

PREFACE

The modern botanical garden is originated from European culture. Up to now it has been a history of more than 400 years, but there is no comprehensive and systematic research or summarization of this field. In China the botanical garden system was begun in the early 1920s or 1930s, and it was introduced from the West along with other modern sciences and technologies. Thus, the Chinese botanical garden system has a history of less than one century, and its major developmental period was only the second half of that century with the founding of the People's Republic of China. There are more than one hundred botanical gardens in China. Compared with more than 2,800 botanical gardens total in the world, this is not insignificant, and the speed of growth is relatively rapid. Chinese botanical gardens gradually and thoroughly learned from the history, direction, and task of botanical gardens in the world. However, the direction and task of botanical gardens has also changed following the change of historical periods. In China the direction and task of botanical gardens is also a lively topic, and the discussion has never stopped. It is difficult to have a relative consensus among most people. Facing our ever-changing global situation, it is difficult for botanical gardens to regulate the direction of development for the time being.

It is necessary to study and to understand the history and the true nature of world botanical gardens in order to make wise policy decisions for the development of Chinese botanical gardens with a view to China's features and current status, to know the truth, and to delicately guide the way. A botanical garden is a kind of comprehensive scientific institute. The task for a botanical garden changes from one era to another, and from one region to another.

The size, style, and features of a botanical garden are unique to each one, and sometimes quite different from other gardens. In China recently, there have been some botanical gardens that have made their character and task diverge to a certain extent from the true purpose of a botanical garden. In fact, the garden's true purpose must never be altered.

There is a great amount of literature on botanical gardens in the world. But much only briefly touches on the true nature of the gardens, and the majority of those written material are merely either introductions to, or tour guide materials for, botanical gardens. Going through those materials, it is obvious for people to see that there were many "glories" and "low ebbs" in a great number of botanical gardens all over the world within the past several hundred years. "glories" are the achievements gained by botanical gardens, and "low ebbs" reflect the neglect from societies and communities that caused botanical gardens to have difficulties in maintaining themselves. The material covering the deep implications and challenges to botanical gardens is very slight and scattered up to now, and there is no single book with a serious, comprehensive analysis and summarization of botanical gardens. The aim of this book is on target for summarizing the costly experiences of the world's botanical gardens, and for searching out the internal and external reasons for the change of the botanical garden's features and task over the different historical stages. It also clarifies a series of basic and important facts about, and challenges to, the development of botanical gardens all over the world. These include "the source, flow, rise, and decline," as well as the relation of "the master, the assistant, the lead

singer, and the follower," by observing the inner essence through the outward appearance. The strategy for the development of Chinese botanical gardens should be figured out based upon all these facts and conclusions, as well as upon the current practical situation in China.

The totality of comprehension, intersection, and uniqueness of scientific aspects, as well as the diversity of activities, the wide-ranging connection with people, and the directorial function in enlightening people to exist harmoniously with nature—all these are more and more clearly presented in this book's analysis of the development of modern botanical gardens. Therefore, Phytohortology or Hortology (Botanical Garden Science), is becoming a branch of biological science, and an independent discipline. It is a new discipline highly interwoven with both the natural and social sciences.

Because of the issues of global ecological problems, botanical gardens have gained a greater concern for their functions in plant conservation and environmental protection. Nevertheless, the traditional and important role of botanical gardens in the exploration of new plant resources (especially wild plant resources), must never be abandoned. The guiding role of botanical gardens in scientific popularization and tourism cannot be neglected, either. More concerns have been thrown on botanical gardens because of their functions in the city's ecology and landscape construction, and especially their support in improving city's ecological construction by biodiversity and the knowledge of plant environments. Botanical gardens display and demonstrate the progress and history of the people's civilization through their glorious plant heritage. Because of all these reasons, the botanical garden is far from the concept of "a place for plant introduction and acclimatization" defined simply during the 1960s or 1970s in China. It is considered as a specific field of plant science to be researched and developed.

Since Phytohortology possesses strong and broad comprehensiveness, it may have some overlap with other scientific disciplines. Although this is unavoidable, it should have its own specific field, and should not be too much overlapped with agronomy, forestry, horticulture, landscaping science, gardening science, tourism science and popular education, etc. This book's primary focus includes the following: the botanical garden's historical mission; professional function; roles of plant collection and conservation (especially ex-situ conservation); plant introduction and acclimatization; exploration and utilization of economic plants; construction of plant environment in cities; display of biodiversity; popularization of botany; and botanical garden master planning and design.

The book is titled PHYTOHORTOLOGY and it is a new term suggested by Chinese academician, Professor WU Zhengyi. Although most of the authors have been working in botanical gardens for more than 40 years even 50 years, and although some have held the leading position for 20 years or more, it is still a big challenge for them to recognize, understand, explain, and develop this new discipline. For this reason, it is important to study a great number of botanical gardens. Therefore, there are three chapters: 9, 10 and 11, that include more than 240 selected botanical gardens in this book to exemplify the information about botanical gardens around the world. Certainly, this number is still a small part, as there are more than 2,800 botanical gardens in total.

The authors would like to applaud the glories and innovations of botanical gardens worldwide with this book in the new century, and welcome comments on this book from their friends and colleagues.

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December 10, 2015