

## **Theory of Mountainurbanology. By Guangyu Huang**

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## Theory of Mountainurbanology. By Guangyu Huang

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When I started my scholarly journey toward a better understanding of urban development in mountains more than a decade ago, I noticed that (1) relatively little was then published on the relationship between cities and mountains and (2) a surprisingly large share of those publications was in Chinese. Therefore, I am happy to see one of the principal Chinese *œuvres* on mountain cities (Huang 2006) in English.

The monograph *Theory of Mountainurbanology* is by Guangyu Huang (1935–2006), who was an eminent urban planner at Chongqing University. His book has a regional focus on China and aims to “emphasize the multi-discipline study on mountain cities, promote the ecological theory, and innovative thoughts on urban science research, in order to better direct mountain human settlement, balance human beings, and nature” (p vii). It also targets “planning and design professionals, decision-makers, college faculties, and students” (p xi). These intentions are shown by the 12 main chapters: “Introduction,” “Investigation,” “Site Selection,” “Typology,” “Planning,” “Design,” “Architecture,” “Transportation,” “Ecology,” “Disasters,” “Aesthetics,” and “Governance.”

In chapter 1 (“Introduction”), the reader is introduced to basic definitions. “Mountains” are divided into different categories (mainly based on altitude), ranging from “hills” to “extremely high mountains.” Then the author briefly describes the character of “mountain cities,” rejecting simplistic visions that ignore the manifold relations between urban settlements (“cities”) and their surroundings (“mountains”). To underline the latter’s importance for urban construction, Huang lists several locational advantages and disadvantages of Chinese mountain cities. Chapter 1 continues with a definition of what the author calls *mountainurbanology* (why not *mountain urbanology*?): a holistic research approach to urban mountain settlements that explicitly includes the humanities (eg urban philosophy) and applied sciences such as engineering ecology as well as folk science (eg Chinese geomancy or 風水 [fēngshuǐ]). This attempt sounds intriguing, yet, at some point, I got confused by the comprehensiveness of the concept, and the redundant and inconsistent Table 3 might indicate that the author (or

the translator) did not fully distinguish the spectrum of and relation between disciplines (eg montology is 1 of 3 pillars of mountainurbanology, and at the same time both montology and mountainurbanology appear again as elements of montology). The first part of the book concludes with thoughts on the complexity, diversity, vulnerability, and sensitivity of natural/artificial “mountainurban” ecosystems, integrating the concepts of landscape ecology and ecosystem services.

The subsequent chapters 2 (“Investigation”) and 3 (“Site Selection”) focus on conditions to be understood and approaches to be applied to get a feel for a region and select appropriate sites to build cities in mountains. What is most probably new to many Western scholars is the Chinese geomantic approach to site selection, where the relation of cities to nearby mountains and rivers is crucial and even influences the building design (Hong Kong’s “dragon gates” are good examples). Chapter 3 concludes with a “case study” (1 paragraph) on the example of New Yunyang, where people were moved in the context of the Three Gorges project. I found these 2 chapters highly interesting and innovative.

Chapter 4 provides a “Typology” of mountain cities in China, based on location (hilly, river valley, and ravine mountain cities) and function (“resources development-oriented mountain cities,” “regional transportation hub mountain cities,” “port mountain cities,” “memorial mountain cities,” “mountain cities of scenic tourism or religious worship,” and “comprehensive mountain cities”). Although these types are properly illustrated with photos and maps, the typology lacks explanations on how (inductively or deductively?) it was developed. For example, it is not clear why port cities are not included in the transport hub category. Although such a listing of city types by location and function can heuristically make sense to structure the study object, in this case it conveys arbitrariness and remains rather superficial. From a geographer’s point of view, this chapter is not that convincing.

Chapters 5 (“Planning”), 6 (“Design”), 7 (“Architecture”), and 8 (“Transportation”) are, perhaps, the core of this book. They start with principles of “mountainurban” planning, motivating the reader to engage with systems thinking, connecting nature and culture as well as space and time. What follows is a structural typology of mountain cities (that could have enriched chapter 4), with subsections on the specificities of planning and constructing in mountain watersheds, on the importance of open spaces, and on the use of the underground in mountain cities; the last subsection is inspiring and seems to be of uttermost importance. Then Huang highlights principles for designing mountain cities, for example, prioritizing ecology, adequately interacting with water, building on appropriate slopes, carefully selecting building heights, and protecting mountain tops or ridges against construction (for their recreation function). After a presentation of methodologies to correctly apply these principles, Huang underlines the importance of designing accessible urban environments,

conserving heritage, and considering the vertical dimension in mountains. After chapter 7 (“Architecture”), which describes building types in Chinese mountains, the author presents planning problems and solutions to “Transportation” (chapter 8); the latter are properly illustrated with photos, yet I would have appreciated a stronger focus on mountain-specific transportation issues (eg the use of cable cars and outdoor escalators).

Chapters 9 (“Ecology”) and 10 (“Disasters”) highlight the challenges related to the physical environment of mountain cities and how the built-up environment can be adapted and optimized to reduce environmental impacts and disaster proneness. Chapter 10 in particular, however, lacks a strong focus on mountain specificities, for example, when it comes to fire, invasive species, and nuclear accidents. Given the manifold types of mountain-specific hazards, I found this chapter rather underdeveloped; only 1 source is in the list of references. Chapter 11 (“Aesthetics”) is one of the more fascinating and innovative parts of the book (for non-Chinese readers), since it links urban planning with Chinese concepts of aesthetics. As Huang puts it, “[t]raditional Chinese architecture, gardens and urban planning are all deeply influenced by the aesthetic concept of ‘landscape culture’ and the philosophical concept of ‘unity of man and nature’. The ‘man’ here is not above nature, but a part of nature” (p 265). The last of the 12 chapters (“Governance”) consists of only 3 pages, dedicated to decision-making, democratization, and mass participation.

In general, the author has realized his aim to “emphasize the multi-discipline study on mountain cities, promote the ecological theory, and innovative thoughts on urban science

research” (p vii). However, given the wide spectrum of disciplines and concepts that build the basis of Huang’s “mountainurbanology,” some parts of the book remain descriptive and superficial. Although this might be acceptable for a textbook, selected chapters are very short (only 3 pages long) or mainly consist of listings familiar from presentation slides in a university lecture. The cited literature is very limited and mostly includes the author’s own work. What also makes the book difficult to read is the exaggerated structuring, with several levels (using diversely lettered, numbered, and bulleted lists) for subsections that often do not consist of more than 3 sentences. A book costing US\$ 199.99 should have undergone a careful copy-editing process.

In sum, one must acknowledge Guangyu Huang’s attempt to cover an impressive range of disciplines and to make his vast knowledge accessible to students and practitioners. This book clearly stands out for its focus on planning and design. Although the transferability of *Theory of Mountainurbanology* to non-Chinese (political) contexts might be limited, this English translation offers inspiring insights into a Chinese way of conceptualizing and planning the material and nonmaterial dimensions of the city–mountain relation. Rather than a specific recipe to be applied outside China, this is a thought-provoking book that can help reflection on mountain-specific urban development in general.

## REFERENCE

Huang G. 2006. *山地城市学原理* [Theory of Mountainurbanology]. Beijing, China: China Architecture and Building Press.