

Book Review:

E. Taniguchi, *et al.*

City Logistics. Network Modelling and Intelligent Transport Systems¹

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To write a book with such a special subject as City Logistics is not an easy venture. But Taniguchi, Thompson, Yamada and van Duin succeeded to submit a scientifically sound report of this subject, where the main stress is centred on the modelling of city logistics. The book shows clearly, that freight transport and especially urban freight transport, which up to now is generally dealt by the road transport system, leads more and more to traffic problems in cities.

City logistics as an innovative concept is an important way to solve these problems. City Logistics is the process of totally optimising urban logistics activities by considering the social, environmental, economic, financial and energy impacts of urban freight movement.

After a more explanatory introduction on generation models for freight transport, distribution models, modal-split-models und assignment-models the book concentrates on impact models, mainly regarding environmental impact models, cost-benefit-models, profitability models und energy consumption models. Much attention is given to vehicle routing and scheduling, in which time windows and their consideration play an important role in the simulation. It is shown that a higher efficiency of the system can be achieved by a cooperative freight transport system with advanced routing and scheduling. The impact models are extended by

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including ITS (Intelligent Transport System) and by considering random distributed travel times. The application of these ITS models can reduce the costs and at the same time the negative effects of the freight transport.

Mathematical models are introduced to determine the optimal size of logistic terminals and their suitable location. Finally, the book shows some future perspectives, especially intermodal transport systems and underground transport systems. Looking ahead the book ends by visualizing virtual freight companies linked with each other by information technologies.

The book describes the theoretical basis of city logistics. Questions about implementation of city-logistics and about forms of organisations are not considered. Therefore, this book does not necessarily address practical and political persons, but more researchers and draft developers. Nevertheless this book has closed an existing gap in the field of transport planning.