

Preface

Urbanism and the design of *Cities for Smart Environmental and Energy Futures* form the basis of an ongoing effort upon which interdisciplinary architectural planning and philosophy as well as engineering design are developed.

As cities are aimed nowadays to be ever *smarter*, they are designed to offer competitive, remarkable and resourceful environments for the future. As such, cities may offer alternatives between energy strategies and optimization theories of mega-spaces in a territory or a landscape. Designing or redeveloping the city blueprint for today and for the future is and has been an open question in the architectural and engineering fields.

By the use of the words *smart*, *energy* and *future*, in connection with a city, it is desired to present a variety of viewpoints about the operational efficiency and the living conditions in a city. Design objectives lead to an “in-process” or to an entirely complete *smartness*.

Cities could be examined as environments of systemic change, as unified technological advancements, as historic sites, as high-rise or low-rise and formal or informal developments. They may appear branded, as zero-carbon, sustainable, eco, bionic, network, digital and ubiquitous. These form only a subset of the multitude of themes that exist or are referred to currently in the scientific community. Such themes, whether for complete or in-development process, coexist on a scientific platform that may offer the basis upon which new challenges could be addressed.

The chapters comprising this book are aiming to engage in further research and innovative practices. In this book, cities are examined from the macro to the micro level, from the sustainable city development to the human scale and further to the structural material properties and formation. Cities are presented to be invincible and utopic but also to have the magnetism of a digital dream. They are questioned further for their complex and conflicting ideologies, and they are analyzed in relation to disaster relief and indoor urbanism, sustainable remedies for building conservation and climate change as well as sustainable user mobility and accessibility.

In this process of interdisciplinary scientific enquiry, the present book offers a common framework where international experts present theories and new results,

novel ideas, concepts and research findings, as these relate to the city of the past, of today and of tomorrow.

We would like to express our special thanks to all the authors of the chapters contributed in this volume.

Last but not least, we wish to acknowledge the superb assistance that the staff of Springer has provided during the preparation of this publication.

Zurich, Switzerland
Florida, USA

Stamatina Th. Rassia
Panos M. Pardalos

Cities for Smart Environmental and Energy Futures
Impacts on Architecture and Technology

Rassia, S.T.; Pardalos, P. (Eds.)

2014, XI, 301 p., Hardcover

ISBN: 978-3-642-37660-3