

of years under a charismatic leader that had a crucial roll in uniting the Cuban people under the revolutionary ideas. These special characteristics are the very reason for the difficulty of comparing or drawing analogies from the Havana case to other (post) socialist cities or states. Still however, the significant contribution of this book is in the field of urban tourism and development in developing countries. This book is introducing a case study that illuminates the main issues that should be taken in account in the case of analyzing the impact of tourism on (post) socialist states and the interrelation between tourism development and the dynamic of planning and managing in this kind of political climate.

Speaking about the idiosyncratic context, the timing of publishing the book makes its findings very interesting and important as they reflect the current situation in Cuba in what seems to be the last days of the “special period” under dying Castro.

*Lior Bear*

Ben-Gurion University of the Negev

DYNAMIC TRIP MODELING – FROM SHOPPING CENTERS TO THE INTERNET by Robert G.V. Baker. New York: Springer, 2006.

This book develops a model, RASTT (Retail Aggregate Space Time Trip), to analyze shopping-trip behavior, and offers a way of studying local, regional and global flows of traffic and how they change over time. The model uses a differential equation allowing for a study of the impact of time on spatial distribution.

The model examines distance-decay, gravity-type interactions for various shopping situations—walking from parking, driving to a shopping center, surfing the internet—and tests the time-minimization strategy in various empirical studies. It takes an aggregate approach, with an emphasis on the sub-population at shopping centers at a particular time rather than on individuals in residences widely distributed over the spatial domain. This is a different approach from the one used in the travel-behavior discipline, which looks at households and individuals and models their daily activity and trips. The approach is more efficient in terms of data collection; however, it loses some information that could be gained by looking at individual trip-making behavior rather than just at trips to various shopping areas. The book’s literature review extensively covers retail and consumer modeling, but it only partially examines the travel-behavior literature. In particular, it lacks a discussion of the recently developed and applied activity-based modeling, which looks at people’s daily activity and travel schedules. Truly activity-based modeling has not hitherto focused specifically on shopping, except for a few examples, mostly by Chandra Bhat, and therefore does not provide the same depth of the RASTT model in regard to some shopping issues; however, given the great potential of the former

type to analyze shopping trips in more depth, this is something the author should have discussed.

The author applies the RASTT model to various retail policy issues but focuses mainly on the debate over deregulation of shop trading hours in Australia and tries to answer the question of what happened to the spatial distribution of shopping trips as a result of longer shopping hours. He looks at 'where', 'when' and 'how often' consumers shop, how this changed with the liberalization in shopping hours, and how longer shopping hours contributed to the problem of vacant shops in many towns and suburban centers. The author claims that the extended shopping hours provided a mechanism for an equivalent expansion in the market penetration of planned shopping centers and supermarket anchors. The RASTT model offers one explanation for the problem of deregulated shopping hours allowing more mobile and affluent households to access larger retail units at the expense of smaller establishments and local shopping. The relaxation of time lines at retail centers has resulted in a re-positioning of trips and the accessing of a wider choice set of shopping opportunities at different locations.

The book further argues that the deregulation of the trading hours accelerated what had already been occurring for about a decade: the creation of new, viable retail locations of time convenience away from the traditional central locations. The deregulation also made it possible for out-of-town centers to capture a significant market share of "time-poor" mobile (and affluent) households. It also accelerated structural changes in the retail sector through turnover from small to large retail corporations. Thus, shopping-hour deregulation, even if it did not initiate it, contributed to the loss of circulation of shoppers in town centers and to the loss of these centers' viability.

The author shows a fundamental relationship between the regulation of time and the use of retail space and points out that, unfortunately, planning legislation has not appreciated this interdependence. Since new retail locations are centers of time-convenient areas that offer far more commercial possibilities than did traditional central places, successful retail planning may just be a "wicked problem." Unless there is strong and specific retail land-use planning supported and legally enforced by the government, time-accessibility areas surrounding town will offer too many commercial opportunities for developers to resist.

One of the interesting parts of the book is the implementation of the RASTT model to internet shopping, trying to answer the question whether technological advances in production and transportation have led to an "annihilation of space by time." In particular, the question is whether global access to the internet is the ultimate mechanism for annihilating the "tyranny of distance". Using the RASTT model with the unique data from the Stanford Internet experiments, which feature 27 global monitoring sites in 2000 pinging transactions every hour to 171 remote hosts distributed around the world, the author shows that distance does matter with the internet. A majority of transactions for an on-line site apparently come from

regional households rather than from international transactions, thus rejecting the "death of distance" hypothesis; furthermore, there is distance decay with the internet, as routers seek to minimize distance to avoid congestion. The author concludes that geography still appears to matter in internet traffic and that time-discounting behavior is similar in smaller shopping malls and the internet.

This part is somewhat disappointing and lacks the depths of analysis that exists in the other parts of the book. I do not find these results surprising. There is no reason for "death of distance" with internet shopping because consumers do not have to travel to the shop, but still the shop has to deliver the product to the consumer. Distance does imply shipping costs and delivery time, but the author does not discuss this issue. However, the application of the RASTT model provides an interesting mathematical framework in which to look at the dynamics of the internet, and offers a new frontier for spatial interaction modeling.

*Dynamic Trip Modeling* is organized into seven chapters. The first chapter provides an introduction to shopping behavior and defines the main retail forms underpinning the model: planned shopping centers, retail parks, power centers and finally the internet. It also presents the concept of time-space convergence, describing the dynamic convergence of locations and the evolution of spatial reorganizations from changes in time-space connectivity, particularly improvements in transportation.

Chapter 2 provides an introduction to retail and consumer modeling. After discussing modeling characteristics in general, it provides a good review of the various approaches used for modeling shopping trips. But as mentioned above, it does not do a good job covering the travel-behavior literature.

Chapter 3, which describes the RASTT model, presents the two fundamental shopping-trip processes that underpin this model, namely time and space minimization. The chapter provides empirical snapshots to show the relevance of the mathematical models and, in particular, the prediction from deregulated shopping hours in Australia. However, this chapter could benefit from some numerical examples to clarify the modeling issues and the planning-policy applications. The details and the implication of the model are sometimes a little cumbersome to read, though the concise summary is good.

Chapter 4 then provides some empirical testing of the RASTT model in time and space and shows its potential for describing global constructs of trip behavior over space and time. It presents an interesting analysis of the changes in time-space shopping-trip behavior in Sydney over the 1980s, with the deregulation of trading hours occurring in the middle of this period. The analysis looks at both behavioral changes, such as the interrelationship of multi-purpose shopping, trip distance, and frequency; and at modeling stability over time, such as changes in the gravity coefficients of trip origins.

Chapter 5 uses the Chicago site of the Stanford Internet experiments data to test the application of the RASTT model for spatial and temporal interactions over the internet. The author asks whether the internet can be viewed as a geographical

system in which both time and space are fundamental to interaction and whether the RASTT model provides some input to this question. Based on the application of the model to internet transactions, the author then tests several hypotheses: Are spatial demand waves of internet traffic observable? Is “weak” gravity interaction a feature of internet flows? Is time Gaussian behavior found with traffic flows? And is interference to traffic from congestion relative to the Earth’s rotation?

Chapter 6 discusses the socio-economic and planning consequences of changes to shopping trips. It examines the proliferation of vacant shops in Australia in the 1990s through a close look at a sample of centers in New South Wales, and suggests that this was the result of an inadequate policy response resulting from little understanding of the relationship between shopping times and shopping places. The chapter also discusses the roles of the large supermarkets or superstores and the planned regional shopping centers that have been the beneficiaries of trading-hour deregulation. The author proposes some planning-policy strategies

Overall, the subject matter covered by this work is very interesting, providing a new insight into known trends in shopping-trip behavior. The author also presents a nice balance of theory, validation and policy applications. Unfortunately, the book is somewhat tedious to read. Many aspects go into too much detail that I doubt would interest many readers. For example, the author takes twenty six pages to describe changes in the aggregate characteristics of the population sample in the Sydney project. While these findings are very interesting, I personally would prefer to read a summary of them in no more than five pages.

It is also pity that the geographical coverage of the book is limited. Most of the data, examples and applications are from Australia and New Zealand, with a limited look at case studies from the U.K. and North America. An exception is the internet case study that uses the Chicago site of the Stanford Internet experiments data. As a result, we do not know whether some of the phenomena or behavioral findings are typical just of Australia and New Zealand or whether they can also be generalized. It would have been nice to have examples from other places in the world.

Given these two main drawbacks, that is the details which are sometime tedious to read and the limited geographical scope, I would recommend this book only to geographers and urban planners who are specifically interested in modeling shopping trips and the problem of retails suburbanization. Despite its title the book has little value for travel behavior researchers and travel demand modelers.

*Yoram Shiftan*

Technion, Israel Institute of Technology