



Transportation Research Forum

Book Review: [The Automobile](#)

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The Transportation Research Forum, founded in 1958, is an independent, nonprofit organization of transportation professionals who conduct, use, and benefit from research. Its purpose is to provide an impartial meeting ground for carriers, shippers, government officials, consultants, university researchers, suppliers, and others seeking exchange of information and ideas related to both passenger and freight transportation. More information on the Transportation Research Forum can be found on the Web at www.trforum.org.

Lundqvist, Lars, Button, Kenneth, and Nijkamp, Peter, eds. *The Automobile. Classics in Transport Analysis*. Cheltenham, UK, and Northampton, MA: Edward Elgar Publishing, Inc., 2003. ISBN 1-84064-797-3.

The Automobile

by Jose Gomez-Ibanez

The Automobile is a collection of 31 previously published “classic” articles and book chapters designed to serve as a basic reference on the topic. Priced at \$270, it is intended primarily for libraries that do not subscribe to the many different—and often obscure—journals in which these articles originally appeared. It is the seventh volume in a series titled *Classics in Transport Analysis* whose earlier volumes covered maritime, air, rail transportation, transportation infrastructure, logistics, and information systems. The articles are reproduced as facsimiles of the originals, so that readers can see them in their original form.

One of the great strengths of this volume is the breadth of the topics and perspectives represented. The three editors come from different disciplines—systems analysis, economics, and planning—and the selection of articles reflects the variety in their backgrounds. A reader concerned primarily with his or her discipline may see this as a disadvantage, because it means that many of the articles will be of only passing interest. For the more curious, however, the collection offers the pleasure (and the challenge) of reading the classic transportation articles in other disciplines for the first time.

The editors have organized the collection into five parts that cover an immense range of issues. The first part is on the organization of the automobile manufacturing industry and the evolution of automobile technology, and includes articles on how automotive technology spread, why the locus of automotive innovation shifted from one country to another, and how global warming and the electronics revolution are likely to affect

automotive technology in the future. Part Two focuses on the determinants of automobile ownership, the consequences for mobility, including the debate about whether auto mobility has been good or bad, and forecasts of future levels of automobile use in developed and developing economies. The third part is the most technical of the five and covers the evolution of models of motorists’ travel behavior in a road network. This part starts with models to forecast equilibrium flows of a fixed set of trips through a network and graduates to models that attempt to forecast simultaneously the number of trips, their destinations and origins, and the mode used. Part Four focuses on the effects of land use patterns and density on automobile use, including articles that debate whether the density of cities can significantly reduce our dependence on the automobile, and the social and environmental problems created by auto use. The final part considers the congestion, environmental, and safety damages of auto use and policies, such as road pricing, to ameliorate them.

The articles are for the most part well-chosen and presented. They are international in scope, although they reflect more the perspective of industrialized rather than developing countries. Within each part, they progress logically from the oldest to the most recent or from the simplest to the most complex. The editors occasionally juxtapose articles that come to different conclusions, especially for issues, like the effects of land use patterns on auto use, that are regarded as far from settled. They also do not confine themselves to articles that are “classics” in the sense of being seminal contributions, but

also include articles that survey the literature, identify the seminal contributions, and put them in perspective.

Nevertheless, there are some weaknesses in the selections made. While all of the articles are interesting, not all of them seem to deserve the designation, classic. The introductory essay by the editors summarizes the articles selected (and some that were not) but does not do a good job of explaining why they are so important. In addition, the selection in some parts appears to be a bit narrow. This is especially true of Part Three on travel behavior, where there is no discussion of the standard four-step model so often used in urban travel forecasting or of the development of mode split models and estimates of the value of travel time. Similarly, Part Four on land use focuses almost exclusively on the influence of density and land patterns on auto use and neglects the extent to which the auto and the highway may

have shaped those land patterns. These omissions may reflect the fact that *The Automobile* is but one volume in a series: a wider range of travel models may be covered in the series' forthcoming volume on urban transportation, for example, and the effects of highways on land use may be covered in an earlier volume on transportation infrastructure. But these topics seem so central that they should have been included, even at the expense of some overlap with other volumes.

All in all, however, *The Automobile* does a good job of pulling together many of the important contributions and surveys from several disciplines, and thus fulfills its goal as a great reference. It is too bad that it is priced out of the range of most individual researchers, as they would enjoy perusing through it. We will all just have to go to the library!

Jose A. Gomez-Ibanez is Derek C. Bok Professor of Urban Planning and Public Policy. His research interests are primarily in the area of transportation policy and urban development and in privatization and regulation of infrastructure. He has served as a consultant for a variety of public agencies. His recent publications include Regulating Infrastructure: Monopoly, Contracts, and Discretion; Regulation for Revenue: The Political Economy of Land Use Exactions (with Alan Altshuler); Going Private: The International Experience with Transport Privatization (with John R. Meyer); and Essays on Transport Policy and Economics (editor).