Foreword

by E. N. Anderson

The *Divine Farmer's Classic of Materia Medica* is the earliest surviving herbal in the Chinese medical tradition. It dates from the Eastern (or Later) Han Dynasty, around 100–200 CE. The name refers to China's ancient god of farming and medicine, supposedly a minister of agriculture under the mythical Yellow Emperor in the 28th–29th centuries BCE. The book's title was never intended to suggest that Shén Nóng actually *wrote* the book, only that it consisted of lore going back to him in some sense (mythical if not literal). However, this book and other early works were later ascribed to his authorship, and this is the source of the claim, still seen occasionally, that "the Chinese" were writing about sagebrush or soybeans or some other crop over a millennium before they had a writing system. The actual compilers of the *Divine Farmer's Classic* are not known. They were almost certainly medical men, and

they wrote during the latter part of the Han Dynasty (206 BCE–220 CE).

Originally containing 365 medicinals—one for each day of the year—the book has been substantially edited, damaged, re-created, commented on, and otherwise transformed throughout Chinese history. The major work of restoring and editing it was done by the great Daoist religious thinker and medical expert Tao Hongjing (ca. 456–536) in the 6th century CE.

For centuries, this book was all the world knew of ancient Chinese herbal lore. However, in the last century, a trickle of archaeologically recovered herbal documents has confirmed and somewhat extended our knowledge. In particular, bamboo slips found in a tomb at Mawangdui in 1973 contain a large part of an earlier herbal work. About half the herbs mentioned there are in the *Shén Nóng Běncǎo Jīng* (Unschuld 1986:15). It is probably safe to say that this work incorporated all the best knowledge available in Chinese medical circles in the 2nd century CE.

Běncǎo literally means "basic herbal." *Jīng* literally means a warp book, with reference to the warp threads on a loom—the basic threads that give the whole structure and foundation to the cloth. (The cross-running "weft" books are the commentaries and secondary literature on the true classics, the "warps.") Thus a *jīng* is not necessarily a literary classic; it is a foundational

work for a field. Such is the present book—it is the true foundation of Chinese herbal science. And science it truly is; it is singularly free from, on the one hand, the demons and spirits of Chinese magical lore, and, on the other, the artificial and speculative systemic correspondences that dominated much of Han Dynasty elite medicine. The present book records only known or inferred values of the medicinal substances in question.

In many cases, the values of these medicines are real and substantial. In others, the values are now hard to demonstrate; often, they were inferred on the basis of hope, confirmation bias, or placebo effect. Unfortunately, most of the plants are so little studied, and the illness terms are so hard to equate with modern ones, that we cannot know. Unfortunately, we have very little idea of what the names of illnesses signified in China 2000 years ago. "Running piglet," for one rather striking example, referred to some condition that felt as if a piglet were running around inside the body—possibly rapidly ascending and descending energies; we will never know. On the plant, animal, and mineral names, we have better control, since those tombs that contained medical texts often contained the medicines too, with labels that show word usage has not changed much (if at all).

One must remember—here as with other herbals, and, for that matter, modern drugs—that a very slight effect was better than nothing. Societies lacking modern antibiotics treasured anything that would produce any benefit at all.

The medicinal knowledge here is the start of a real scientific tradition. It is not perfect. It requires qualification on the basis of present knowledge. But it is a genuine attempt to create a systematic, empirical medicine, theorized as well as one could theorize herbal knowledge in the 2nd century. The basic theoretical construct is the flow of *qì*, the subtle energies and substances whose circulation in the body and the cosmos produce life and flux. It could be disrupted by many factors, and often a cure was considered to work by normalizing the flows and proportions of various forms of *qì*. This observational and theoretical approach is identified with scholarly Daoism.

Arrangement of drugs institutionalized a division into upper-level drugs that function as rulers, mid-level drugs that function as vassals or ministers, and lower-level ones that act as assistants and messengers. (The word generally translated as "rulers" actually means "gentlemen," "members of the elite," but has always been taken to mean sovereign drugs.) The upper drugs are those that have a general tonic or strengthening or life-protecting effect, such as ginseng. Most of them

remain central to Chinese medicine today. The middle drugs are more directly active, with some degree of visible or sensible physiological effect. Several of these drugs have clear and well-known physical action, others remain inadequately studied.

The lowest level are drugs that are described as "having poison." (Upper drugs lack it.) They have direct medical effects, often actual toxins. They are often bactericidal and fungicidal, or otherwise obviously effective, but dangerous to the taker also. These include aconite, henbane, sagebrush, false hellebore, and other frankly toxic plants, but also items like lepidium and smartweed that have a strong, peppery effect on the mouth but no actual poison. The Chinese medical term *dú* 毒 "poison" does not necessarily mean that an item is poisonous itself; it may merely potentiate poisons already in the system, thus worsening illness. In western terms, it is these lower-class drugs that are the "effective" ones, but analysis of the higher-level ones has scarcely begun (in most cases), and we do not really understand their subtle overall effects.

After Tao Hongjing edited and commented on the *Shén Nóng Běncǎo Jīng* (his commentaries and additions are not included here), the *bencao* literature grew and propagated. Dozens of herbals appeared, including specialized ones on foreign herbs, southern herbs, and so on. The literature climaxed in Li Shizhen's definitive

Běncǎo Gāng Mù of 1596, now available in English in six huge volumes (Li 2003).

It is interesting to compare the Chinese herbal tradition with the one developing at the same time in the west. Theophrastus, writing in the 4th century BCE in Greece, put botany on a scientific footing before China was known to have equivalent works. However, the first great western herbal, that of Pedanios Dioscorides, was almost exactly contemporary with the *Shén Nóng Běncǎo Jīng*. It is also similar in size and method of description. Dioscorides and Galen developed a scientific approach, free of magic and of excessive systematization, and thus quite comparable to that of Shén Nóng's herbal.

Western herbals developed more or less in step with the Chinese, climaxing in the enormous and extremely thorough compilations of Al-Bīrūnī and Avicenna, building on the work of Galen and Dioscorides, in Central Asia in the 11th century. It is no accident that these two brilliant men were writing at the very center of the Silk Road. At this time, that route was the main corridor for intellectual exchange between east and west. The two Muslims show some, but only slight, knowledge of east Asian medicine, but the flow from west to east was more substantial, and under the Mongols it reached a climax, with great

works appearing in China that summarized western medicine for Chinese benefit.

Herbal knowledge rose to new heights in Renaissance Europe. The herbals of Rembert Dodoens and others brought herbal lore into early modern science at exactly the same time that Li Shizhen was working on his definitive book. Dodoens' main herbal appeared in 1554, and was strikingly similar in coverage, size, approach, and scientific insight to Li's. But after that, the long parallel development was broken. China collapsed into wars, from which emerged the Qing Dynasty, a highly conservative age that did not stimulate much new development. Li remains the standard of Chinese medicinal tradition.

Sabine Wilms has now provided a rigorous translation and bilingual edition of this first of China's surviving herbals. The *Shén Nóng Běncǎo Jīng* has been enormously important historically, and is still the basis for a great deal of traditional Chinese herbal practice. This translation makes the text available with a fine analytic rendering into English.

Sabine Wilms' edition is rigorous, carefully done, and designed to be maximally useful. Plant identifications are according to the best current science, including recent taxonomic revisions. Medical terms follow recent best usage. This book will bring China's first herbal to an English-speaking audience, and also

provide correct scientific names and valuable scholarly annotations to all readers and users of the book. A classic work that has been used for almost two thousand years is getting yet another revival and yet another new life.

Books cited:

Li Shizhen. 2003. Compendium of Materia Medica (Bencao Gangmu). Tr. Xiao Xiaoming, Li Zhenguo, and committee. Chinese original 1596. Beijing: Foreign Languages Press.

Unschuld, Paul. 1986. Medicine in China: A History of Pharmaceutics. Berkeley: University of California Press.