



BOOK REVIEW

Peter Nijkamp, Karima Kourtit, Kingsley E. Haynes, Zeynep Elburz (Editors)

Thematic Encyclopedia of Regional Science

Edward Elgar, 2025

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Regional science has reached a stage of intellectual maturity that simultaneously invites consolidation and demands renewal. Over the time, the field has evolved from its early focus on location theory, spatial interaction and regional growth into a broad, interdisciplinary domain addressing complex socio-economic, technological, environmental and governance-related challenges across multiple spatial scales. In this context, the *Thematic Encyclopedia of Regional Science*, edited by Peter Nijkamp, Karima Kourtit, Kingsley E. Haynes and Zeynep Elburz, emerges as a timely, ambitious and forward-looking scholarly achievement. Not only that it offers a synthesis of accumulated knowledge, but it also stands as a reference point for conceptual reorganization of regional science itself, reflecting and acknowledging at the same time its dynamic, interconnected and ever-expanding nature.

With more than 300 entries written by leading scholars from around the world, the volume adopts a thematic and systemic architecture approach, which is designed to explicitly capture both the internal logic and the various interdependencies that shape the contemporary regional science. Thus, unlike traditional encyclopedias that often privilege alphabetical ordering or fragmented

disciplinary boundaries, the work gravitates around the spatial phenomena aspects that do not unfold in isolation, nor according to deterministic laws, but are shaped by human agency, institutional frameworks, technological change and policy interventions. The reader is guided through seven major parts (A–G) that function as a coherent itinerary across the field: Space and Time (Part A), Actors and Society (Part B), Goods and Markets (Part C), Services and Economy (Part D), Transport and Interactions (Part E), Governance and Policy (Part F) and Methods and Techniques (Part G). In this context, the regional science is thus portrayed as a living, complex adaptive system, which can be better understood through the analysis of the interplay between spatial foundations, socio-economic actors, market processes, service systems, mobility and networks, institutional design and methodological innovation.

Interconnected hexagonal mind maps are used in the introduction of the volume with the purpose of providing a high-level conceptual visualization of the field, which articulate the internal coherence of the discipline and introduce the regional science to all types of readers. Various maps are provided, starting from the general map devoted to *The World of Regional Science*, which encompasses seven dimensions, ranging from *Space and Time* to *Methods and Techniques*, matching the structure of the volume, and continuing to specific maps dedicated to each of the seven dimensions.

The encyclopedia starts with the classical foundations of the field, which are embedded in the contemporary debates. As a result, Part A is dedicated to the core themes such as *location, allocation, land use, regions, cities, environment and resources, technology and space*, as it results from the major thematic map. In essence, elements related to *industrial location, facility location, agglomeration economies, land rent, urban economics, polycentricity* and the definition and typology of regions and cities are presented and discussed in depth within this part. Furthermore, the anchoring in the discipline's intellectual heritage is complemented by the presentation of forward-looking domains, which gravitates around issues such as *climate change, sustainability, livability*, ecological and historical landscapes and the spatial implications of digitalization and technology adoption.

It should be also highlighted that a particularly insightful contribution of the encyclopedia lies in its explicit recognition of regional science as an expanding universe. As new themes continually arise in response to global transformation, work should be done into integrating them while maintaining the field's conceptual identity. In this context, Part B and Part C of the volume provide a rich socio-economic core: migration, commuting, poverty, cultural diversity, entrepreneurial ecosystems, income gaps, spatial innovation, housing markets, labor market segmentation, value chains and logistics.

Among the remainder of the encyclopedia sections, one can further refer to the *Services and Economy in Regional Science*, which places at its core the interrelations between knowledge and information, digital technology and data, services and development, public services, and diversity and culture. The depth of this pillar is further supported by the structure and content of the book which provides entries for *knowledge and data analytics*, *triple and quadruple helix views*, and *learning regions* to *big data*, *blockchain systems*, and *local data warehouses*, alongside treatments of *public health and space*, *spatial access to services* and forms of cultural and migrant diversity.

This perspective is reinforced by the elements presented into Part E dedicated to transport and interactions. Thus, a broad palette of issues is brought into the attention of the reader, from *space-time geography* and *urban transport networks* to issues of *ride-hailing and congestion*, *inequality in access*, and *regional value chains*, culminating in a nuanced engagement with tourism systems (crowding, aviation, mode and destination choice). As a result, transport, trade, traffic, commuting, mobility, and tourism are treated as constitutive “connectors” of the spatial economy, and not as peripheral applications. This approach signals a mature understanding of contemporary regions such as networked multi-scalar and flow-driven systems.

As spatial systems do not evolve automatically, but are rather shaped by institutional frameworks, collective decisions, and policy interventions, part F is dedicated to the governance and policy, spanning around the regional policy principles, and offering a debate on *place-based versus people-based* approaches, *policy evaluation*, fiscal equalization and regional policy tools. Furthermore, in the volume, the topics addressed expand upon spatial planning (including *smart planning tools* and planning for megaregions), institutions and sustainability principles (sustainable development goals), public participation (citizen science, participatory geodesign), social cohesion (social capital, inclusive spatial development) and green policy (circular economy, valuation of ecosystem services), showing once more the interconnectedness with ecological, technological, demographic and geopolitical areas.

The encyclopedia’s methodological pillar, included in Part G of the volume, is equally impressive and confirms regional science’s long-standing identity as both theory-driven and tool-rich. Along with well-established and used economic base models, or the well-known shift-and-share, spatial interaction and CGE modelling and spatial input-output analysis, the volume embraces the methodological frontier: Bayesian spatio-temporal models, agent-based models, machine learning and AI, self-organising maps, and even more specialised quantitative concepts such as Wasserstein distance. This combination of established and emerging approaches illustrates a discipline that remains pluralistic in method while increasingly data-intensive and computationally sophisticated.

Thus, it can be stated that, from an academic perspective, the encyclopedia represents a major reference work for scholars, researchers, and doctoral students, as it can serve as a referral point for shape research agendas and teaching curricula.

On the other hand, for practitioners and policy-makers, the volume provides valuable analytical insights and evidence-based perspectives that can inform spatial planning, regional development strategies and governance reforms, helping in boosting the policy debates for the years to come.

Given all the above considerations, the encyclopedia deserves a prominent place in the scientific literature dedicated to regional science. Thus, congratulations for this outstanding scholarly accomplishment are sent to the editors and authors of this volume.