

Preface: Attaining Sustainability Through Landscape Planning

About This Book

Our societies need to solve difficult issues to attain sustainability. The main challenges include, among others, global warming, demographic change, the energy crisis, and loss of biodiversity. In tackling these issues, a holistic understanding of our living space is important. The field of landscape planning and design is at the core of the holistic concept, and it has provided several contributions to achieving sustainability. First, landscape planning and design connects different spatial scales: from site to region, and to the planet. Second, it focuses on close interrelationships between human activities and nature. Third, it is concerned with people's values regarding their surroundings.

This book is edited based on the presentations made by German and Japanese scholars in the international symposium “New Trend of Landscape Design: Seamless Connection of Landscape Planning and Design from Regional to Site Scales—The Cultural Context” held on November 5, 2012, at the Graduate School of Environmental Studies, Nagoya University. One of the sponsors of the symposium was the Nagoya University Global Center for Excellence Program “From Earth System Science to Basic and Clinical Environmental Studies,” an educational and research program that focuses on a clinical environmental approach associated with diagnosis and treatment of actual fields.

From Earth System Science to Basic and Clinical Environmental Studies

Nagoya University, Japan, has been running the Global Center of Excellence (GCOE) Program “From Earth System Science to Basic and Clinical Environmental Studies” funded by the Ministry of Education, Culture, Sports, Science and

Technology from FY2009 (Nagoya University Global Center for Excellence Program 2013). The program is bringing together different disciplines to create an innovative approach to environmental studies. Disciplines such as science are considered to be “diagnostic,” in other words, dealing with understanding how the earth–life system interacts with human society. Disciplines such as engineering and agricultural studies are considered to be “treatment-based,” meaning that they are concerned with providing technological or regulatory solutions to environmental problems. These disciplines can be reorganized as clinical environmental studies and basic environmental studies.

Our global environment and the diverse earth–life systems contained within it undergo many changes. One approach to these diverse issues is to imagine them to be the equivalent of pathological changes in the human body. This comparison makes it easy to appreciate how the role of environmental studies is very similar to medical science as it confronts disease.

Environmental studies have been split into two distinct fields. One is the diagnostic-type environmental studies, which analyzes the structure of the earth–life interactive system and the relationship between that system and human society. Examples of this type of discipline include earth sciences, ecology, and geography. The other is the treatment-type environmental studies, which seeks to develop technological or systematic solutions specifically designed to deal with—and heal—environmental issues. Disciplines that fall into this category include engineering, agricultural studies, and social studies. The polarization of these two types has resulted in a lack of systematic measures for environmental studies to develop as clinical medicine has. The GCOE program aims to bring the two isolated fields together, allowing us to develop a comprehensive “healthcare program” able to deal with ever increasing environmental problems.

Our GCOE program looks both inside and outside of Japan, covering diverse topics from the diagnosis of illnesses that threaten the sustainability of the relationship between human society and the natural world, to the appropriate prevention and treatment of those illnesses, to the accurate prediction and avoidance of any side effects of treatment. These are systemized into clinical environmental studies. In addition, basic environmental studies are developed to consider pathologies that threaten to erode the sustainability between human society and the earth–life system. It sets in order the efficacy and inherent problems of existing technical and systematic approaches, and comes up with viable alternative universal and global perspectives. Clinical environmental studies and basic environmental studies are like two wheels of one cart. They need to move in tandem for us to reach the solutions to environmental issues. They are the two essential elements that integrate the various existing fields of environmental studies.

By ensuring that researchers from different disciplines are working on problems at the same location, the program aims to realize the successful integration of environmental studies. Three specific locations are designated in the program: the Ise Bay Bioregion, Northeast and East Asia (China), and Southeast and South Asia (Laos). Within the Ise Bay Bioregion clinical environmental studies, a small research group led by the authors is pursuing the possibilities of spatially integrating the

different disciplines of environmental studies through the innovation of landscape planning and design ranging from regional to site scales.

Contents of This Book

This book is divided into four parts: landscape perception, planning and governance, case studies, and conclusion.

Part I contains two chapters on landscape perception. Professor Diedrich Bruns first defines cultural landscape as “what people give value to in their surroundings” and discusses how people perceive landscape. Lecturer Hirofumi Ueda then explains the differences in landscape perception in Japan and Germany that result from the fundamental difference in the ways of seeing the landscape through a cultural framework.

Part II contains two chapters on planning and governance in the Japanese context. Professor Mikiko Ishikawa shows the new trend of landscape planning and design in Japan through various cases she is involved in, including the megacity Tokyo, local cities, and tsunami-damaged areas in Tohoku. Associate Professor Hisako Koura suggests the possibility of utilizing the planning system based on the Landscape Act established in 2004 as a tool to manage developments in Japanese cities.

Part III contains four chapters on case studies in the Ise Bay Bioregion. Professor Hiroyuki Shimizu presents the results of questionnaires regarding landscape perception of residents in Nyu Village, Matsusaka City. Associate Professor Takashi Tashiro shows how to recognize the landscape sequence of the entire Kushida River through the analysis of geological distribution. Associate Professor Hiromi Yamashita studies in detail how wetlands and tidal flats are perceived by people who have not had direct contact with them in general. Associate Professor Hirokazu Kato proposes the unique concept of making a mandala of landscape issues to show the interconnected landscape elements.

Part IV summarizes the outputs of the international symposium “New Trend of Landscape Design: Seamless Connection of Landscape Planning and Design from Regional to Site Scales—The Cultural Context” held on November 5, 2012.

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Reference

Nagoya University Global Center for Excellence Program (2013) From Earth System Science to Basic and Clinical Environmental Studies. Web Site. <http://w3serv.nagoya-u.ac.jp/envgcoe/index.php/eng>

Basic and Clinical Environmental Approaches in
Landscape Planning

Shimizu, H.; Murayama, A. (Eds.)

2014, XII, 161 p. 129 illus., 118 illus. in color.,

Hardcover

ISBN: 978-4-431-54414-2