

Reviews/Comptes rendus

Social and Economic Development: An Introduction. Tony Barnett. New York: Guilford, 1989, 232 pages.

This text is intended for undergraduate sociology students in international development. Its purpose is to expose the novice to a critical perspective on the value-laden assumptions hidden within various theoretical understandings of development. A central theme throughout the volume concerns the uncertainties of development. By examining development in many different contexts, Barnett shows how the meaning of the concept varies among people and places.

The book has three parts. Part 1 is a very good primer on the historical development of sociological theories about development. It traces the origins of modernization theory from the works of Comte, Durkheim, and Weber. It then considers neo-Marxian reactions as represented by the dependency approach and world systems theory. An important theme underlying this section—and indeed the whole book—is that theories must be treated as “more or less useful languages”. Thus, according to Barnett, “By virtue of their inclusion or exclusion of different kinds of information, theories define problems and, to a degree, determine how knowledge is divided into different academic disciplines” (32).

Part 2, entitled “Town and Country,” makes up the bulk of the book. It considers such substantive development issues as urbanization, industrialization, rural development, the state and education, and the role of women. Unfortunately, the treatment of these topics is selective, uneven, and narrow in disciplinary focus. The chapter on urbanization, for example, only touches on important changes in our understanding of the role of migration, the informal sector, the internal structure of the city, and rural-urban interaction. The industrialization chapter is similarly lacking. In contrast, there are two successful chapters on rural development and another entitled “Gender and Development”. These chapters make clear the linkages among cultural factors, social organization, and development process.

Part 3 focuses on the problems of defining and measuring development. Chapter 9 evaluates development indices through a

discussion of gross national product and a Physical Quality of Life Index (PQLI) and then provides a table of data on 150 countries. Although helpful and well conceived, these data will appear to geographers outmoded and narrow in their application compared to the rich information now widely accessible through electronic atlases or reports of the World Bank. Chapter 10 offers helpful case materials to illustrate and support each of the earlier chapters. Materials include tables, graphics, abridged readings from original sources, and questions for discussion.

This book is a very readable, albeit general, introduction to the sociology of international development. Written by a sociologist who has years of practical experience in development projects, the book is filled with realistic examples and illuminating anecdotes. It is logically organized and well written in non-technical language. Several devices are used to aid the beginning student. A bibliography and index are provided, as well as a short glossary for some of the sociological jargon. More notably, numerous boxes are placed throughout the text to elaborate on or illustrate important concepts. Most often these are excerpts from original sources. It is surprising how much information is packed into the book in this way. At the same time, however, condensing complex and contentious theories of change and development into small boxes often results in their superficial treatment. Moreover, the boxes do not always fit into the argument being developed, thereby disrupting and confusing, rather than clarifying, the ideas presented.

A brief and simple text like this cannot be expected to cover sufficiently the full range of theories and perspectives on development. Coverage of the classical sociological theories of change and development is the strongest. Recent critical perspectives, however, and insights to be gained from the experience of non-governmental organizations are noticeably deficient.

A more serious problem, from a geographer's perspective, is the virtual silence on the spatial and environmental aspects of development. Scant reference is made to any development theorists working from a spatial tradition. Although earlier works by Friedmann and Castells are mentioned briefly, it is only in the context of urbanization. There is no discussion of diffusion, modernization surfaces, transportation networks, urban systems, international trade, or global system dynamics. A section entitled "Development Alternatives" does not refer at all to the growing interdisciplinary literature on development from below and to community resource management. Further, sustainable development is never mentioned. Consequently, for geographers this book is useful primarily as a supplementary text to the sociological component in introductory courses. Its shortcomings

indicate the need for a text that adopts a similar critical approach but with a focus on the geographical aspects of development.

Bob Sharpe
Department of Geography
Wilfrid Laurier University

The Carrier Wave: New Information Technology and the Geography of Innovation, 1846-2003. Peter Hall and Paschal Preston. London: Unwin Hyman, 1988, 305 pages.

The Carrier Wave is the fourth book from Unwin Hyman dealing with the geography of hi-tech, the others being *Silicon Landscape*, *High-Tech America*, and *Western Sunrise*. What appears to have motivated this book is the recent revival of interest in the long-wave (Kondratieff) theory of economic growth. Chapter 2 presents a useful review of this theory and includes a summary of seven questions on which there is still no agreement. The authors note that existing research has been either at a high level of historical generality or more detailed but over a restricted timespan. They choose to look at one complex of technologies and industries over the span of three Kondratieff waves. As indicated by the subtitle of the book, the chosen complex is the new information technology (NIT), defined as the mechanical, electrical, electromechanical, and electronic technologies that record, transmit, process and distribute information. Examples of such technologies are the telegraph, telephone, typewriter, copier, radio, radar, and computer. Also discussed are those industries involved in the generation and distribution of electrical energy.

In Chapter 3, the authors clarify the above definition of NIT and refine their hypothesis that NIT began to constitute a "carrier" in the fourth Kondratieff (1948-2003) and can be expected to play a dominant role in the coming fifth Kondratieff (2004-). They further suggest that a new cluster of technologies will emerge during the downswing of a long wave, their general introduction being delayed by the need for wider socio-economic and political change. Two central and related questions are posed: How and why does the rate of new technology-based industrial innovation vary from decade to decade? How does its locus shift from country to country and from region to region?

The evolution of NIT is traced in the remaining eleven chapters which are grouped into four parts, each corresponding to a Kondratieff long wave. The parts are labelled the mechanical age (1846-1895), the electrical age (1896-1947), the electronic age (1948-2003), and the information age (2004-). In the latter age is introduced the concept of

convergent information technology (CIT), which seems to be synonymous with telematics or computerized telecommunications.

The main focus of the study is a comparison of the major nations producing NIT: the United Kingdom, Germany, the United States, and Japan. The United Kingdom is of primary interest as an explanation is sought for its relative competitive failure. An important subsidiary theme is the regional and urban locus of innovation (London, Berlin, Boston-New York, Silicon Valley, Stuttgart-Munich, Tokaido Megalopolis).

The explanation of the temporal and spatial variations in the production and employment levels of firms manufacturing information technology lies in a varying mix of governmental influence (largely related to defence and regulatory activity), finance capitalism (venture capital and firm size—economies of scale), technical education, research and development (in industrial laboratories), and urban agglomeration economies.

There is some suggestion, based on the research of others, that radical innovations occur in clusters of individual technologies. The authors conclude that it is clusters of firms (usually spatially defined) producing interrelated technologies (or, as they characterize them, a chain of technologies), and with backward and forward linkages, that are the real trigger of growth (long waves). Other necessary conditions include declining returns from existing investments and harmony between the new technologies and the prevailing socio-economic mode of organization. In the United Kingdom, for example, innovation has been associated with economic decline because of too many small firms (no economies of scale), weak governmental support (reflecting a *laissez-faire* policy), inappropriate defence needs (specialized technologies not in demand for consumer goods), and little support of R&D.

If one is skeptical of the validity of long-wave (or any wave) theory, then its central organizational function in this book can be distracting or downright annoying. The view has been expressed that cycle (wave) theory is to economics as astrology is to astronomy! The confusion begins with the title where, given the technology under discussion, one might reasonably assume that "carrier" refers to "carrier of information". Not so. Information technology is viewed as the carrier of *economic development*, which in turn is believed to occur in waves.

The identification of clusters and their associated waves, as the authors point out, is subject to considerable controversy. There is a tendency to view the clusters as figures divorced from their ground, to use a McLuhanesque metaphor. A more holistic view of the evolution of technology is presented by James Burke in his book *Connections*

(Papermac 1981). Further, the simplistic notion of waves seems anachronistic given the emerging research paradigm whose key words seem to be uncertainty, complexity, morphogenesis, chaos, and catastrophe.

The problem of perception is present in the book itself. Thus, while automation and robotics, based on information technology, are transforming the nature of manufacturing, the only recognition they receive is in the final chapter where the authors refer briefly to "flexible specialization" and some of its implications. Presumably, the authors were satisfied that their definition of NIT excluded such technologies, yet there can be no doubt that information is being transmitted within automated systems. And where does a chain of technologies begin and end? Of course, it is easier to find tidy temporal and spatial divisions if one can ignore such issues.

If readers wish to find support for long-wave theory in this book, they will probably find it. If that is not a concern, the book is still a valuable contribution to the historical geography of technological innovation and to our understanding of the process of regional development.

Robert McDaniel
Department of Geography
University of Western Ontario

Représentation et aménagement du territoire. Hervé Gumuchian. Paris, Anthropos (diffusion Économica), 1991, 143 p.

Dans son ouvrage, Hervé Gumuchian montre l'intérêt de prendre les représentations spatiales en considération pour l'aménagement et le développement du territoire. Il utilise une approche progressive et graduelle pour faire partager cet intérêt aux géographes. Il part de loin, en effet, situant d'abord la géographie parmi les sciences : «Il est devenu banal en 1991 d'écrire que la géographie est une science sociale, au même titre que la sociologie ou l'histoire [...] une telle appartenance de la géographie est également porteuse d'implications lourdes» (p. 5). Avec justesse et pertinence, Gumuchian dégage aussi les «sept caractéristiques essentielles» de la discipline, caractéristiques qui sont loin de faire l'unanimité chez les géographes québécois. En ce sens, cet ouvrage arrive à point nommé dans la géographie francophone, pour les géographes qui doutent encore de la géographie en tant que science sociale, mais aussi pour les spécialistes des autres sciences sociales, qui y trouveront un bon aperçu de l'évolution récente de la géographie.

Dans un premier chapitre, l'auteur suggère d'utiliser le concept de territoire à la place de celui d'espace et le concept de territorialité au

lieu de celui d'organisation de l'espace, à cause de «son caractère flou et imprécis». Dans le deuxième chapitre, il fait état des travaux des sciences sociales à propos du concept de représentation et invite le géographe à la modestie «lorsqu'il se présente comme le seul spécialiste de l'espace», même s'il est «en droit de revendiquer une place au sein des sciences sociales». Dans le troisième chapitre, Gumuchian propose de «retenir comme pertinentes les représentations spatiales dans une démarche géographique» pour «réhabiliter tout à la fois, le sujet, l'expérience du sujet et le sens» (p. 55). Le quatrième chapitre précise divers termes comme espace-support, espace de vie, espace représenté, espace produit, espace conçu... Le chapitre suivant présente des matériaux pour reconstruire les représentations spatiales, soit le discours, l'image, le dessin et la carte mentale. Les deux derniers chapitres visent à décrire le rôle des représentations spatiales dans l'aménagement du territoire et le développement territorial.

Ce rapide résumé ne rend pas justice au contenu de l'ouvrage et à la synthèse qui y est réalisée. Le volume de Gumuchian a la qualité d'intégrer les hommes au projet de la géographie, avec leurs valeurs, leurs discours, leurs représentations, leurs sentiments... Par ailleurs, il fait valoir la pertinence des représentations dans le développement territorial. En ce sens, les gens qui oeuvrent dans les municipalités régionales de comté auraient intérêt à lire ce livre pour se convaincre qu'il est possible «de travailler sur les représentations collectives de l'espace» (p. 125), de les modifier et d'en susciter de nouvelles. Enfin, le volume peut servir aux étudiants (en géographie sociale, en histoire de la pensée géographique ou en aménagement du territoire, par exemple), car il synthétise très bien et de façon accessible la littérature — francophone surtout — sur le concept de représentation. Par ailleurs, l'ouvrage présente une petite difficulté pour celui qui voudra le parcourir de façon trop rapide ou consulter seulement quelques chapitres, car l'auteur «encercle» son sujet progressivement et de façon de plus en plus serrée, comme un prédateur sa proie, de sorte que, pour mieux comprendre l'importance des derniers chapitres, il faut lire les premiers. Cet inconvénient mineur pour un lecteur pressé est toutefois compensé par une pensée synthétique qui articule bien un contenu plus analytique : les représentations en aménagement du territoire.

Bref, cet ouvrage s'adresse aussi bien au praticien de l'aménagement et du développement qu'à l'étudiant désireux d'en savoir plus sur les représentations spatiales. Aussi en conseillons-nous la lecture.

Laurent Deshaies
Département des sciences humaines
Université du Québec à Trois-Rivières