



“A penetrating critique of contemporary perspectives for understanding sustainable cities... Joss presents a rich, thought-provoking picture of sustainable city innovation and governance on multiple scales.”

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Chapter 1

Sustainability and the City?

The ‘sustainable city’ is a seemingly simple and alluring proposition, which holds the promise of reducing cities’ negative impact on the local and global environment while concurrently making urban areas more attractive and convenient as places in which to work and live. A closer look, however, reveals a picture many times more complex: urban sustainability has multiple dimensions, each of them elaborate and co-existing in intricate relationships, often causing tension. Conceptually as well as analytically, the sustainable city can be difficult to define and delineate, as it crosses disciplinary boundaries, mixes normative assumptions with empirical observations, and is closely shaped by specific geographical, cultural and political contingencies. This opening chapter begins to unravel this expansive, captivating phenomenon, by considering key sustainable city dimensions and identifying underlying challenges confronting the study and practice of urban sustainability.

Chapter 2

Conceptualizing Urban Sustainability: The Process Perspective

An essential aspect of the sustainable city are the processes involved in seeking to effect a transition from the present state of urban development to goal-oriented future development guided by urban sustainability visions and targets. These processes encompass stimulating and facilitating innovation, enhancing co-operation and co-ordination among diverse actors, and providing policy and regulatory incentives. This chapter discusses how relevant schools of thought variously conceptualize the sustainable city in terms of processes, from the city as an experimental ‘niche’ to the city as governance network, and from the city as operating system to the city as urban metabolism. These different paradigms each add useful, complementary insights, while at the same time displaying some shortcomings, not least the relative neglect of socio-political agency. The chapter concludes by suggesting that the importance of active processes of governance – subject both to political discourses and public accountability – should be rather more obviously emphasized in accounts of the sustainable city.

Chapter 3

Past and Present Policy Discourses

Recent decades have seen the sustainable city occupy an increasingly central position in international and national policy. As a consequence, concepts and practices of urban sustainability are profoundly shaped by policy discourses. Among these, sustainable development and ecological modernization are particularly forceful at a global level, applying environmental, economic and social dimensions to processes of urbanization and urban regeneration. This chapter charts the evolution of major policy discourses across time, highlighting in particular the related current tendencies for urban sustainability to be theorized in terms of interconnected systems, and understood to be a scientific-technical exercise; it discusses key actors involved in promoting and implementing policies; and it considers the implications for the practices which emerge.



Chapter 4

The Global Picture

Across regions and continents, a multitude of eco-city initiatives have begun to be implemented. These display considerable diversity of form, reflecting different approaches to sustainability and place-specific characteristics. Making sense of this variety may require us to survey the phenomenon as a whole, to gain a comprehensive picture of how urban sustainability is currently envisaged, conceptualized and practised in various organizational, national and cultural contexts. However, this task poses some methodological challenges: How should the ‘sustainable city’ be captured?; How should the information be collated and analysed? This chapter provides an overview of contemporary ‘eco-city’ initiatives identified through a comprehensive global census. The analysis is complemented with specific examples from across the world, illustrating the manifestation of urban sustainability initiatives in different regional contexts and as championed by various organizations. While the overall picture is varied, it reflects in its totality the discursive shift, already identified in Chapter 3, towards a more systems-based and technological understanding of the sustainable city.

Chapter 5

New Governance Challenges

There is widespread recognition of the need for a new paradigm of governance for urban planning and development. This is centred upon the demand for greater integration across urban scales and systems, and stronger engagement of diverse stakeholders in policy- and decision-making processes. The need is particularly pronounced in the debate about urban sustainability; some even see governance as the core constituting element of what makes the sustainable city. Based on two case studies of contemporary urban sustainability initiatives – Treasure Island (San Francisco) and Portland (Oregon), both in the US – this chapter provides insight into what this new-mode governance looks like, how it is conditioned by particular contexts, and how it reflects and shapes the contemporary discourse on the sustainable city. In doing so, the chapter highlights the strong normative influences at work which re-cast the city and sustainability in significant – and potentially problematic – ways.

Chapter 6

The Rise of the Urban Sustainability Framework

There is a thriving, competitive market for urban sustainability frameworks offering replicable models for the design and implementation of sustainable city initiatives. The growing popularity of these frameworks is partly driven by the need to scale up sustainable urban development and partly by demands for more standardized approaches to defining, measuring and managing urban sustainability. It is further explained by the opportunities for non-traditional actors – including professional bodies, technology firms and social enterprises – to engage in urban sustainability as a business proposition. This chapter closely examines and compares three prominent examples: the Climate Positive Development Program, focusing on greenhouse gas neutrality for urban in-fill projects; the One Planet Living framework, underpinned by ecological footprint analysis and applicable at different scales; and the Tianjin Eco-City Key Performance Indicators, designed to offer a national framework



for the numerous eco-city initiatives currently under way across China. The significant differences between these three frameworks suggest an ongoing diversification – rather than consolidation – of urban sustainability practice. They further highlight the creative tension between defining sustainable city initiatives as generic, replicable models and considering urban sustainability as context-specific, local practice.

Chapter 7

Sustainability Through Knowledge

Contemporary sustainable city initiatives are sometimes labelled ‘knowledge cities’. From this perspective, economic and social activity that is knowledge intensive – based upon education, research, innovation and creative industries – is fundamentally implicated in processes of sustainable urban development. The connection between sustainability and knowledge does not, however, only manifest itself programmatically; even the spatial designs of recent initiatives such as Sejong (Korea) and Caofeidian International Eco-City (China) are shaped by the concept of knowledge city. More generally, knowledge plays an increasingly ubiquitous role through the integration of digital information technology. Various ‘smart-city’ strategies are deployed to collect, process and interpret large sets of data; this not only affects urban infrastructure and utilities, such as transport and energy networks, but – potentially more profoundly – also creates new ‘knowledge infrastructures’ resulting from the digital interaction of people with urban environments. Meanwhile, data and information – in the form of indicators, metrics and modelling – have become central to how the sustainable city is conceptualized, assessed and warranted. Consequently, the altogether pervasive status of knowledge vis-à-vis the sustainable city opens up a critical discussion about how it should best be understood and, importantly, actively governed.

Chapter 8

Sustainable Cities: Towards a More Public Governance

The central theme of the governance of sustainable city innovation is revisited and further developed in this concluding discussion. First, drawing on the theoretical elaborations and empirical case studies from across the book, the chapter summarizes the key arguments for conceptualizing the sustainable city in terms of interrelated innovation and governance processes. Second, based on this integrated review, key strengths as well as weaknesses of the prevailing perspective on the governance of sustainable city innovation are discussed. The analysis points to a certain governance bias, the consequence of which is that important aspects of sustainable urban governance tend to be neglected or underplayed. The third and final task, therefore, entails setting out what a more public governance stance should mean conceptually and analytically for sustainable city innovation. Among the suggestions made is the need for designing more accountable governance structures and processes for sustainable urban development initiatives, as well as the benefit of opening up the sustainable city to pluralistic public discourse.

