



The Transmission of Foreign Medicine via the Silk Roads in Medieval China: A Case Study of *Haiyao Bencao* 海藥本草

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Abstract

The importance of cultural exchange along the Silk Routes to the cosmopolitan identity of High Tang culture has long been acknowledged. This paper develops that understanding for the medical context by examining the *Haiyao bencao* 海藥本草 (Overseas Pharmacopoeia), a specialist *materia medica* work made up of foreign remedies. With a deeper understanding of the socio-cultural and religious context within which its author, Li Xun 李珣, a Persian born in China, worked we can begin to build a vivid picture of the background against which foreign medicines arrived from the Western regions to Medieval China.

Keywords

Persian, Chinese, materia medica, Tang, Li Xun, Haiyao Bencao

Generally speaking, there were three main channels of cultural exchange between the external world and China during the Sui, Tang and Five Dynasties (late sixth century to mid-tenth century), namely the overland route in the north-west, the maritime in the southeast and the route through the grasslands in the north. They are commonly referred to as the Silk Road (or Silk Roads).

The existence of the Silk Road has had a great influence on Chinese politics, economics, religion, culture and medicine. With regard to the history of Sino-Western exchange at that period, outstanding progress has been made, due in particular to the large quantities of manuscripts discovered in cities along the Silk Road such as those from Dunhuang and Turfan. However, research has hitherto focused on political, economic, religious and cultural exchange, while the transmission of medical culture of various kinds has long been neglected.

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Recently, historians of Chinese medicine have turned their attention to those manuscripts that tell of the exchange of medical culture via the Silk Roads.² Such research will undoubtedly provide new explanations for the manifold innovations of Chinese medicine in the Sui and Tang Dynasties.

This paper will discuss the transmission of foreign medicine via the Silk Roads with reference to *Haiyao bencao* 海藥本草 (Overseas Pharmacopoeia), a specialist *materia medica* work about remedies and prescriptions. It will also reveal the influence of foreign medicine on Mediaeval China, and discuss the ways in which the author Li Xun 李珣, an ethnic Persian born in China (a.k.a. Li Derun 李德潤), combined foreign medicine with Chinese medicine.

Spirit of the times: Exotics commodities in the Tang and related records

The Tang period (618–907 CE) is accepted as the most cosmopolitan era in Chinese history. Diplomats, merchants, religious missionaries and immigrants flocked to China from near and far. Some were transients, while others bought property in big cities, and some even established settlements and built their own places of worship. Not only did they bring large quantities of foreign commodities with them, but also introduced their associated practices and lifestyles into China. From the royal court to scholar-bureaucrat officials and to the common people, all strata of society felt the impact of foreign religions such as Buddhism, Zoroastrianism, Manicheism and Nestorianism on Chinese intellectual and spiritual life, and of distant worlds on Chinese material culture, even at the level of the basic necessities of everyday life. It may be said that the Tang Dynasty was marked by a vogue for exotic commodities. In the transport hubs of the Silk Road, such as Khotan, Kuche, Turfan and Dunhuang, as in great cities like Chang'an, Luoyang, Yangzhou and Guangzhou etc., 'barbarian' lifestyles exerted a strong attraction to traditional Chinese scholar-bureaucrats and the common people alike.³ The numerous stories recorded in *Taiping guangji* 太平廣記 (Extensive Records of the Taiping Era), for all their fantastical and far-fetched elements offer the reader a series of vivid vignettes, drawn from life. Many of these stories deal with the lives of the 'barbarians' and their interaction with the Chinese. E. H. Schafer's *The Golden Peaches of Samarkand*, the seminal study of the transmission of material culture in the Sui and Tang Dynasties, paints a dazzling picture of foreign

² Wang Xiaoxian 1994; Chen Ming 2005.

³ Xiang Da 1957; Xie Haiping 1978; Lin Meicun 2000; Rong Xinjiang 2001; Whitfield (ed.) 2004; Ge Chenyong 2006.

influence on Tang China, based on the transmission of material objects, and has influenced subsequent research as well as impressed general readers.⁴

Following much earlier work that exoticised natural history and the cultures of remote lands exemplified in the pre-imperial *Shanhai jing* 山海經 (The Classic of Mountains and Seas),⁵ the *Zhiguai xiaoshuo* 志怪小說 (Tales of the Strange and Supernatural) genre came into being during the Wei, Jin, and Southern and Northern dynasties period (third to sixth centuries CE). Out of this, there gradually developed a new type of literature known as ‘Tang Legends’. These novels aimed to display a new breadth of learning, and their preferred subject matter was ghosts and supernatural beings. The plots tended to centre on the recording of anecdotes and strange happenings, but underlying these accounts, these stories also show us a great deal about the authors’ tastes and interests. In the mid- and later Tang, the legend genre became increasingly grotesque.

Apart from such tales of the fantastic, Tang writers also recorded many exotic phenomena. The literati, especially those who had experienced the area ‘south of the Five Ridges’ (a substantial area in the far south of China, namely modern Guangdong and Guangxi), were enthusiastic about things foreign, and were receptive to new, stimulating experiences. They were not reticent in speaking of the exotic, and frequently delighted in popularising strange things, making a great display of exotic objects. They did so partly because of the influence of the tradition of natural history. However, their thirst for novelty and new stimuli certainly provided an added impetus for writing in this genre. Duan Chengshi’s 段成式 (?800–863 CE) *Youyang zazu* 酉陽雜俎 (Miscellaneous Morsels from Youyang [County]), Liu Xun’s 劉恂 *Lingbiao luyi* 嶺表錄異 (Lingbiao Records of the Strange, c. 900), and Duan Gonglu’s 段公路 *Beihu lu* 北戶錄 (Records from a Northern Household) are representative works.

Duan Chengshi consorted with and consulted many literati and others with specialist knowledge, including foreigners, and recorded various anecdotes about the natural conditions and social customs of the places he visited, curiosities, strange happenings and exotica. *Youyang zazu* details the nomenclature, pronunciation in the original language, the provenance, colour and properties of foreign plants, animals and minerals with medicinal uses, making it the outstanding work of natural history of the Tang period. Liu Xun’s *Lingbiao luyi* is likewise a specialist text describing local conditions and customs in the area south of the Five Ridges, and where they differed from the Central Plains area.

⁴ Schafer 1985. Also Cf. Watson 1983, pp. 552–3. See also Laufer 1919.

⁵ Yuan Ke 1985.

Duan Gonglu was the grandson of Duan Wenchang. He also toured the area south of the Five Ridges. His *Beihu lu*, also called *Beihu jilu*, runs to three volumes. It not only records folkways, local customs and products that differ from those found inland, but also includes classified citations and comparisons with rare texts and differing theories. It is thus both wide-ranging and authoritative. These three books all have as their backdrop the culture of the area south of the Five Ridges. Thus, their unique scenery was a catalyst for these books. Having established the link between pedlars of this new genre of the exotic and marvellous and immigrants from the western lands, we are prepared to learn more about the specific responses of physicians and medical writers to this new cultural melee.

*Records of foreign medicine in materia medica of the Tang Dynasty:
Xinxiu bencao, Bencao shiyi and Hu bencao*

Books on natural history written by literati in the Tang period and the books on *materia medica* written by physicians frequently quoted from each other. The Tang literati read books on *materia medica*, not only for medical purposes, but also as literary texts, to broaden their horizons. Certainly, this reading stimulated their own creativity. The Tang records of exotica include many accounts of medicaments, especially fragrant herbs. Equally, increasingly, most of the *materia medica* specialists in the Tang Dynasty were also men of letters. The vogue for recording exotica certainly provided a strong external impetus for the appearance of specialized *materia medica* works on foreign medicine.

Traditional Chinese pharmacology underwent much development in the Tang period. Sun Simiao's 孫思邈 (b. ?581; d. 682) *Qianjin yifang* 千金翼方 (Supplementary Prescriptions Worth a Thousand Gold Pieces) cites an adage attributed to Jivaka, a famous physician at the time of the Buddha, namely 'everything on earth is nothing but medicine'. This kind of doctrine undoubtedly opened out the field of enquiry for physicians. From the increasing breadth of the Chinese pharmacopeia, it can be seen that many medicines entered China from abroad. Both apothecaries and physicians particularly needed to understand the character of foreign medicines, to distinguish the genuine from the counterfeit, but also to compare them with native medicines so as to incorporate them into *materia medica* works for daily use. Thus, the following three *materia medica* books illustrate the recording of foreign medicines and the changing attitudes towards them through the Tang Dynasty.

In comparison with *Shennong bencao jing* 神農本草經 (Divine Husbandman's Canon of *materia medica*) and Tao Hongjing's 陶弘景 (456–463 CE) *Bencao jing jizhu* 本草經集注 (Notes to the Canon of *materia medica*), there

are 114 new medicinal substances in *Xinxiu bencao* 新修本草, a pharmacopoeia edited by Su Jing 蘇敬 in the early Tang. It is obvious that foreign medicine falls within the scope of this book. The *Bencao shiyi* 本草拾遺 (Supplement to the Pharmacopoeia) was written by Chen Zangqi 陳藏器 in the 27th year of the Kaiyuan period (739 CE). Although the preface to this book is no longer extant, most of the new medicines in it are foreign drugs not found in *Xinxiu bencao*. Thus, it can be concluded that the attitude of Chen Zangqi to foreign medicines was comprehensive. After the Kaiyuan period (711–741 CE), some *materia medica* works appeared which are specifically concerned with foreign medicines. The first of them was the *Hu bencao* 胡本草 ('Barbarian' Pharmacopoeia), by Zheng Qian 鄭虔.⁶

Zheng Qian was a famous artist and man of letters. His poetry, calligraphy and painting were praised by the Emperor Xuanzong as 'three unique skills'. In his biography in *Xintang shu* 新唐書 (New History of the Tang Dynasty), he is described as a natural historian, who collected information on contemporary affairs and wrote a book in 80 chapters, which he called *Huicui* 會粹 (sometimes known as *Huizui* 荟蕞, namely *A Collection*). 'Besides *Huizui* and other books, Master Zheng wrote *Hu bencao* in seven volumes'. As the first monograph recording foreign medicine, *Hu bencao* is frequently cited in the subsequent literature. Li Shizhen's 李時珍 (1518–93 CE) *Bencao gangmu* 本草綱目 (Classified *materia medica*), Volume 1, notes: '*Hu bencao* is a specialist compilation of medicines of the barbarians'.⁷ *Hu bencao* has long since been lost. Just six items from this book are cited by Duan Gonglu in his *Beihu lu*, namely red salt and cress in Volume 2, and pignut, white waxberry, red plum blossom and kermes (cochineal) from mountain plants in Volume 3.⁸

As can be seen from these extracts, *Hu bencao* mainly described the area of provenance, colour and smell of medicinal substances, while retaining the character of the literary genre of notes on natural history. In contrast, *Haiyao bencao*, written by Li Xun 李珣 in the Five Dynasties period (907–960 CE), deliberately distances itself from the natural history genre, as well as the genre of wonders and curiosities. Although it does include some anecdotes and legends, *Haiyao bencao* mainly discusses the character and properties of medicinal substances, methods of preparation and processing, their curative uses, and also lists some prescriptions. It is evident that the focus of interest in *Haiyao bencao* is no longer natural history; it no longer deliberately emphasises

⁶ Unschuld 1986, p. 258.

⁷ Compare with Liu Hengru (ed.) 2000, p. 5.

⁸ Duan Gonglu 1986, p. 30.

curiosities and wild stories, but is a fully-fledged medical work and therefore holds greater significance for historians of Chinese medicine.

The author and cultural background of *Haiyao bencao*

A biography of Li Xun, author of Haiyao bencao

Owing to a lack of any standard biographic sources, the dates of Li Xun's birth and death remain unknown. In *Bencao gangmu*, Volume 1, Li Shizhen expresses the view that Li Xun lived during the Tang Suzong (756–762 CE) or Tang Daizong (763–779 CE) reign periods. Li's information has been proved to be mistaken, because in *Haiyao bencao*, Li Xun himself cites from *Youyang zazu* (843–853 CE), written by Duan Chengshi in the late Tang period. A number of primary sources exist for Li Xun's life. First, the entry on 'Chiding unnatural actions' in the fourth volume of *Jingjie lu* 警戒錄 (The Record of Alertness), written by He Guangyuan 何光遠 of the Later Shu in the Five Dynasties period states:

Bingong 賓貢 (recommended foreign candidate in the Imperial Examination) Li Xun: also known as Derun 德潤. He was a Persian born in Sichuan. From his childhood, he was a painstaking student. He was selected many times as a *bingong* candidate. His poetry is generally very appealing. *Jiaoshu Lang* 校書郎 Yin E 尹鶚 was a dissolute scholar of Chengdu City. He was also a friend of Li Xun. But because of a dramatic incident, Yin E wrote a poem ridiculing Li Xun to such an extent that he destroyed his literary reputation. This poem says: 'Foreigners can never be other than creatures of nature. Persian Li Xun laboriously studies literary composition. But even if he can break off the laurel of Eastern Hall (i.e. pass the imperial examinations), it will not be fragrant because it will be tainted by body armpit odour (or its homophone, barbarian odour).'⁹

The second source is the entry on 'Li Silang' 李四郎 (Li Tingyi) in the second volume of *Maoting kehua* 茅亭客話 (Guest Talk at the Thatched Pavilion) by Huang Xiufu 黃休復 of the Song period. It relates:

Li Silang's given name was Xuan 玆 and his alias was Tingyi 廷儀. His forefather was a Persian who came to Sichuan in the retinue of Emperor Xizong of the Tang Dynasty, and was appointed *Shuai fushuai* (Commandant of the Guard Command). His elder brother, Li Xun, was a famous poet and was selected as *bingong*. Li Xuan was gentle, courtly and high-principled in his behaviour. He made a living by selling fragrant herbs. He was a skillful chess player and a keen

⁹ Cf. He Guangyuan 1985, p. 887.

follower of regimens for nourishing life. His main aim was to maintain his life indefinitely with the use of elixirs. By the time he reached old age the costs of alchemy had consumed all his family's wealth, and nothing remained to them except Daoism books and drug bags.

The third source, *Hujian ji* 花間集 (Collection Among the Flowers) of Zhao Chongzuo 趙崇祚 of the Later Shu, remarks:

Li Xun's alias was Derun 德潤. He was of Persian ancestry. He was an accomplished writer from Shu (Sichuan). He wrote a book in several volumes entitled *Qiongyao ji* 瓊瑤集 (Collection of Precious Jades).

Biji manzhi 碧雞漫志 (Casual Records from the *Biji* [a quarter of Chengdu]) of Wang Zhuo 王灼 of the Southern Song Dynasty also mentioned Li Xun's *ci* poems. The 44th volume of *Shiguo chunqiu* 十國春秋 (Spring and Autumn of the Ten States) by Wu Renchen 吳任臣 in Early Qing also provides two pieces of data:

Li Xun's alias was Derun. He was born in Zhizhou, the elder brother of Zhaoyi (the Emperor's second wife following the Queen, Li Sunxian 李舜). The subsequent Emperor (Wang Yan) admired the *ci* poems of Li Xun. Li Xun wrote a *ci* poem of *Huanxisha* 浣溪沙, containing the lines: 'If we hadn't met each other early on one night in Wuxia, how could I have spent the years at Jingjiang?'. This was widely quoted by *ci* writers. Li Xun's book *Qiongyao ji* is in several volumes.

Yin E came from Chengdu. He was an accomplished poet and a friend of *Bingong* Li Xun. Li Xun was of Persian origin. Yin E had a humorous character and often wrote poems ridiculing him. As a result, Li Xun's reputation was abruptly ruined. The last official position held by Yin E was *Jiaoshu Lang* (collator) at the Imperial Academy.

So far, research on the life of Li Xun has scarcely gone beyond the bare facts mentioned above.¹⁰ However, this data has been interpreted in various ways, leading to conflicting conclusions. It would be very hard to find out the original surname of Li Xun's ancestors and the date when they arrived in China. Rong Xinjiang points out that there were two categories of Persians in Tang China; namely members of the Sassanid royal house, king's captains and legates from Persia; and merchants. Persians in the former category 'entered the bureaucratic system in Tang China'. The latter came by sea and lived in scattered communities in the southern cities and Chang'an. The new surname, Li, taken by ethnic Persians during the Tang period was different from that of foreigners of the Sogdian system who retained their own original nine surnames, for example, Kan, An, Cao, Shi etc. By adopting a royal surname, that

¹⁰ Feng Hanyong 1957, pp. 122–4.

of the first Tang ancestry, Persians had discovered an effective way of entry into the Chinese society.¹¹ The Tang court bestowed the surname on some Persians. For example, Li Su's 李素 grandfather Li Yi 李益 was a hostage. Others, such as a Parthian Li Yuanliang 李元諒, who was appointed the *cishi* of Huazhou, were given the title on account of military exploits. Most probably the Tang court first conferred the surname Li as a title of nobility and then it became a vogue among Persians for convenience or business advantage. The most famous Persian Li was Li Susha 李蘇沙, who contributed a great deal of fragrant resinous wood of the Agarwood (*Aquilaria agallocha*) for building a pavilion to Emperor Jingzong (reigned 825–827 CE). Chen Yuan 陳垣 believes it likely that Li Shusha was a forefather of Li Xun.¹² Besides, *Xu chuanxin fang* 續傳信方 (Trustworthy Formulary, Continued) which was written by Wang Shaoyan 王紹顏 in the Southern Tang Period (937–962 CE) records another 'barbarian' Li Mohe 李摩訶. He wrote a prescription of psoralea fruit for Zhen Yin 鄭綏, the *cishi* of Guangzhou in the seventh year of the Yuanhe period (812 CE).¹³ Although Li Mohe owned a ship registered in *Heling* Country 訶陵國 in South-eastern Asia, he was likely to be a Persian.

There is no question that the date when the family of Li Xun (Derun) entered into Sichuan along with Emperor Xizong was the first year of the Guangming period (880 CE). But there are different opinions about the exact time when Li Xun himself lived in Guangzhou. There were certainly some 'barbarians' in Guangzhou and Chengdu (Yizhou) as well as Sichuan in Tang China. For example, the Persian Li Shu who was in the astronomical observatory, had lived in Guangzhou in his youth.¹⁴ While in Sichuan there was a Nestorian ophthalmologist from Daqin 大秦 (Eastern Roman Empire) among those captured by the Southern Zhao army in Chengdu in the third year of Taihe period (829 CE).¹⁵ Luo Xianglin thought that Li Xun (Tingyi) entered Sichuan in Tang times along with Emperor Xizong to take refuge and that Li Xun therefore was also an immigrant in Sichuan. In fact, Li Xun was not born in Sichuan but in Guangzhou. Perhaps for reasons of nostalgia there are many typical Guangzhou scenes in his *ci* poems. Apart from descriptions about the area south of the Five Ridges, *Haiyao bencao* also records that a number of drugs were imported into Guangzhou by ship. Luo cites further evidence from

¹¹ Rong Xinjiang 2002, p. 64.

¹² Chen Yuan 1980. Scholars have accepted this fact rather uncritically. See also Cheng Yuzhui 1992.

¹³ It was cited by Su Song 1988. Compare with Heng Hanyong (ed.) 1993, p. 124.

¹⁴ Rong Xinjiang 1998.

¹⁵ Li Deyu 2000, p. 208. Also compare with Luo Xianglin 1966, p. 14.

the poem by Wei Zhuang 韋莊 ‘*Jiangshang bie Li Xiucan shi*’ 江上別李秀才詩 (Sending off Graduate Li on the banks of the River):

In the spring of the year before last we said good bye in Baling. This year we both wander about the skyline to avoid the chaos caused by war. Don't begrudge drinking deeply before the cup. Both you and I are strangers in a foreign land.

Shang Zhijun was of the opinion that Li Xun had left Sichuan and visited the area south of the Five Ridges after the end of Former Shu (925 CE) and that Li Xuan (Tingyi) had been appointed to the position of *Shuaiifushuai* in the army of Emperor Xizong.¹⁶

In fact, both these two opinions are incorrect. The above-mentioned *Maoting kehua* has the following record:

[Li Tingyi] had accepted a letter which Mr Er Zhu 耳珠 [Ear Pearl] wrote to Nan Liulang 南六郎 in Mountain Qingcheng discussing the techniques of Huainan 淮南 for making pills of immortality. Every time he burnt incense before he read it. He had a walnut cup with a circumference of over a *chi*. Its veins and hue were very brilliant. It really was made from the fruit of the flat peach. In old age, he powdered it to take it with water. In the spring of the fourth year of the Yongxi period (984 CE), he visited the Mountain Qingcheng and obtained a stone in a brook under Liushi Scarp. This stone was black, warm and humid like the egg of a wild goose. He always played and enjoyed it with his like-minded friends. . . . Someone said: ‘It is a play-thing of the immortals’.¹⁷

Since Li Tingyi visited this mountain in 984 CE, it is certain that he could not have entered Sichuan along with Emperor Xizong in 880 CE, and at the earliest he was born around 908 CE, after the establishment of Former Shu. Therefore, it must have been his forefather who was a *Shuaiifushuai*. As the earliest extant historical source to record the life of Li Xun, the *Jingjie lu* of He Guangyuan pointed out that

[Li Derun] originally was a native-born Persian in Sichuan. He was painstaking in his studies since his childhood. He was appointed to the position of the officer of *bingong* many times.

It shows that Li Xun studied hard from childhood, and that he was not old when he was a *bingong*. Another piece of evidence that suggests a later date for Li Xun's birth is that his younger sister, Li Sunxuan, was consort to the second Emperor of Former Shu, Wang Yan 王衍 (reigned 919–924 CE). Her status was just less than the queen and she must have been as old as Wang Yang

¹⁶ Shang Zhijun (ed.) 1997, p. 95.

¹⁷ Mr Er Zhu may be a Daoist.

(899–925 CE), probably around 20 years of age. If Li Xun really entered into Sichuan in 880 CE, even as an infant, there are about 30 years until the establishment of Former Shu. It does not accord with the sentence that ‘he was painstaking in his studies since his childhood. He was appointed the officer of *bingong* many times’.

Moreover, the difference of over 30 years in age between Li Xun and his sister or brother is not impossible. Therefore, until there is more concrete evidence, we can only identify the dates with certainty as follows: Li Xun’s forefather entered Sichuan along with Emperor Xizong in 880 CE and occupied the position of *Shuaifushuai*. Li Xun therefore lived between the ninth and tenth centuries. He held a post in Former Shu.

The religious background of Li Xun: Daoism, Zoroastrianism or Nestorianism?

As Li Xun’s family were immigrants from Persia, his religious background certainly merits discussion. According to the extant sources, Li Tingyi became involved in alchemy under the influence of Daoism. Li Xun also mentions numerous alchemical drugs in the *Haiyao bencao*. Moreover, he composed two *ci* poems of the *Nü Guanzi* 女冠子 (Female Daoist), paying tribute to their pure chastity. Li Xun may have been influenced by the Daoism of his younger brother, Li Tingyi. It raises two questions. First, did Li Xun remain faithful to the original religion of his family? Second, what was that religion?

The three foreign religions practised in Tang (618–907 CE) China—Zoroastrianism, Nestorianism and Manicheisms—were all well established in Persia, but the dominant religion was Zoroastrianism. Recently, Li Guotao 黎國韜 has suggested that Emperor Wang Yang of the Former Shu was a Zoroastrian:

Because Li Xun’s brother and sister were Zoroastrians and encouraged Wang Yang’s belief in this religion, this is very likely.¹⁸

The question of whether or not the royal family of the Former (907–925 CE) and Later Shu (934–965 CE) really believed in Zoroastrianism requires further examination.

As to the view that Li Xun’s brother and sister were Zoroastrians, there is almost no documentary evidence to support this. The main piece of evidence—the term ‘Golden bullet for a catapult’ (a weapon famously used by the Iranian god Veshparkar) in a *ci* poem by his sister Li Shunxian—is unconvincing. Furthermore, Li Xun was only a low-ranking *bingong*, and so could

¹⁸ Li Guotao 2004.

not have had much influence on Wang Yang. If he and Wang Yang were followers of the same religion, why was Li Xun repeatedly employed as a *bingong*, instead of gaining further advancement? Therefore, even if Wang Yang was involved in Zoroastrian observances of some kind, it does not mean that Li Xun's family were all Zoroastrians.

Luo Xianglin infers that the original religion of Li Xun was Nestorianism, because many of the Nestorians in Tang China possessed medical skills, such as Qin Minghe 秦鳴鶴 and the Monk Chongyi 僧崇一. There were some Nestorian doctors residing in Sichuan in the mid-ninth century. The 'ophthalmologist monk from Daqin [the Eastern Roman Empire]' mentioned above was probably a Nestorian cleric who worked part time as a doctor.¹⁹ Luo Xianglin further points out that the doctor Qin Deqiu 秦德丘 in *Yiji zhi* 異疾志 (Record of Strange Diseases) by Duan Chengshi was likewise a Nestorian. Professor Cai Hongsheng 蔡鴻生 has advanced an hypothesis about the mode of transmission of the three foreign religions in the Tang Dynasty: 'Manicheism as heresy, Zoroastrianism as folkway, and Nestorianism as technique'.²⁰ Of the three foreign religions, Nestorianism was particularly reliant on medicine for its transmission in Tang China. Trading in fragrant herbs or jewellery was the most common occupation of Persian immigrants in the Tang. Li Tingyi is known to have made a living by selling fragrant herbs, and his family was presumably engaged in that business too. Judging from the profession of his family and the fact that he was a pharmacologist himself and well versed in *materia medica*, I am inclined to agree with Luo Xianglin, and to conclude that Li Xun was probably a Nestorian who was influenced by Daoism. However, this supposition lacks solid evidence and remains to be proven.

The poetry of 'Persian Li' and its relations with Haiyao bencao

Being relatively open to the outside world, many non-Chinese studied in Tang China. As a Persian born in China, Li Xun undoubtedly received a Chinese education. Judging from their Chinese names, Li Xun and his brother and sister probably belonged to a generation that had thoroughly assimilated Chinese culture. Li Xun ranks as one of the most important foreign writers in mediaeval Chinese literature, while Li Shunxuan is the only known non-Chinese female writer of that time. Three of her poems are anthologised in Hongmai's 洪邁 *Wanshou tangren jueju* 萬首唐人絕句 (Ten thousand Quatrains of the Tang).

¹⁹ Dong Hao *et al.* (eds) 1990, p. 3199.

²⁰ Cai Hongsheng 2003, p. 4.

Qiongyao ji by Li Xun is no longer extant. However, 37 of his poems are included in *Huajian ji* and 18 more are found in the Song anthology *Zunqian ji* 尊前集 (Collection before Goblet). *Biji manzhi* by Wangshao gives the titles of another five poems. Generally speaking, Li Xun's poems reveal a great love for the landscapes of the south. His descriptions of southern social customs also portray a deeply felt disdain for official rank and the fact that he cared little for the trappings of office and promotion. His poetic style has been described as fresh, embodying grace and chastity.²¹ In evoking the unique qualities of the south in this way, he contributed to Chinese literature by extending the themes of *ci* poems. His vivid portraits counter the received image of the regions south of the Five Ridges (modern Guangxi and Guangdong) as wild, savage and miasmatic.

The main work in which Li Xun describes this scenery of the south is a group of 17 *ci* poems called *Nanxiangzi* 南鄉子. In these poems, he mentions many medicinal plants which also occur in *Haiyao bencao*, for example, cardamom *amomum*, red cardamom, gomuti palm tree, litchi, *Citong* flower 刺桐 (海桐) etc.

In these poems, Li Xun describes the beautiful landscape of the area south of the Five Ridges, and expresses the delight it arouses in him. Though Persian in origin, Li Xun studied Chinese poetics thoroughly and emulated the style of the Tang literati. In Chinese literary history, Li Xun is described as a member of the *Huajian School* 花間派 of poets of the Five Dynasties. Under the influence of the *Huajian School*, foreign medicinal plants took on special significance in the imagery of Li Xun's poetry: 'Because I went away, there are no letters from my homeland'. This line conveys the particular sense of melancholy that colours Li's writing. His literary sensibility and nostalgia for his country together provide the impulse for his poetic work and surely also for *Haiyao bencao*.

The foreign drugs recorded in *Haiyao bencao*: from 'barbarian' to 'overseas'

The significance of 'overseas' drugs

In the Sui and Tang periods, *materia medica* from abroad were usually called 'barbarian' (*huyao* 胡藥), from the 'Western kingdoms' (*xiguo yao* 西國藥) or 'foreign' (*fanyao* 番藥).

²¹ Cheng Yuzhui 1992.

Five drugs in *Haiyao bencao* contain the word *hai* 海 ‘sea’ in their names: *Haizao* 海藻、*Haihongdou* 海紅豆、*Haitongpi* 海桐皮、*Haicansha* 海蠶沙、*Haisongzi* 海松子. All the medicaments in *Haiyao bencao* broadly correspond to fragrant herbs. Of the 131 drugs found in the book in its extant form, most come directly from abroad or are medicinal herbs of foreign origin cultivated in south China. According to statistics, about 100 foreign drugs in total were known in the Tang period.²² It may be said that *Haiyao bencao* gives an overview of those introduced into China prior to the Song period.²³

Biebao jing (Classic of Distinguishing Treasures): Persian drugs and social customs in *Haiyao bencao*

Haiyao bencao consists of six parts, namely jades, grass, trees, animals, insects and fruits as in *Xinxiu bencao* or *Bencao gangmu*. In all, it discusses 130 kinds of drugs. In addition to recording the geographical provenance of drugs and relating how these drugs are used by foreign doctors, *Haiyao bencao* also directly cites or expounds upon foreign literature. In the entry on ‘Piece of jade’, we read:

Biebao jing 別寶經 (the Classic of Distinguishing Treasures) also says: ‘All jade is contained in stone, but when a stone is viewed at night by lamplight, if it glows red like the sun, you will know that there is a jade inside it.’

Biebao jing, the authority cited here, is not mentioned in earlier literature. Only the later texts, such as Fang Yizhi’s 方以智 *Wuli xiaoshi* 物理小識 (Minor Knowledge about Things and Their Principles) and Chen Yuanlong’s 陳元龍 *Gezhi jingyuan* 格致鏡原 (Mirror Origins of Investigating Things and Extending Knowledge), quote this remark. I think that *Biebao jing* is likely to be a fragment of a book by a Persian author, because Persians in mediaeval China were credited with special skills in identifying treasures. The given names of both Li Derun (Li Xun) and his brother Li Tingyi and also the title of his book *Qiongyao ji* refer to jade. In the Tang novels, there are many stories of Persians doing business in jewellery and treasures.²⁴ Tales abound of both ‘barbarians’ in Tang China with Muslim ‘Huihui’ 回回 in the Yuan and Ming period demonstrating the ability to discover treasure. Folklorists have analysed these tales in depth.²⁵ Other peoples credited with being able to identify treasure in Tang

²² Shen Fuwei 1988, pp. 191–2.

²³ Wang Li 1991, pp. 32–7.

²⁴ Schafer 1951.

²⁵ Cheng Qian 1986.

times are Indians, Sogdians, Arabs, and Kunluns 昆侖人 (black Africans?), but their abilities were apparently inferior to the Persians, and even the Sogdians, who played a key role in commerce along the Silk Road in Central Asia, candidly admit defeat.²⁶

There are similar records in Chinese Buddhist texts. Some suggest that ancient Indians also studied this skill as a part of their education. There are also tales about identifying treasure in Buddhist texts. *Guangyi ji* 廣異記, (Records of numerous curiosities) as quoted in *Taiping guangji* 太平廣記, refers to a Brahman whose name is Biebao 別寶 (Identifier of Treasure).²⁷ This indicates that there were professional specialists in the identification of treasures in ancient India. Chinese Buddhist writers even used this skill as a metaphor in their works. The Persian reputation for being skilled in locating and identifying treasures made a deep impact on the Chinese psyche, gradually becoming ‘a topic in the Ch’an discourse of Chinese Buddhists’.²⁸

Doctors from Qin and the country of Qin: Great Qin in Haiyao bencao

The entry on betelnut in *Haiyao bencao* states:

A doctor of Qin [Eastern Roman Kingdom] says: ‘[Take] two betelnuts, one of them unripe and the other ripe. Grind them to powder and take with wine. This is good for curing various *qi* of the urinary bladder’.

Li Shizhen, in his entry on betelnut in *Bencao Gangmu*, says: ‘This is a prescription of the Imperial physician Qin Minghe’. Moreover, the entry on nutmeg in *Haiyao bencao* says: ‘Following closely what Guanzhi says: [It] comes from Qin Country and the Western Regions’. Shang Zhijun also thinks that ‘Qin country’ must be a shortened form of ‘Great Qin country’. In fact, by Tang times Daqin refers to a number of Western places, not the full Roman Empire that Leslie and Gardiner were so sure of.²⁹ Li Xun directly mentions five drugs from Great Qin in *Haiyao bencao*: Persian white alum, *Wufeng duyao* grass, nutmeg, *Xianzhen xiang* and *Wuyi* (*Ulmus macrocarpa*).

Some of the drugs from the Eastern Roman Empire in *Haiyao bencao* are also found in other texts, such as rhinoceros horn, amber, *Douna xiang*, rosemary etc. There were a great many Nestorians from the Eastern Roman Empire

²⁶ Rong Xinjiang 2002, pp. 56–76.

²⁷ The story ‘Cheng Bi’ 成弼 in *Taiping Guangji*, vol. 400, says that a Brahman is also called ‘identifier of treasure’.

²⁸ Cai Hongsheng 2002, p. 214.

²⁹ Leslie and Gardiner 1996.

or Persia residing in China. The transmission of Nestorian Christianity in China is known through Dunhuang manuscripts and the records of *Daqin Jingjiao liuxing Zhongguo bei* 大秦景教流行中國碑 (Monument of the Spread of the Jing Religion of Da Qin/Ta'chin). It has been studied in depth over the past 20 years.³⁰ *Daqin Jingjiao liuxing Zhongguo bei* also provides evidence of medical activities in Nestorian monasteries.

The so-called medicine of the Eastern Roman Empire in Tang China was in fact disseminated by the Nestorians of Syriac origin. In Chinese, a first-hand account of the medicine of the Eastern Roman Empire is given by Du Huan 杜環 (735–812 CE) in his *Jingxing ji* 經行記 (Notes on the Places Passed By).

[The doctors of] the Eastern Roman Empire are good at treating eye diseases and diarrhoea. Some of them can predict disease before it comes. Some of them can carry out craniotomy to remove worms.³¹

Du Huan had lived in Arab regions for several years as a prisoner of war, so his record is quoteworthy. Ophthalmology was very well developed in the Eastern Roman Empire. In 829 CE, the above-mentioned Nestorian oculist from the Eastern Roman Empire was practising in Chengdu, China.

According to recent research by Huang Lanlan 黃蘭蘭 Qin Minghe 秦鳴鶴, who cured the eye disease of Emperor Gaozong of the Tang Dynasty, was a Nestorian doctor from the Eastern Roman Empire. Qin Minghe adopted the method of piercing a point to let blood so as to cure a disorder of the eye indirectly through the brain. In this he differed from the Indian oculists, who practised couching for cataracts. This exemplifies an early advance in the cross-cultural transmission of medical techniques.³²

There were therefore at least two advanced ophthalmic techniques, one from India and one from the Eastern Roman Empire, introduced into China during the Tang period. Again, Wang Zhixing suggests that Monk Chongyi 崇一, who also practised medicine at the Tang court, was a Nestorian.³³ In Ma Boying's opinion the Daoist Lin, mentioned in *Xianshou Lishang xudian mifang* 仙授理傷續斷秘方 (Secret Prescriptions on Curing Fractures Imparted by Immortals), was probably a Nestorian. Moreover, a story in Wang Renyu's *Yutang Xianhua* 玉堂閒話 (Gossip at the Jade Hall) tells of a method of curing leprosy by opening up the skull to remove the parasite using frankincense wine as an anaesthetic. This method may relate to the medical

³⁰ Saeki 1937; Zhu Qianzhi 1993; Lin Wushu 2003; Li Tang 2004.

³¹ Du Huan 2000, pp. 23–4.

³² Huang Lanlan 2002.

³³ Chen Yuan 1980, p. 97; Wang Zhixin 1940, p. 41.

techniques of the Eastern Roman Empire.³⁴ By virtue of their linguistic and medical knowledge, Nestorians were able to impart accurate pronunciations of medicinal substances to aid Chinese scholars in their identification of unfamiliar substances.

In the ancient Chinese medical literature, there is little first-hand source material on the Eastern Roman Empire. Sun Simiao records a recipe in the twelfth volume of *Qianjin yifang* for ‘Moulding a person’s temperament’, of which he states, ‘Zhang Dan said that Persia and the Eastern Roman Empire attach great importance to this recipe and call it “Bo-san decoction” 悖散湯’.³⁵

In China, this well-travelled and enduring recipe from Persia and the Eastern Roman Empire was sometimes known as the recipe for long pepper with milk and gained credibility from its association with Emperor Taizong of the Tang Dynasty.³⁶ The same story is repeated in *Yinshan zhengyao* 飲膳正要 (Principles of Correct Diet, or Proper and Essential Things for the Emperor’s Food and Drink, 1330), compiled in the fourteenth century by the Mongol doctor Hu Sihui 忽思慧.³⁷

Betelnut was thought to remove *qi*. Disorders of *qi* in China often relate to pathologies of breath or abdominal gas causing discomfort. A Syriac medical book also suggests a similar usage:

And castoreum given to the patient in vinegar and water is good for the hiccoughs, or a dose of plônâyâ (betel, or areca nut?) about the size of a chick-pea given in wine, and this medicine is good also for the hiccoughs that arise through windy flatulence.³⁸

Persian drugs and social customs in Haiyao bencao

There are many drug titles that betray their Persian or Arabic origin, for example (literally translated), Persian white alum, Arabic gold pieces, Persian silver pieces, Persian green salt etc. And there are also many Indian drugs that we can identify by Chinese transliterations from Sanskrit, for example, Helile 訶梨勒 from Sanskrit haritaka, Tocharian arirak, or Persian halila.

³⁴ Ma Boying *et al.* 1993, p. 251.

³⁵ Sun Simiao 1999, p. 369.

³⁶ This story is recorded in *Duyi zhi* 獨異志, *Dingming Lu* 定命錄 in *Taiping Guangji*, vol. 146 and vol. 221 respectively.

³⁷ Buell *et al.* 2002, p. 424.

³⁸ Budge 1913, p. 326. Though one obviously needs to take into account the difference between *qi* and *wind*. For a discussion on the difference between these two concepts, see Kuriyama 2002, pp. 233–70.

Trade with Persia and the Arab empire flourished under the Tang Dynasty. Ancient Persian medicine played an especially important role in mediaeval China.³⁹ Even after Sassanian Persia was annihilated by Arabic military force, the Persians continued to pay tribute to the Tang government, including gifts of large quantities of medicines. Wang Qinruo's 王欽若 (d. 1025) *Cefu yuangui* 冊府元龜 (The Prime Tortoise of the Record Bureau), vol. 971, says:

In the first month of the eighteenth year of the Kaiyuan period (730 CE), the Persian prince Jihusuo 繼忽娑 came to pay tribute, including fragrant herbs, rhinoceros etc.

In the entry on *Zikuang* 紫曠 (*Butea frondosa* Roxb) in *Youyang zazhu*, Duan Chengshi gives the names of two Persian emissaries: 'The Persian emissaries Wuhai 烏海 and Shalishen 沙利深'. Both Wuhai and Shalishen were in fact presumably Persian merchants. However, they were still regarded as Persian emissaries by the Chinese, even though the Tang government deemed the Persian Empire to have come to an end with the death of the last Persian king.

Of the many medical practitioners from Persia in Tang China, Sun Guangxian's 孫光憲 (?–968 CE) *Beimeng suoyan* 北夢瑣言 (Desultory Notes from Yunmeng in the North) says: 'The Persian Mu Zhaosi 穆昭嗣 has been interested in medicine since his childhood'.⁴⁰ Cai Hongsheng is of the opinion that Mu Zhaosi was from Merv Country which was under the Sogdian system.⁴¹ The Dunhuang manuscript S.1366, *Guiyijun yaner mianyou poyong li* 歸義軍衙內麵油破用曆 (980–982 CE), notes:

A Persian monk from Ganzhou: seven *dou* of wheat flour each month, one *sheng* of oil. . . . Pay one *dan* of wheat flour and three *sheng* of oil to a Persian monk who brings in drugs.

Given that this Persian monk was a purveyor of drugs, he is likely to have been a Nestorian.

According to previous calculations, in the Shang Zhiju edition of *Haiyao bencao* there are records of 15 drugs from Persia. In fact, I have found 17 drugs that have a connection with Persia.

Prior to *Haiyao bencao*, the two texts recording Persian medicaments are *Xinxiu bencao* and *Youyang zazhu*. Tang Buddhist texts record two different Chinese names for Persia, namely *Bolisi guo* 波利斯國 and *Bolasi* 波刺私. More concrete references are the many records of Persian drugs in Buddhist texts.

³⁹ Wolters 1960; Fan Xingzhun 1952; Song Xian in Ye Yiliang (ed.) 1998.

⁴⁰ See Sun Guangxian 2002, p. 383.

⁴¹ Cai Hongsheng 2005, pp. 75–82.

Some dictionaries of Buddhism in Tang also contain entries on Persian drugs. For example, the entry on *biba* 華芡 (Long Pepper / Sanskrit: Pippalā; Persian: Pipal) in *Yiqie jing yinyi* 一切經音義 (The Pronunciation and Meaning of the Canon), compiled by the Tang dynasty monk Hui Lin 慧琳 (737–820 CE), says:

Biba 華芡: The pronunciation of the first part is Bi 必. It is a foreign word, a drug name from the west. It originally comes from Persia and the Brahmanic country (India). It looks like mulberry, and it is thin, long and very acrid.⁴²

Syncretic medical practice in *Haiyao bencao*: Alchemy and Daoism

Under the influence of Daoism, Li Tingyi was attracted to alchemy, a pursuit which cost him his entire fortune. A similar story is told about Mr Wen in volume 238 of *Taiping Guangji* (from *Wangshi jianwen* 王氏見聞 [Mister Wang's information]):

There was a man whose surname was Wen, but his given name is not recorded. He lived in Hanzhong and consorted with the families of high officials in the two Shu periods. He made a living by alchemy. All the people who became involved in alchemy were cheated by him. A merchant called Li Shiwu Lang, who possessed an immense fortune, was tempted by Wen. With three years, all his wealth was gone. He was then mocked by an acquaintance. So great was his regret and shame that he committed suicide.⁴³

This story probably dates to some time during the Former and Later Shu period of the Five Dynasties. Given the similarity of both surname and given name, Li Shiwulung was probably a Persian like Li Silang (Li Tingyi). Both of them were also wealthy merchants who engaged in the main Persian trade, fragrant herbs and/or treasures. They were also drawn into the same alchemical pursuits under the influence of Daoism and came to the same disastrous economic end. Nestorians mingling with Daoists was a new phenomenon, which we encounter after the Huichan reign period of Tang Wuzong. Rong Xinjiang points out that *Lidai fabao ji* 歷代法寶記 (The Chronicle of Chinese Buddhism), the text of a sect of Ch'an Buddhists active in Sichuan in the Tang period, lists the names of Mo-man-ni 末曼尼 (Mommani) and the Mi-shi-he 彌施訶 (Messiah) in various teachings.⁴⁴

⁴² Takakusu and Watanabe 1924–34, vol. 54, p. 710.

⁴³ Li Fang *et al.* 2003, p. 1840.

⁴⁴ Rong Xinjiang, 2001, pp. 343–68; Barrett 2003.

Apparently Nestorianism was active in Sichuan during the late Tang period. Based on the evidence provided by the Nestorian ophthalmologist from the Eastern Roman Empire, the records of Li Tingyi's family and Li Shiwulang, we could probably draw an outline of the transmission of Nestorianism in Sichuan and its relations with Daoism during the late Tang period. In addition to the use of Daoist terms in Chinese translations of Nestorian literature, research into medical practice might provide an important link between the two religions in Tang China.⁴⁵ After the fifth year of the Huichang period, the Nestorians, logically enough, availed themselves of the herb trade or their medical skills to seek shelter in Daoism. The reason why they were so readily accepted by Daoists is probably twofold. From the Daoist point of view, legend had it that Laozi had converted the barbarians of the western regions. Secondly, Daoists generally employed foreign drugs in their alchemical practice. The Nestorians were purveyors of drugs that could be used in alchemy. Their shared pursuits no doubt put them into contact with foreign druggists and Nestorians in the Tang period.

The Daoist influence in *Haiyao bencao* can be seen in two areas: firstly, the text directly cites Daoist literature, such as *Xian jing* 仙經 (Classic of the Immortals), *Huainan sanshiliu shuifa* 淮南三十六水法 (Thirty-six Kinds of Water Methods from Huainan), *Xian zhuan* 仙傳 (Biography of the Immortals), and *Xianfang* 仙方 (Recipes of the Immortals). Presumably *Xianfang* is an alchemical text.

Secondly, as Luo Xianglin and Shang Zhijun have noted, when Li Xun analyses the properties of drugs in *Haiyao bencao*, he frequently mentions how they are used by alchemists or Daoists. The terms he uses, *shaojia* 燒家 (alchemist), *Danzaojia* 丹竈家 (alchemist), *Shaolianjia* 燒煉家 (alchemist) and *Fangjia* 方家 (purveyors of remedies) are all characters frequently recorded in Daoist literature. Li Xun's attention to the alchemical significance of drug-taking reveals his Daoist connections. Concepts derived from Daoism and *materia medica* works, both structure and shape Li Xun's work. *Haiyao bencao* is therefore characterised by a syncretic medical practice simultaneously embodying Chinese and foreign elements.

Preliminary Conclusion

In compiling *Haiyao bencao*, Li Xun made full use of his Persian cultural background and family business experience in fragrant herbs, and gathered together

⁴⁵ Barrett 2002.

information from previous work. He also travelled around Sichuan and south of the Five Ridges to research and investigate medicaments. Li Xun also mentions many current developments. His remarks show that he attached much importance to first-hand investigation and recording of the current state of affairs. Thus he left a precious historical record for posterity. *Haiyao bencao* is a highly significant work both for the history of Chinese *materia medica* and the history of communication between China and foreign countries.⁴⁶

According to Shang Zhijun, over 40 drugs in *Haiyao bencao* are recorded in *Xinxiu Bencao* and over 50 are in *Bencao shiyi*. It is obvious that the main body of *Haiyao bencao* is constituted of drugs which also figure in mainstream pharmacopoeias. Judging from the extant text of *Haiyao bencao*, some of the records add nothing new to the preceding *materia medica* books, but others show considerable advances. Sichuan abounds in herbs and other medicinal substances. Around the time of Li Xun, King Meng Chang 孟昶 of the Later Shu (935–965 CE) commanded Han Baosheng 韓保昇 to edit a new *materia medica* book, which was to be entitled *Shu bencao* 蜀本草 (*Materia medica* of Shu [Country]). This book was based on the ‘Illustrations’ section of *Xinxiu bencao*. Tang Shenwei 唐慎微 (c.1056–1136), the author of the famous Song Dynasty herbal *Zhenglei bencao* 證類本草 (*Materia medica*, Corrected and Arranged in Classes, c. 1082), was also born in Sichuan. He included over 100 substances from *Haiyao bencao*, sixteen of which he lists as major drugs. *Zhenglei bencao* was subsequently re-edited into *Daguan bencao* 大觀本草 (*Materia medica* of the Daguan Period) by medical scholars of the Song government.⁴⁷ Therefore, from being a repository of folk knowledge, *Haiyao bencao* became an element in the classic medical knowledge of the scholarly and ruling classes.

Haiyao bencao was also quoted in the thirteenth-century Japanese medical text *Mananhou* 萬安方 (まんあんぼう Formulary for Absolute Safety), demonstrating its influence into East Asia. Crucially, it was later quoted by the Ming scholar Li Shizhen in his great pharmaceutical encyclopaedia, *Bencao gangmu*.⁴⁸ By becoming part of this immortal work, the brilliant innovations of *Haiyao bencao* were preserved for posterity.

⁴⁶ Rahman in Rahman (ed.) 2002, p. 302; Okanishi Tameto 1977.

⁴⁷ Shang Zhijun (ed.) 2003.

⁴⁸ Li Shizhen 1982.

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