Elgar Companion to Sustainable Cities: Strategies, Methods, and Outlook, by Daniel A. Mazmanian and Hilda Blanco (Eds.)

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abound. Transportation projects are only addressed as they are integrated with other systems.

The book is organized in a clear, easily accessible manner. The first chapter explains and explores the sustainable infrastructure principles in greater detail, while the second provides examples of multipurpose infrastructure projects based on co-located and synergistic functions. Chapter 3 covers carbon-friendly fuel sources for power plants and presents state-of-the-art efforts by large-scale energy consumers to minimize energy use. Some of the more interesting examples are the use of the geothermal potential of water for heating a new community in the Netherlands, and the use of biogas produced from sewage and local farms to power the local grid and local buses in Lille (France). Denmark’s Hydrogen Community is also remarkable in that windpower (an intermittent source) is used to produce hydrogen (a constant source) to then produce electricity and heat for a substantial portion of the community.

Sustainable water infrastructure projects are presented in a chapter on the use of natural processes and two others that address the climate change impacts of drought and flooding. One downside of this distributed approach to talking about water systems is that it does not allow the author to fully explore “one water” infrastructure being pioneered by leading-edge utilities in Europe and Australia and “net zero” water systems at the site and building levels in the United States. Nonetheless, many examples expand the lexicon of sustainable water infrastructure for planners, especially those in the United States. One of the most charming projects profiled in the book is a proposed effort in the Godavari River Basin in India to restore an eco-friendly system of dams used in the pre-big system era, smaller facilities that provided eco-systems services, local water supplies, and flood prevention. At the other end of the spectrum, mega-projects in Japan and the Netherlands to harden the coastline are presented alongside the proposed and much debated tidal surge protection project in the United Kingdom that would also produce electricity, although some planners might question these as “sustainable” projects.

Brown’s chapter on large-scale community-friendly facilities is a surprisingly glamorous look at central utility plants that have always been hidden away in industrial districts. Her examples reveal the importance of sustainability, good design, and community involvement. The “Ecorium” is a waste-to-energy plant in Hiroshima (Japan) designed for the public by Yoshio Taniguchi. The Amager Bakke Combined Heat and Power Waste-to-Energy Plan in Copenhagen includes a ski slope and is located next to a terrain park. Other projects include the Svartseti Resource Park in Iceland, which uses the energy from magma extrusions to heat seawater for the production of electricity and local heating. The redesign of the Phoenix Waste Transfer station by artists Singer and Glatt to include educational facilities and eco-friendly public work practices is a welcome example from the United States. Other more accessible examples include river restoration of formerly polluted waterways in Brooklyn and Oregon by wastewater utilities.

Both books would be useful for practitioners looking for a way to integrate multiple infrastructure systems at the district level or to make an inevitable utility project more sustainable. Next Generation Infrastructure serves as a source book for precedent studies, while The Hidden Potential of Sustainable Neighborhoods has already been instrumental in inspiring the development of an eco-district plan in San Francisco, and the early stages of one in Boston. Fraker’s book would be a valuable companion in rewriting a comprehensive or strategic plan or a redevelopment plan for a district. Chapters in each would also be useful additions to planning, environmental science, and engineering courses on infrastructure or sustainability.

Taken together, these two books represent the opening salvo in what will be increasing pressure on local governments to use investments in infrastructure as a way of leveraging a more sustainable and resilient future. Both authors eschew the industrial-era single-purpose, gray infrastructure system and instead focus on interdisciplinary approaches that can be used to make the next generation of infrastructure carbon neutral, eco-system friendly, and resilient in the face of climate change.

Vicki Elmer teaches in the Department of Planning, Public Policy and Management at the University of Oregon. Her book, Infrastructure Planning and Finance: A Smart and Sustainable Guide for Local Practitioners, was published in 2013 by Routledge.


Reviewed by Stephen M. Wheeler, University of California, Davis

More than 40 years after the emergence of the concept of sustainability, our profession is slowly coming to grips with what it means to plan for a sustainable society. Academic and professional planning even in progressive jurisdictions such as Portland (OR), Vancouver (BC), or London paid very little attention to the sustainability concept until the mid-1990s. Granted, much good work was done during the 1970s and 1980s to promote various dimensions of long-term ecological and social welfare, but there was little explicit attention given to the more holistic changes in mindsets, values, and operating procedures that sustainability planning involves.

This situation began to change about 20 years ago with the emergence of at first a trickle, and then a flood, of sustainability-oriented planning literature. Meanwhile, many local governments around the world began preparing sustainability or Local Agenda 21 plans, integrating sustainability concepts into existing types of planning documents, and designating particular staff and departments to lead these efforts. Many universities also began developing sustainability courses or degrees, or integrating sustainability themes into existing curricula. Yet good, well-written, and broad-based overviews of the topic are still hard to find. Given this, the Elgar Companion to Sustainable Cities, edited by Daniel A. Mazmanian and Hilda Blanco, is a welcome and useful addition to the literature.
This volume contains 21 selections that aim to chart strategies, methods, and future directions for sustainable cities. The approach is relatively pragmatic throughout, seeking to understand “the city as a critical building block of a more sustainable future” (p. 2). Chapters are strongly grounded in the research literature and focus on many practical considerations for local government. The authors are primarily academics, with heavy representation from schools in California (especially the University of Southern California, where the editors are based) and to a lesser extent Michigan and Oregon.

Particular highlights include Peter Newman's discussion of urban density and transportation; Nevin Cohen's chapter on urban food systems; Karen Chapple's analysis of green business strategies; Kent E. Portney's chapter on sustainable city indicators; chapters by Adrienne I. Greve, Michael R. Boswell, and Tammy L. Seale on climate adaptation and mitigation; Laurie Kaye Nijak's contribution on sustainable procurement practices; and Edward J. Blakely's consideration of future strategies for sustainable economic development in cities.

However, as is still common throughout our field, other authors have a difficult time thinking holistically or making connections between research and social change. Christopher Kennedy, Larry Baker, and Hilde Brattebo discuss methods to measure urban metabolism (resource flows within cities), but say nothing about how such measurements can be used to change policy. Adam Rose's chapter on economic resilience analyzes the ability of local economies to recover from crisis, but does not consider how to ensure that the resulting economies are green and equitable. Gregory A. Keoleian, Joshua P. Newell, Ming Xu, and Erin Drepz present a fine discussion of sustainable consumer products, but give little emphasis to the basic need to reduce consumption in the first place. In his otherwise wonderful overview of metrics for measuring equity within cities, Manuel Pastor says little about how to tie these data to policy and social change.

Other chapters fall into dull academic language and excessive use of citations. Although well written, Tridib Banerjee's contribution on urban design and sustainability is rather grumpy, writing off the sustainable planning literature initially by saying that it offers little that is innovative or widely applicable. This is unfortunate, because sustainability planning is best viewed not as old wine in new bottles, but as a fundamental move from the modernist mindsets needed action; the second half will be familiar to those with knowledge of common tools in the planning toolbox (community engagement, protection of sensitive areas, etc.).

Some important subjects are underrepresented or omitted in the book. The volume is relatively light on discussion of social equity and sustainability, and says little about the problem of cities in developing nations. Completely omitted is the problem of overpopulation, despite the fact that this has enormous implications for many of the world's cities, especially in the global south. Planners have not traditionally addressed population issues, but to bring about sustainable cities in a crowded, warming world, attention to this topic seems increasingly necessary. Finally, Daniel J. Fiorino's fine chapter, "Sustainable Cities and Governance," begins to get at the need for more attention to governance systems, but is only a start, and the topic receives little attention from other contributors. Yet the question of how to have functional social ecologies (including political systems) that are in fact capable of planning for sustainability is growing ever more urgent.

These criticisms aside, the *Elgar Companion to Sustainable Cities* presents an interesting selection of writings on the daunting range of issues related to sustainable city planning. It is one of the strongest such compilations to date, by an authoritative group of authors, and will be a useful resource for both academic and professional audiences.

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Reviewed by Karen Bareford, Florida State University.

In the preface to *Blue Urbanism: Exploring Connections Between Cities & Oceans*, Beatley acknowledges “...we have virtually ignored oceans and marine environments in modern planning, policy, and design of cities” (p. xi). He goes further to say: "Now, while some opportunity still exists for amending our over exploitative relationship with oceans, it is time for cities and their citizens to rise to the occasion and harness their political power, growing economic wealth, creativity, and ingenuity to promote better ocean stewardship” (p. xii).

"Blue Urbanism" brings to the forefront the idea that ocean and marine environments need to be considered in the planning, policy decisions, and design of our cities; more important, it tells us how to start. Beatley provides a basic exploration of how coastal cities can strive to better connect infrastructure and citizens to the oceans. The book is divided into two sections: The first half describes many of the existing coastal, ocean, and marine issues and makes a case for needed action; the second half will be familiar to those with knowledge of common tools in the planning toolbox (community engagement, protection of sensitive areas, etc.).

Beatley, Chair of the Department of Urban and Environmental Planning at the University of Virginia, conducts research on the broad topic of sustainability; this book will naturally appeal to the audience of his popular books *Green Urbanism* (1999) and *Planning for Coastal Resilience* (2009). *Blue Urbanism* connects readers to ocean and marine ecosystems, environments even he admits to having previously ignored. This book is best suited for practitioners and policy analysts, but academics who are interested in how planning might expand into these often-excluded environments will also enjoy the material.