Journal of Chinese Buddhist Studies (2018, 31: 1–37) New Taipei: Chung-Hwa Institute of Buddhist Studies

中華佛學學報 第三十一期 頁 1-37 (民國一百零七年)新北:中華佛學研究所

ISSN: 2313-2000 e-ISSN: 2313-2019

Yixing and Pseudo-Yixing: a Misunderstood Astronomer-Monk

Jeffrey Kotyk

Postdoctoral Fellow, International Consortium for Research in the Humanities, Friedrich-Alexander-University of Erlangen-Nuremberg, Germany

Abstract

The present study argues that we must differentiate between the historical Yixing 一行 (673–727), an eminent Chinese monk, and the later legend that developed: a pseudo-Yixing, to whom various texts incorporating elements of astral magic and astrology were attributed. Scholars have not adequately differentiated between the historical Yixing and the later fictionalized figure, resulting in misunderstandings about the evolution of Buddhist astrology in China, and more specifically Yixing's role within it, in addition to the chronology of Buddho-Daoist interactions. This corrective study examines some Buddhist texts attributed to Yixing and proves that they are all products of the ninth-century.

Keywords:

Yixing, Esoteric Buddhism, Astronomy, Astrology, Magic

一行抑或假託一行 ——被曲解的星學家僧人

康傑夫 德國埃爾蘭根大學國際人文研究院博士後研究員

摘要

本文主張區分兩個不同的一行:一個是歷史上中國高僧一行(673-727),另一個則是在後期傳說中不斷添加,並被眾多占星學文本所假託的一行。古代與現代學者屢屢混淆此兩種範疇的一行,這不僅導致對中國佛教占星學演變的誤解,尤其是一行在其中所扮演的角色,以及曲解佛教與道教兩派占星學的交互過程。本文考察了以往被歸為是一行所著的佛教文本,證明這些文本皆是九世紀的產物。

關鍵詞:

一行、密教、天文學、占星學、魔法

Introduction

The present study concerns the eminent astronomer-monk Yixing 一行 (673-727), a figure notable in Chinese history for his accomplishments in science, divination and religion. His eminence and involvement in astronomy at court and Buddhism were such that fictional accounts of him emerged long after his death, resulting in the production of a figure that I will call "pseudo-Yixing," to whom numerous works were attributed that in some cases display clear Daoist influences. Modern scholarship has not adequately differentiated historical Yixing and pseudo-Yixing, resulting misunderstandings that have led to erroneous conclusions. This reevaluation of biographical sources on Yixing stands to reshape some of our perspectives on medieval Buddhist Chinese history, most notably the chronology of Buddho-Daoist interactions during the Tang period.

This study will first attempt to divide the historical Yixing from the later legend of him. This is important because late-Tang and Song sources—both secular and Buddhist—utilize biographical data and fictional stories, leading to an image of Yixing that is problematic and arguably anachronistic from a modern historian's point of view. Several extant texts attributed to Yixing are also carefully examined and argued through philological analysis to be products of the ninth-century.

The production of the figure of pseudo-Yixing during the medieval period of China, I argue, reveals a process in which a historical figure could transform into a legend only loosely based on an earlier historical reality. In the present case, pseudo-Yixing's connection to astrological matters highlights the contemporary Buddhist interest in such things during the ninth-century.

This study builds primarily on the work of Osabe Kazuo (1963), Chen Jinhua (2000) and Wu Hui (2009), with due credit given to Lü Jianfu (2009) for pointing out some anachronistic features of the texts that I will address below, in addition to referring to my own relevant publications in 2017 on the development of Buddhist astrology in China. The body of primary sources upon which I rely are drawn from various medieval Chinese and Japanese resources, which will be discussed throughout this study (see also the list of primary sources in the bibliography).

The Historical Yixing

The historical Yixing was known in his time not only as a court astronomer and monk, but also as a specialist of the *Yijing* 易經. This stands in contrast to the later legendary figure of him that emerged during the ninth century as a sort of magician adept in astral magic, which will be discussed below. First, we will sketch out the historical Yixing's life and accomplishments in order to see the foundation atop which the legendary man was constructed. The details concerning Yixing's historically plausible education and career are important to bear in mind—in particular the absence of any credible account indicating practice of Daoism—when we consider several texts attributed to him.

The most reliable study of Yixing's biography in English was done by Chen Jinhua in 2000, which serves as an initial basis for my own reconstruction of Yixing's life, although I disagree on several points, which are noted below. Osabe Kazuo also produced a monograph in Japanese on Yixing in 1963, but here also I must offer some fresh interpretations.

The earliest reliable source of material that we might utilize in attempting to reconstruct the life of Yixing is preserved in Japanese sources from the early ninth-century. This material was clearly inherited in a mature form from China several decades after Yixing's death. Although this is not ideal for reconstructing a biography of Yixing, this material nevertheless has the advantage of dating to a time *before* the fictional accounts of Yixing appear to have been composed, which will be discussed below.²

First, we possess a copy of the inscription on Yixing's funerary stele, which was erected by Emperor Xuanzong 玄宗 (r. 712-756). Its inscription

[&]quot;Magic" is an oft-contested term in academic literature dealing with the Western Occult. "Astral magic" is nevertheless a common designation for ritual practices connected to astrology and astral deities. "Astral magic" will here be simply defined as apotropaic rituals designed to negotiate fate with planetary deities. My definition is derived from one Chinese term used in this context: rangzai 攘災, which can be literally translated as apotropaism, i.e., the use of rituals to avert disasters. The basic concept is that one can primarily avert astrologically predicted disasters through use of prescribed rituals, which in the Chinese Buddhist context, as will be shown, could include elements from Indian, Chinese and even Iranian sources.

In light of the fact that these Japanese sources provide dates, locations and other features that match up with what is known about Yixing from credible Chinese sources, I have no due cause to suspect fabrications on the part of Japanese authors. The reception of Yixing in Japan beyond the sources discussed here is a topic for another study.

was copied by the Japanese monk Kūkai 空海 (774–835).³ Additional details of his life are provided by Kūkai's contemporary, the Tendai monk Saichō 最 澄 (767-822), in his Taizō engi 胎藏緣起 (Genesis of the Garbhadhātu) and Naishō buppō sōshō kechimyaku fu 內證佛法相承血脈譜 (Transmitted Lineage Account of the Inner-realized Buddhadharma).⁴ These works appear to have drawn upon a source titled Shishi yaolu 釋氏要錄 (Essential Record of the Śākyas), which is cited by Saichō, but is not extant.⁵

Turning to Chinese sources, the Jiu Tang shu 舊唐書, a history of the Tang dynasty produced by Liu Xu 劉昫 (887-946) in 945, provides a biography, although many of the details are clearly derived from fiction of the late Tang (see below), in addition to a description of his work as a court astronomer. 6 The Xin Tang shu 新唐書, a revised history of the Tang compiled in 1060 by Ouvang Xiu 歐陽修 (1007-1072) and Song Oi 宋祁 (998-1061), omits Yixing's biography, but includes rich details on his calendar. In light of the official nature of Yixing's calendar, there is no due cause to suspect that any of the information related to it in the Tang histories was later fabricated.

Based primarily on the above sources, we can produce a sketch of Yixing's life as follows. He was originally born as Zhang Sui 張遂 in Changle 昌樂 in Weizhou 魏州 (modern Hebei Province) in 673.8 Yixing was the great-grandson of Zhang Gongjin 張公謹 (584-632), a prominent man during the unstable years of the early Tang dynasty. The *Taizō engi* states that both of his parents died when he was aged twenty-one. He was thereby compelled to abandon the mundane life. He encountered in Jingzhou 荊州 the monk Hongjing 弘景 (634-712; also rendered Hengjing 恆景), from whom he received teachings. It was from this relationship that Yixing was

6 See fasc. 191 for his biography (vol. 19, 5111–5113). For his work in astronomy and the state calendar, see fasc. 35 (vol. 4, 1293–1310)

³ In Kōbōdaishi zenshū 弘法大師全集, vol. 1, 63-65. Alternate title of Ryaku fuhō den 略付法傳 (Brief Account of the Transmission).

⁴ In Dengyōdaishi zenshū 傳教大師全集. See vol. 1, 238-242; vol. 4, 387-393.

⁵ See Dengyōdaishi zenshū, vol. 1, 239.

See fasc. 27a-28b (vols. 2-3). The omission of Yixing's biography in the Xin Tang shu, as well the biographies of other monks discussed earlier in the Jiu Tang shu, is perhaps a reflection of hostile sentiments against the religion in the early Song. Elizabeth Morrison notes that Ouyang Xiu was a strong advocate for the repression of Buddhism. See Morrison, The Power of Patriarchs, 109.

⁸ As Chen points out, Yixing's year of birth is often given as 683, but 673 is more likely. See Chen, "The Birth of a Polymath," 25–31.

apparently inspired to ordain as a monk. He further studied under a certain Facheng 法誠 (d.u.) of Huagan-si 化感寺. Yixing arrived in Luoyang in 707 (year 1 of Jinglong 景龍), where he received full precepts. It is recorded that after borrowing a copy of the *prātimokṣa* (a manual for monastic precepts), he was able to recite it from memory after only one reading. He was also said to have been quite diligent in his practice of the vinaya or monastic precepts.

Yixing's sincere interest in the vinaya as described here is quite plausible in light of a work apparently by him titled *Shishixi lu* 釋氏系錄 (Account of the Śākya Lineage) in one fascicle. It is not extant, but a Buddhist catalog by the monk Yuanzhao 圓照 (fl. 8th cent.) provides a description. It states that the work covers four items: monastic administration (綱維塔寺), the aims of teaching Dharma (說法旨歸), seated meditation and cultivation (坐禪修證), and the three monastic robes (三法服衣), in addition to an appended article on regulations governing the midday meal (中齋法).⁹ It is unclear when during his lifetime he produced this work (assuming he actually did).

Yixing appears to have evaded political figures during the reign of Empress Wu Zetian 武則天 (624–705). The *Jiu Tang shu* relates that Wu Sansi 武三思 (d. 707), a relative of the Empress, and himself a powerful minister, professed admiration of Yixing's work and therefore requested a meeting with the monk, but he fled and hid himself away. This might have been what prompted him to travel to Mt. Song 嵩山. It was here that he studied Chan under the Chan master Puji 普寂 (651–739), later known as Dazhao Chanshi 大照禪師, who was widely recognized as the seventh patriarch of the Northern Chan school. On this point, we should note that the *Jingde chuandeng lu* 景德傳燈錄 (T 2076; Record of the Transmission of the Lamp Published in the Jingde Era), an account of the Chan lineage compiled in 1004, lists Yixing as one of forty-six dharma-heirs to Puji. 10

Yixing's monastic name is apparently connected to his Chan practice. The *Taizō engi* states that Yixing constantly cultivated *yixing sanmei* 一行三昧 or "single-action *samādhi*," perhaps approximately equivalent to **ekavyūha-samādhi*. Chen suggests that Yixing also studied under Puji's teacher Shenxiu 神秀 (d.706), a prominent Chan master, based on the contents of a letter addressed to Zhang Yue 張說 (667–731) that is attributed to Yixing (dated 715–717), in which it is stated that over ten years had passed since their late teacher had died. The letter is an invitation to attend an assembly at Dumen-si 度門寺, an institution which had been established by Wu Zetian for Shenxiu.

⁹ T 2156, 55: 765a6–10.

¹⁰ T 2076, 51: 224c12.

One of the fellow monks mentioned in the letter, Damo 達摩 (d.u.), was also known as a disciple of Shenxiu. 11

The Taizō engi and Jiu Tang shu report that after Emperor Ruizong 睿宗 (662–716) ascended the throne in 710, Yixing was ordered to meet with the statesman Wei Anshi 韋安石 (651-714), but Yixing excused himself on account of illness. Yixing spent the next several years wandering in more southern areas, seeking out eminent monks, and was constantly on the move. He later moved to Mt. Dangyang 當陽山,12 where he studied the "Indian vinaya" (fan lü 梵律) under Wuzhen 悟真 (673-751), otherwise called Huizhen 惠真.¹³ It seems that it was around this time that he intensively studied vinaya works, apparently compiling a work explaining the essentials of the vinaya entitled Tiaofu zang 調伏藏 (Depository of Discipline) in ten fascicles. It is not extant. 14

The Taizō engi reports that in the year 716 (year 4 of Kaiyuan 開元), Yixing was staying at Mt. Yuquan 玉泉山. Emperor Xuanzong commanded Zhang Qia 張洽 (d.u.)—the paternal younger male cousin of Yixing's father—to personally invite Yixing to the capital in 717. Yixing arrived in the capital and we are told in the Jiu Tang shu that he was often visited, presumably by the emperor, who asked about the ways of securing the country and placating the people.

Yixing's arrival in the capital marked the start of two separate careers, one in astronomy, and the other as an eminent monk involved in the introduction

¹¹ Chen, "The Birth of a Polymath," 26-30. See Quan Tang wen, vol. 10, 9525-

¹² Yixing's association with Mt. Dangyang was still known during the Qing dynasty. The record of Dangyang county, the Dangyang xian zhi 當陽縣誌, records a legend that, at nearby Mt. Sanxing 三星山, Yixing had placated (rang 禳) the constellations Sanxing 三星 (i.e., Shen 參 or Xin 心) and Jing 井 (the name of the mountain is apparently derived from this). Wu Hui assumes this account is in reference to "astronomical activities," but it is clearly referring to some sort of astral magic. See quotation in Wu Hui, "Seng Yixing shengping zaiyanjiu," 103.

¹³ Another, perhaps honorary, name for this monk was Lanruo (aranya) Heshang 蘭若和尚, which was given on his memorial stele, the inscription for which was composed by Li Hua 李華 (715-766), a lay disciple of Śubhakarasimha. Yixing is mentioned in the inscription. See Jingzhou Nanquan Dayun-si gu Lanruo Heshang bei 荊州南泉大雲寺故蘭若和尚碑. In Quan Tang wen, vol. 4, 3236b.

¹⁴ The Jiu Tang shu lists this work as She tiaofu zang 攝調伏藏. Jiu Tang shu, vol. 16, 5112.

of the *Vairocanābhisaṃbodhi* into China. These two paths will be discussed separately.

Yixing and Astronomy

With respect to Yixing as an astronomer, the Jiu Tang shu reports that in 721 (year 9 of Kaiyuan), a lack of accurate eclipse predictions led the court to request Yixing to reform the state calendar. 15 Yixing, who presumably had studied astronomy in detail beforehand. 16 identified a need to understand the movement of the ecliptic (the apparent path of the Sun across the sky), and to take measurements in relation to it. The problem, however, was that the court astronomers until that time had always based their measurements on the celestial equator. They also did not possess any instrument to measure the ecliptic. Yixing therefore worked together with the military engineer Liang Lingzan 梁 今 瓚 (d.u.) to build a mechanical water-powered armillary sphere. ¹⁷ Its construction was completed in 725. This instrument was used by Yixing to gather critical measurements that allowed him to formulate his calendar, the Dayan li 大衍曆 (Calendar of the Great Numerology). The encyclopedic *Tongdian* 通典, compiled in 801 by Du You 杜佑 (735–812), also gives an account of Yixing and Nangong Yue 南宮說 (d.u.) analyzing astronomical observations from various locations around the year 724.18 Yixing's calendar drew on the results of these investigations while building on the work of earlier calendars that had been actively developed throughout the Sui and early Tang periods. His calendar had a number of innovative features including improved methods for solar eclipse prediction and the calculation of planetary positions, and a device to calculate gnomon length. Yixing also calculated the lengths of daytime and nighttime across differing locations and seasons. His calendar also likely incorporated some Indian elements. 19

¹⁵ Jiu Tang shu, vol. 4, 1293.

It is worth noting here that Yixing would have been aware, having studied the vinaya, that practicing astronomy was technically against regulations explicitly stated in various vinaya works. However, these conventions were in reality ignored throughout Chinese Buddhist history. For relevant remarks, see Kotyk, "Can Monks Practice Astrology?," 510-511.

An armillary sphere is a mobile model of the celestial sphere comprised of various rings that represent the ecliptic, celestial equator and so on.

¹⁸ Tongdian, 156c.

Ohashi, "Astronomy and Mathematics of Yixing," 172.

The Xin Tang shu states that although other calendars were later adopted by the state, they all emulated the Dayan li. This calendar was arguably Yixing's most significant work on astronomy. The Xin Tang shu furthermore states that he was the first to specifically employ number theory derived from the Yijing.²⁰ Text catalogs also indicate that Yixing wrote extensively on the Yijing. Osabe identifies seven presently non-extant texts either authored by or attributed to Yixing. These include the Zhouyi lun 周易論 (Treatise on the Zhouyi), Zixia Yi zhuan 子夏易傳 (Yi Transmission of Zi Xia), Jingfang Yi zhuan 京房易傳 (Yi Transmission of Jing Fang), Yi zuan 易纂 (Yi Compilation), Dayan lun vijue 大衍論義決 (Key to the Meaning of the Treatise of the Dayan), Dayan xuantu 大衍玄圖 (Profound Map of the Dayan) and Dayan lun 大衍論 (Treatise on the Dayan).21 A version of the Zixia Yi zhuan exists, but it is unclear how it relates to what Yixing compiled. The other titles appear to be treatises on *Yijing* number theory, and interpretations of the Yijing based on inherited traditions or lineages. Although it is possible some or all of them were later works retroactively attributed to Yixing, it is reasonable to assume that at least some of these could have been produced by Yixing, based on the fact that his own calendar incorporated number theory derived from the Yijing.

Yixing never saw his calendar implemented by the state. The Xin Tang shu reports that Yixing died in 727 while his calendar was still a draft. Zhang Yue and Chen Xuanjing 陳玄景 (d.u.) edited the draft by order of the court.²² The Dayan li was adopted in 729, remaining in use until 762.²³ Yixing's calendar, however, later met with criticism by the Sino-Indian court astronomer Gautama Zhuan 瞿曇譔 (712-776), who together with Chen Xuanjing in 733 claimed at court that Yixing plagiarized the *Navagrahakaraṇa (Jiuzhi li 九執曆), a manual of Indian mathematical astronomy translated in 718 by his father Gautama Siddhārtha 瞿墨悉達 (fl. 718).²⁴ A court investigation, however, concluded that these allegations were untenable,

²⁰ Xin Tang shu, vol. 2, 587, 533.

²¹ Osabe, Ichigyō Zenji no kenkyū, 124.

²² Xin Tang shu, Zhonghua shuju edn., vol. 2, 587.

²³ For the the calendrical calculations and arguments, see fasc. 34 of the Jiu Tang shu and fasc. 27–28 of the Xin Tang shu.

²⁴ Xin Tang shu, vol. 2, 587. For a study and English translation of the Navagrahakaraņa, see Yabuuchi, Zōtei Zuitō rekihō shi no kenkyū, 1-42.

although modern scholarship has suggested that Yixing, in fact, likely studied some foreign science.²⁵

In addition to achievements as an astronomer, Yixing reformed the native Chinese system of "field allocation" astrology (fenye 分野).²⁶ The territorial expansion of China over the centuries meant that it became necessary to accommodate new lands. Yixing had a role in updating the system.²⁷ It must be emphasized here that although Yixing reformed the *native* system of astrology, this system is entirely different from foreign systems from India and elsewhere, which will become relevant in our discussion below.

²⁵ Sen, "Gautama Zhuan," 278–279.

This native Chinese model of astral omenology emerged in the mid- to late-Zhou period (1046–256 BCE). It evolved over time, but the basic concept assigns segments of the twelve Jupiter stations 十二星次 (Jupiter's sidereal orbital period is 11.86 years, and so its orbit can be roughly divided into twelve sections through which Jupiter transits over approximately twelve years) and twenty-eight lunar stations along the equator to either the nine provinces of China or twelve states of the late Zhou. This early model excluded non-Chinese realms. The Yellow River corresponds to the Milky Way, while asterisms are connected to the corresponding territories. It was believed that such astral-terrestrial associations allow for prognostications about future fortunes based on the movements of the planets. It was also specifically employed in military operations. This system is not commonly mentioned in contemporary sources, which Pankenier attributes to its hermetic nature. Pankenier, *Astrology and Cosmology in Early China*, 6–7.

²⁷ Ibid., 278–279.

Yixing and Mantrayāna²⁸

During the last decade of his life, Yixing was actively involved with the Indian masters Śubhakarasimha 善無畏 (637-735) and Vajrabodhi 金剛智 (671–741). Yixing collaborated with the former to produce a translation of the *Mahāvairocana-sūtra (Dari jing 大日經; T 848), otherwise known by its attested Sanskrit title Vairocanābhisambodhi.²⁹ The Sanskrit source text that they translated was the one carried from India by a certain Chinese monk named Wuxing 無行 (b. 630), who had travelled to India, and while returning to China died in northern India. The texts he carried were forwarded to China.³⁰ The Kaiyuan shijiao lu 開元釋教錄 (T 2154; Catalog of Buddhist Teachings in the Kaiyuan Era), a catalog of Chinese Buddhist texts by

²⁸ There is presently no scholarly consensus concerning the terms Mantrayana, Esoteric Buddhism and Tantric Buddhism as they relate to the East Asian context. For a relevant discussion see Orzech et al., "Introduction: Esoteric Buddhism and the Tantras of East Asia," 3-18. Buddhist literature in East Asia never refers to a "Tantric Tradition," but a modern scholar may still draw lines between "Indian Tantra" and what we observe in East Asia. "Tantric" as an adjective captures an appropriate meaning and background. I have decided to use the term Mantrayāna, since it appears in the Mahāvairocana-sūtra (zhenyan cheng 真言乘; T 848, 18: 5c7-10, 51a29 & 54c19). Mantrayāna is a Buddhist system of practice that includes use of incantations (mantras or dhāraṇīs), visual icons, consecrations and elaborate rituals. The primary feature differentiating Mantrayana from earlier dhāranī practices and Mahayana is the belief in the potential to attain full buddhahood in a single lifetime via the practice of mantra, instead of spending immeasurable lifetimes on the bodhisattva path. This is expressly stated in the Mahāvairocana-sūtra: "... the stages from the first generation of [bodhi-]citta up to tenth [can be] progressively fulfilled in this lifetime 初發心乃至十地次第此生滿足 (T 848, 18: 1b2-4)."

²⁹ For surveys of this text and relevant secondary literature, see Kano, "Vairocanābhisambodhi," and Yamamoto, "Dainichikyō no shiryō to kenkyūshi gaikan."

³⁰ Yamamoto, "Dainichikyō no shiryō to kenkyūshi gaikan," 88. A contemporary account of Wuxing and his journey to India is provided by Yijing 義淨 (635-713) in his accounts of Chinese monks in India, the Da Tang xiyu qiufa gaoseng zhuan 大唐西域求法高僧傳 (T 2066, 51: 9a21-c13). Yijing met Wuxing in India. Fasc. 2 includes some biographical details of Wuxing. In year 1 of Chuigong 垂拱元年 (685), Yijing was returning home and parted from Wuxing (T 2066, 51: 1b22-25.). Wuxing at the time was fifty-six years old. At the time of writing the biographies in 691, Yijing was unaware of Wuxing's whereabouts. Yamamoto, however, gives a death date of 674.

Zhisheng 智昇 (669-740) finished in 730, explains that Yixing and Subhakarasimha found the *Mahāvairocana-sūtra* among other texts at Huayan si 華嚴寺 in Chang'an. In 724, the two masters moved to Luoyang, where they were housed at Dafuxian si 大福先寺. It was here that they translated the Mahāvairocana-sūtra. The original Sanskrit text is said to have included 100,000 verses. The Chinese translation excerpted the main components of the original work. The monk Baoyue 寶月 (*Ratnacandra; fl. 724) translated the words of Subhakarasimha, while Yixing acted as scribe and editor.³¹ In light of this, and the fact that there is no evidence that he was literate in Sanskrit, it can be inferred that Yixing was not strictly a translator.

Following the translation of the *Mahāvairocana-sūtra*, Śubhakarasimha provided oral commentary on the text, which was then collated with additional notes added by Yixing sometime between 724–727. This is the Dari jing shu 大日經疏 (T 1796). Although Osabe challenged the traditional authorship of this text, his conclusions have never been widely accepted by scholars. I have discussed this issue in two publications.³² Two pieces of additional evidence in support of the traditional attribution might be mentioned here. First, the discussion in the commentary on how to best calculate a new moon is very clearly derived from Yixing's own methods explained in his calendar.³³ Second, Saichō mentions the production of the commentary. 34 The traditionally attributed authorship of the *Dari jing shu* is therefore credible.

According to one Buddhist account, Yixing is said to have also received instruction from Vajrabodhi. The Jin'gangding dayuqie bimi xindi famen yijue 金剛頂經大瑜伽祕密心地法門義訣 (T 1798; Secrets of the Teaching of the Secret Mind-Ground of the Great Yoga of the Vajraśekhara-sūtra), a

³¹ T 2154, 55: 572a15-23. For details on how Buddhist works were translated into Chinese, see Funayama, Butten ha dō kanyaku sareta no ka, 53-86.

³² For a discussion of this issue, see Kotyk, "Iranian Elements in Late-Tang Buddhist Astrology," 30–31. For discussion of the commentary's section on astrology and its relationship to Yixing, see Kotyk, "Early Tantric Hemerology," 1-29.

³³ See the Liben yi 曆本議 (Discussion on the Calendar), a summary of Yixing's comments on old and new calendrical systems (Xin Tang shu, vol. 2, 591). Compare with T 1796, 39: 617c26-618a5.

[&]quot;He translated the Sanskrit into a Chinese text, altogether seven fascicles, which was then transmitted into the world, while he also produced a commentary on the meanings [of the text] 自譯梵文以爲漢典凡七卷見傳於世兼為疏義." Taizō engi, 391.

commentary traditionally attributed to Amoghavajra, 35 states that Yixing sought the Vajrasekhara abhiseka from Vajrabodhi after the latter arrived in Chang'an in 719. Yixing, we are told, further assisted in Vairabodhi's translation work, but again here he is described as a scribe, rather than as a translator.³⁶ Whether this account specifically is true or not is perhaps a topic for another study, but it is certain that Yixing, at the very least, worked with Śubhakarasimha.

The Taizō engi reports that in the autumn of 727, Yixing was gradually starting to feel unwell mentally. Medical remedies failed to improve his worsening symptoms. The court ordered eminent monks of the capital to build an altar. The recitation of those gathered was "like thunder" and although Yixing appeared to have recovered, within a few weeks he suddenly died on the road with the emperor at Xinfeng 新豐, west of Chang'an.³⁷ Yixing died as a middle-aged man, but he was quite accomplished in both secular and religious spheres. His renown at death, as well as his role as a pioneer of Buddhist Mantrayana in China, helps to explain the emergence of numerous legends about him, to which our attention now turns.

Pseudo-Yixing

My outline of Yixing's life does not incorporate elements that appear fantastical, anachronistic or simply unrealistic. Here I want to survey accounts of pseudo-Yixing as well as the extant Buddhist texts questionably attributed to Yixing.

Our early sources that otherwise appear to provide realistic details about Yixing's life already display some fantastical elements. The Japanese accounts state that when Yixing's mother was pregnant with him, she had a halo of white light on her forehead. After giving birth, the halo moved to the forehead of the child.³⁸ Although no modern scholar would take this specific account as historical, there are stories of questionable credibility that have been accepted. For instance, the Jiu Tang shu relates a story about Yixing arriving at Guoging-si 國清寺 on Mount Tiantai 天臺山 after a lengthy search for teachings on number theory based on the Yijing (the dayan 大衍):

³⁵ For a discussion of this text see Endō Yūjun, "Kongōchō daiyuga himitsu shinji hōmon giketsu ni tsuite."

³⁶ T 1798, 39: 808b25-27.

³⁷ Taizō engi, 391-392.

³⁸ Shingon fuhō den, 63. Naishō buppō sōshō kechimyakufu, 239. Taizō engi, 389.

一行立於門屏間, 聞院僧於庭布算聲, 而謂其徒曰:「今日當有弟子自遠求吾演算法,已合到門,豈無人導達也?」即除一算。 又謂曰:「門前水當卻西流,弟子亦至。」一行承其言而趨入, 稽首請法,盡受其術焉,而門前水果卻西流。

Yixing stood between the entrance and screen, listening to the sound of mathematical calculations being performed by a monk, who then told his disciple, "Today there will be a disciple from afar coming to seek my explanation of arithmetic. I reckon he has already arrived at the gate. Surely isn't there someone to let him in?" He then took out an abacus and further said, "The disciple will arrive when the waters in front of the gate turn back and flow westward." Yixing requested teachings and was subsequently fully instructed in the technique. The water outside the gate then sure enough turned back and flowed westward.³⁹

Aside from the fantastical aspect of this story, it also suspiciously fails to provide a date or the name of the mathematician-monk. Liu Xu, the compiler of the Jiu Tang shu, as well as Zanning 贊寧 (919-1002), the author of the later Song Gaoseng zhuan 宋高僧傳 produced in 988,40 both appear to have accepted this story as historically real, although it actually first appears, so far as extant literature would suggest, in the supplementary material (buyi 補潰) in the Minghuang zalu 明皇雜錄, a collection of fantastical stories compiled in 855 by Zheng Chuhui 鄭處晦 (d.u.).41 With respect to modern scholars, Chen does not identify this story as problematic for a historical biography. Joseph Needham even accepted it as a historical basis with which to make an argument. He writes, "The story, charming in itself, suggests the difficulties which mathematicians had in those days in communicating with each other, and shows how easily discoveries and improvements might die with their authors."42 There is actually nothing in the story at hand to suggest what Needham proposes here. As Wu Hui suggests, this story was constructed by later generations in an attempt to explain the source of Yixing's knowledge of mathematics and calendrical science. 43 As a court astronomer it is clear that

³⁹ Jiu Tang shu, vol. 16, 5113.

⁴⁰ T 2061, 50: 732c26-733a5.

⁴¹ SKQS 1035: 521b16-522a6.

Chen, "The Birth of a Polymath," 6 fn. 11. Needham, Science and Civilisation in China, 38.

Wu Hui, "Seng Yixing shengping zaiyanjiu," 97.

Yixing at some point had deeply studied said subjects, but it remains unclear from whom or where he did so.44

The Jiu Tang shu also states that Yixing once met a certain Daoist adept by the name of Yin Chong 尹崇 (d.u.), whereupon he borrowed from the adept the Taixuan jing 太玄經, an ancient divination manual by Yang Xiong 揚雄 (53 BCE – 18 CE). Yixing several days later paid another visit to Yin Chong. Yin Chong conceded that, indeed, the work was quite profound, and yet he was still unable to fully master it after numerous years of study. Yixing, however, stated that he mastered its teachings and also produced two works: the Dayan xuantu 大衍玄圖 and Yijue 義決. These were shown to Yin Chong, who was astonished. He declared Yixing to be a "later born Yanzi" (i.e., Yan Hui 顔回, the foremost disciple of Confucius, best known for his intelligence). Yixing, we are told, gained fame for himself as a result of this.⁴⁵ The veracity of such a laudatory story, however, is doubtful, since it first appears in the Minghuang zalu. 46 This account more likely serves as a fictional account designed to legitimize the two aforementioned works attributed to Yixing. One other point to keep in mind here is that the biographical sketch of historical Yixing above does not indicate any documentable connections to Daoism.

Tales of Yixing as an extraordinary monk are found throughout literature of the late-Tang. His legendary image clearly extended beyond the Buddhist sphere. The Kaitian chuanxin ji 開天傳信記, written by Zheng Qi 鄭綮 (d. 899), includes a story about Yixing visiting Puji minutes before his death to speak one last time to Puji. 47 Yixing is referred to here by the title Tianshi 天師 or Heavenly Master, which is often used for Daoist adepts. This story also appears in the Minghuang zalu, 48 as well as the Youyang zazu 酉陽雜俎, compiled by Duan Chengshi 段成式 (d. 863) in 860.49 It is clear that more than century following his death, Yixing's image had evolved into something fantastical. These individual stories do not respectively hagiographies so much as fables. These fables were later incorporated into the

⁴⁴ Wan Minying in the sixteenth century, whose work will be cited below, states that Yixing learned astronomy and calendrical science at Mt. Song.

⁴⁵ Jiu Tang shu, vol. 16, 5112.

⁴⁶ SKQS 1035: 522a9-14.

⁴⁷ SKQS 1042: 845b13-846a4.

⁴⁸ SKQS 1035: 523a1-8.

⁴⁹ SKQS 1047: 677a3-12.

production of biographical sketches of Yixing's life in Chinese sources, both Buddhist and secular.

It is important to note here that the Japanese sources that predate the composition of these fables naturally do not include them, and moreover present more historically plausible details on Yixing's life, especially in light of the fact that they provide dates, locations and specific names.

Having established that biographical details of Yixing often include fantastical elements originally drawn from fictional tales written during the late-Tang, we can critically examine some Buddhist texts attributed to Yixing that are included in the Taishō canon, and demonstrate with full certainty that they are products of the ninth-century, a point not always clear to modern scholars, although already having been emphasized by Osabe, who suggested that these works inform us about how popular esoteric Buddhism in the ninth century perceived Yixing.⁵⁰ The reason for the attribution of these texts to Yixing will become clear, especially when we consider their astrological elements in relation to historical Yixing's role as a court astronomer. These texts ought to be additionally considered alongside the above discussion of pseudo-Yixing, since they are products of the same period in which pseudo-Yixing appeared, and moreover offer a picture of the popular practice of astral magic by Buddhists during the ninth century.

Fantian huoluo jiuyao 梵天火羅九曜 (T 1311)

This text, whose title might be translated as *Brahmadeva Hora Navagraha, is a manual providing mantras and assorted astrological lore, complete with illustrations of the planetary deities, as well as an appended Daoist ritual for worship of the Big Dipper that includes characteristically Daoist features. It is attributed to the lectures of Yixing. As to its date, the first reference to the text in Japan is from between 890-953. 51 Already in 1912, Édouard Chavannes and Paul Pelliot dated the text to around 874.52 This dating was established based on the colophon of the text:

大唐武德元年起戊寅,至咸通十五年甲午,都得二百五十七年矣。

⁵⁰ Osabe, Ichigyō zenji no kenkyū, 256–261.

⁵¹ Takeda, "Tō-ji hōbodai-in kyūzō hoshi mandara to zanketsu ni tsuite," 12.

⁵² Chavannes and Pelliot, "Un traité manichéen retrouvé en Chine," 167.

From year 1 of Wude [618] (15th year in the 60 year cycle) in the Great Tang to Xiantong 15 [874] (31st year of the 60 year cycle) it has already been 257 years.⁵³

The original manuscript upon which the Taishō version was based also included a comment at the top stating the following:

一行禪師開元十五年入滅,至咸通十五年,凡百五十年,是則此 八十五字文後人所加。

From Chan Master Yixing dying in Kaiyuan 15 [727] to Xiantong 15 [874] it was about 150 years, whereupon these 85 characters [the preface] of writing were added by a later individual.⁵⁴

The text states that all sorts of disasters are a result of not venerating stellar icons and being unaware of having transgressed against the stars: "Disasters and losses are all a result of not venerating the stellar icons, and being unaware of having transgressed the stars."55 This concept of astral deities causing disasters is not found in Buddhist literature of Yixing's time, although it is seen later during the ninth century, especially in connection with worship of the planetary deities, which is a topic I have covered.⁵⁶ Moreover, as Lü Jianfu points out, the aforementioned system of field allocation astrology in this text is contrary to that which was devised by Yixing.⁵⁷ While Yixing was perhaps venerated by Daoists after he died, primarily as a result of his work with the Yijing, the opinion of Osabe is that such a figure so heavily involved in Mantrayāna under Śubhakarasimha, and simultaneously enjoying a career as a court astronomer, would not have drafted such "unorthodox works." Additionally, the text uses Sogdian vocabulary (for instance, Mars: 雲漢 = wnx'n),⁵⁸ casting additional doubts that Yixing could have had any role in the composition of the work.⁵⁹ The use of Sogdian loanwords for the planets in a Chinese Buddhist context only appears from the year 759, when Amoghavajra produced the first version of the Xiuyao jing 宿曜經 (T 1299).60 Moreover,

⁵³ T 1311, 21: 459b6-7.

⁵⁴ T 1311, 21: 459, note 5.

⁵⁵ T 1311, 21: 462a15-16. 災害殃咎迷塞澁,皆由不敬星像,不知有犯星辰.

⁵⁶ Kotyk, "Iranian Elements in Late-Tang Buddhist Astrology," 48-55.

⁵⁷ Lü, Mijiao lunkao, 348.

⁵⁸ See table of Chinese-Sogdian correspondences in Kotyk, "Iranian Elements in Late-Tang Buddhist Astrology," 43.

⁵⁹ Osabe, Ichigyō Zenji no kenkyū, 256-261.

⁶⁰ Sukuyō-kyō shukusatsu, vol. 2, 22–23.

the icons of the five planets are also of the "Iranian-Mesopotamian" type, while the Sun and Moon are of the Indian type.⁶¹ Rāhu and Ketu display serpents atop their heads, which is not an indigenous Indian motif.⁶² Yixing would presumably have only been familiar with the planetary icons of the Indian type, since they were a component of the *maṇḍala* associated with the *Mahāvairocana-sūtra*.⁶³ Another feature that immediately identifies this as postdating Yixing is an anachronistic citation of the *Duli yusi jing* 都利聿斯經, a manual of horoscopy translated into Chinese between 785–805:⁶⁴

《聿斯經》云:「凡人只知有七曜,不晴虚星號曰羅睺、計都, 此星在隱位而不見,逢日月即蝕,號曰蝕神。計都者,蝕神之尾 也,號豹尾。」

The *Yusi jing* states, "Everyone only knows of there being seven planets. They are unclear about the abstract stars called Rāhu and Ketu." These stars are in hidden positions, and do not appear. There are eclipses when it [Rāhu] meets with the Sun or Moon. It is called an eclipse deity. Ketu is the tail of the eclipse deity, called the leopard's tail.⁶⁵

The definition of Ketu in this text also differs from that provided in Yixing's commentary on the *Mahāvairocana-sūtra*. Here Ketu is defined as "the leopard's tail" (bao wei 豹尾) and "the tail of the eclipse deity" (shi shen zhi wei 蝕神之尾). In Yixing's commentary, however, Ketu is defined as a comet and banner, which is the original Sanskrit meaning. Furthermore, the original Indian motif for Ketu is a demonic-looking figure emerging from smoke

For a survey of these icons, see Kotyk, "Astrological Iconography of Planetary Deities in Tang China."

The association of the lunar nodes (Rāhu and Ketu) with serpents in this context most certainly stems from the Iranian motif, in which the northern and southern nodes are symbolically conceived of as the head and tail of a dragon or serpent. See Kotyk, "Astrological Iconography of Planetary Deities in Tang China," 59–60. Interestingly, the motif of a serpent along the ecliptic can be traced to late Hellenistic antiquity, with an example of it even in the cult of Mithras. See Sluijs, "The Dragon of the Eclipses," 68–69.

These icons are preserved in the Japanese *Taizō zuzō* 胎藏圖像 (TZ vol. 2, 278). See Kotyk, "Astrological Iconography of Planetary Deities in Tang China," 41–42.

Takeda, "Tō-ji hōbodai-in kyūzō hoshi mandara to zanketsu ni tsuite," 12. For remarks on the *Duli yusi jing*, see Kotyk, "Iranian Elements in Late-Tang Buddhist Astrology," 35–36.

⁶⁵ T 1311, 21: 461c28-462a2.

without any serpents. 66 The characterization of Ketu as a tail not only postdates Yixing, but is also an Iranian motif, as noted above. There is no evidence to suggest that Chinese Buddhism was already exposed to such materials in the 720s. Moreover, there is nothing in Yixing's constructed biography from above to indicate he was interacting with ethnically Iranian astronomers or astrologers. Nevertheless, we might note here that Chavannes and Pelliot explain that in 719, a year when Yixing was alive, the Yabghu of Tokharistan presented a Manichaean leader (mushe 慕闍) to the Chinese court, who was adept in astronomy.⁶⁷ However, there is no evidence that this man discernibly influenced Chinese astronomy or astrology, or ever interacted with Yixing for that matter. Sending an astronomer was likely a result of court interest in foreign astronomy, as demonstrated by the presence of Indian families, such as the Gautamas as mentioned earlier. Yixing most certainly interacted with such Indian astronomers at court, but during the 720s there were no documented Iranian astronomers employed as official court astronomers. The first evidence of such ethnically Iranian staff is from the late-eighth century when the astronomer Li Su 李素 (743-817) was active in the capital sometime around 781 until his death.⁶⁸

In light of the above evidence within the Fantian huoluo jiuyao, a composition date of around the mid-ninth century sometime shortly before 874 is most likely, as was proposed by Chavannes and Pelliot a century ago. Nothing from this work can be credibly attributed to Yixing. This text is another specimen of popular esoteric Buddhism from the ninth century, highlighting the extent to which Chinese Buddhists could adapt non-Buddhist materials and practices. In this case, even Iranian elements were readily integrated. The attribution to Yixing was, as with the other works to be surveyed, simply an attempt to legitimize these materials.

Why does this attribution to Yixing matter? Despite these features of the text that demonstrate a ninth-century composition, Christine Mollier bases one of her key arguments about Buddhist-Daoist relations on the assumption that this work really was produced by Yixing, calling it "his outstanding

⁶⁶ The commentary reads, "Ketu is properly translated as banner. The banner star is a comet 計都正翻爲旗,旗星謂彗星也." T 1796, 39: 618a15-16. See discussion and depiction of "Indian Ketu" in Kotyk, "Astrological Iconography of Planetary Deities in Tang China," 59–60, 85 (plate 10).

⁶⁷ Chavannes and Pelliot, "Un traité manichéen retrouvé en Chine," 152-153.

⁶⁸ See Kotyk, "Iranian Elements in Late-Tang Buddhist Astrology," 36-37. For a discussion of Li Su and his funerary stele, see Rong, "Yi ge shi Tangchao de Bosi Jingjiao jiazu."

astrological treatise" and arguing that the presence of Daoist elements in this text is explained by Yixing's apparent encounter with Yin Chong discussed above. She states, "One can therefore speculate that the Buddhist monk, faithful to his past, judged the Taoist cult of the Beidou worthy to be transmitted in its authentic form and under its original designation." She also argues, "In assuring the promotion of the Great Dipper cult and embracing it in the Buddhist fold during an epoch when the 'foreign' religion had regained an aura of sanctity in court circles, he perhaps intended to use it as an instrument of ideological propaganda."69

Mollier's ideas in this respect must be reconsidered since, first of all, the text in question has nothing to do with the historical Yixing, and second, there is no credible evidence that Yixing in the 720s, let alone the Indian masters Vairabodhi and Subhakarasimha—both of whom were active alongside Yixing—would have perceived any value in integrating Daoist practices into a Buddhist framework, especially at a time when Mantrayana in China was only beginning to be established. With these points in mind, we can move onto another text attributed to Yixing.

Xiuyao yigui 宿曜儀軌 (T 1304)

This text, the *Ritual for the Asterisms*, is a compilation of mantras, 70 mudrās and instructions on the astrological timing of certain practices. An item of the text's vocabulary is specifically cited in the Shittan yōketsu 悉曇要訣 (T 2706; Siddham Essentials), written sometime after 1101 by the Tendai monk Myōkaku 明覺 (1056-c.1122).⁷¹

As Lü Jianfu has pointed out, one element indicating that this is not the work of Yixing is an anachronistic citation of the eight-syllable mantra for Mañjuśrī.⁷² The Wenshu bazi yigui 文殊八字儀軌 (T 1184; Ritual for the Eight Syllables of Mañjuśrī), which first provides this mantra in Chinese, was translated in year 4 of reign era Changqing 長慶 (824), close to a century

⁶⁹ Mollier, Buddhism and Taoism Face to Face, 141–146.

⁷⁰ The navagraha mantras from here in transliterated Chinese and siddham script are provided in the Betsugyō-shō 別行鈔 (T 2476; Summary of Special Practices) by the monk Kanjo 寬助 (1052-1125). T 2476, 78: 183a03-184a24.

⁷¹ T 2706, 84: 547b17.

⁷² Lü Jianfu, Mijiao lunkao, 348. The mantra reads: om āh vī ra hūm kha ca rah 唵阿味羅吽佉左洛.

after Yixing's death. 73 Additionally, the *Xiuyao yigui* prescribes esoteric practices that were introduced after Yixing.

四大惡曜,所謂火曜、土曜、羅睺、計都,最重。眾生是時,修 諸福業,廣施仁慈,或依文殊八字真言,或依熾盛光佛頂,或依 被葉衣觀音,或依一字王佛頂,立大息災護摩壇場,各依本法念 誦供養,一切災難自然消滅。

The four great evil planets are Mars, Saturn, Rāhu and Ketu. They are severest. Beings at this time [when these planets infringe upon certain naksatras, should] cultivate various meritorious karmas, make extensive offerings, and show benevolence and compassion; or they rely upon the Eight Syllable Mantra of Mañjuśrī; or they rely upon *Tejaprabhā-Buddhōsnīsa; ⁷⁴ or they rely upon Parnaśabarī Avalokitēśvara; or they rely upon the Single Syllable King Buddha-Usnīsa. Establish a great *homa* altar for eliminating disasters. Carry out recitations and make offerings according to each respective method. All calamities will naturally dissipate.⁷⁵

As I discussed in an earlier paper, the practices related to the so-called Tejaprabhā Buddha, so far as present evidence suggests, were first introduced in 796.⁷⁶ The catalog of Yuanzhao assigns the *Parnaśabaryavalokitēśvarabodhisattva-dhāraṇī-sūtra 葉衣觀自在菩薩陀羅尼經 (T 1100) to Amoghavajra.⁷⁷ The sūtra's colophon states that Amoghavajra was at Da Xinshan-si 大興善寺 when he translated it. 78 He resided there from 756 for the duration of the An Lushan rebellion (755–763).⁷⁹ These elements clearly all postdate Yixing's death.

An additional issue with attributing any of the content of the Xiuyao yigui to Yixing is its incorporation of Daoist elements, a feature seen in the other

⁷³ T 1184, 20: 784b17-18.

⁷⁴ "Tejaprabha" is not attested in any known Sanskrit source. Academic literature often renders chishengguang 熾盛光 as Tejaprabhā, but this reading only dates back to the catalog of Nanjō Bun'yū in 1883. It therefore appears that "Tejaprabhā" is a modern reconstruction. See Nanjō, A Catalogue of the Chinese Translation of the Buddhist Tripitaka, 222.

⁷⁵ T 1304, 21: 423b23-27.

⁷⁶ Kotyk, "Astrological Iconography of Planetary Deities in Tang China," 37–38.

⁷⁷ T 2157, 55: 936b24-25.

⁷⁸ T 1100, 20: 447a7-8.

⁷⁹ Lehnert, "Amoghavajra," 352.

works attributed to him. Again, there is no evidence that Chinese Mantrayāna during Yixing's lifetime actually adopted any Daoist practices. Chinese Mantrayāna was in its infancy, and under the direct supervision of Indian monks in the 720s. It is therefore difficult to imagine Yixing combining Buddhist and Daoist practices in such an environment, such as what we see in the following passage:

先奉供虚空藏、文殊、普賢、延命、帝釋、毘沙門等、菩薩天等。 後勸請九曜、二十八宿天、北斗之中本命屬星,及以泰山府君、 司命、司祿供之。祈乞除災、延命、消除厄害之事。

First make offerings to the bodhisattvas and devas Ākāśagarbha, Mañjuśrī, Samantabhadra, *Life Extension [Avalokitēśvara],⁸⁰ Indra and Vaiśravaṇa. Then invoke the *navagraha*, the devas of the twenty-eight *nakṣatras*, one's natal star in the Big Dipper,⁸¹ as well as the Magistrate of Mount Tai, Siming and Silu [i.e., the gods overseeing life and fortune] to whom offerings are made. Pray to eliminate disasters, extend life and dissipate calamities.⁸²

Similar hybridization with Daoist ideas is found in another astral sādhana (i.e., a prescribed ritual procedure), the Beidou qixing humo miyao yigui 北斗七星 護摩祕要儀軌 (T 1306; Secret Essential Ritual for the Homa of the Big Dipper's Seven Stars), which is attributed to lectures given by a certain Guanding 灌頂 of the translation office at Da Xingshan-si 大興善寺.⁸³ This text professes a belief that one's fate is tied to the judgment of the Big Dipper, and also mentions the god overseeing life (Siming 司命) in a citation of a divination manual, the Luming shu 祿命書 (Book of Fate Calculation).⁸⁴ The

⁸⁰ Yanming 延命 ("extend life") appears to be a noun. Judging from the context, Guanyin 觀音 might have followed, but was lost due to scribal errors. See T 1067, 20: 132b25-c13.

The earthly branch associated with the day of one's birth determines which one of the seven stars will govern the individual's longevity. This is a native Chinese concept.

⁸² T 1304, 21: 423a25-28.

Mollier suggests that this is referring to a title, "Master of abhiṣeka,", but I believe this is referring to either Vajrabodhi, Amoghavajra or Huilang Guanding 慧朗灌頂 (a disciple of Amoghavajra and his lineage successor). See the lineage description: T 2035, 49: 295b12-14. Mollier, Buddhism and Taoism Face to Face, 143.

T 1306, 21: 425a4. This work was a divination manual for calculating a person's fate in life. The *Jiu Tang shu* lists it as comprised of twenty fascicles,

Beidou gixing humo miyao yigui cites said text, stating that this deity frequently reports the misdeeds of people to the Celestial Emperor 天帝. The text then states that this is why the Tathagata has provided such a homa ritual for short-lived beings with sparse merit in the later age. It states that those making offerings can "purge the death register and restore the life register 判 死籍還付生籍."85

While the historical Yixing had nothing to do with such practices, the integration of Daoist elements into Buddhist practices is quite informative about the religious developments in the late-Tang, in which Buddhist and Daoist practices related to star worship and astral magic were combined in this manner. In these works, orthodox Buddhist concepts such as karma were overlooked in favor of a divine or astrological determinism. This furthermore brings to mind the remarks of Erik Zürcher, who pointed out that "Buddhism loses much of its sharp contour, as it is absorbed into the surrounding mass of Chinese indigenous religion" when we go below the top level of elite Buddhism.86

Moving on, works attributed to Yixing during the ninth-century could even be in large part be based on Iranian sources in Chinese translation, which only stands to highlight the contemporary Buddhist interest in astrology. Our attention now turns to one such example.

Oivao xingchen bie xingfa 七曜星辰別行法 (T 1309)

This work, the Special Practices for the Seven Planets and Stars, is an illustrated demonology manual that describes the symptoms of spirit possessions according to the *naksatra* or star with which a particular day is associated. This system of identifying asterisms with the days is not found elsewhere. It is furthermore not the system devised by Amoghavajra in the Xiuyao jing. This text is attributed to Yixing, yet the first reference to it is in the catalog of texts brought back to Japan in 847 by E'un 惠運 (798–869).⁸⁷ Moreover, the list of *naksatras* corresponding to lunar days at the top of the text is derived from the revised version of the Xiuyao jing completed in 764,

compiled by Liu Xiaogong 劉孝恭 (d.u.). It is not extant. See Jiu Tang shu, vol. 6, 2044.

⁸⁵ T 1306, 21: 425a3-16.

⁸⁶ Zürcher, Buddhism in China, 276.

⁸⁷ One of the eight Japanese monks who went to Tang China 入唐八家. T 2168a, 55: 1088b11.

yet Yixing died in 727.⁸⁸ Despite this discrepancy, Huaiyu Chen insists that Yixing wrote this work, which he explains "deals with the rituals for using Tantric calendarical [sic] rituals to heal illness, based on the theory that each star in the sky was responsible for one sort of illness on the ground." Chen, however, is surely mistaken on two counts: Yixing could not have produced this work based even on an approximate dating of 764–847, and moreover the content of the text itself is not Tantric, since it is Iranian in origin.

Whoever wrote this work attempted to legitimize its contents by providing a story describing the source of the information. It tells us that early in the Kaiyuan era (713–741), Emperor Xuanzong 玄宗 (r. 712–756) went on an expedition. He brought along Yixing, who suddenly summoned down the spirits of the stars. The deities of the twenty-eight nakṣatras assembled, and Yixing learned of the illnesses caused by spirits on specific days. This is not referring to the Indian nakṣatra calendar because thirty spirits are mentioned (the nakṣatra calendar is comprised of strictly twenty-seven or twenty-eight days). This teaching was provided initially to the emperor Xuanzong, but later someone procured it from a "powerful warrior" and it was subsequently transmitted to future generations. Needless to say, all of this is complete fiction. It does, however, suggest that whoever wrote this story wanted to address doubts about the authenticity of the magic of the text.

This work displays colloquial non-literary Chinese features, such as dao 道 (to "say"), which is an indication of popular Buddhism, rather than the elite Buddhism of Yixing's time, in which the classical register was exclusively employed. One anachronistic element is $mi \ ri \ \Xi \Box$ (otherwise $mi \ ri \ \Xi \Box$), which is the popular late-Tang term for Sunday originally derived from the Sogdian $myr.^{92}$ While the custom of a seven-day week is mentioned once during the seventh century in Chinese Nestorian (i.e., East Syriac Christian) literature, 93 the seven-day week was still not commonly

⁸⁸ Compare *Sukuyō-kyō shukusatsu*, vol. 1, 14 and T 1309, 21: 452b28–c4.

Chen Huaiyu, "The Encounter of Nestorian Christianity with Tantric Buddhism in Medieval China," 205.

Note that Yixing's commentary on the *Mahāvairocana-sūtra* mentions twenty-seven *nakṣatras*. T 1796, 39: 618a8.

⁹¹ T 1309, 21: 452c5–13.

See table of Chinese-Sogdian correspondences in Kotyk, "Iranian Elements in Late-Tang Buddhist Astrology," 43.

The earliest datable reference in China to the seven-day week is seen in a Nestorian Christian text, titled *Jesus-Messiah Scripture* 序聽迷詩所經 (T 2142). The Messiah was "tied to wood [cross] for five hours. This was on the

understood among the Chinese even when the first version of the Xiuyao jing was produced in 759. Moreover, the earliest use of Sogdian in a Buddhist context based on available materials can be traced to the Xiuyao jing, as discussed above. Although Yixing would have been aware of the seven-day week, since it is mentioned in his commentary on the Mahāvairocana-sūtra, 94 it is simply unlikely that Yixing would have used Sogdian loanwords.

As to the foreign origin of the lore found within this text, its internal evidence indicates an Iranian source. We must first note that hemerology of this sort is attested in Zoroastrian traditions. 95 There are altogether thirty spirits listed in the text at hand, although not all of these are *nakṣatras*, which immediately indicates a non-Indian source. The names of the spirits are transliterated into Chinese, but it is unclear from which language they are derived. They are not Sanskrit, and the characters used to transliterate the names differ from those used in standard transliterations of Sanskrit in the late-Tang. The name of the spirit for what appears to be Polaris (辰星) in reconstructed Middle-Chinese is pek phuâc 百破 (Schuessler IPA), which possibly corresponds to the Middle Persian mēx ī gāh for Polaris. 96

The icons of the text are drawn in a Chinese fashion, but with various unique features, such as animal limbs and heads attached to otherwise male human forms. These are entirely different from the way in which nakşatras in anthropomorphic forms are depicted in Indian sources. In Indian sources, the nakṣatras are uniformly male and human, and largely identical in appearance without any zoomorphic features (see fig. 1).

sixth fasting day [Friday] 木上縛著五時,是六日齋." T 2142, 54: 1288a24-25. This text likely dates to between 635–638.

⁹⁴ T 1796, 39: 618a13-17.

⁹⁵ See Panaino, "Lunar and Snake Omens Among the Zoroastrians," 73–89.

⁹⁶ T 1309, 21: 456c9. MacKenzie, A Concise Pahlavi Dictionary, 56.



Fig.1: Lunar station icons: T 1309 and Taizō zuzō.

It can be inferred that the icons of T 1309 most likely stem from an Iranian source, since icons of the twenty-eight naksatras, including some similar to those depicted in the Chinese text at hand, are also described in the names and descriptions are different. 97 although their Zoroastrianism had a magical practice of nērangs (incantations or charms) that were connected to the invocation of stars and planets. 98 Al-Bīrūnī (973– c.1052), a Muslim author on astronomy and astrology, also reports on a Persian practice of writing on papers to ward off scorpion stings on specific days. These papers were then attached to doors in the evening, although he notes this was not originally a Persian custom. 99 In light of the above features,

⁹⁷ See Greer and Warnock, trans., The Picatrix, 286–293. The Picatrix is the 13th century Latin translation of the Arabic Ghāyat al-Hakīm, i.e., The Aim of the Sage, a manual of astral magic based on a mature tradition of Arab magic incorporating Near Eastern and Indian materials, the latter including the lunar stations. There are parallels between the content of the Picatrix and the astral magic practiced by Buddhists and Daoists in the late Tang. See Kotyk, "Astrological Iconography of Planetary Deities in Tang China," 47–48.

⁹⁸ See Panaino, "Two Zoroastrian Nērangs and the Invocation of the Stars and the Planets," 196-218.

Al-Bīrūnī, The Book of Instruction in the Elements of the Art of Astrology, 182. It does not appear that the Persians received this custom from China.

this practice of drawing images of deities as a means of warding off evil, found in the Chinese text in question at least, likely stems from an Iranian

Assigning malevolent deities to specific days on the calendar was also a feature of at least one popular almanac from Dunhuang (Or.8210 / P6), which is dated to 877. 100 In this document, five spirits or demons are listed according to days of the ten stems $(+\mp)$, which form part of the Chinese sexagenary cycle. The ten stems are combined with the twelve branches (+ \equiv 支), creating a cycle of sixty days. Each day is comprised on one stem, so the spirit associated with that stem will be active on the corresponding day. This, however, differs from the model of the Oiyao xingchen bie xingfa, which indicates that various systems were simultaneously employed during the late Tang. There is no evidence, however, to indicate that Yixing employed any such system.

We might finally examine one last text attributed to Yixing. This practice of one fascicle attributed to Yixing, the Homa Ritual for the Seven Stars of the Big Dipper, includes an array of astral mantras, in addition to their accompanying mudrās. Additionally, a short Tejaprabhā ritual is appended to the main body, which incidentally proves that this text in its present form postdates Yixing. The earliest Japanese sources available in the Taishō that specifically cite it include Jitsuun 實運 (1105-1160) in the Shoson yōshō 諸 尊要抄 (T 2484; Essentials of the Deities), 101 and Ejū 惠什 (12th cent.) in the Shōgo shū 勝語集 (T 2479; Compilation of Superior Words). 102 A similar text entitled Beidou qixing humo yigui 北斗七星護摩儀軌 (Homa Ritual for the Seven Stars of the Big Dipper) of one fascicle is noted in a footnote in the Taishō as having been listed in a variant version of the Mikkyō text catalog by Annen 安然 (841-915?). Annen's catalog was compiled in year 9 of Gangyō 元慶 (885).103 It does not specify the author, although it does confirm the existence of such homa rites for the Big Dipper available to

¹⁰⁰ See plate 1 in Whitfield, "Four Unpublished Paintings from Dunhuang in the Oriental Collections of the British Library."

¹⁰¹ T 2484, 78: 313c14.

¹⁰² T 2479, 78: 216a27.

See note at T 2176, 55: 1129a22.

the Japanese by the late ninth century. As in the *Xiuyao yigui*, there are also present some clearly Daoist elements:

觀爐中有七<

「嚕字,變成北斗七星。所謂本命星置中心,六星爲件,即胡跪合掌,向爐啟曰:「至心奉啟北極七星:貪狼、巨門、 禄存、文曲、廉貞、武曲、破軍尊星,爲(某甲),災厄解脫, 壽命延長,得見百秋。今作護摩,唯願尊星,降臨此處,納受護 摩,刑死厄籍,記長壽札,投華爲座。」

Visualize within the fire altar seven ru syllables transforming into the seven stars of the Big Dipper. One's natal star is placed in the center with the other six stars accompanying it. Bend a knee with palms together. Face the fire altar and state the following: "Sincerely do I reverently address the Seven Stars of the Northern Pole: the honored stars of Dubhe, Merak, Phecda, Megrez, Alioth, Mizar and Alkaid. For [name]'s benefit, may you liberate me from disasters, and extend my lifespan. May I witness a hundred autumns. Now I perform this homa rite and implore the honored stars to descend here to receive this homa. Purge 104 the register of death and distress, and inscribe long life. I throw down flowers for your seats." 105

This same concept of invoking the seven stars for apotropaic purposes is found in Daoist texts such as the *Taishang xuanling Beidou benming yansheng zhen jing* 太上玄靈北斗本命延生真經 (DZ 622; Highest True Scripture of Natal Longevity Extension by the Profound Big Dipper). 106

One feature that aids in chronologically placing the work in a timeline is the *mudrā* and accompanying *dhāraṇī* for "praising" (*zantan* 讚嘆). This *dhāraṇī* is transliterated into Chinese without any accompanying *siddhaṃ*, although a garbled rendering in *siddhaṃ* is provided for the same *dhāraṇī* in the *Daheitian shenfa* 大黑天神法 (T 1287; Dharma of Mahākāla-deva), a ritual for Mahākāla of an unknown composition date. ¹⁰⁷ Fortunately, Jōnen 靜然 (d.u.) in 1154 in his *Gyōrin shō* 行林抄 (T 2409; Summary of the Forest of Practices) provides a critical evaluation of differing manuscripts available to him, and proposed solutions to deciphering the vocabulary of the

¹⁰⁴ Read xing 刑 as kan 刊.

¹⁰⁵ T 1310, 21: 458b9–16.

This work is likely from the Northern Song period, but the material dates back to an earlier time. See Hu Fuchen, ed., *Zhonghua Daojiao dacidian*, 295.

¹⁰⁷ T 1287, 21: 357b20-c4.

dhāranī. 108 Based on his notes, I identified the individual lexical items. My helpful colleagues from Leiden University, the Sanskritists Nirajan Kafle and Peter Bisschop, then provided their critical expertise in reconstructing the dhāranī in its most probable original form, which appears to be in the vasantatilakā meter:

阿演都 泥嚩左誐素囉緊那囉那囉 āyāntu devabhujagāsurakimnarendrāh

乞鑠迦囉那野 鉢囉嚩囉達麼蘖哩多地伽囉 śakrādayah pravaradharmakṛtādhikārāh |

尾達麼左 鉢囉捨麼操企也儞銘多部多 buddham-vacah prasamasaukhyanimittabhūtam

銘多 鉢羅迦捨夜 怛儞賀 室囉麼拏也 馱翰 ittham prakāśya tadiha śravanāya dharmam ||

Let come the King of the Gods, King of the Snakes, King of the Asuras, King of Kimnaras, and Śakra, who have made their foundation in the best Dharma. The word of the Buddha is the cause of calm and happiness. Having been instructed thus, here the Dharma is to be heard.

Jonen also provides the different names of this dhāranī, which includes "Sanskrit Letter Praise to the Eight Groups of Devas and Nagas" 梵字天龍八 部讚 and "Sanskrit-Chinese Praise to the Eight Groups of Devas and Nāgas" 梵唐兩字天龍八部讚.109 The former appears in the catalog of texts brought to Japan by Kūkai in 806.110 The latter was brought by Ennin 圓仁 (794-864) in 847, which is indicated by Annen's aforementioned catalog. 111 This indicates that the $dh\bar{a}ran\bar{\iota}$ was brought to Japan only in the last century of the Tang, suggesting that it was available in China perhaps only a few decades prior. The dhāranī appears in other texts in the Taishō of unknown origins: the Yaoshi yigui yiju 藥 師 儀 軌 一 具 (T 924C; Single Ritual for Bhaişajyaguru), 112 which has a note at the end stating that it was brought to Japan by Dengyō Daishi 傳教大師 (i.e., Saichō), and the Yanluo Wang gong

¹⁰⁸ T 2409, 76: 409c13-410a33.

¹⁰⁹ T 2409, 76: 409c13-14.

T 2161, 55: 1063c18.

T 2176, 55: 1130b22.

¹¹² T 924c, 19: 32c18-22.

xingfa cidi 焰羅王供行法次第 (T 1290; Procedures for the Yamarāja Pūjā), 113 which is attributed to a Tripiṭaka master Amoga 阿謨伽三藏 (*Amoghavajra?).¹¹⁴ There are many texts attributed Amoghavajra, but the lack of supporting details or catalog references to it suggests that it postdates Amoghavajra. In short, there is no evidence that this dhāraṇī existed in Yixing's time.

Based on the above points, we can tentatively suggest a composition date of the Beidou qixing humo fa in the early ninth century. This text is a specimen of late-Tang esoteric literature, in which elements from various sources, both Buddhist and Daoist, were readily brought together in the development of a unique Chinese system of astral magic. It presumably would have seemed reasonable to its author to attribute the work to Yixing. The resulting pseudo-Yixing appears to have functioned as a legitimizing bridge between Buddhist and Daoist practices, which indicates that during the late-Tang the boundaries between these two religions blurred, a point that Zürcher, as mentioned earlier, emphasized.

Pseudo-Yixing in Later Texts

What role did pseudo-Yixing have in the centuries following the Tang dynasty? The attribution of astrological literature to Yixing is interestingly found even in texts of the late-Ming. One prime example of this is found in the Xingxue dacheng 星學大成 (Great Compendium of Star Studies) by Wan Minying 萬 民英 (1521-1603), a voluminous manual of astrology and horoscopy that incorporates a diverse array of materials, including much from the Tang period.

昔唐玄宗朝,有高僧號一行者……隱居嵩山,精天文星歷術數之 學,嘗測影定候,作氣盈朔虛歲差之法,以補歷家之未備,又作 星術書,十二家誓曰:「國興,書則現,否則隱其術。」

During the ancient Tang, during the reign of Xuanzong, there was an eminent monk named Yixing. ... He hid himself away on Mt. Song, where he mastered studies of astronomy, calendrical science and calculations. He once measured shadows to calculate the [seventy-two]

¹¹³ T 1290, 21: 376a17-21.

Kiyota notes the possibility of the Yaoshi yigui yiju being a Japanese composition. His reconstruction of the dhāraņī above differs considerably from my own. See Kiyota, "Shaka-zan (ōshin-zan) to shoten bongo zan," 24–28.

seasonal pentads. He produced methods for [calculating] annual differences for the New Moon as they align with the [twenty-four] solar terms. He made up for the inadequacies of calendrical specialists. He also produced a book on astrology. Twelve masters vowed that "if the country prospers, the book will appear, otherwise the techniques shall be hidden away."115

This account attempts to justify attribution of a certain astrological manual to Yixing by suggesting that it was hidden away, which would explain its absence in textual catalogs and the historical record. By the sixteenth century, we might imagine that any text attributed to Yixing would have been held suspect if it did not appear in text catalogs, but Wan Minying, it seems, was not so much concerned with authenticity, since he cites methods attributed to Yixing, as well as a certain *Sūtra of Chan Master Yixing* 一行彈師經. 116 The point here is that texts were continually being attributed to Yixing for several centuries after his death.

Conclusion

This study has demonstrated the need—as well as proposing the means—to differentiate between the historical Yixing and a pseudo-Yixing. The former was a monk and court astronomer who assisted in the production of the Mahāvairocana-sūtra in Chinese and its commentary before passing away suddenly in 727, in addition to producing by court order a new state calendar. His additional work with the Yijing and state divination laid further foundation atop which a legendary image of the man was built. This legendary figure is what I call "pseudo-Yixing," which was born from popular fables about the

¹¹⁵ SKOS 809: 441a8-11. These remarks about Yixing determining seasonal markers are true. The twenty-four solar terms 二十四節氣 each comprise 15 days. These are further divided into three sets of 5 days, which comprise the seventy-two seasonal pentads 七十二候. The table of solar terms included in the Qiyao rangzai jue 七曜攘災決 (T 1308) dates to 724, which likely means that said table was produced during Yixing's career (he died in 727). However, based on the fact that said table uses an occidental parameter of 360 degrees. rather than the Chinese parameter of 365.25 degrees, it is reasonable to suggest that an Indian court astronomer, such as Gautama Siddhārtha, was also involved in its production.

SKQS 809: 442b12. The identity of this text is unknown. It does not appear to be extant.

monk. Yixing, having been the only astronomer-monk in Chinese history, was the optimal candidate to whom various texts on astral magic could be easily attributed and legitimized, even when they incorporated strong Daoist elements. In one case, such a text attributed to Yixing was even compiled from an Iranian source in Chinese translation! The contents of these texts stand to highlight Buddhist interest in astrology during the late Tang, as well as perhaps indicating widespread concern about harmful astrological influences and a need to counter them, in addition to giving us an idea of how Buddhists themselves imagined Yixing: he was in their eyes not only an astronomer, but also an adept astrologer and magician.

In light of the findings of this study, modern scholars must now take care in handling attributions to Yixing, as in the case of Mollier's work. She projects ninth-century developments back into the 720s, giving a demonstrably false narrative that Yixing, who, working under the direct supervision of Subhakarasimha and perhaps also Vajrabodhi, was apparently still free to incorporate not only Daoist rituals, but also Sogdian loanwords, and even Iranian astrological iconography, into an apotropaic manual designed to counter the negative influences of planetary deities, during a time when foreign astrology—much less Iranian astrology—was almost entirely unknown to the Chinese sangha. In short, there is no credible evidence to suggest that the cult of the Big Dipper or any significant Daoist practices were incorporated into Chinese Buddhism during the 720s. Our understanding of when Daoist practices truly blended with Buddhism during the Tang period ought to be pushed ahead at least eight or nine decades, well into the early ninth century at the earliest.

Future surveys of esoteric literature in Chinese Buddhism must recognize the difference between Yixing and pseudo-Yixing, and on that point extend careful consideration to other figures to whom texts could be attributed, most notably Amoghavajra. Henrik Sørensen's outline of "Astrology and the Worship of Planets in Esoteric Buddhism of the Tang" in the voluminous Esoteric Buddhism and the Tantras in East Asia (published in 2011), for example, uncritically accepts attributions to Yixing. 117 In the same volume,

Sørensen, "Astrology and the Worship of Planets in Esoteric Buddhism of the Tang," 235-237. With respect to T 1311, Sørensen states, "Strictly speaking, this text is not by Yixing but recapitulates instructions said to have come from him." Ibid., 243, fn. 57.

the article on Yixing by George Keyworth similarly does not challenge the traditional attributions. 118

Aside from the texts surveyed above, there are other works of a non-astral character questionably attributed to Yixing, most notably the *Mañjuśrī-Yamāntaka wan'ai mishu ruyi fa 曼殊室利焰曼德迦萬愛祕術如意法 (T 1219), which contains a drawing with talismans found in Chinese occult literature. Other texts attributed to him, either extant or only recorded in premodern text catalogs, must be subjected to careful philological analysis before we reach any conclusions about their authenticity.

¹¹⁸ Keyworth, "Yixing," 344.

References

- DZ Daozang 道藏. Wenwu Chuban edition (1986).
- T Taishō shinshū daizōkyō 大正新脩大藏經. 100 vols. Takakusu Junjirō 高楠順次郎 and Watanabe Kaigyoku 渡邊海旭 et al., eds. Tōkyō: Taishō Issaikyō Kankōkai, 1924–1934. Digitized in CBETA (v. 5.2) and SAT Daizōkyō Text Database (http://21dzk.l.u-Tōkyō.ac.jp/SAT/satdb2015.php).
- TZ Taishō zuzō 大正圖像. 12 vols. Takakusu Junjirō 高楠順次郎 and Ono Genmyō 小野玄妙, eds. Tōkyō: Daizō Shuppan Kabushiki Kaisha, 1932–1934. Digitized in SAT Taishōzō Image DB (http://dzkimgs.l.u-Tōkyō.ac.jp/SATi/images.php)
- SKQS Siku quanshu 四庫全書. Ying yin Wen yuan ge Si ku quan shu 景印文 淵閣四庫全書. 1500 vols. Taipei: Taiwan Shangwu Yinshuguan, 1983.

Primary Sources

- Al-Bīrūnī. The Book of Instruction in the Elements of the Art of Astrology. Translated by R. Ramsay Wright. London: Luzac & Co., 1934.
- Dengyōdaishi zenshū 傳教大師全集. Hieizan Senshūin Fuzoku Ezan Gakuin 比叡山専修院附属叡山學院, 1926.
- Jingzhou Nanquan Dayun-si gu Lanruo Heshang bei 荊州南泉大雲寺故蘭若和尚碑. In Quan Tang wen, vol. 4, 3236b-3238a.

Jiu Tang shu 舊唐書. 16 vols. Beijing: Zhonghua Shuju, 1975.

Kaitian chuanxin ji 開天傳信記. SKQS 1042: 839-848.

Kōbōdaishi zenshū 弘法大師全集. Yoshikawa Kōbunkan 吉川弘文館, 1911. Minghuang zalu 明皇雜錄. SKQS 1035: 507-525.

Naishō buppō sōshō kechimyaku fu 内證佛法相承血脈譜. In Dengyōdaishi zenshū 傳教大師全集 (Hieizan Senshūin Fuzoku Ezan Gakuin 比叡山 専修院附属叡山學院, 1926), vol. 1, 199–248.

Quan Tang wen 全唐文. 11 vols. Beijing: Zhonghua Shuju, 1983.

Shingon fuhō den 真言付法傳. In Kōbōdaishi zenshū 弘法大師全集 (Yoshikawa Kōbunkan 吉川弘文館, 1911), vol. 1, 50-68.

Sukuyō-kyō shukusatsu 宿曜經縮刷. 2 vols. Ed. Wakita Bunshō 脇田文紹. Nagoya: Wakita Bunshō, 1897.

Taishang xuanling Beidou benming yansheng zhen jing 太上玄靈北斗本命延 生真經. DZ 622.

Taizō engi 胎藏緣起. In Dengyōdaishi zenshū 傳教大師全集 (Hieizan Senshūin Fuzoku Ezan Gakuin 比叡山専修院附属叡山學院, 1926), vol. 4, 387–394.

Taizō zuzō 胎藏圖像. TZ vol. 2, 191-328.

Tongdian 通典. Taipei: Taiwan Shangwu Yinshuguan, 1987. Reprint of 1935 edition.

Xin Tang shu 新唐書. 20 vols. Beijing: Zhonghua Shuju, 1975.

Xingxue dacheng 星學大成. SKQS 809: 285-870.

Youyang zazu 酉陽雜俎. SKQS 1047: 637-768.

Secondary Sources

- Chavannes, Édouard and Paul Pelliot. "Un traité manichéen retrouvé en Chine." Journal Asiatique 11, t. I (1913): 99–394.
- Chen Huaiyu. "The Encounter of Nestorian Christianity with Tantric Buddhism in Medieval China." In Hidden Treasures and Intercultural Encounters: Studies on East Syriac Christianity in China and Central Asia, edited by Dietmar Winkler and Tang Li, 195-213. Berlin and Münster: LIT Verlag, 2009.
- Chen Jinhua. "The Birth of a Polymath: The Genealogical Background of the Tang Monk-Scientist Yixing (673-727)." Tang Studies 18-19 (2000): 1-
- Endō Yūjun 遠藤祐純. "Kongōchō daiyuga himitsu shinji hōmon giketsu ni tsuite"『金剛頂經大瑜伽祕密心地法門義訣』について. Mikkyō Bunka 密教文化 160 (1986): 35-52.
- Funayama Tōru 船山徹. Butten ha dō kanyaku sareta no ka 佛典はどう漢譯 されたのか. Tōkyō: Iwanami Shoten, 2013.
- Greer, John Michael and Christopher Warnock, trans. The Picatrix Liber Rubeus Edition. Adocentyn Press, 2010–2011.
- Hu Fuchen 胡孚琛, ed. Zhonghua Daojiao dacidian 中華道教大辭典. Beijing: Zhongguo Shehuixue Chubanshe, 1995.
- Kano Kazuo. "Vairocanābhisambodhi." In Brill's Encyclopedia of Buddhism, vol. I, edited by Jonathan A. Silk, 382–389. Leiden: Brill, 2015.
- Keyworth, George A. "Yixing." In Esoteric Buddhism and the Tantras in East Asia, edited by Charles D. Orzech, Henrik Sørensen and Richard K. Payne, 342–344. Leiden: Brill, 2011.
- Kiyota Jakuun 清田寂雲. "Shaka-zan (ōshin-zan) to shoten bongo zan: tenryū hachi-bu zan no yakkai nit suite"釋迦讚(應身讚)と諸天梵語讚:天 龍八部讚の譯解について. Tendai gakuhō 天臺學報 24 (1982): 24-28.
- Kotyk, Jeffrey. "Astrological Iconography of Planetary Deities in Tang China: Near Eastern and Indian Icons in Chinese Buddhism." Journal of Chinese Buddhist Studies 30, (2017): 33–88.
- —. "Can Monks Practice Astrology? Astrology and the Vinaya in China." In Rules of Engagement: Medieval Traditions of Buddhist Monastic

- Regulation, edited by Susan Andrews, Jinhua Chen and Cuilan Liu, 497– 511. Hamburg: Hamburg University Press, 2017.
- —. "Early Tantric Hemerology in Chinese Buddhism: Timing of Rituals According to Subhakarasimha and Yixing." Canadian Journal of Buddhist Studies 13 (2018): 1-29.
- —. "Iranian Elements in Late-Tang Buddhist Astrology." Asia Major 30, no. 1 (2017): 25-58.
- Lehnert, Martin. "Amoghavajra: His Role in and Influence on the Development of Buddhism." In Esoteric Buddhism and the Tantras in East Asia, edited by Charles D. Orzech, Henrik Sørensen and Richard K. Payne, 351-359. Leiden: Brill, 2011.
- Lü Jianfu 呂建福. Mijiao lunkao 密教論考. Taipei: Kongting Shuyuan, 2009.
- MacKenzie, D.N. A Concise Pahlavi Dictionary. London: Oxford University Press, 1971.
- Mollier, Christine. Buddhism and Taoism Face to Face: Scripture, Ritual, and Iconographic Exchange in Medieval China. Honolulu: University of Hawaii Press, 2008.
- Morrison, Elizabeth. The Power of Patriarchs: Qisong and Lineage in Chinese Buddhism. Leiden: Brill, 2010.
- Nanjō Bunyū 南條文雄. A Catalogue of the Chinese Translation of the Buddhist Tripitaka: The Sacred Canon of the Buddhists in China and Japan. Oxford: Clarendon Press, 1883.
- Needham, Joseph. Science and Civilisation in China, vol. III: Mathematics and the Sciences of the Heavens and the Earth. Cambridge: Cambridge University Press, 1959.
- Ohashi Yukio. "Astronomy and Mathematics of Yixing." In Mapping the Oriental Sky: Proceedings of the Seventh International Conference on Oriental Astronomy, edited by Nakamura Tsukō, Wayne Orchiston, Mitsuru Soma and Richard Strom, 171-178. Tokyo: National Astronomical Observatory of Japan, 2011.
- Orzech, Charles D., Richard K. Payne and Henrik Sørensen. "Introduction: Esoteric Buddhism and the Tantras of East Asia: Some Methodological Considerations." In Esoteric Buddhism and the Tantras of East Asia, edited by Charles D., Henrik Sørensen and Richard K. Payne, 3-18. Leiden: Brill, 2011.
- Osabe Kazuo 長部和雄. *Ichigyō Zenji no kenkyū* 一行禪師の研究. Kōbe: Kōbe Shōka Daigaku Keizai Kenkyūsho, 1963.
- Panaino, Antonio. "Lunar and Snake Omens Among the Zoroastrians." In Officina Magica: Essays on the Practice of Magic in Antiquity, edited by Shaul Shaked, 73–89. Leiden: Brill, 2005.

- —. "Two Zoroastrian Nerangs and the Invocation of the Stars and the Planets." In The Spirit of Wisdom: Essays in Memory of Ahmad Tafazzoli, edited by Touraj Daryaee and Mahmoud Omidsalar, 196-218. Costa Mesa, CA: Mazda Publishers, 2004.
- Pankenier, David. Astrology and Cosmology in Early China: Conforming Earth to Heaven. Cambridge: Cambridge University Press, 2013.
- Rong Xinjiang 榮新江. "Yi ge shi Tangchao de Bosi Jingjiao jiazu" 一個仕 唐朝的波斯景教家族. In Zhonggu Zhongguo yu wailai wenming 中古中 國與外來文明, 238-257. Beijing: Sanlian Shudian, 2001.
- Schuessler, Axel. ABC Etymological Dictionary of Old Chinese. Honolulu: University of Hawai'i Press, 2007.
- Sen, Tansen. "Gautama Zhuan: An Indian Astronomer at the Tang Court." China Report 31, no. 2 (1995): 197–208.
- Sluijs, Marinus Anthony van der. "The Dragon of the Eclipses-A Note." Culture and Cosmos 13, no. 1 (2009): 62–74.
- Sørensen, Henrik H. "Astrology and the Worship of Planets in Esoteric Buddhism of the Tang." In Esoteric Buddhism and the Tantras in East Asia, edited by Charles D. Orzech, Henrik Sørensen and Richard K. Payne, 230-244. Leiden: Brill, 2011.
- Takeda Kazuaki 武田和昭. "Tō-ji Hōbodai-in kyūzō hoshi mandara to zanketsu ni tsuite"東寺寶提院舊藏星曼荼羅圖殘闕について. Mikkyō bunka 183 (1993): 1-26.
- Whitfield, Roderick. "Four unpublished paintings from Dunhuang in the Oriental collections of the British Library." The British Library Journal 24, no. 1 (1998): 90-97.
- Wu Hui 吳慧. "Seng Yixing shengping zaiyanjiu 僧一行生平再研究." Yuanguang xuebao 圓光學報 14 (2009): 77-110.
- Yabuuchi Kiyoshi 藪內清. Zōtei Zuitō rekihō shi no kenkyū 增訂隋唐曆法史 の研究. Kyōto: Rinsen Shoten 臨川書店, 1989.
- Yamamoto Shōichirō 山本匠一郎. "Dainichikyō no shiryō to kenkyūshi gaikan"『大日經』の資料と研究史概觀. Gendai mikkyō 現代密教 23 (2012): 73–102.
- Zürcher, Erik. Buddhism in China: Collected Papers of Erik Zürcher, edited by Jonathan Silk. Leiden: Brill, 2013.