

ON THE STUDY AND VALUE OF CHINESE
BOTANICAL WORKS, WITH NOTES ON
THE HISTORY OF PLANTS AND
GEOGRAPHICAL BOTANY FROM
CHINESE SOURCES.

BY

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PHYSICIAN OF THE RUSSIAN
LEGATION AT PEKING.

ILLUSTRATED WITH 8 CHINESE
WOOD CUTS.

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PREFACE.

In presenting these pages to the learned world, I consider it my duty to confess, that I am neither a Sinologue nor Botanist, my knowledge in Chinese as well as in Botany being very limited. But living in the Chinese Metropolis five years, I was encouraged by the favourable conditions in which I found myself, to make some inquiries into Chinese plants and to venture on the publication of these notes on Chinese Botany. Every body will admit, I think, that some questions regarding Chinese plants can be more easily decided by men, living in China, by direct observation and information taken directly from the natives,—than in Europe by eminent savants, who have not been in China and must base their views, for the most part upon accounts given by travellers, which are not always exempt from errors, and upon translations from Chinese works, made by sinologues, who know little or nothing about Botany. I beg therefore to be excused if I have attempted sometimes to contradict some views of well known scholars. I implore indulgence for any errors which I may myself have committed. I have at least always endeavoured to adduce the sources whence I derived my information and prosecuted my enquiries in order to afford an opportunity for correcting or confirming my views. Although I had the advantage of having access to the splendid library of the Russian Ecclesiastical Mission at Peking, where are to be found not only all Chinese works of importance, but also most European books relating to China,—the reader will observe the want of some special works on Botany, indispensable in the treatment of botanical questions. But such works can only be met with in the great European libraries.—

As my notes have been written for Sinologues as well as for Botanists, I have endeavoured to be intelligible to both, and especially to the latter, by explanations of the Chinese characters, which occur therein. I would take advantage of this opportunity to observe, that Chinese names of plants should not be considered from the same point of view as names in other oriental languages, which can be transcribed easily and unmistakably by our letters. The Chinese language does not possess more than 400 words or monosyllabic sounds, distinguishable by an European ear. But as the Chinese characters (or hieroglyphs) are very numerous, each sound relates to a great number of characters of very different meaning. I will quote an example taken from the Chinese nomenclature of plants.

李 is a Plum,

栗 a Chestnut,

藜 a kind of Vegetable,

梨 a Pear,

櫟 a kind of Oak,

蒜 a kind of Garlic,

All these characters are pronounced by a sound, which must be rendered *Li* by European letters. In addition to this the Chinese characters, used by almost all peoples of Eastern Asia, are pronounced in a very different manner, not only by these different peoples, but even in different parts of China.* Finally, European writers, ignorant of the Chinese language, frequently render Chinese names of plants very incorrectly and distortedly. This may suffice to prove, that it is completely useless and unintelligible to write the Chinese names of plants in European books, without the Chinese characters. The Chinese language is one suited more for the eye, than the ear. Therefore, in quoting Chinese names of plants, ambiguities can only be avoided by the addition of the Chinese characters.

* 金橘 is the well-known little Kum-kwat orange (a variety of *Citrus japonica*.) The Chinese characters, meaning "Golden Orange" are pronounced *Kum-kwat* in the Southern dialect, but *K'ín-k'ís* in the Mandarin dialect.

In transcribing the Chinese sounds by our letters, I have attempted to render them in the "Kuan-hua" or Mandarin dialect, the official language of the whole Empire, and which is at the same time the dialect of the Pekinese. With a few changes, I have adopted the mode of spelling in Mr. Wade's Peking Syllabary (but without tone marks). As is known, the Sinologues of each nation have a different system of transcribing the Chinese sounds, and each considers his mode as the best. But as it is impossible to render exactly Chinese sounds by any European letters, just as it is impossible for an European to pronounce Chinese sounds like a native, † this is a vain dispute. In my opinion the best mode of writing Chinese sounds is that, which requires the fewest letters. From this point of view I must declare the English language, so rich in useless letters, as not at all suitable. There are Chinese sounds, for the transcription of which Morrison (Dictionary) needs five letters, whilst by German or Russian spelling they can be rendered by two. For instance 七 *Tseih* (Morrison) can be written in German as well as in Russian, by two letters.—The English *ch, sh, yew, ye'* can be rendered in Russian each by one letter. In addition to this the Chinese have sounds, which can only be represented exactly by Russian spelling. The other European languages, for instance, do not possess letters, like the Russian, for transcribing such characters as 子 and 四 (*tsze* and *sze* of the English Sinologues.) I will not however maintain, that the Russian language is the best for spelling Chinese sounds, for it cannot transcribe all Chinese sounds. It is for instance impossible to write with Russian letters such sounds as *shang, tung, fang, ting* &c., for the Russian language does not possess the nasal *ng*.

E. B.

PEKING, December 17th, 1870.

† I must however except the Europeans born in China and who have spoken Chinese from their youth. These acquire perfectly the Chinese pronunciation.

The object of the following pages is to show in what manner the Chinese treat natural science and specially botany, and what advantage can be drawn by European savants from the study of Chinese botanical works. As the principal works of the Chinese on Natural History have properly a medical bearing, I shall in criticising those works, occasionally make a few remarks also on Chinese therapeutics. Finally, I intend to give some characteristic specimens of Chinese descriptions of plants and add also a few Chinese woodcuts.

The Chinese knowledge of plants is as old as their medicine and agriculture and dated from remote antiquity. In ancient Greece the first botanists were the gatherers of medical plants. In the same manner the ancient Chinese got acquainted with plants for the most part in their application to medical purposes. There is a tradition among the Chinese, that the Emperor Shên-nung, who reigned about 2700 B. C., is the Father of Agriculture and Medicine. He sowed first the five kinds of corns (v. i.) and put together the first treatise on medical plants in a work known as **神農本草經** *Shên-nung-pên-ts'ao-king*, Classical herbal of Shên-nung (generally quoted by Chinese authors under the name *pên-king*), which became the foundation of all the later works on the same subject. This is a small work of 3 chapters, and enumerates according to the *Pên-ts'ao* in all, 347 medicines. 239 of them are plants, for the most part wild growing plants, but only very few cultivated ones. It follows from the accounts given by Li-shi-chên of this work (Preface of the *Pên-ts'ao-kang-mu*), that at first it existed only in verbal tradition. It is not

known at what time the *Shên-nung-pên-ts'ao* was first written down, but there can be no doubt that it is one of the most ancient documents of Chinese materia medica.

Another very ancient work, which gives accounts of plants, known by the Chinese in ancient times, is the **爾雅** *Rh-ya*, a dictionary of terms used in Chinese ancient writings, which according to tradition has been handed down in part from the 12th century B. C. The greater part however is attributed to *Tsu-sia*, a disciple of Confucius. It is divided into 19 sections. The greater half of the work treats of natural objects. There is an enumeration of nearly 300 plants and as many animals of which also drawings are given. The *Rh-ya* is commented by **郭璞** *Ko-pó* in the 4th century.

The first purely botanical work which appeared in China seems to be the **南方草木狀** *Nan-fang-ts'ao-mu-ch'uang* by **稽含** *Ki-han*, an author of the Tsin dynasty (265-419). It is divided into 4 divisions, herbs, trees, fruits and bamboos, and contains in toto the description of 79 plants of Southern China.

The Chinese works on materia medica and plants from the 6th to the 16th century are very numerous. The epoch of the T'ang (618-907) and the Sung (960-1280) especially was very productive in writers in this department. I cannot here enter into an enumeration of all their works. It would be useless, moreover, as I intend to speak of the well-known treatise on Chinese materia medica **本草綱目** *Pên-ts'ao-kang-mu*, for it is the type of all the Chinese productions of this class. **李時珍** *Li-shi-chên*, the celebrated author of the *Pên-ts'ao-kang-*