Chinese Works on Materia Medica in the Library of Congress

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The Library of Congress began to collect Chinese medical works as early as 1869, when Emperor T'ung-chih presented the Library with ten titles in 933 volumes on exchange. One herbal (pen-ts'ao) printed in 1655 and two medical works, published in 1680 and 1743, were among the ten titles received. This history-making event marked the beginning of the Library's Oriental collections and the long tradition of acquiring Chinese medical books. Dr. Walter T. Swingle (1871-1952), a botanist of note in the Department of Agriculture's Bureau of Plant Industry, during his nearly thirty years of close cooperation with the Library, helped to build up the medical collection systematically after 1910. Dr. Swingle found that Chinese works on materia medica were often most important treatises both on wild plants and cultivated crops. In tracing the history of agriculture in China, they are a most important source of information. Swingle's efforts led to the acquisition of two major collections containing medical materials and numerous individual rare and important medical books.

Dr. Percy T. Watson's collection was purchased in 1925. Medical works in this collection amounted to sixty works in 539 volumes. According to Dr. Swingle, this major acquisition, together with individual purchases of previous years, made the Library "one of the best collections extant of Chinese works on materia medica." In 1929, Dr. Watson sold and donated more books to the Library; the Library's collection on herbals by then had become the "leading one in the Western world."

In 1928, Dr. Swingle arranged the purchase of the Wang Shu-an family library of Tientsin. This collection, which amounted to 1,644 titles in 22,100 volumes contained old manuscripts, rare and beautiful palace editions, one printed book from the twelfth century, and 276 titles of Ming editions. Among the latter were the famous Chi-ku ko and "red and black" (chu-mo) printings. Some rare medical books in the holdings of the Library of Congress (see below) are from the Wang collection.

The third major accession was the 305 reels of microfilms which reproduced the most important Chinese medical books in the Library of the Peking Union Medical College. Comprising approximately 3,600 printed or manuscript volumes, the Peking Medical Union College collection represents 654 medical books. All of these were written by Chinese authors except for 114 titles which were written by Japanese; however, the writers used mostly the Chinese language. The few works written in Japanese relate to Chinese theories of medicine. Some of the 654 titles are duplicates in the sense that they are variant editions of the same work.

The depository arrangement was made by the Rockefeller Foundation, through the China Medical Board, before the U.S. entered World War II. The importance of this collection is described by the Librarian of Congress, Archibald MacLeish, in his Annual Report of 1943:
It is scarcely necessary to say that the addition of these works... to the Library's already rich medical and botanical collections, is an event of considerable significance. In them are set forth the scientific conclusions which the Chinese reached empirically in the 3,000 years of their recorded history. They furnish to the West unexplored materials in the field of comparative medicine, with many examples of the slow gropings of the human race toward more complete control of its bodily infirmities.5

Rare Editions and Important Works

Among the rich collections of Chinese medical books, I shall introduce a few rare and important items so as to provide a glimpse of these treasures. Through the persistent interest and efforts of Dr. Swingle, the Library of Congress has built up an unusually comprehensive collection of Chinese herbals. Most of them were printed in China, but there are also some valuable editions from Japan and Korea. The Library has thirteen chüan in ten volumes of the 1249 edition of an herbal entitled Ch’ung-hsiu cheng ho ching-shih cheng lei pei-yung pen-ts’ao. This edition was printed in P’ing-yang, Shan-si, which at that time was an important center of book production. These ten volumes are in excellent condition, and the many very clear illustrations show the fine woodcut techniques developed during the Sung period. According to Arthur Hummel, chief of the Division of Orientalia, in his Annual Report in 1947: “Both for its clear-cut characters and its finely drawn illustrations, [this edition] constitutes one of the best examples of early Chinese printing.”6 The Ming reprints of the Cheng-ho editions also appear on collectors’ lists of rare books. The Library has six Ming editions, namely those for the years 1523, 1552, 1570, 1572, 1587, and 1625. Of these six Ming editions, four were printed in Shantung, and two (for 1570 and 1587) were printed in Chekiang and Peking respectively.

Li Shih-chen (1518-1593), compiler of Pen-ts’ao kang-mu, spent twenty-seven years of his life traveling to the herb-producing provinces, and enquiring of farmers, fishermen, hunters and wood-cutters, and other residents in the localities about the properties and efficacy of medicinal plants. In light of the information thus gained, he made his own experiments and reached a number of conclusions. Pen-ts’ao kang-mu is a grand compendium of herbal drugs, in which Li Shih-chen gave the source, nature, actions, preparations and use of some 1,882 herbs in full detail. The original edition of Li’s work was published in 1590. Only two copies of the 1590 edition, both kept in Japan, were known to bibliographers before the Library of Congress bought a third copy in 1926. This copy, though it contains a 1640 preface by Ch’eng Chia-hsing, was in fact printed from the original but slightly worn blocks of the 1590 edition. Checking and supplementing by means of photographic reproductions made from the two copies in Japan, the Library then also made a nearly complete copy of this very rare edition of Pen-ts’ao kang-mu.7 The Library also has subsequent editions of this title published in 1603, 1640, 1657, 1714 (a Japanese edition), 1846, 1872 and 1885.8

Aside from the various herbals for plants used as drugs, the Library also owns a very rare edition of the Famine Herbal (Chiu-huang pen-ts’ao). This work
was compiled by Chou Wang-hsiao, an imperial prince in the early Ming, who owned estates in K'ai-feng fu, Honan. Due to the recurrent droughts and floods, Prince Chou studied and discovered the food value of certain plants for famine relief. This work discussed 414 species of plants, of which only 138 kinds were discussed in previously published herbals; the rest were described and illustrated for the first time. The Library copy was a preface written in 1406; but, according to Wang Chung-min, it was probably printed in the Chia-ch'ing period (1522-1566).

Wei I-lin's medical treatise, entitled Shih-i te hsiao fang, preface, 1337, is a fine example of the printer's art during the Yuan Dynasty. Wei I-lin, drawing upon his own experience and that of five generations of his ancestors, compiled this work (a total of twenty ch'üan in twenty-four volumes) over a period of ten years (1328-1337). He surveyed almost all human ailments and each of his prescriptions was supplemented by methods for acupuncture treatment. In the same vein, Wang Chi's medical treatise, entitled Shih-shan i-an, deals with the treatment of ailments by means of acupuncture and surgery. The Library's edition, preface, 1531, contains fine surgical illustrations.

In the Wang Shu-an collection, a compendium on children's diseases, entitled Hsiao-erh wei-sheng tsung wei lun-fang (also called Pao yu ta ch'üan) has a preface by Chu Ch'en, 1489. The block-carver of this edition, as indicated in the last volume, came from the Huang family of She county, Anhui, which was noted for fine book production in the fifteenth century.

Among the photostat and microfilm collections, the Library has four photo-reproductions of T'ang medical formularies, in manuscript, which were recovered by the noted French sinologist, Paul Pelliot, from the Cave of the Thousand Buddhas in Tun-huang. The photo-reproductions were given to the Library by T. L. Yuan in 1937. Many rare items are contained in the microfilms from the Peking Union Medical College, and the subjects most fully treated in this collection are fevers and infectious diseases, which together account for 101 of the 654 titles.

The Collection as a Source for Research

This rich medical collection, begun over a century ago, has not yet been used very much by scholars, who are unaware of the collection's research value in fields other than the study of traditional Chinese medicine. Its research potential, however, can be seen in several other areas of study.

As a noted botanist, Dr. Swingle's collection of herbals testifies to the fact that medical materials are indispensable for the history of Chinese botany and agriculture. In identifying major crops and economic plants in these herbals, Dr. Swingle helped to improve a number of major crops in the United States. He was responsible for the introduction of the soybean, the alkaloid-yielding ephedra, and the tung oil tree from China. Dr. Swingle's interest in the acquisition of rare editions was not only for the study of printing, but also for researching Chinese agrarian development. For instance, Li Shih-chen's Pen-ts'ao kang-mu, which was completed in 1578 and first published in 1590,
contains a clear description and illustration of the American crop maize (i.e. Indian corn). This crop is not found in previously published herbals. After years of searching, the Library finally acquired the very rare first edition of Li's work, which to the delight of Dr. Swingle confirmed that maize had reached and been popularized in China no later than 1578, or eighty-six years after the discovery of America.\textsuperscript{14}

Ping-ti Ho, an eminent social historian, carried the study of new food crops further. He established that four major American food crops, namely, maize, sweet potatoes, Irish potatoes and peanuts, were introduced into China in the sixteenth century. Since for centuries there was no major technological breakthrough in Chinese agriculture, the introduction of new crops did more than anything else to push the agricultural frontier further away from the low plains, basins, and valleys where traditional cereal crops grew, to the more arid hilly and mountainous regions. The change of the cropping system hence accounted for an enormous increase in national food production. China's population began to grow rapidly after 1700, and rice culture, according to Ho, had reached its saturation point by about 1850.\textsuperscript{15} The study of new food plants, therefore, had helped to clarify the mystery of food self-sufficiency and the trend of demographic growth in China in the past four centuries.

Research on economic plants contained in these herbals can also shed light on the Chinese economy. In her study of the Han River region, Ts'ui-jung Liu found that the greater demands for crops suitable for handicraft industries, such as indigo used as a dye for the textile industry, and the increased cultivation of economic plants contributed to the commercialization of agriculture, the growth of market towns, and intensification of domestic-foreign competition.\textsuperscript{16}

Ranging from the earliest 1249 edition to the numerous Ming-Ch'ing editions, these medical works provide a wealth of information for the study of rare books and the history of printing. Movable-type block printing was first invented in China during the Ch'ing-li reign of the Northern Sung Dynasty (1041-1048), four hundred years earlier than the printing of the Gutenberg Bible. In the Herbal of 1249 the woodcut prints showing methods of obtaining salt and illustrating various plants indicate the excellence of the craftsmen in transferring artistic designs to woodblocks.

Chinese medical works on drugs and clinical cases have furnished the West with unexplored materials in the field of comparative medicine. For example, the drug ma-huang (ephedrine) was virtually unknown to Western medicine before 1916. After ten years of intensive research by Chinese and American physicians, ephedrine was submitted to and approved by the Council of Pharmacy and Chemistry of the American Medical Association in 1926, and it was subsequently recognized for its medicinal value throughout the world.\textsuperscript{17}

Clinical works can also be of interest to historians and anthropologists. Charlotte Furth and Angela Kiche Leung, in their studies of pregnancy, childbirth and infancy during the Ming-Ch'ing period, find that the doctors' Confucian background had a strong influence on their obstetrical practice, on
child welfare, infant mortality, ritual aspects of traditional medicine, and on medical ethics in general. 18

The above mentioned studies suggest the great research potential of these medical materials; and the Library of Congress welcomes scholars to come to the Chinese collection for further exploration.

Notes

1. Professor Harley H. Bartlett, a well-known botanist at the University of Michigan, succinctly introduced Walter Swingle's career in his article, "Walter Tennyson Swingle: Botanist and Exponent of Chinese Civilization" (Asa Gray Bulletin 1:2 [April 1952], 107-127). Dr. Swingle is described in this article as "one of the outstanding American botanists of his time, notable not only for his many accomplishments in botany, but likewise as a student of Chinese contributions to science, technology, and civilization." (p. 107) Dr. Swingle contributed to the Annual Report to the Librarian from 1915 to 1935 on the new acquisitions of Oriental materials.

2. Annual Report of the Librarian of Congress (hereafter cited as ARLC), 1925-26, 205. Relevant materials on China in the annual reports from 1898 to 1971 have been brought together and published in three volumes by the Center for Chinese Research Materials (Washington D.C., 1974). Pagination in these three volumes runs consecutively, and is different from the original ones. This paper cites the reprint's pagination.

3. ARLC, 1929-30, 377.

4. ARLC, 1928-29, 302, 303.

5. ARLC, 1943, 713.


8. See ARLC, 1926-30; 1932; 1933; 1937.


12. ARLC, 1928-29, 326, 327; Wang Chung-min, 503.
13. ARLC, 1937, 570.


17. ARLC, 1929-30, 388, 389; ARLC, 1937, 569, 570.