

Brussels, which is distinguished by its 'flexibility'. A sustainable, flexible city, it is argued, 'is easily reused, adapts to the changing requirements of its inhabitants and is future-proof'. In such a context, new developments 'do not lead to a fixed blueprint, rather they emerge from future-oriented, dynamic flexible planning' (p. 41). Chapter 2 outlines and illustrates a so-called 'stepwise approach' to planning, which is meant as an alternative to the traditional blueprint approach. It emphasizes: 'local flexibility', which fosters adaptation and transformation of existing elements of the context; 'user-driven flexibility', which promotes enhanced collaboration in adapted decision-making 'structures'; and finally, 'time-based flexibility', according to which the development process accounts for changing conditions (for example, economic conditions) and welcomes uncertainty about the future. Chapter 3 introduces 'instruments' for a flexible city. These are classified in four groups pertaining respectively to organizational, legal, financial and spatial aspects of development. Each group comprises nine instruments, giving a total of 36. Each instrument is defined, its purpose explained, and is illustrated by a concrete example. Instruments include 'matchmaking' (considered as *local organizational flexibility*), 'vacancy reuse incentives' (*time-based legal flexibility*), and 'crowdfunding' (*use-driven financial flexibility*). Among the examples is Glastonbury, England. This town uses the legal instrument of the temporary permit (allowing temporary use of space, namely time-based legal flexibility) to turn an underused space into a 'festival city' for 150 000 people for a week. Facilities and equipment are then removed for several years, so that the landscape can rejuvenate. Not everything that is designed in a city needs to exist for eternity according to the authors. Chapter 4 introduces a number of completed projects throughout Europe that constitute good examples of flexible city development. Each is described and analysed in a few pages. In Vienna a solution to densify the city consisted of the construction of new floors on the roofs of historic buildings. Densifying existing tissues is a good way to make the city more sustainable, because it keeps the green around the city, reduces the amount of traffic and leads to better use of existing built-up areas.

Interesting questions come to mind when reading this call to 'make the city more flexible'. Not all questions find an immediate answer. How could some of these initiatives be funded? How many times can we transform components of the same place? How long will we be satisfied? And how

much social and cultural upheaval will result from these transformations? Yet, Bergevoet and van Tuijl present a useful toolbox that can help turn numerous initiatives into successes. Many examples from European cities are used for comparison, so that similarities and trends are identified and concrete examples are described in detail. This creates an inspiring handbook for anyone working on the future of the European city: from administrators and policymakers to developers, designers, builders and users.

Rafik Boudjadja, Department of Architecture, Faculty of Architecture, University of Larbi Ben Mhidi of Oum El Bouaghi, Constantine, Algeria. Email: rafik.boudjadja@hotmail.fr

Fibercity: a vision for cities in the age of shrinkage by *Hidetoshi Ohno* with *Metropolis Forum*, University of Tokyo Press, Tokyo, Japan, 2016, 183 pp. ISBN 978-4-13-066855-2.

This study emerged from a research programme that had the city of Tokyo as its main field of investigation. The research was co-ordinated by Hidetoshi Ohno and supported by a large team of students, researchers and professors. The aim was to devise a development strategy for Tokyo in the year 2050, according to a scenario of population shrinkage. Centred on the built fabric, infrastructures and ecological systems, *Fibercity* proposes a planning theory, while testing formal solutions that seek to regenerate and restructure a derelict and increasingly unoccupied urban fabric. As a concept, it revolves around three key morphological components: linear structural elements, urban flows and places.

The strategy has five components: 'Green finger'; 'Green web'; 'Green partition'; 'Blue necklace' and 'Urban wrinkle'. Each deals with programmatic spatial and formal aspects. 'Green finger' operates mainly in the suburban areas where population decline is most felt. Using existing railroads as infrastructural axes, the strategy identifies urban fabrics of increasing density to achieve a compact spatial reorganization around train stations. The reclaimed space becomes a green structure that provides ecological services.

The 'Green web' proposes conversion of a set of tracts of the Metropolitan Expressway, which traverse the central area, into a nexus of new green and multi-functional public spaces, while preserving their usefulness as infrastructures in the event of a disaster or emergency.

'Green partition' seeks to take advantage of a wide range of small interstitial spaces within the porous urban fabric of Tokyo to create a thin but well-connected network of public spaces and green areas. These simultaneously provide fire protection in areas containing many wooden structures.

'Blue necklace' interprets the existing network of waterways as a structure for transportation and use by the public. 'Urban wrinkle' provides for the improvement of certain places located in the interior of neighbourhoods, based on the idea of chirurgical urban interventions that enhance cultural or landscape interest. Though anchored in the Tokyo experiment, an aim is to extend the *Fibercity* approach to other shrinking metropolises that are confronted with serious problems of regeneration of their urban fabrics. To this end the city of Nagaoka is examined to exemplify the applicability of the concept to urban fabrics on different scales.

The book presents two operational procedures: strategic planning and an architectural and urban design project. Working on these two very different dimensions, Ohno and his team seek better coordination of the elements of the urban fabric and the character of places, an aspect often overlooked by theoretical thinking.

Organized in two parts, the book presents first, an explanation of the social, geographical and urban contexts that support the theory of *Fibercity*, and, secondly, uses several urban projects to test and formally apply it. Five key topographic concepts, 'shore', 'river', 'canal', 'turbulence', and 'garden', inform the planning strategies. They are incorporated in several projects.

The urban design proposals can be understood as 'models' and 'essays'. They stand out by their innovative character. They allow the testing of new configurations and, in so doing, produce fresh understanding of urban space and its appropriation. For example, the *street* as an urban element is redefined in one of the projects, where it is created in a succession of layers that accommodate different velocities, rhythms and forms of appropriation/permanence. The relationship between the built fabric and the channel space of the street is differentiated according to the circumstances. The

buildings and public space connect in different places, at different levels, creating dynamic flows along these structuring axes of the city. These connections also involve reassessment of the notion of limit, both in terms of definition and perception.

The dissolution of boundaries is also explored through urban projects that propose the interpenetration of green areas and densely built fabrics by introducing one form within the other. In other projects, the creation of a thin network of pedestrian paths and public-space areas in the small interstitial spaces existing within street-blocks involves exploration of a similar theme.

Also noteworthy is the innovative use of drawings as a critical and interpretative tool. Drawings are understood as devices for explaining the geographical, cultural and historical context, and similarly as tools for the morphological characterization and presentation of the proposed solutions in their urban context.

Part 2 of the book stands out for its great diversity of representations, including diagrams, plans (at various scales, from the territorial landscape to local details), sections, three-dimensional simulations and atmospheric photomontages.

The approach employed in *Fibercity* offers an intelligent and balanced way to articulate theoretical considerations and a set of concrete strategic proposals, as developed and exemplified in small prospective essays. Focusing on the linear elements, the so-called *fibers*, allow understanding of these axes as structural components of the form of the city. Emphasis is given in particular to the relevance of the *street*, as a structuring and articulating element of the urban fabric, and as a spatial framework of reference.

Fibercity emerges as a flexible concept. It is not bound to the Japanese urban and cultural context. It points to morphological solutions, ranging from the local to the territorial, the aim being to better prepare contemporary cities destined to shrink, while conferring on them a more human scale and increased ecological sensitivity. Acting on the flows and places, *Fibercity* emphasizes the importance of these two dimensions while revealing the linear elements as mediators of scales and as structuring components of contemporary cities.

João Silva Leite, Faculdade de Arquitectura da Universidade de Lisboa, Rua Sá Nogueira, Pólo Universitário do Alto da Ajuda, 1349-055 Lisboa, Portugal. Email: joaoleite@fa.ulisboa.pt