COMS 681/ARTH 719 Infrastructures and Urban Theories

Tuesday 10:35a.m./1:25p.m. Room W-220

Dr. Carlotta Darò

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Summary

"The telegraph symbolically follows the railroad; the telephone, with kindred symbolism, follows the motor highway. So much for the business end of communication." Lewis Mumford (1925)

Energy lines, water conduits, transportation nodes, roads and communication systems are the key physical and technological structures for the organization of modern cities. This seminar will focus on how these infrastructures are used by architects as both aesthetic and discursive elements in visionary proposals for cities. Starting from the late nineteenth century, the seminar group will draw on both primary historical sources and current analysis to engage in critical discussions on the role of the infrastructures in the rise of modern urban theories. We will explore how the devices developed by various inventors and corporations impacted the shared landscape and, in turn, how the professional practice of engineering was absorbed by modernist architects and urban planners and synthesized as a new kind of technological vision of both town and country. Course material will include architects' writings, and history of technology, geography and media studies.

Learning Outcomes

At the end of the course, you should be able to:

- 1. Describe and compare modern urban theories and the related specific vocabulary.
- 2. Critically analyze the assigned readings.
- 3. Make connections between issues in urban theories and other disciplines.

Required Texts

Nye, David E. *Electrifying America: Social Meanings of a New Technology, 1880-1940.* Cambridge: MIT Press, 1992.

Fishman, Robert. Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier. Cambridge: MIT Press, 1982.

A course pack is available at the McGill bookstore, 3420 McTavish Street. Required texts are available for purchase at the same McGill bookstore. Required and supplementary texts are also on reserve in the McGill Humanities and Social Sciences Library.

Requirements

Attendance and Participation

Your attendance and participation are necessary in order to generate interesting and vigorous discussions. You are invited to react to the lectures, the readings and your colleagues' work. Criticisms are welcomed, but be clear with your arguments and keep a constructive attitude.

Presentations

Each week one or two of you will be required to present and lead the discussion around the readings.

Term paper

At the end of the term (week 15) you will submit your formal scholarly paper composed of minimum 6000 and maximum 7500 words. A one-page proposal of your subject should be submitted by week 7. You can choose your subject within these three categories:

- 1. Focus on a particular question raised in the discussion of one of the authors (architect, historian, geographer...).
- 2. Focusing on one particular question, compare two or three readings discussed during the course.
- 3. Illustrate a meaningful case an historical matter, an invention or an artifact connected with the subject of the infrastructures and urban theories. Support the case study with theoretical material. N.B. In consultation with the professor you may propose texts, topics or authors not on the course list.

All assignments may be completed in English or in French.

Evaluation

Attendance and Participation 25%

Presentations 25%

Final Paper 50%

Warning

Late papers will earn a reduced grade.

Activities for which you must be present (presentations) cannot be made up. If you know you will be absent you have to arrange with your colleagues to provide a replacement. Notify your professor of the trade. If your absence is for medical reasons, please make an arrangement with me.

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see www.mcgill.ca/integrity for more information). L'université McGill attache une haute importance à l'honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l'on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l'étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le site http://www.mcgill.ca/integrity/).

In the event of extraordinary circumstances beyond the University's control, the content and/or evaluation scheme in this course is subject to change.

Topics and Readings

Week 1 (7 Sept)

On the Meaning of Infrastructure

Benjamin, Walter. "Paris, the Capital of the Nineteenth Century" (1935) in *Selected Writings*, edited by Michael William Jennings. Cambridge: Belknap Press, 1996: 32-49.

Week 2 (14 Sept)

Mechanization of the American Landscape

Marx, Leo. "I Sleepy Hollow, 1844" and "VI Epilogue: The Garden of Ashes" in *The Machine in the Garden; Technology and the Pastoral Ideal in America*. New York: Oxford University Press, 1964: 3-33 and 354-365.

Schivelbusch, Wolfgang. "Forward", "The Mechanization of Motive Power", "Railroad Space and Railroad Time", and "The American Railroad" in *The Railway Journey: The Industrialization of Time and Space in the 19th Century.* Berkeley: University of California Press, 1986: xiii-xvi, 1-15, 33-44, 89-112.

Supplementary readings

Noble, David F. "Introduction", "A Technology of Social Production", "Epilogue" in *America by Design: Science, Technology, and the Rise of Corporate Capitalism.* New York: Knopf, 1977: xvii-xxvi, 257-324 and 327,328, 361-370.

Week 3 (21 Sept)

Electrification

Hughes, Thomas Parke. "Introduction", "The Culture of Regional Systems" and "Epilogue" in *Networks of Power: Electrification in Western Society, 1880-1930.* Baltimore: Johns Hopkins University Press, 1983: 1-17, 363-403 and 461-465.

Nye, David E. "Preface", "What Was Electricity?", "Rural Lines", "The Electrifying Future" and "Conclusion" in *Electrifying America: Social Meanings of a New Technology, 1880-1940*. Cambridge: MIT Press, 1992: ix-xi, 138-184 and 287-391.

Supplementary readings

Hughes, Thomas Parke. "Planned Systems" and "The Style of Evolving Systems" in *Networks of Power: Electrification in Western Society, 1880-1930.* Baltimore: Johns Hopkins University Press, 1983: 324-362 and 404-460.

Week 4 (28 Sept)

Lewis Mumford and Regionalism

Sussman, Carl. "Introduction" in *Planning the Fourth Migration : The Neglected Vision of the Regional Planning Association of America*, edited by Sussman, Carl. Cambridge: MIT Press, 1976: 1-45.

Lewis Mumford. "The Fourth Migration" (1925), "Report of the New York State Commission of Housing and Regional Planning" (1926) and "Regional Planning" (1931) in *Planning the Fourth Migration : The Neglected Vision of the Regional Planning Association of America*, edited by Sussman, Carl. Cambridge: MIT Press, 1976: 49-64, 143-194, and 197-208.

Supplementary readings

Lubove, Roy. Community Planning in the 1920's; the Contribution of the Regional Planning Association of America. Pittsburgh: University of Pittsburgh Press, 1964.

Week 5 (5 Oct)

Territorial and Technical Transformations

Frampton, Kenneth. "Territorial Transformations: Urban Developments 1800-1909" and "Technical Transformations: Structural engineering 1775-1939" in *Modern Architecture: A Critical History*. London; New York: Thames & Hudson, 2007: 20-40.

Mumford, Lewis. "The Neotechnic Phase" in *Technics and Civilization* (1934). New York: Harcourt, Brace & World, 1963: 212-267.

Giedion, Siegfried. "Introduction" and "Iron", in *Building in France, Building in Iron, Building in Ferroconcrete*, (*Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton*, 1928). Santa Monica: Getty Center for the History of Art and the Humanities, 1995: 85-149.

Supplementary readings

Georgiadis, Sokratis. "Introduction" in Giedion, Siegfried. *Building in France, Building in Iron, Building in Ferroconcrete, (Bauen in Frankreich, Bauen in Eisen, Bauen in Eisenbeton,* 1928). Santa Monica: Getty Center for the History of Art and the Humanities, 1995: 1-78.

* Week 6 (12 Oct)

No Class – Recuperation on November 12

Week 7 (19 Oct) Proposal for the Paper due

Urban Utopias in the Twentieth Century

Howard, Ebenezer. "Author's Introduction", "The Town-Country Magnet" and "The Future of London" in *Garden Cities of to-Morrow* (1898), Cambridge: The M.I.T. Press, 1965: 41-57 and 151-159.

Frank Lloyd Wright. "Broadacre City: A New Community Plan" (1935) in *America Builds: Source Documents in American Architecture and Planning*, edited by Roth Leland M. New York: Harper & Row, 1983: 483-488.

Wright, Frank Lloyd. "Part Four" in The Living City. New York: Horizon Press, 1958: 108-194.

Supplementary readings

Frederic J. Osborn and Lewis Mumford. "Preface" and "The Garden City Idea and Modern Planning" in *Garden Cities of to-Morrow* (1898), Cambridge: The M.I.T. Press, 1965: 9-40.

Fishman, Robert. "Ebenezer Howard" and "Frank Lloyd Wright" in *Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier*. Cambridge: MIT Press, 1982: 23-88 and 91-160.

Week 8 (26 Oct)

Urban Utopias in the Twentieth Century

Le Corbusier. "2nd Part: Modern Techniques" in *The Radiant City; Elements of a Doctrine of Urbanism to Be Used as the Basis of Our Machine-Age Civilization*, (Ville Radieuse, 1933). English. New York: Orion Press, 1967: 17-62.

Supplementary readings

Le Corbusier. "Plans for the 'Radiant City'" and "Algiers: Project ABC" in *The Radiant City; Elements of a Doctrine of Urbanism to Be Used as the Basis of Our Machine-Age Civilization*, (Ville Radieuse, 1933). New York: Orion Press, 1967: 156-174 and 226-261.

Fishman, Robert. "Le Corbusier" in *Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier.* Cambridge: MIT Press, 1982: 163-277.

Week 9 (2 Nov)

Methodology Session

Week 10 (9 Nov)

Techno Cities

Inderbir Singh Riar, "Montreal and the Multilevel City" in *Architecture and Ideas; Architecture et Idées: Experimental Modernism*, Vol VIII (2009): 36-49.

Banham, Reyner. "Introduction", "Antecendents, Analogies and Megastructures trouvee" and "Megacity Montreal" in *Megastructure: Urban Futures of the Recent Past*. London: Thames and Hudson, 1976: 7-33 and 105-129.

Boddy, Trevor. "Underground and Overhead: Building the Analogous City" in Sorkin, Michael. *Variations on a Theme Park: The New American City and the End of Public Space*. New York: Hill and Wang, 1992: 123-153.

Kargon, Robert Hugh, and Arthur P. Molella. "Techno-Nostalgia and the New Urbanism" and "Conclusion: the Fate of the Industrial Eden" in uyj; *Invented Edens: Techno-Cities of the Twentieth Century.* Cambridge: MIT Press, 2008: 131-156.

* Week10 (12 Nov)

Visit Montreal Underground City – Replacement Class for October 12

Week 11 (16 Nov)

Telecommunications and the City

Douglas, J. Susan, "Amateur Operators and American broadcasting: Shaping the Future of Radio" in Corn, Joseph J. *Imagining Tomorrow: History, Technology, and the American Future.* Cambridge: MIT Press, 1986: 35-57.

Gottman, Jean. "Megalopolis and Antilopolis: The Telephone and the Structure of the City" in *The Social Impact of the Telephone*, edited by Pool, Ithiel de Sola. Cambridge: MIT Press, 1977: 303-317.

Moss, Mitchell L. and Anthony M. Townsend, "How Telecommunications systems are Transforming Urban Spaces" in Wheeler, James O., Yuko Aoyama, and Barney Warf. *Cities in the Telecommunications Age: The Fracturing of Geographies.* New York; London: Routledge, 2000: 31-41.

Grahm, Stephen and Simon Marvin, "Urban Planning and the Technological Future of Cities" in Wheeler, James O., Yuko Aoyama, and Barney Warf. *Cities in the Telecommunications Age: The Fracturing of Geographies*. New York; London: Routledge, 2000: 71-111.

Mosco, Vincent. "The Secret of Life" and "When Old Myth Were New" in *The Digital Sublime: Myth, Power, and Cyberspace.* Cambridge; London: MIT Press, 2004: 1-16, 117-140.

Week 12 (23 Nov)

New Geographies

Graham, Stephen, and Simon Marvin. "Prologue", "Introduction" and "Constructing the Modern Networked City" in *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition.* London; New York: Routledge, 2001: 2-89.

Kotkin, Joel. "Digital Geography" and "Places in the Hearth" in *The New Geography: How the Digital Revolution Is Reshaping the American Landscape*. New York: Random House, 2001: 3-26.

Castells, Manuel. « Informationalism, Networks, and the Network Society : a Theoretical Blueprint » in *The Network Society: A Cross-Cultural Perspective*. Cheltenham, UK; Northampton: Edward Elgar Pub., 2004 : 3-43.

Barney, Darin David. "Network Society" and "Conclusion" in *The Network Society*. Cambridge; Malden: Polity, 2004: 1-33 and 176-181.

Week 13 (30 Nov) Final Paper Due