H. Johansson. 2011. "The Post-War Destruction of Swedish Cities," *Building Research & Information* 39, 4:412-429.
- Gian Andrea Blengini. 2009. "Life Cycle of Building Demolition and Recycling Potential: A Case Study in Turin, Italy," *Buildings and Environment* 44:319-330.
- Brent D. Ryan. 2008. "The Restructuring of Detroit: City Block Form Change in a Shrinking City, 1900-2000," *Urban Design International* 13:156-168.

13. Adaptive Re-use

- Mitchell Schwarzer. 1994. "Myths of Permanence and Transcendence in the Discourse on Historic Preservation in the United States," *Journal of Architectural Education* 48, 1:2-11.
- Malcolm Tait and Aiden White. 2009. "Ontology and the Conservation of Built Heritage," *Environment & Planning A* 27, 4:721-737.
- David M. Gann and James Barlow. 1996. "Flexibility in Building Use: The Technical Feasibility of Converting Redundant Offices into Flats," *Construction Management and Economics* 14:55-66.
- Robert A. Beauregard. 2005. "The Textures of Property Markets: Housing and Office Conversions in New York City," *Urban Studies* 42, 13:2431-2445.