

- Knowlton, C., ed. 1968. *International Water Law along the Mexican-American Border*. El Paso, TX: The University of Texas Press.
- Mumme, S. 1993. Innovation and Reform in transboundary resource management: A critical look at the International Boundary and Water Commission, United States and Mexico. *Natural Resource Journal* 33:93-120.
- Székely, A. 1993. Emerging boundary environmental challenges and institutional issues: Mexico and the United States. *Natural Resource Journal* 33:33-46.
- Székely, A. 1987. *Transboundary Resources Law*. Boulder and London. Westview.
- Udall Center. 1993. *Water in Nogales: Survey of use, issues, and concerns*. Report prepared by the Udall Center for Studies in Public Policy, University of Arizona, Tuscon.

## The Geography of Urban Transportation, 2nd Edition

Susan Hanson, Editor

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The new edition of this popular text will continue as an important source on the interplay of transportation and city-space. It will enhance introductory courses, and many selections will also contribute to more advanced ones.

Transportation is fascinating because it isn't simply the "derived demand" of so many introductory transportation economics courses, but itself generates demands and can structure cities. Genevieve Giuliano aptly starts "Land Use Implications of Transportation Investments" by establishing the dynamic nature of land-use/transportation relationships: "Not only are land use and transportation patterns interdependent; their interdependency is expressed over long periods of time" (307). Also importantly, she points to the problematic nature of empirical analysis, rather than merely providing easy answers.

In an age where five years ago is "out-of-date," history's value in teaching us about the present as well as the past is too often overlooked. Peter Muller's account of "Stages in the Spatial Evolution of the American Metropolis" is therefore welcome and complements Giuliano's contribution. I would have put them together rather than at opposite ends of the book. Muller's study of distinct phases in urban development shows how new transportation technologies displaced not only old ones but also the relationships between city-space and transportation those previous technologies implied. It helps us understand why attempts to shape the city by using the displaced technologies of an earlier era cannot succeed.

Donald Janelle's look forward into the next stages of transportation and urban form development provides a fascinating follow-on. I've long admired his imaginative concept of "time-space convergence"—the idea that places seem to get closer to each other when travel time is reduced—and he uses it as a starting point in illuminating ways to discuss where the city will go next. His account of the potential for telecommuting is multifaceted and mind-opening; ideal for stimulating classroom debate.

In Los Angeles, a city where telecommuting is very much on the agenda, I hiked with my UCLA Transportation Geography undergraduates to the summit of Mount Lowe to debate the popular belief that General Motors did in the electric streetcar. We held our debate at the terminus of the most famous Pacific Electric line, which was displaced during the "Recreational Automobile Era" described by Muller. The grand view of the endless continuum of Angeleno megalopolis said it all: the urban form molded by the motor car had made the streetcar history. David Plane's account of "Policy Alternatives," during which he rekindles the myth of General Motors' conspiratorial responsibility for the streetcar's demise, is therefore disturbing. Plane cites a brief popular media account of what he refers to as "the truth," but makes no reference to the substantial scholarly work—for example, Adler (1991), Bail (1984), Brodsky (1981), Jones (1985), Wachs (1984)—that demonstrates that the decline of streetcar systems was already in progress by the close of the century's second decade and that fundamental changes in the city's spatial economy had spelled the end of the streetcar well before the time of the alleged General Motors campaign. As Brodsky (1981, 95) remarks: "It required no conspiracy to destroy the electric railways; it would, however, have required a conspiracy to save them."

Plane is sometimes informative when covering a range of other issues, but there are other elements in his chapter that are superficial or misleading. His contribution should be rewritten to proper research standards if it is to stay in further editions.

The opening of Martin Wachs new chapter, "The Political Context of Transportation Policy," is disarming. He quotes President Bush announcing that the 1991 Intermodal Surface Transportation Efficiency Act meant three things: "Jobs, jobs, and ... jobs" (269). Although transportation policy decisions might seem irrational compared with the criteria of other authors in the book, political behavior can provide an explanation. Wachs cites interviews where modelers reported being told to "revise their work to produce numbers capable of winning federal grants." He shows that data can be used in different ways by those holding alternative political views, limiting society's ability to make major decisions "on the basis of technical information or analysis."

This chapter should be used with Wachs' major writing

on forecasting to convey a subtle aspect that follows from the material presented here: Even when the modeler is “The perfectly “honest,” every forecast is built on assumptions that must be subjectively chosen and such assumptions carry political implications whether one is aware of them or not.

Wachs’ valuable chapter makes the reader uneasy about earlier chapters on technical approaches. Eric Pas begins “Urban Transportation Planning Process” by stating, “The title of this chapter implies that there exists a single, definitive urban transportation planning process, but this is not the case ... Nevertheless, there is a general understanding of what is meant by ‘the urban transportation planning process,’ and it is this process that is described here” (53) Pas acknowledges that urban transportation planning has moved beyond its traditional definition as a technical process and is sensitive to the limitations of such an approach. A shame, then, that the main content of his chapter nonetheless describes the traditional modeling apparatus that Wachs sees as limited as *the* “planning process.”

Students should be introduced to the traditional approach because of its historical importance. Pas does this well. But it would have been better to put more emphasis on creative alternative approaches that stress the evaluation of goals; that relate future transportation developments to historical processes of interaction between successive transportation technologies and urban land-use patterns; and that set transportation systems in the wider social, economic, and political contexts of city systems.

If these themes were beyond the brief Pas was given, the editor should have asked him to write more broadly to reflect them or asked others to do so.

Gerald Barber provides a clear account of “Aggregate Characteristics of Urban Travel.” “Describing Disaggregate Flows” by Susan Hanson and Margo Schab is similarly lucid. Related chapters on modeling aggregate and disaggregate flows, on analysis of aggregate flows in Atlanta, and on modeling choices of residential location and mode of travel to work are well written. There is much of value here about how patterns of movement are formed and decisions to travel made. There is too much technical detail included for an introductory text, however, and although critical comments are certainly included on particular techniques, students are likely to be left with a sense of the power of the techniques rather than with an appreciation of their fragility—at least until they get to the Wachs chapter at any rate.

Timothy Nyerges, in the other new chapter, shows how

the combined visual and analytical elements of GIS go beyond previous modeling approaches. Its accessibility provides exciting possibilities for taking a GIS to community meetings, he says. Nyerges does not, however, warn that precisely because GIS information is more attractive and absorbable than the results of conventional models, there is greater risk that it will be taken as “fact” rather than as the product of assumptions. He shows, for example, how GIS can help locate proposed “urban villages” in the Seattle metropolitan area. But how likely are users, enchanted by such an approach, to examine its assumptions regarding the successful functioning of an urban village—the propensity of residents to use localized urban functions or to patronize public transport, for instance—and to question how these influence not only the comparative advantage of alternative locations but also the desirability of having urban villages at all? Ways must be found to make users aware not only of the narrow assumptions of GIS but also of the broader policy assumptions of the issue to which it is being applied. Perhaps this can be addressed in the next edition.

This new edition has much of value, but lacks a well-integrated format. A series of perspectives are presented, but they are not adequately linked. At one point, a student might be led to believe that technical tools are at the heart of describing geographical patterns and providing planning solutions. Elsewhere it is suggested that political realities limit such scope. The synthesis is left to the reader and the instructor, and this isn’t the easiest of tasks. In an age where textbooks spend too much time spoon-feeding students, however, a good instructor will use the contradictions that come out of comparing the different chapters to make students think through the merits of alternative approaches for themselves. Provided that happens, this text will serve its readers well.

## ■ REFERENCES

- Adler, Sy. 1991, September. The transformation of the Pacific Electric Railway. Bradford Snell, Roger Rabbit, and the politics of transit in Los Angeles. *Urban Affairs Quarterly* 27(1):51-86.
- Bail, Eli. 1984. *From railway to freeway: Pacific Electric and the motor coach*. Glendale, CA: Interurban.
- Brodsky, David. 1981. *L. A. freeway: An appreciative essay*. Berkeley: University of California Press.
- Jones, David W. Jr. 1985. *Urban transit policy: An economic and political history*. Englewood Cliffs, NJ: Prentice-Hall.
- Wachs, Martin. 1984, Summer. Autos, transit, and the sprawl of Los Angeles: The 1920s. *Journal of the American Planning Association* 50 (4):297-310.