

**URPL-GP.4631**

## **TRANSPORTATION, LAND USE, AND URBAN FORM**

### ***When?***

Days/Times: Tuesdays, 6:45 – 8:25 PM, 6 September to 25 October 2011

### ***Where?***

Silver 706

### ***Who?***

Instructor: Andrew Mondschein

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### **COURSE DESCRIPTION**

This is an introductory course in urban transportation planning that examines the evolution of urban transportation systems and the complex relationships between transportation, land use, and urban form. The content of the course is divided into four parts. The first is a historical look at the planning and development of transportation systems and urban form in the U.S. The second part looks more conceptually and theoretically at the relationships between land use and transportation. The third part examines a number of land use and transportation policy questions facing planners today, and the fourth part explores the normative perspectives and values shaping our views of cities and their transportation systems.

#### *Part One*

- The tandem evolution of transportation systems and urban form in the U.S.
- The history and planning of public transit in New York and other U.S. cities.
- The introduction of the automobile and its implications for urban form.

#### *Part Two*

- Intra-metropolitan location theory and urban form.
- The links between transportation and land use.
- The land use impacts of transportation investments.
- The transportation impacts of land use policies.

#### *Part Three*

- International comparisons of transportation and urban form.
- The spatial mismatch hypothesis.
- Equity considerations in transportation and land use.
- Transportation, urban form, and public health.

#### *Part Four*

- Theories of good and bad urban form.
- The sprawl debate.
- Neotraditional development, transit oriented development, smart growth...
- The road ahead.

### **COURSE REQUIREMENTS**

Prerequisites: Urban Economics, Urban Design (recommended, or by permission of instructor)

There are three components to the course: (1) lectures and class discussion, (2) reading assignments and posted reactions, and (3) written assignments.

#### *Lecture and Discussion.*

Each class will have a lecture component, but discussion is encouraged (and required!).

#### **Attendance/Participation (10% of grade)**

Part of your grade is based on attending class and participating in the discussion. There are only eight classes, so attendance at each is essential. Everyone should feel comfortable contributing their thoughts and questions to the discussion. If you have any questions about this requirement, please let me know.

#### *Readings.*

The lectures will not cover all of the material in the reading, so it is *essential* that you keep up with the required reading. A complete list of course topics and readings is attached. Students are required to complete all required readings prior to the corresponding class session.

#### **Reading Reactions (10% of grade)**

Each week, you will be required to post your reaction to one or more of the assigned readings for the week to that week's forum in the Blackboard Discussion Board, one hour prior to classtime. These reading reactions can be short, just a couple of sentences, and will not be graded for content or style, outside of the requirement that they contain critical thinking about the reading(s).

#### *Written Assignments.*

The written assignments for this course are described below. Two written assignments are required: (1) a place-specific analytical memorandum and (2) a critical essay on a topic relevant to the course. All written assignments should be submitted to the course's Blackboard website by the stated date and time. Late papers will be accepted, but a late grade penalty of 1/3 grade per day will be applied to any papers turned in after the due date. The late penalty for assignments can be waived only with a written note from a medical professional.

### **Analytical Memorandum (40% of grade)**

The transportation-land use connection is fundamentally about placemaking. With this memorandum, pick a place and write about how its transportation and land use features work (or don't work) together to shape the way individuals live and behave. Make an argument about how the place can be improved, or how its success can be replicated in other places. Remember to tie your analysis into the class discussion and readings wherever appropriate. Frame your analysis as a memo to an organization (real or imagined) that is seeking to improve or learn from your chosen place.

*Your Choice – Partner or Not:* You can do this assignment in partners if you wish. If you work with a partner, you will each need to turn in a form describing your contribution to the assignment and your assessment of your and your partner's relative levels of effort. I expect that teams will have expanded documentation and more extensive analysis relative to individually-written memos.

*Length:* Precise length is not important, but six to eight double spaced pages of writing, not including graphical documentation, should be sufficient.

*Due Dates:*

- September 16, 5pm – One page proposals due to Blackboard. Tell me what place you are proposing, your expected approach and findings, and relevance. I will return approval and comments by class on September 20.
- October 10, 5pm – Memos due to Blackboard.

*Elements to consider:*

- Place – What scale of place are you documenting? It can be a street corner, a road, a neighborhood, a city, or even larger. Is this an existing place, a historic place, or a planned place?
- Documentation – Make sure you can obtain documentation to back up the assertions you make. Photos, videos, maps, drawings, articles, and policy documents are all valid.
- Characterization – Apply the concepts and theories in this course, as relevant to your analysis. How does the transportation infrastructure drive the land use, vice versa, or both? Is there an important historical dimension? Is this an example of a specific transportation-land use phenomenon (e.g. sprawl, smart growth)? Who uses this place?
- Analysis – Make an argument about the place. Does it work, is it flawed? Why? Are there arguments to be made about equity or sustainability? Think in terms of real urban policy goals, which you can "assign" to the organization to which the memo is addressed.

- Recommendations – Develop recommendations based on the course, whether as policy or design, either for how to improve the place or what elements of the place should be replicated elsewhere.

### **Critical Essay (40% of grade)**

A great deal of mental energy has been expended in the past twenty years or so on the relationships between transportation, land use, and urban form. Concepts such as accessibility, sprawl, historic patterns of transportation and land use, jobs-housing balance, spatial mismatch, smart growth, transit-oriented development, pedestrian-oriented development, New Urbanism, and others have all been conceptualized and debated. This assignment asks you to jump into the debate on topic of your choosing. You should select a particular topic, a particular thinker, or a specific book, and create an argument as to why one side of the debate, or the thinker or book thesis, is flawed or spot on. You can draw on the literature to critically assess your topic, and you can advance your own argument or ideas as a counterpoint.

The potential topics and thinkers can certainly be drawn from this course and readings. Topics you are welcome, but not required, to explore are:

- What killed transit in most American cities, and what will bring it back?
- Does transit contribute to sustainable cities?
- Can new transportation systems re-shape urban form?
- Is there a spatial mismatch in cities?
- Can neo-traditional or transit-oriented developments attract resident and reduce auto use?

If you choose to write about a particular thinker, then your first critical step will be to distill their primary arguments across multiple publications. If you choose to frame your essay as a book review, you can select from the list at the end of the syllabus or propose a different title. The key is to not just summarize, but to critically assess the validity of arguments, bringing in other research and your own thinking.

*Length:* Precise length is not important, but 8 double-spaced pages should suffice.

*Due Dates:*

- October 7, 5pm – One page proposals due to Blackboard. Tell me what topic, thinker, or book you've chosen, and your rough thesis. What type of argument will you make? I will return approval and comments by October 11 (by email, no class that day).
- October 31, 5pm – Essays due to Blackboard

*Grading.*

Course grades will be based on the following:

• Analytical Memo	40 percent
• Critical Essay	40 percent
• Attendance/participation	10 percent
• Reading reactions	10 percent

## LECTURE TOPICS AND READINGS

### Lecture 1 (6 September)

#### Overview of Course / The Tandem Evolution of Transportation Systems and Urban Form

- Lynch, Kevin. 1981. "Access," in *A Theory of Good City Form*. Cambridge: The MIT Press. Pages 187-204.
- Muller, Peter O. 2004. "Transportation and Urban Form: Stages in the Spatial Evolution of the American Metropolis," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 59-85.
- Jones, David. 1985. "Transit's Growth and Decline: A Play in Eight Acts," in *Urban Transit Policy: An Economic and Political History*. Englewood Cliffs, NJ: Prentice-Hall. Pages 28-95.

### Lecture 2 (13 September). The Introduction of the Automobile / Transportation, Intra-Metropolitan Location Theory, and Urban Form

- Foster, Mark. 1975. "The Model-T, the Hard Sell, and Los Angeles' Urban Growth: The Decentralization of Los Angeles during the 1920s," in *Pacific Historical Review*, 44(4), pages 459-484.
- Hall, Peter. 1996. "The City on the Highway," in *Cities of Tomorrow*, Updated Edition, Cambridge, MA: Blackwell Publishers. Pages 273-318.
- Giuliano, Genevieve. 1989. "New Directions for Understanding Transportation and Land Use," in *Environment and Planning A*, 21, pages 145-159.
- Pickrell, Don. 1999. "Transportation and Land Use," in *Essays in Transportation Economics and Policy: A Handbook in Honor of John R. Meyer*, Washington, DC: The Brookings Institution, pages 403-435.

### Lecture 3 (20 September). The Transportation-Land Use Connection: Theories and Evidence

- Giuliano, Genevieve. 2004. "Land Use Impacts of Transportation Investments: Highway and Transit," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 237-273.
- Downs, Anthony. 2004. "Remedies That Increase Densities," in *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion*. Washington, DC: The Brookings Institution. Pages 200-227.

- Crane, Randall. 2000. "The Influence of Urban Form on Travel: An Interpretive Review," *Journal of Planning Literature*, 15(1): 3-23.
- Willson, Richard W. 1995. "Suburban Parking Requirements: A Tacit Policy for Automobile Use and Sprawl," in *Journal of the American Planning Association*, 61:1. Pages 29-42.

#### **Lecture 4 (27 September): Equity / Spatial Mismatch / Public Health**

- Burton, Elizabeth. 2000. "The Compact City: Just or Just Compact? A Preliminary Analysis," *Urban Studies*, 37(11): 1969-2001.
- Blumenberg, Evelyn. 2004. "En-gendering Effective Planning: Spatial Mismatch, Low-Income Women, and Transportation Policy," *Journal of the American Planning Association*, 70(3), pages 269-281.
- Hess, Daniel Baldwin. 2009. "Access to Public Transit and Its Influence on Ridership for Older Adults in Two U.S. Cities," in *Journal of Transportation and Land Use*, 2(1), pages 3-27.
- Handy, S., M. Boarnet, R. Ewing, and R. Killingsworth. 2002. "How The Built Environment Affects Physical Activity: Views from Urban Planning," in *American Journal of Preventative Medicine* 23, 64-73.

#### **Lecture 5 (4 October): Cities and Travel, International**

- Kenworthy, Jeffrey R., and Felix B. Laube. 1999. "Patterns of automobile dependence in cities: an international overview of key physical and economic dimensions with some implications for urban policy," *Transportation Research, Part A*, 33: 691-723.
- Committee for an International Comparison of National Policies and Expectations Affecting Public Transit. 2001. "Transit Use, Automobility, and Urban Form: Comparative Trends and Patterns," *Making Transit Work: Insight from Western Europe, Canada, and the United States*. Transportation Research Board Special Report 257. Washington, DC: National Academy Press. Pages 17-64.
- Ng, Wei-Shiuen, Lee Schipper, and Yang Chen. 2010. "China Motorization Trends: New Directions for Crowded Cities," in *Journal of Transportation and Land Use*, 3(3), pages 5-25.

#### **No Class: 11 October**

#### **Lecture 6 (18 October): Sprawl / Sprawl's Solutions? New Urbanism, Smart Growth, Transit-Oriented Development, Etc.**

- Ewing, Reid, Rolf Pendall, and Don Chen. 2003. *Measuring Sprawl and Its Impact*. Washington, DC: Smart Growth America.
- Bruegmann, Robert. 2008. "Point: Sprawl and Accessibility," in *Journal of Transportation and Land Use*, 1(1), pages 5-11.
- Crane, Randall. 2008. "Counterpoint: Accessibility and Sprawl," in *Journal of Transportation and Land Use*, 1(1), pages 13-19.

- Southworth, Michael and Eran Ben-Joseph. 2004. "Reconsidering the Cul-de-sac," *Access*, 24: 28-33.

### **Lecture 7 (25 October): Sprawl's Solutions, cont'd? New Urbanism, Smart Growth, Transit-Oriented Development, Etc. / The Future of Cities and Travel**

- Congress for the New Urbanism. 2001. "Charter of the New Urbanism." Chicago: Congress for the New Urbanism.
- Talen, Emily. 2008. "New Urbanism, Social Equity, and the Challenge of Post-Katrina Rebuilding in Mississippi," in *Journal of Planning Education and Research*, 27: 277-293.
- Cervero, Robert and Cathleen Sullivan. 2011. "TODs for Tots," in *Planning*. February 2011.
- Transportation Research Board. 2009. *Driving and the Built Environment: The Effects of Compact Development on Motorized Travel, Energy Use, and CO<sub>2</sub> Emissions*. Special Report 298. Washington, DC: Transportation Research Board. **Only Summary Required Reading.**
- Janelle, Donald G. 2004. "Impact of Information Technologies," in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. Pages 86-112.

### **Critical Essay Book List**

Baumbach Jr., Richard O. and William E. Borah (1981). *The Second Battle of New Orleans: A History of the Vieux Carre Riverfront Expressway Controversy*. Birmingham: University of Alabama Press.

Barrett, Paul (1983). *The Automobile and Urban Transit: The Formation of Public Policy in Chicago, 1900-1930*. Philadelphia: Temple University Press.

Berger, Michael L. (1979). *The Devil Wagon in God's Country: The Automobile and Social Change in Rural America, 1893-1929*. Hamden, CT: Archon Books.

Bottles, Scott L. (1987). *Los Angeles and the Automobile: The Making of a Modern City*. Berkeley: University of California Press.

Brilliant, Ashleigh (1989). *The Great Car Craze: How Southern California Collided with the Automobile in the 1920s*. Santa Barbara: Woodbridge Press.

Brodsly, David (1981). *L.A. Freeway: An Appreciative Essay*. Berkeley: The University of California Press.

Bruegmann, Robert (2005). *Sprawl: A Compact History*. Chicago: University of Chicago Press.

Cervero, Robert (1986). *Suburban Gridlock*. New Brunswick: Center for Urban Policy Research.

Crane, Randall and Marlon Boarnet (2000). *Travel by Design: The Influence of Urban Form on Travel*. New York: Oxford University Press.

Cudahy, Brian J. (1990). *Cash, Tokens, and Transfers: A History of Urban Mass Transit in North America*. New York: Fordham University Press.

Davies, Pete. (2002). *American Road: The Story of an Epic Transcontinental Journey at the Dawn of the Motor Age*. New York: Henry Holt.

Fischler, Stanley I. (1979). *Moving Millions: An Inside Look at Mass Transit*. New York: Harper and Row.

Flink, James J. (1970). *America Adopts the Automobile: 1895-1910*. Cambridge: The MIT Press.

Flink, James J. (1975). *The Car Culture*. Cambridge: The MIT Press.

Flink, James J. (1988). *The Automobile Age*. Cambridge: The MIT Press.

Foster, Mark S. (1981). *From Streetcar to Superhighway: American City Planners and Urban Transportation, 1900-1940*. Philadelphia: Temple University Press.

Gakenheimer, Ralph (1976). *Transportation Planning as Response to Controversy: The Boston Case*. Cambridge: The MIT Press.

Gilbert, Gorman and Robert Samuels (1982). *The Taxicab: An Urban Transportation Survivor*. Chapel Hill: University of North Carolina Press.

Hamer, Andrew N. (1976). *The Selling of Rail Rapid Transit*. Lexington, MA: Lexington Books.

Jones, David W., Jr. (1985). *Urban Transit Policy: An Economic and Political History*. Englewood Cliffs, NJ: Prentice-Hall.

Jones, David W., Jr. (1989). *California's Freeway Era in Historical Perspective*. Berkeley: Institute of Transportation Studies.

Kenworthy, Jeffery R., Felix B. Laube, with Peter Newman, et al. 1999. *An international sourcebook of automobile dependence in cities, 1960-1990*. Boulder, CO: University Press of Colorado.

Lupo, Alan, Frank Colcord, and Edmund P. Fowler (1971). *Rites of Way: The Politics of Transportation in Boston and the U.S. City*. Boston: Little, Brown, and Company.

McShane, Clay (1994). *Down the Asphalt Path: the Automobile and the American City*. New York: Columbia University Press.

Mogridge, Martin J. H. (1990). *Travel in Towns: Jam Yesterday, Jam Today, and Jam Tomorrow?*. London and Basingstoke: McMillian Reference Books.

Newman, Peter and Jeffrey Kenworthy. 1999. *Sustainability and cities: Overcoming automobile dependence*. Washington, DC: Island Press. Pages 68-127.

Oppel, Frank (1989). *Motoring in America: The Early Years*. Secaucus, NJ: Castle Books.

Post, Robert C. (1989). *Street Railways and the Growth of Los Angeles: Horse, Cable, Electric Lines*. San Marino: Golden West Books.

Preston, Howard L. (1979). *Automobile Age in Atlanta: The Making of a Southern Metropolis*. Athens: University of Georgia Press.

Pucher, John and Christian Lefevre (1996). *The Urban Transport Crisis in Europe and North America*. London: Macmillan

Richmond, Jonathan (2004). *Transport of Delight: The Mythical Conception of Rail Transit in Los Angeles*. Akron: University of Akron Press.

Rimmer, Peter (1986). *Riksha to Rapid Transit: Urban Public Transport Systems and Public Policy in Southeast Asia*. Sydney: Pergamon Press.

Rose, Mark H. (1979). *Interstate Express Highway Politics: 1941-1956*. Lawrence: University of Kansas Press.

Schaeffer, K.H. and Elliott Sclar (1980). *Access for All: Transportation and Urban Growth*. New York: Columbia University Press.

Seely, Bruce E. (1987). *Building the American Highway System: Engineers as Policy makers*. Philadelphia: Temple University Press.

Sutter, P.S. and W. Cronin. (2002). *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement*. University of Washington Press.

Taebel, Delbert A. and James V. Cornehls (1977). *The Political Economy of Urban Transportation*. Port Washington and London: Kennikat Press.

Vance, James E. Jr. (1990). *Capturing the City: The Historical Geography of Transportation Since the Sixteenth Century*. Baltimore: The Johns Hopkins University Press.

Vuchic, Vukan R. (1999). *Transportation for Livable Cities*. New Brunswick: Center for Urban Policy Research, Rutgers University.

Warner Jr., Sam Bass (1962). *Streetcar Suburbs: The Process of Growth in Boston, 1870-1900*. Cambridge: Harvard University Press and MIT Press.

Whitt, J. Allen (1982). *Urban Elites and Mass Transportation: The Dialectics of Power*. Princeton: Princeton University Press.

Wright, Charles L. (1992). *Slow Wheels, Fast Traffic: Urban Transport Choices*. Philadelphia: Temple University Press.

Zwerling, Stephen (1974). *Mass Transit and the Politics of Technology: A Study of BART and the San Francisco Bay Area*. New York: Praeger Publishers.