

modern machinery, rather than to develop new lines of production. This may be explained by the difficulties which Arab entrepreneurs face that curb their initiative: unfair competition from Jewish development towns supported by the government; competition with cheap labor that comes from Judea, Samaria and the Gaza Strip; and the threat of cheap labor which may arrive from Jordan.

The book includes four parts. Part one begins with an introduction, background and the aims of entrepreneurship on the whole, together with models and main concepts of the study. Part two describes the historical development of the Arab industry, its various branches, and their spatial distribution. Part three analyses the structural characteristics of Israeli-Arab entrepreneurship and its linkages to land and infrastructure, while part four discusses the Arab and the Israeli milieu involved in industrial entrepreneurship.

The contribution of this book is fourfold: It is based on a unique case study which may expand comparative crosscultural research; it presents new theoretical formulations regarding issues that remain unresolved in the current literature on ethnic entrepreneurship; it is grounded on intensive field research; and it offers possible guidelines for a constructive policy formulation.

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**THE GEOGRAPHY OF URBAN TRANSPORTATION** 2nd Edition, By Susan Hanson (editor). New York: Guilford Press, 1995.

How does one describe the urban transportation problem from a geographer's perspective? Is it the competition over scarce resources of time, space and money? Or is it the complex set of relationships which govern the flow of people and goods, such as urban qualities, distances traveled, journey purposes and modes of travel, with special emphasis on the adverse effects of the private motorcar on the quality of life and the natural environment? The significance of the problem arises from the fact that today over one half of the world's population live in urban areas and the proportions are rising rapidly. The problem is a world-wide one and is worsening steadily as urban populations grow, car ownership increases, and public transportation faces deepening financial crises. Susan Hanson's book tries to set out both the theoretical and practical problems, yet also gives students an idea how social scientists and planners have analyzed these problems in the past.

When the book first came out in 1986, geographers had few textbooks available to them for courses on urban transportation. Ten years later the new edition is a refreshing addition to the literature, while at the same time preserving the excellent structure of the original collective papers. Although edited and multi-authors books tend to be regarded as loosely-arranged essays with variable formats and styles, Hanson has edited this book with care and skill. Even though the

first edition attempted to cover the entire spectrum of the field, it is almost impossible for any textbook to address adequately all the topics in the field, given the complexity of urban transportation problems.

The critics of the previous edition made several reservations: the absence of a chapter on transportation economics and the lack of problem sets (numeric and descriptive) after each chapter (Khisty, 1987); the scant or cursory treatment of non-U.S. urban transportation (McKenzie, 1987; Uncles, 1988); the sometimes unbalanced treatment of empirical evidence (Uncles, 1988); the poor quality of some of the maps and diagrams (Monroe, 1988; Thompson, 1988); and the complicated mathematics needed to understand some of the theoretical material (Monroe, 1988). The same criticisms can still be made about the new edition.

In the past ten years, three major areas of geographical research have emerged which the author included in the new edition: urban politics, geographic information systems (GIS), and telecommuting. Uncles (1988) already pointed out the latter as being a bit overlooked, and Thompson (1988) criticized the lack of geographical tools such as GIS in the first edition, which the students need to learn. Although this second edition retains the same structure as the first, the authors have updated their chapters to take into account changes in urban transportation geography, including two new chapters on the politics of urban transportation planning and on the use of GIS in urban transportation.

The book claims to have a geographical orientation and is aimed at both undergraduates and graduate students. The scope of the book comprises the movement of people in cities, the dynamics of the metropolis, human behavior, and their interrelationships. The first three chapters give a description of movement in cities, an historical account of the role of transportation in the development of the American city, and the planning rationale and basic models used by transportation planners.

Having introduced these relatively simple concepts, the book then progresses to more difficult issues concerning movement patterns. These include a chapter on aggregated flow beginning with a characterization of actual movement in the city, followed by a chapter on the modeling of these characteristics. The discussion on aggregated flow is completed by an example of the use of these models in the Atlanta case study. This is helpful to the student to understand how future travel patterns are forecast. Although some students may practice these models in the classroom, it would be useful if a proposed textbook introduced here some simple numeric examples that could be used as reference and exercise. In a similar manner, the chapters on disaggregated models present the reader with the characteristics of individual movement, following modeling technique and modeling usage related to Washington, D.C. Such models help one to understand how an improved transit system may affect residential or employment location choices. The part of the book on modeling issues ends with a chapter on the use of GIS in urban planning. It is very difficult to explain the advantages of such a new and complex technique as GIS in just one chapter, and it is a pity that the

computerized mapping and multi-colored graphic GIS models are in black and white only.

The final section of the book deals with particular policy issues highlighted by each chapter. Several examples of U.S. transportation policy and decision making are presented, but the discussion fails to demonstrate the different effects of project scale. The next chapter focuses on land use impact with some theoretical background and applied models. The chapter on transportation and energy is strong on statistical detail, but lacks a clear explanation, such as why private automobile energy consumption has declined in the U.S. This is largely related to the high level of motorization of U.S. cities, whereas in other regions of the world automobile energy consumption is still increasing. Finally, the equity issues of transportation decision and the social and spatial impact are clearly illustrated, as is the material on environmental impact, metropolitan expansion, commuting patterns, telecommuting and alternative urban transportation policies.

The book certainly fills a lacuna. Hanson presents a relatively difficult subject well and sets out both the theoretical and practical concerns in urban transportation. Students may learn much about separate tools and applied policies in various American cities, but will they be able to apply them to their own countries or a particular environment? Are they being exposed to the geographical methods that their teachers want to promote and actually are used by the geographic community? *The Geography of Urban Transportation* is an important and recommended book for students of geography, but it seems that we are still missing the one comprehensive textbook.

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