

## PROGRESS IN URBAN GEOMORPHOLOGY

—Review of Urban Geomorphology<sup>①</sup>

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The researches of urban geomorphology have been developed vigorously since the middle of the 1980s in China and become one of the most active fields among geomorphological researches. A considerable progress in theory and application aspects has been gained. For example, the academic property and characteristics of this discipline are definite, the object, contents, ways and means of study are explored and studies of urban geomorphology are carried out in many cities. It is necessary to build up an integrated theory system of this discipline with the deepening and widening of study in the field. *Urban geomorphology*, written by Prof. DIAO Cheng-tai and published in June 1999 by the Southwest China Normal University Press, is a new book which reviews advances of urban geomorphology in China in last 15 years, and makes a systematic exposition of the theory system, study methods and applied practice of this branch. The contents and structure of this book embodies characters, development and trend of this new branch of science in China.

This book includes 9 chapters. Chapter 1 introduces theoretical achievements gained through a long-term research in the field. Regarding landforms condition as a type of resource and environment which is essential to urban development, the author makes analyses and evaluation of significant value of urban geomorphological environment (UGE), and brings forth new ideas and viewpoints, such as resource significance of landforms, economic significance of landforms, and fragility and catastrophability of UGE. These transformations and creations of research thinking contribute to a better understanding on the essence of landforms as a type of resource and environment.

In Chapter 2 human geomorphological agent (HGA) is discussed systematically. On the basis of the exposition of human geomorphological actions and the understanding of processes by HGA, the characters, intensity and effecting factors of HGA are analysed. Taking constructional activities as an example, the author studies the nature and characters of human geomorphological actions, and discusses their disturbing processes and effects to landforms, then approaches into a way to evaluate HGA quantitatively and locationally. The author considers one of the academic characters of urban geomorphology is to fully understand effects of human activities in the evolutionary process of UGE.

Chapter 3 is a study on UGE. Prof. DIAO analyses first various processes, including natural processes and processes disturbed by human activities, and dynamic evolution of UGE, dissects component parts and regional differences of UGE, and then appraises specific properties of UGE, such as fragility and catastrophability. These are not only basic work but also up-to-date achievements of urban geomorphology in China.

The next six chapters deal with the application and practice of urban geomorphology. The progresses in this field at home and abroad are systematically introduced and evaluated. Some achievements made in the author's long research are chosen and enumerated as examples in order to furnish case studies for further development of similar research.

In summary, this is a recommendable book which comprehensively sums up progress of urban geomorphology in respects of theory, application and method in China. There can be no doubt that the author has succeeded in his aims: this is certainly a good overview of an important and rapidly expanding area between urban science and geomorphology, and certainly helps readers to catch up with current views on urban geomorphology.

The contents of this book are as follows:

Chapter 1 Introduction

Chapter 2 Human Geomorphological Agent

Chapter 3 Urban Geomorphological Environment

Chapter 4 Influence of Landforms on Urban Development

Chapter 5 Study on Landforms for Urban Construction

Chapter 6 Urban Geomorphological Disasters

Chapter 7 Classification and Cartography of Urban Geomorphology

Chapter 8 Evaluation on Quality of Urban Geomorphological Environment

Chapter 9 Applied Urban Geomorphology

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① DIAO Cheng-tai, 1999. *Urban Geomorphology*. Chongqing: Southwest China Normal University Press. 391pp. ISBN: 7-5621-2159-1.