Buddhist Astrology and Astral Magic in the Tang Dynasty

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Abstract

This study demonstrates that various systems of foreign astrology, originating in India, Iran and the Hellenistic world, played a significant, albeit hitherto largely unrecognized role, in the development of Buddhism during the Tang dynasty, which subsequently deeply influenced religious traditions across East Asia for several centuries. Although Indian astrology was made available in China from the fourth to seventh centuries, it was never widely implemented in China in these centuries, for it was only in the eighth century with the introduction of Mantrayāna that Chinese Buddhists came to have a pressing need to observe astrology. This subsequently sparked popular interest in foreign astrology among Buddhist and non-Buddhist communities in China, a development that fostered the simultaneous development of astral magic comprised of elements from multiple sources, including some traced back to Greco-Egyptian and Near Eastern traditions. Around the turn of the ninth century, translation of astrological materials shifted from Indian to Iranian sources as a result of Persian astronomers operating at the court. The popularity of astrology additionally facilitated the proliferation of uniquely Chinese astral deities in Chinese Buddhism, most notably Tejaprabhā Buddha and the seven stars of the Big Dipper. This understudied interaction that resulted from deep interest in astrology marks a significant transmission of cultural and religious knowledge through multiple civilizations.

Acknowledgments

This project was facilitated by a generous grant provided by BDK Canada (2015), which was administered by McMaster University. James Benn of McMaster University assisted with this, and later kindly read over a paper related to the topic of this dissertation. He then agreed to become the co-promoter for this dissertation. I deeply appreciate his assistance in producing this study. In 2016, I received the Robert H. N. Ho Family Foundation Dissertation Fellowship in Buddhist Studies. I want to thank the foundation, as well as ACLS, who administered the scholarship, for all their support. I also owe a debt of gratitude to Ishii Kōsei, who was my MA advisor (2009–2011). He kindly arranged for me to return to Komazawa to conduct a year of research between 2015–2016 at the Institute for Comparative Buddhist Literature. Cody Bahir, my *sempai* from Leiden University, has for several years made himself available to proofread and critique my work. He has furthermore always shown himself to be a good friend. Joseph Elacqua, my colleague and friend, proofread my work and offered many helpful suggestions. Wei-ren Teng and Luke Gibson facilitated my stay in 2015 at the Dharma Drum Institute of Liberal Arts in Taiwan. I have worked with Charles Muller on the Digital Dictionary of Buddhism (DDB) since 2010. He has always encouraged me in my research and professional development. In the process of writing entries for the dictionary, I have developed a better understanding of content related to my dissertation topic. Terry Russell, who was one of my undergraduate instructors at the University of Manitoba, offered critical suggestions when I was writing the initial research proposal for this project, and continued offering valuable advice, especially with respect to Daoism. I have received pointers and clarification on various matters related to Chinese and Indian systems of astronomy from Yano Michio and David Pankenier. The latter also kindly read the first draft of this dissertation and corrected several of my mistakes. Charles Orzech read over a section of the dissertation early on and offered valuable comments. I studied the techniques of Hellenistic astrology via an online course created by Chris Brennan. Martin Gansten read this dissertation and offered solid feedback and criticism. I must finally thank my good friends and colleagues who have read my work in various stages and provided feedback and corrections: Channa Li, Ruixuan Chen, Chia Siang Kim, Mark Crosbie, Michel Gauvain, Claudia Kirshner (who checked my Latin citations) and Tyler “Jikai” Dehn. Finally, I must thank my family and friends for all their encouragement over the last several years. In particular I should like to mention Elsa Dikkes, Arina Mikhalevskaya, Damien Tidmarsh and Michael Schapers.

“For, in the first place, we should consider that even with events that will necessarily take place their unexpectedness is very apt to cause excessive panic and delirious joy, while foreknowledge accustoms and calms the soul by experience of distant events as though they were present, and prepares it to greet with calm and steadiness whatever comes.”

- Ptolemy, *Tetrabiblos* (I.3)

“Note also that knowledge has three properties, of which the first is that it always gains and never diminishes, the second that it fosters virtuous habits, and the third that it does not increase unless the knower wills it and delights in it, and seeks after it with the reason and will.”

- The *Picatrix*

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Abbreviations and Conventions

DZ Daozang 道藏. Wenwu Chuban edition (1986)

Fasc. Fascicle (*juan* 卷)

G *Gunsho ruijū* 群書類從. 18 vols. Hanawa Hokiichi 塙保己一, ed. Tōkyō: Keizai Zasshisha, 1898–1902.

PGM *Papyri Graecae Magicae* (see Betz 1986)

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.

SZ *Shingonshū zensho* 真言宗全書. 44 vols. Ed. Shingonshū Zensho Kankōkai 真言宗全書刊行会. Kōyasan: Shingonshū Zensho Kankōkai, 1933–1939.

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)

Z *Zoku gunshoruijū* 續群書類從. 37 vols. Hanawa Hokiichi 塙保己一, ed. Tōkyō: Zoku Gunshoruijū Kanseikai, 1923–1943.

ZH *Zoku gunshoruijū hoi* 續群書類從補遺. 4 vols. Hanawa Hokiichi 塙保己一, ed. Tōkyō: Zoku Gunshoruijū Kanseikai, 1928–1930.

- Chinese and Japanese reign years and eras are converted into modern years based on the *Tōhō nenhyō* 東方年表 (Kyōto: Heiraku-ji Shoten, 2013).
- Although modern Chinese and Japanese titles and names may use simplified forms, for the sake of consistency, all Chinese characters are presented in their traditional (繁體字) forms.
- Romanization of Sanskrit follows the International Alphabet of Sanskrit Transliteration.
- All Japanese and Chinese names, both modern and pre-modern, are given surname first followed by the given name.
- The planets, as well as the Sun and the Moon, are capitalized.
- Foreign vocabulary is italicized and indicted as plural with an appended "–s".
- Taishō references are cited as follows: T text#, vol.xx: pp.
- Texts from the T, TZ and DZ are excluded from the bibliography due to their volume.
- Modern publications are cited using the Chicago Manual of Style.
- Premodern Chinese histories are generally cited as modern printed editions with volume number and pages provided. They are listed in the bibliography separate from secondary sources.

Preface

In the process of writing this dissertation I also produced the following publications. Some of the content of this dissertation therefore overlaps with these articles.

"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*, eds. Susan Andrews, Jinhua Chen and Cuilan Liu, 497–511. Hamburg: Hamburg University Press, 2017.

"Iranian Elements in Late-Tang Buddhist Astrology." *Asia Major* 30, no. 1 (2017): 25–58.

"Kanjiken no bungaku ni okeru saihō–senseijutsu no yōso: tōzai bunka kōryū ni okeru Bukkyō no yakuwari" 漢字圏の文學における西方占星術の要素：東西文化交流における佛教の役割 [Elements of Occidental Astrology in Literature of the Sinosphere: a Role of Buddhism in Eurasian Cultural Exchange]. *Bukkyō bungaku kenkyū* 佛教文學研究 19 (2016): 85–110.

"Tejaprabhā." In *Brill's Encyclopedia of Buddhism*. (Forthcoming)

"Yixing 一行." In *Brill's Encyclopedia of Buddhism*. (Forthcoming)

Chapter 1
Introduction

1.1. Preliminary Considerations

In the first chapter of the *Tale of Genji* 源氏物語 by Murasaki Shikibu 紫式部 (b. c.973), one of the most celebrated pieces of classical Japanese literature, we read that the emperor felt great uncertainty about whether to bestow imperial rank upon his youngest albeit most cherished son, whose mother was not of a high rank. In light of the lack of maternal support he would suffer if he were to be given an elevated rank, the emperor had decided to keep the boy at a common rank. A visiting Korean sage agreed that this was best. Later, the emperor summoned a Buddhist astrologer (*sukuyō* 宿曜), who also expressed the same opinion.[1] Thus, it was decided that the boy would be a commoner with the name of Genji. In chapter fourteen, a Buddhist astrologer monk again makes an appearance to predict the number of children Genji would have, and their respective fates.[2] The appearance of Buddhist "astrologer monks" in this story should give us pause: did such monks actually exist historically, since, contrary to our expectations, Buddhism and astrology are not normally associated with one another. If such monks existed in medieval Japan, which imported so much of its court culture from China, did they also ever exist in China? If there was a precedent for this in China, from where did the Chinese astrologer monks receive their astrological techniques and lore?

If one browses the shelves on fortune telling in a modern Japanese bookshop, one will find many books, meant for general readers, on a system of astrology called Sukuyō 宿曜 ('Constellations and Planets'), the same term found in the *Tale of Genji*. The blurbs on the covers of these popular books often connect this astrology to Kūkai 空海 (774–835), the founder of the esoteric school of Buddhism in Japan called Shingon 真言, stating that he brought this mysterious system of astrology from Tang China in 806.

Moving to China, the caves of Dunhuang serve as a repository of late-Tang and early Song documents and works of art, including a certain painting in which a luminous Tejaprabhā Buddha 熾盛光佛 is depicted seated atop an ox cart. The painting is entitled "Tejaprabhā Buddha and the Five Planets" 熾盛光佛并五星圖 (fig.1.1), and was painted

[1] Edward G. Seidensticker translates *sukuyō* 宿曜 as 'astrologer of the Indian school', but this term refers to a Buddhist astrologer monk specifically. See chapter 6.4 below.

[2] Murasaki Shikibu, *The Tale of Genji*, vol. 1, trans. Edward G. Seidensticker (New York: Alfred A. Knopf, 1977), 14–15, 273. See *Genji monogatari* 源氏物語, Iwanami Shoten edn., vol. 1, 45 & vol. 2, 106. For further discussion of this see Jeffrey Kotyk, "Kanjiken no bungaku ni okeru saihō–senseijutsu no yōso: tōzai bunka kōryū ni okeru Bukkyō no yakuwari" 漢字圏の文學における西方占星術の要素：東西文化交流における佛教の役割, *Bukkyō bungaku kenkyū* 佛教文學研究 19 (2016): 88–90.

by a certain Zhang Huaixing 張淮興 (d.u.) in year 4 of the reign era Qianning 乾寧 (897). Its five figures are anthropomorphic representations of the five visible planets.

Fig. 1.1. "Tejaprabhā Buddha and the Five Planets"[3]

[3] Stein no. Ch.liv.007, British Museum 1919,0101,0.31. © Trustees of the British Museum

This is an intriguing representation of a buddha that does not itself have a definite Indian precedent. The function of the planets represented in this fashion is not immediately clear. It begs the question of why an artist would depict the planets in this fashion within a Buddhist context.

These figures representing the planets add an additional element of mystery to this painting, since similar representations are found in Islamic art.

Fig. 1.2. Planets of the *'Aja'ib al-makhluqat* (*Wonders of Creation*)[4]

The parallels between these icons and those of the Dunhuang piece are apparent enough to identify the icons of the latter. In both representations, Saturn is depicted as a man with a dark complexion, Venus plays a lute, Mercury holds parchment, and Mars is an armed warrior. The remaining figure is therefore to be identified as Jupiter. This point should bring to mind similar associations in the Latin tradition with which we are familiar

[4] These are from an illustrated Turkish version of the *'Aja'ib al-makhluqat* (*Wonders of Creation*), the first systematic treatise on Islamic cosmography by Zakariya al-Qazwini (1203–1283), produced in 1717 by Muhammad ibn Muhammad Shakir Ruzmah-'i Nathani. See Scott B. Noegel and Brannon M. Wheeler, *The A to Z of Prophets in Islam and Judaism* (Scarecrow Press, 2010), 271. Looking at these images clockwise, Jupiter is a stately man holding a document, Mars is a warrior carrying a severed head, Venus plays a lute, Saturn is a man of a dark complexion with at least seven arms holding various items, and Mercury holds parchment over his knee. Walters manuscript W.659. Images from the Walters Art Museum. Creative Commons License.

in English. The planet Mars is associated with the Roman god of war, Venus is associated with the goddess of pleasure, and Mercury is the messenger of the gods. While these planetary deities differ in some features, and also in some cases their genders, it can still be inferred that they must share a common origin. This leads to the question how such icons ended up appearing in Buddhist art. The *'Aja'ib al-makhluqat* also depicts the orbits of Venus and Mercury, revealing the icons to be connected with astronomy. If the Chinese icons were also connected somehow to astronomy, what was their function? What would their astronomical function have to do with Buddhism?

When looking for a 'Buddhist astrology' in China, we find that Buddhism is seldom mentioned alongside astrology in the modern fields of Sinology and Buddhology. Even pre-modern sources from eminent Chinese historians scarcely mention Buddhism and astrology within the same context. The eminent politician and historian of the early Ming dynasty, Song Lian 宋濂 (1310–1381)[5] in his *Luming bian* 祿命辯 (*Discussion on Fate Calculation*)[6] offers an account of the origins of astrology (specifically the art of prognosticating individual fortunes rather than state astrology) in China in order to prove that this art was originally foreign and thus ought not to be studied.

> 以星占命，奈何。曰：予嚮聞之於師，其說多本於《都利聿斯經》。「都利」蓋「都賴」也。西域康居城當都賴水上，則今所傳《聿斯經》者，婆羅門術也。李弼乾實婆羅門伎士，而羅睺計都亦胡梵之語，其術蓋出於西域無疑。
>
> What of divining fate with the stars? As I have heard from my teacher, it is said to have largely originated from the *Duli yusi jing*. *Duli* perhaps is Dulai. The city of Kangju in the Western Regions is on the edge of the Dulai waters, so the *Yusi jing* now in circulation is an art of Brahmins. Li Biqian was actually a Brahmin diviner, and moreover Rāhu and Ketu are also words of the *Hu-Fan* [Central Asians and Indians]. There is no doubt that the art certainly originated in the Western Regions.

His remarks, to which we will return throughout this study, are noteworthy in that he asserts it was 'Brahmins' from the nebulous 'Western Regions' who first brought to China the type of astrology used to divine personal fortunes, which he places in the Tang dynasty between 785–805.[7] Mention of 'Brahmins' here would seem to indicate Indians,

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[5] As a historian, he is known for compiling in 1370 the *Yuan shi* 元史, the history of the Mongol Yuan dynasty (1271–1368).

[6] *Luming* 祿命 literally means "official emolument and limit of life". This concept is also known as *tuiming* 推命, i.e., "fate falculation". See Chao Wei-Pang, "The Chinese Science of Fate-Calculation," *Asian Folklore Studies* 5 (1946): 279.

[7] Ren Jiyu 任繼愈, ed, *Zhonghua chuanshi wenxuan Ming wen heng* 中華傳世文選明文衡 (Changchun: Jilin Remin Chubanshe, 1998), 151.

yet he makes no reference to Buddhism or Buddhist monks. Moreover, his speculation about this otherwise undescribed *Duli yusi jing* having a connection to Kangju in Central Asia raises some questions, given that Brahmins, Rāhu and Ketu[8] are all from India. Whatever the role of Buddhism in the transmission of astrology into China, Song Lian was unaware of it.

The primary Chinese Buddhist texts that relate to astrology include several important works from the Tang dynasty that not only deal with astrology, but also a closely associated practice of astral magic designed to interact with astral deities, such as the planets conceived of as sentient deities, which stands in stark contrast to early Chinese astrology. In these works, we also find Tejaprabhā Buddha named as a major Buddhist deity within an astrological context. Even with just a cursory glance at the materials, it is apparent that the Tejaprabhā image from Dunhuang was very likely connected with the practice of astrology and astral magic, which is why he is surrounded by the planets. It is not, however, immediately clear how Tejaprabhā arose in relation to astrology in China, and when precisely this happened.

We should note that a term approximating 'astral magic' is not found in Chinese. 'Astral magic' is a modern designation for the practice of magic as a means of interacting with or commanding the planets conceived of as gods or spirits. It was popular in Arabic occultism before it was transmitted to Europe in the Middle Ages. Richard Kieckhefer notes that "because this magic sought to change rather than merely learn one's destiny, its effect was entirely distinct from that of astrology proper, and for that reason it has been proposed that it be called 'astral' rather than 'astrological' magic."[9] For the purposes of this study, magic is understood as a practice of rituals aimed at unseen deities, in which one petitions, commands or deceives such beings for personal gain.

After a brief survey of the relevant materials, it becomes evident that there may be some truth to the popular conception of modern Japanese practitioners of Sukuyō astrology that Kūkai in the early ninth century brought to Japan from China a type of Buddhist astrology. The presence of planetary icons in the Buddhist literature, some of which share features with those in Islamic art, indicates that the astrology practiced by Buddhists in the Tang dynasty was not native to China, which agrees with Song Lian's assertion. Several centuries later in the fourteenth century, however, any memory of Buddhists practicing astrology had been forgotten, if we take Song Lian's remarks as representative.

This study seeks to explore and bring to light this forgotten role of Buddhism in the transmission and adaptation foreign astrology into China, and in the subsequent development of astral magic and cults centered on astral deities, investigating the extent

[8] Rāhu and Ketu are the ascending and descending nodes of the Moon in Indian astronomy. These will be discussed at length throughout this study below.

[9] Richard Kieckhefer, *Magic in the Middle Ages* (Cambridge: Cambridge University Press, 1989), 132.

to which this influenced the greater East Asian world in the areas of religion, literature and art.

1.2. State of the Field

At present, there is no field or subfield dedicated to the study of Buddhist astrology. The present study therefore draws on the work of numerous scholars from related fields including Buddhist Studies, Sinology, Indology and the history of science in China. Scholars have discussed Chinese Buddhism and astrology as they relate within specific texts and time periods, though there are no comprehensive studies that take into full consideration the background history of astrology and relevant developments in calendrical science and religious iconography. Buddhist Studies at present does not generally recognize a 'Buddhist astrology'. There has moreover never been any discussion to my knowledge of a 'Buddhist astral magic'. This study aims to document how both of these arose in China.

The first relevant area to survey is the role of astrology in Indian Buddhism. Raoul Birnbaum is correct in pointing out that "astrological knowledge was pervasive in the ancient Buddhist world."[10] In order to understand the Buddhist practice of astrology in India, in turn, one must have a grasp of the general history of Indian astrology. One of the leading scholars on this topic was David Pingree (1933–2005). The present study relies heavily on his publications, and seeks to build upon his work through an exploration of astrological materials in East Asia. The scope of his work was immense, as it delved into Sanskrit, Greek, Persian, Arabic and Latin works on astrology, as well as mathematical astronomy. However, Pingree did not read Chinese, and thus his publications do not extend into that direction. Pingree thoroughly documented the development of Indian astrology, especially as it relates to the Hellenistic tradition from which it heavily borrowed. His research was groundbreaking and innovative, and as a historian of mathematics his work is generally exceptional. He did not, nevertheless, discuss astrology from a Buddhological angle, and what it meant for the development of the religion.

The history of astrology extends to Mesopotamia and Hellenistic Egypt. The present study is primarily interested in Hellenistic astrology. Aside from Pingree's work, there are several other scholars whose works I have consulted. An introduction to the history of astrology, *Ancient Astrology* by Barton (1994), discusses the history of Hellenistic astrology, in addition to explaining basic astronomical terms as they relate to astrology. The foremost study on Greek horoscopy, by Otto Neugebauer and Henry Bartlett Van Hoesen (1959), discusses the technical features and metholodgy behind the

[10] Raoul Birnbaum, "Introduction ot the Study of T'ang Buddhist Astrology: Research Notes on Primary Sources and Basic Principles," *SSCR Bulletin* 8 (1980): 5.

art. This technical knowledge is necessary to understand the relevant literature in Chinese translation. A monograph by Tester (1987) links together the history of astrology and technical developments, and explains developments chronologically. These studies provide the information necessary to separate Hellenistic astrology in Chinese translation from Indian and native Chinese systems. As it presently stands, scholarly treatment of Hellenistic astrology is still an undeveloped field. Brennan (2017), however, produced an instructive practical guide to Hellenistic astrology, based entirely on primary sources from the ancient period.

A related area that combines both Hellenistic and Indian astrology is Iranian astrology, elements of which ended up being incorporated into Chinese Buddhist astrology and astral magic. Pingree paid much attention to Iranian astrology. There are, however, few extant primary sources that would be relevant to the present study. I have also relied on the work of Antonio Panaino (2015), who produced a rich survey of Zoroastrian astrology and cosmology, in addition to his published papers in English (2004, 2009) on Iranian astrology and astral magic. Panaino's studies include translations of source materials from Middle Persian. By comparing these with Chinese materials we are able to identify parallels, and thereby prove that Buddhist astrology absorbed a number of Iranian elements.

Turning to the topic of Buddhist astrology in China, a few scholars have made seminal contributions. Zenba Makoto, who was active in the fifties and sixties, studied the astronomy found in Buddhist texts in Chinese translation (1952, 1956, 1957, 1968). His papers were the first of their kind, and establish a foundation for understanding Indian astronomy in Chinese translation. It seems that he never published in English. Pingree was therefore unaware of these valuable papers. Zenba's papers provide detailed information and analysis about several important texts.

Yano Michio, a historian of Indian mathematics and astronomy, has produced relevant studies with due reference to Indian sources in Chinese translation. Yano's 1986 work, *Mikkyō senseijutsu* 密教占星術 (*Esoteric Buddhist Astrology*), was a pioneering work, and one atop which the present study builds. In addition to identifying various Indian sources in astrological works in Chinese translation, Yano also carried out important philological work on manuscripts, identifying variant recensions of key Chinese texts. His 1986 work was revised and republished in 2013. Yano's other works on astrology and calendrical science (1986, 2003, 2004) are also invaluable and greatly contribute to our understanding of Buddhist astrology in China.

Bill M. Mak, a student of Yano, has published several papers on Indian astral science and the introduction of foreign astrology into China, with particular interest in what this meant in a Buddhist context. One of his important studies (2014) demonstrates that the work of the Hellenistic astrologer Dorotheus of Sidon (c. 75) was translated into Chinese around the turn of the ninth century, which stands in contrast to Yano's earlier theory that the Hellenistic astrology found in late-Tang materials was based on the work

of the Hellenistic writer Ptolemy (2nd cent.). Mak has also challenged Pingree's dates for the first major transmission into Sanskrit of Hellenistic astrology via the *Yavanajātaka* (2014). Mak's work clearly develops the earlier work of Pingree, Zenba and Yano.

The publications of these scholars are all fine contributions to the field, and they excel in their analysis of astrology and astronomy, but what remains missing is a Buddhological or Religious Studies perspective that considers the religious implications of astrology within Chinese Buddhism. On the other hand, scholars of Chinese Buddhism who have approached astrology tend to focus on religious practices and the relevant iconography without reference to the history and technical aspects of astrology. For example, a survey by Henrik H. Sørensen (2011) gives an outline of relevant astrological texts in the Chinese Buddhist canon for the collective volume *Esoteric Buddhism and the Tantras in East Asia*. His study is a starting point to delve into the topic, but it does not contest traditional author attributions, provide critical dates for texts, or examine the technical features of Buddhist astrological practice in East Asia.

The significance of astrology in esoteric Buddhism in East Asia is not widely discussed, though the relationship between Buddhism and Daoism with respect to the Buddhist appropriation of Daoist astral magic has attracted scholarly attention as a prominent example of notable religious interaction. Unfortunately, there is little discussion of Tang-era Daoist astrology itself, especially the common features it shared with contemporary Buddhist astrology.

The major discussions to date concerning astral magic in Buddhism and Daoism suffer from critical flaws. Xiao Dengfu (1991) provides an outline of Buddhist astrology in the Tang with reference to Daoist influences, but does not take into sufficient account foreign influences. He also attributes too many features in Buddhist texts to Daoist influences. Christine Mollier (2008) also explores the interaction between Daoism and Buddhism with a particular interest in the activities of the astronomer Yixing and his purported Daoist practices, but she does not critically distinguish between historical and fictional accounts of Yixing, and therefore erroneously projects into the 720s various developments that actually occurred in the following century. These two studies therefore need to be approached with caution. Osabe Kazuo (1963) in his earlier study of Yixing had, however, already pointed out that several works attributed to Yixing could not have been from Yixing's time and that, in reality, they represent popular works from the following century. Some brief remarks in a monograph on Chinese Mantrayāna by Lü Jianfu (2009) also properly address the chronology of the relevant works.

The astrological iconography in China and Japan has often caught the attention of scholars of art history, though the original source of these icons and their use in astral magic are not adequately addressed. Birnbaum (1980) carried out a brief preliminary survey of Tang Buddhist astrology with reference to the art record, though he was unaware of the extent of Iranian influences. Similarly, Angela Howard (1983) pointed out evidence of planet worship in Tang China and examined the relevant astrological icons

based on a Japanese manuscript, though she too did not identify any Iranian elements. A collection of papers by various authors, *The Worship of Stars in Japanese Religious Practice*, edited by Lucia Dolce (2007), focuses on Japanese astrology, building on this earlier research. The paper of Lilla Russell-Smith included in this volume discusses the astrological icons. Takeda Kazuaki (1995), who it seems was unaware of the earlier discussions of the icons in English, produced a Japanese language monograph explaining the features of astrological iconography in Japanese Buddhist *maṇḍala*–s. As in the other studies, there is no awareness of possible Near Eastern influences within the astrological iconography. There is also very little evident awareness of how these icons were used by practitioners of astral magic.

Astrology is intimately connected with calendrical science. The present study relies on the work of historians of Indian and Chinese sciences to explain important interactions between astronomers and astrology. With respect to the evolution and features of Indian calendars, the studies of Pingree (1982) and Yano (2003) provide all the relevant information. Calendrical science in China rapidly developed during the Sui-Tang period. This topic is covered in detail by Yabuuchi Kiyoshi (1944), who mostly relied on primary source texts from dynastic histories. His authoritative study elaborates in particular on important technical developments. One of the major calendar reformers in the Tang was the aforementioned monk Yixing, who carried out a number of important innovations that are examined by Ohashi Yukio (2011). In the late-Tang, there appeared popular calendars that were not sanctioned by the state, which was a result of widespread interest in astrology, and declining state authority. Yabuuchi (1984) was also interested in these, a topic which was earlier touched upon by Nakayama Shigeru (1964) and Momo Hiroyuki (1964). Relying on the work of these three scholars, we are able to identify the types of calendar used in various astrological materials from China and Japan.

The practice of astrology also requires knowledge of observational astronomy. The astrologers of East Asia all relied on the Chinese system. The foremost history on this topic is the pioneering work of Joseph Needham (1959). His work still generally holds good, though as a historian of science he did not discuss how Chinese developments affected astrology and religious practices. Yabuuchi also discussed the existence of Western astronomy in Tang China (1961), being one of the first scholars to identify the presence of Hellenistic sources in Chinese. This foreign astronomy was connected with the employment of Indian and Persian court astronomers in the Chinese capital throughout the mid- to late-Tang dynasty. The Indian figures who were active in the eighth century was studied by Tansen Sen (1995). The life of a Persian astronomer, who was active around the turn of the ninth century, is examined by Rong Xinjiang (1998). Both of these scholars made use of the inscriptions on the memorial steles of these astronomers. Two of these were unearthed in Xi'an, China, in 1977 (Chao 1978) and 1980 (Chen 1981). We therefore have a clear picture of who these foreign astronomers were. I will argue below that we can trace a shift from Indian to Iranian

sources of astronomy and astrology based on the chronology of their respective careers in relation to the textual record.

As a separate but related field of study, the history and technical aspects of ancient Chinese astrology and omenology are best covered by a recent comprehensive monograph on the topic by David Pankenier (2013). This subject deals primarily with native astral omenology, a practice that existed alongside foreign practices during the Tang dynasty. Buddhist astrologers integrated some elements of native Chinese astrology into their system. We must also understand the Chinese approach to astrology in order to explain why the Chinese were so receptive to foreign astrology. Edward Schafer (1977) produced a study on astrology in the Tang dynasty entitled *Pacing the Void: T'ang Approaches to the Stars*, but the author himself describes it as an exegesis, calling it a "serious attempt to capture in my mind and to re-animate in my prose the true visions of the educated or intelligent men of medieval China."[11] This work is therefore a personal reimagining of astrology in the Tang dynasty. The present study cannot rely heavily on this type of work.

Other important studies that relate to astrology in the Tang dynasty include that by Susan Whitfield (1998), who documents the prohibitions against private study and possession of astronomical texts that were nominally in effect under Chinese law during the Tang, though she demonstrates that these prohibitions were ineffective. Her findings are considered in the present study, especially with respect to the legal status of Buddhist astrology. The impact of the popularization of astrology in Tang literature is examined by Chan Man Sing (2002), who was the first to point out that several major poets of the late-Tang incorporated elements derived from foreign astrology into their poetry. This is a significant discovery as it demonstrates the increasing popularization of astrology in the late-Tang, a development which I link with earlier Buddhist interest in astrology.

The impact of Buddhist and foreign astrology in East Asian cultures after the Tang dynasty is documented by a number of scholars. These are generally divided into separate regions.

One of the richest sources of documents in this regard is Dunhuang. Many items discovered there shed light on developments in the late-Tang. One of the key documents is a horoscope (P.4071), which was initially studied by Jao Tsung-i (1984). Niu Weixing (2016) recently produced a thorough analysis of this document in terms of its astrological features and the techniques used to compile it. Other studies include that of Gao Guofan (1993), who discusses some of the methods of astrology as seen in Dunhuang texts. Yu Xin (2006) surveys astrological texts related to the seven-day week. One issue with the scholarship on these documents is that they are not adequately connected to earlier developments in the Tang. There is also almost no discussion of contemporary Buddhist interest in astrology in the early Song period (tenth and eleventh centuries).

[11] Edward Schafer, *Pacing the Void: T'ang Approaches to the Stars* (University of California Press: 1977), 2.

There are a few studies discussing the impact of astral deity cults in the surrounding cultures of China, such as the Tangut Xixia and Korea. The information provided by these studies will be used in the present study to demonstrate the ultimate significance of Tang Buddhist astrology in later centuries. Kira Samosyuk (1997/1998, 2004) has researched both the cults of astral deities in the Tangut culture, as well as the state interest in astrology. Sen (1999) has examined the tomb paintings that display astrological motifs from the twelfth century in Liao China. Publications by Sørensen (1995, 2006) discuss the Korean adoption of astrology, and the related astral cults in Korea.

The Japanese reception and development of Chinese Buddhist astrology is highly instructive, as it tells us a great deal about Chinese developments, while further demonstrating the impact of Buddhist astrology in later East Asian religious history. Japanese Buddhist astrology has received some scholarly attention, but it is not widely known even among Japanese scholars. The first academic studies of this tradition were carried out by Momo Hiroyuki (1964, 1969, 1975). He was the first scholar to draw a clear line between the activities of professional Buddhist astrologers and the use of astrology by Mikkyō 密教 institutions, i.e., those sects involved in Mantrayāna or Esoteric Buddhism.[12] He also connected Japanese practices of astrology back to traditions of the late-Tang. His work laid the foundation for future comprehensive studies by Yamashita Katsuaki (1990, 1996, 2010) who wrote the first detailed history of Japanese astrologer monks with due reference to their lineages and activities in Japan from the tenth to fourteenth centuries, though his focus has been on the Heian period. Toda Yusuke (2006, 2007, 2008) therefore has looked more closely at the activities of these astrologer monks in the Kamakura period, while taking a particular interest in the astral magic they developed based on earlier materials that they inherited from China. The findings of these scholars provide many insights about the sources which Japanese astrologers used, most of which were from China. We are able to reconstruct features of Chinese Buddhist astrology and astral magic based on these Japanese materials.

1.3. Aims of this Study

Buddhist astrology in East Asian religious history warrants a comprehensive study identifying the sources of Chinese Buddhist astrology and the historical trends that

[12] There is no present consensus concerning the terms Mantrayāna, Esoteric Buddhism and Tantric Buddhism as they relate to East Asia. For a relevant discussion see Charles D. Orzech et al., "Introduction: Esoteric Buddhism and the Tantras of East Asia: Some Methodological Considerations," in *Esoteric Buddhism and the Tantras of East Asia*, eds. Charles D. Orzech et al. (Leiden: Brill, 2011), 3–18. Buddhists in East Asia never referred to a "Tantric Tradition", but a modern scholar can still clearly draw lines between "Indian Tantra" and what we see in East Asia. I feel that "Tantric" as an adjective captures an appropriate meaning and background. In this study, these various terms are used interchangeably.

facilitated its development in light of its impact across several centuries in the areas of religion, art and literature. The prominent, albeit largely unrecognized role, of Buddhist astrology in China also challenges present understandings of the development of Chinese Buddhism that almost without exception overlook astrology.

Past scholarship has dealt with various aspects of astrology in the Tang dynasty, including some of the relevant practices, icons, texts, and calendrical science, but there has been no attempt to link all these developments together. Scholarship has also yet to point out that it was only in the Tang dynasty that Buddhist astrology flourished in China. This point will be demonstrated by examining the relevant texts and history, showing that the earliest evidence for Chinese Buddhist practice of astrology is found in the eighth century. As we will explore throughout this study, Buddhist astrology was clearly an important component of Mantrayāna in East Asia. The need within Mantrayāna to determine auspicious times for rituals was, I will argue, the initial motivating factor behind the practice of astrology by Chinese Buddhists, who in earlier centuries never had a need to observe it. This deep connection between astrology and early Chinese Mantrayāna is furthermore concretely demonstrated by the fact that Śubhakarasiṃha 善無畏 (637–735), Yixing 一行 (673–727) and Amoghavajra 不空 (705–774), three of the early patriarchs of the esoteric lineage in China, were connected to the practice of astrology. Later, Kūkai, an esoteric master par excellence, would play a significant role in transmitting astrology to Japan. Although Yixing's work in astronomy is widely recognized, these figures are seldom associated with astrology in modern scholarship.

The Buddhist astrology that we see develop in the Tang is notably based on non-Buddhist sources. It is already known that Chinese Buddhist literature draws upon Indian sources, but these texts also indicate other foreign sources, Iranian and even Hellenistic, a point that has not been deeply studied. The latter two types of astrology, however, were primarily for prognosticating the fate of an individual, rather than determining auspicious times for rituals. On this matter, we must ask if there was any sort of doctrinal justification in Buddhism for engaging in such fortune telling. Another issue that must be explored is the position of the vinaya (monastic regulations) on the matter of monks practicing divination. It will be shown that proscriptions against the practice of divination, and astrology specifically, did in fact exist within the Chinese vinaya tradition, but these rules clearly never hindered the development of Buddhist astrology.

As noted above, there is no mention in Buddhist Studies at present of any 'Buddhist astral magic'. This study takes the first step in explaining its emergence in China. The motivating factors underlying the initial interest in this magic must first be identified. It will be demonstrated that the intense Buddhist interest in astrology produced fears and concerns about undesirable prognostications and malefic astral deities. Buddhists had at their disposal various Indian and non-Indian apotropaic measures to counter these forces, and thus they produced a unique practice of astral magic combining Indian, Chinese and Iranian elements. The emergence of Tejaprabhā Buddha and other

astral deities within the Chinese Buddhist pantheon are, I will argue, connected to this magic and astrology.

If Chinese Buddhists were practicing foreign systems of astrology that originally employed non-Chinese systems of astronomy, how exactly did they, especially not being professional astronomers, navigate these substantial differences? How did they produce a functional system from several disparate systems? To address this problem, attention must be given to the contemporary Chinese developments in astronomy, calendrical science and native Chinese astrology. Astrology requires a basic knowledge of astronomy, but the more advanced techniques of astrology require complicated calculations to determine the positions of planets in the past or present. On this point, we must also ask who were the professional astronomers responsible for creating the tools necessary to feasibly practice advanced astrology, such as the tables indicating the positions of planets on past dates that we find in the late-Tang, so that non-specialists could readily practice astrology. We might also ask to what extent foreign astronomy was transmitted into China, and was Chinese astronomy ever influenced by non-Chinese systems. Did such developments have an impact on Buddhist astrology? Did any interest in astrology affect how Chinese astronomers approached their art? These questions are best answered by linking together the findings of scholars of astronomy and Buddhism. This approach has not yet been attempted to date.

One other significant problem that this study seeks to address is that of the chronology of the development of Buddhist astrology. There are many misunderstandings about when certain texts and practices emerged, much of this a result of relying on traditional attributions of texts on astral magic to Yixing. I will prove that these texts attributed to him cannot be from his time, or even possibly based on anything produced by him. More importantly, I will discuss, drawing upon the work of Osabe, what these texts tell us about the popularization of astrology, and how Buddhists readily interacted with other contemporary religions when it came to astrology. The critical chronology that I will construct will also demonstrate that it was Buddhists who first translated and practiced foreign astrology in China, which was then followed by a booming popular interest in the art. The cause behind the popularization of astrology in the late-Tang has not yet been explained. I will argue that it was the initial Buddhist interest in astrology that sparked this development, but at the same time address the contemporary legal prohibitions against the private study of astronomy, which in theory should have halted such developments.

Finally, with due consideration of all the developments in the Tang dynasty, I will document the impact that Buddhist astrology had in the larger East Asian world following the collapse of that dynasty in the early tenth century.

1.4. Primary Sources

In examining the development of Buddhist astrology in the Tang, I will draw on a number of materials and sources including texts, and icons from the art record of East Asia. The primary texts in the Taishō canon 大正新脩大藏經圖像 (texts T 1299–1311), printed between 1924–1932, include the major relevant works, though variant published and unpublished versions are also consulted.[13] The majority of these were preserved exclusively in Japan. Several of the key texts therefore are only published in the Taishō. The versions that the Taishō editors consulted when preparing typeset editions are not readily available. This presents the obvious problem of having no primary sources other than Japanese recensions. Other valuable works from Japan, such as hagiographies and catalogs of works brought back from China by Japanese monks, are also consulted.

The relevant icons are found primarily in the supplementary *Taishō zuzō* 大正圖像, the Taishō canon's collection of image plates.[14] Reference is also made to manuscripts and specimens of art from Dunhuang, many of which are now digitized.[15] It does not appear that any of the available icons are true originals from Tang China. In the case of Japanese examples, they are believed to be copies of Chinese originals. These all fortunately correspond to the descriptions of the icons in Chinese texts; thus, we can generally rule out any major modifications on the part of Japanese artists.

Reference is also made to Daoist astrology in the Tang dynasty. The Ming-era Zhengtong Daoist canon 正統道藏 of 1445 contains a few relevant texts.[16] Unfortunately, these were not fully preserved as they are missing chapters. There are also obvious scribal errors in these texts. Unfortunately, there are no other known versions of these works.

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[13] I have examined the printed edition as well as the digitized versions available through CBETA Reader (v.5.2) and the SAT project (http://21dzk.l.u-Tōkyō.ac.jp/SAT/). For a discussion of the history behind modern Japanese Buddhist canons see Silvio Vita, "Printings of the Buddhist 'Canon' in Modern Japan," in *Buddhism Asia 1: Papers from the First Conference of Buddhist Studies Held in Naples in May 2001*, eds. Giovanni Verardi and Silvio Vita (Kyōto: Italian School of East Asian Studies, 2003), 217–245.

[14] These are also available online through the SAT project (http://dzkimgs.l.u-Tōkyō.ac.jp/SATi/images.php?alang=en).

[15] Scans of the materials are available online at the International Dunhuang Project (http://idp.bl.uk/).

[16] Also known as *Da Ming daozang jing* 大明道藏經. This Daoist canon has been reproduced as a modern facsimile edition by various publishers. Here the Wenwu edition (1986) will be cited. For an overview of the history of Daoist canons see Fabrizo Pregadio, ed., *The Encyclopedia of Taoism*, vol. 1 (Routledge, 2008), 28–33. Kristofer Schipper and Franciscus Verellen, eds., *The Taoist Canon: A Historical Companion to the Daozang*, vol. 1 (Chicago: The University of Chicago Press, 2004), 5–39. For a survey in Japanese see Ozaki Masaharu 尾崎正治, "Dōkyō kyōten" 道教經典, in *Dōkyō* 道教, vol. 1, ed. Fukui Kōjun 福井康順 (Tōkyō: Hirakawa Shuppansha, 1983), 75–120.

A number of secular sources are also important to this study, most importantly the secular histories of the Tang dynasty.[17] These histories provide biographies, as well as details on the evolution of astronomy and calendrical science in China. Other Tang-era works, in particular fictional or semi-historical accounts of relevant figures such as Yixing, are also consulted, such as collections of short tales, which include the *Tang xinyu* 唐新語 (*New Tales of the Tang*) by Liu Su 劉肅 (fl. 820), *Kaitian chuanxin ji* 開天傳信記 (*Kaitian Record of Accounts*), written by Zheng Qi 鄭綮 (d.899), *Minghuang zalu buyi* 明皇雜録補遺 (*Supplement to the Minghuang Assorted Records*), compiled in 855 by Zheng Chuhui 鄭處晦 (d.u.), and the *Youyang zazu* 酉陽雜俎 (*Miscellaneous Morsels from Youyang*), compiled by Duan Chengshi 段成式 (d. 863) around 860. These are preserved in the *Siku quanshu* 四庫全書 corpus of Chinese works, the editing of which was finished in the late 1770s. I have relied primarily on the Taiwanese reprint of 1983 (the *Ying yin Wen yuan ge Si ku quan shu* 景印文淵閣四庫全書, originally produced in 1782).[18] Other sources of contemporary information include inscriptions from memorial steles.

The history of Chinese calendrical science and astronomy in the Tang period is largely only explained in the dynastic histories of the Tang. However, investigation of popular calendars, which were not endorsed by the state, requires looking at other sources, such as later dynastic histories, as well as authors from later periods, some of whom were from the Ming dynasty, such as Song Lian and Liu Dingzhi 劉定之 (1409–1469). Their writings are preserved in the *Ming wen heng* 明文衡 anthology compiled by Cheng Minzheng 程敏政 (1446–1499). I have used the printed edition edited by Ren Jiyu (1998).

As many relevant materials were imported from Iran, reference also has to be made to extant works from the Near East. To understand the technical details of foreign astrology in China we must consult Hellenistic sources. The foremost figure in this regard is Dorotheus of Sidon (c. 75), who wrote a compendium of astrological lore called the *Pentateuch* (*Five Books*). Although fragments of this work are preserved in Latin, Greek and Chinese, the only fully extant recension of the text is an Arabic translation. Pingree (1976) translated the Arabic recension. The present study makes reference to Pingree's translation, but caution must be exercised given that this English translation of the Arabic is a translation of an expanded edition of a Pahlavī translation of the original Greek. Pingree was unaware of the fragments in Chinese. The additional material of Dorotheus uncovered in the present study from Daoist materials therefore offer a significant

[17] The two primary histories include the *Jiu Tang shu* 舊唐書 (*Old Book of Tang*) of 945 by Liu Xu 劉昫 (887–946), and the *Xin Tang shu* 新唐書 (*New Book of Tang*) of 1060 by Ouyang Xiu 歐陽修 (1007–1072) and Song Qi 宋祁 (998–1061).

[18] For comprehensive details on the *Siku quanshu*, see Endymion Wilkinson, *Chinese History: A New Manual*, fourth edn. (Cambridge, MA: Harvard University Press, 2015), 945–954.

contribution to understanding Dorotheus. As will be shown in this study, the Chinese material also often corresponds very closely with content in Pingree's translation.

The astral magic of the Iranian type that we find in Chinese drew upon material from Hellenistic Egypt and other Near Eastern cultures. In order to prove this point and better understand the features of this magic, we can identify parallels in ancient and medieval sources from the Near East and even Europe, thereby demonstrating that Chinese Buddhists and Daoists during the late-Tang were, in fact, part of an effectively global interest in this type of astral magic. In the case of Greco-Egyptian sources, the relevant papyri that share features with what we find in Chinese are translated from the Greek by Hans Dieter Betz (1986). Many more parallels are found when comparing the Chinese materials with the *Picatrix*, which is the Latin version of the *Ghāyat al-Ḥakīm*. This medieval Arabic manual of astral magic, compiled in the eleventh century, draws on a number of earlier sources from the ninth and tenth centuries.[19] A typeset version of the Latin translation from the thirteenth century was prepared by Pingree (1986). I have consulted this Latin edition alongside its English translation by John Michael Greer and Christopher Warnock (2010–2011).

1.5. Methodology

This study establishes a critical historical chronology for the introduction and development of Buddhist astrology in China. The chapters are therefore ordered chronologically. The texts and visual icons as they appear in the historical record, or with dating as best can be determined, are individually analyzed with due reference to contemporary historical developments that affected their production. The traditional attributions of certain works, especially those of Yixing, are subjected to a philological analysis, and demonstrated to be spurious; approximate dates are determined based on content and when they first appear in catalogs of texts by Japanese monks.

Having established such a chronology, we are then able to track developments and innovations over the course of time, answering the question of how a unique type of Buddhist astrology was produced from disparate sources. This also enables us to seek the first texts and the events that would have encouraged Buddhist interest in the practice of astrology. Explaining the challenges that the Chinese faced in translating and implementing foreign astrology over time, especially as non-specialists in astronomy, requires reference to various technical adaptations. Reference is therefore also made to the contemporary developments in Chinese calendrical science and how this field simultaneously evolved. From this we will attempt to discern an adaptive strategy underlying the implementation of foreign astronomy in China.

[19] David Pingree, "Some of the Sources of the *Ghāyat al-hakīm*," *Journal of the Warburg and Courtauld Institutes* 43 (1980): 2.

This study examines via intertextual analysis how Chinese Buddhist literature integrates largely non-Buddhist astrological material. 'Intertextuality' is a concept devised by Julia Kristeva (b. 1941), covering "the range of ways in which one 'text' may respond to, allude to, derive from, mimic, parody, or adapt another."[20] Intertextuality understands "the text as a dynamic site in which relational processes and practices are the focus of analysis instead of static structures and products." Texts contain other elements, themes and adaptations from other texts, and therefore "we understand texts not as self-contained systems but as differential and historical, as traces and tracings of otherness, since they are shaped by the repetition and transformation of other textual structures." This approach to texts takes the emphasis away from a single text, and instead focuses it on how texts relate to each other.[21] Kristeva's concept of intertextuality gained popularity from the 1970s, but generally lost its original meaning.[22] Hence, for the sake of clarity, the present study defines intertextuality according to Gérard Genette. He defines it "as a relationship of copresence between two texts or among several texts: that is to say, eidetically and typically as the actual presence of one text within another."[23]

This definition in practice corresponds to 'textual reuse', i.e., the borrowing of content from one text to be integrated into a new work. Textual reuse is presently a topic of interest in computer science, in which vast quantities of texts are automatically scanned for examples of reuse of earlier materials.[24] I have made ample use of the search functions of CBETA, SAT, WikiSource and the CTEXT project to identify examples of textual reuse in the body of Buddhist and non-Buddhist texts under investigation.

Scholars have recently taken an interest in textual reuse and intertexuality within Buddhist literature. This was a special recent topic in the *Buddhist Studies Review* (2016). Vesna Wallace notes, "As every scholar of Buddhist studies knows, intertextuality has been an important feature of Buddhist literature, which has for centuries spatially and interlinguistically transmitted and perpetually reused. The reuse, evocation, quotation, recycling, and appropriation of texts and Buddhist ideas have been a common strategy in all Buddhist literary traditions."[25] The present study aims to consider these same patterns within Chinese Buddhist texts dealing with astrology and astral magic.

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[20] "Intertextuality," in *The Concise Oxford Companion to English Literature*, eds. Dinah Birch and Katy Hooper (Oxford: Oxford University Press, 2013), 356.

[21] María Jesús Martínez Alfaro, "Intertextuality: Origins and Development of the Concept," *Atlantis* 18, no. 1/2 (1996): 268.

[22] Thomas A. Schmitz, *Modern Literary Theory and Ancient Texts: An Introduction* (Blackwell Publishing, 2007), 77.

[23] Gérard Genette, *Palimpsests: Literature in the Second Degree*, trans. Channa Newman and Claude Doubinsky (University of Nebraska Press, 1997), 1–2.

[24] Jean-Gabriel Ganascia and others, "Automatic Detection of Reuses and Citations in Literary Texts," *Literary and Linguistic Computing* 29, no. 3 (2014): 412–421.

[25] Vesna A. Wallace, "Thoughts on Originality, Reuse, and Intertextuality in Buddhist Literature Derived from Contributions to the Volume," *Buddhist Studies Review* 33, no. 1-2 (2016): 233.

Employing the stated theoretical framework requires that we know the order in which texts were produced, hence the emphasis on a critical chronology. We must first understand the original material that later Chinese Buddhist literature reuses. Having explained these earlier sources of astrology, we can then examine how they were reused in a new, specifically esoteric Buddhist, context. This process of comparing the original materials with the new forms enables us to examine what Buddhists changed, retained and omitted, which is highly instructive with respect to the motivations and beliefs of the authors, especially when the original materials were non-Buddhist. The way in which the relevant visual icons are represented in China also informs us about how these figures were imagined in the new environment.

1.6. Chapter Outlines

Chapter 2 – "Astrology and Eurasian Civilizations"

This chapter outlines the history of astrology as it relates to the present project, in particular the development of astrology in India, which underwent rapid transformations as a result of Hellenistic influences from the fifth century onward. It is anticipated that most readers from the field of Buddhist Studies will be unfamiliar with astrology, so the relevant concepts are explained and defined. The history of astrology as it relates to Buddhist precepts and monastic conventions is also discussed. The major instances of astrology being prohibited or refuted in Indian Buddhist literature are surveyed, before discussing the increasing Buddhist interest in astrology throughout the first millennium, especially in Mahāyāna and later Mantrayāna, a development that parallels similar trends among astrologers in Hindu history. This establishes the Indian background behind the astrology that was introduced into China through Buddhism. I also discuss the existence of astrological determinism in Indian Buddhist sources, which, I argue, was a major belief among Buddhists in India that was carried over into China. I observe that examples of astrology in Indian Buddhist literature seem to largely originate from texts that come from Magadha. Finally, the Chinese perspective on astrology and the legal prohibitions against the private study of astronomy are discussed. These prohibitions are relevant in that they seem to have prevented the popularization of astrology until after the mid-Tang, when they were no longer enforced.

Chapter 3 – "Early Buddhist Astrology in China: the Fourth to Seventh Centuries"

This chapter examines several translations of Indian astrological texts into Chinese between the fourth to seventh centuries. It is asked why Indian astrology was not observed in China in this period. I point out that the texts make little attempt at defining the system of Indian astrology in a way that could be feasibly implemented by Chinese readers. The main texts include two translations of the *Śārdūlakarṇāvadāna* (T 1300, T 1301), as well as the **Samādhi-ṛddhi-pāda* 三昧神足品 chapter of the *Ratnaketu-parivarta* 寶幢分, the translation of which is attributed to Dharmakṣema 曇無讖 (385–

433), the *Candragarbha-parivarta* 月藏分, translated by Narendrayaśas 那連提耶舍 (490–589) in 566, and the *Sūryagarbha-parivarta* 日藏分, also by Narendrayaśas in 585 (these are included in the *Mahāsaṃnipata-sūtra* 大集經; T 397). In addition, a large text, which I propose was likely the *Gārgīya-jyotiṣa* (not extant in Chinese), was translated in the Sui period (581–618). Although modern scholars recognize the value of the extant texts as datable examples of Indian or Central Asian texts dealing with astrology, the reality is that they had little impact on the development of Chinese astrology. There is no evidence that Buddhists in China felt any pressing need to practice Indian astrology in these centuries.

Chapter 4 – "Buddhist Astrology in the Mid-Tang: the Eighth Century"

This chapter examines the first major implementation of foreign astrology in China. The *Mahāvairocana-sūtra* 大日經 (T 848), translated in 724 by Śubhakarasiṃha and Yixing, introduces the need to determine auspicious times for the creation of a *maṇḍala*. The supplementary commentary, the *Dari jing shu* 大日經疏 (T 1796), completed sometime before Yixing's death in 727, briefly outlines Indian astrology as it was understood by Śubhakarasiṃha. Yixing's authorship of this commentary is contested most famously by Osabe Kazuo, but following the line of recent studies, I disagree, and will demonstrate that, despite a few later modifications, the core of the commentary, especially the section on Indian astrology, stems from Śubhakarasiṃha. This is important in establishing the chronological development of foreign astrology in China. This commentary does not provide sufficient details so as to be able to properly determine an auspicious time, which I argue was an impetus for Amoghavajra to compile his own astrological manual. His manual provides everything required for a Chinese reader to determine auspicious dates, in addition to explaining the basics of Indian astrology (such as predictions about individuals based on their date of birth). The manual, however, while alluding to much more complex systems of astrology, fails to provide any details. This, in addition to Mantrayāna related works affirming astrological determinism, prompted growing interest in astrology among the Chinese, first among elites and then commoners. The translation of Hellenistic astrology into Chinese around 800, although not carried out by Buddhists, was, I argue, in large part motivated by a wave of interest in astrology that was originally motivated by Buddhist concerns.

Chapter 5 – "The Sinicization of Occidental Astrology: the Ninth Century"

This chapter begins with a brief survey of foreign astrological elements in the works of the late-Tang poets Han Yu 韓愈 (768–824) and Du Mu 杜牧 (803–852), which demonstrates the extent of the popularization of astrology in the ninth century. I argue that the emergence of the Tejaprabhā and Sudṛṣṭi cults in the late-Tang was prompted by popular interest in astrology. The key astrological Buddhist text from this period reveals the extent to which Buddhists incorporated non-Buddhist elements into their astrology, in addition to displaying innovative new approaches to apotropaic magic that they developed as a response to growing concerns about the influences of the planets in human

life. The worship of planetary deities as gods within a Buddhist context, based largely on the Zoroastrian model, and likely transmitted via Syriac (Nestorian) Christians into China, was furthermore supplemented with an array of *navagraha* mantras and native Chinese lore. This magic highlights the extent to which Buddhists in China could and, in fact, did believe in astrological determinism, rather than in strict theories of karma. Several of the texts attributed to Yixing are actually from this period, yet several modern scholars have uncritically accepted their attribution to Yixing, thus anachronistically projecting ninth century developments back into the 720s. This misunderstanding is corrected here. The parallel Daoist developments will also be surveyed, such as their practice of astral magic, which has many parallels with the Buddhist system. The astrological iconography and how artists sinicized it will be studied, demonstrating that Iranian, rather than Indian, planetary icons became dominant in East Asia.

Chapter 6 – "Astrology in Post-Tang East Asia":

This chapter surveys the various influences that Tang Buddhist astrology and astral magic had in East Asia. Materials from Dunhuang are studied alongside relevant developments in Korea, Song China, Liao China, the Tangut kingdom of Xixia and Japan. Specific attention is given to the Japanese traditions of astrology, for which we have numerous sources. The ultimate legacy of Buddhism's role in the transmission of foreign astrology was forgotten in China, as exemplified in the aforementioned remarks by Song Lian. This chapter discusses the hitherto unrecognized significance of Tang Buddhist astrology, and how it impacted other cultures and time periods.

Finally, I have produced a timeline that provides an overview of relevant developments related to astrology and astral magic (see appendix 1).

Chapter 2
Astrology and Eurasian Civilizations

2.1. Definitions: What is Astrology?

Astrology is a practice of divination in which an observer primarily tracks the movements of celestial bodies (the Sun, the Moon and the planets) through the celestial sphere in an attempt to foretell the future, identify auspicious times, or discern the fortune or fate of an individual, community or nation. It is divided into several fields.

The simplest type is the discernment of omens in the sky, such as comets, that are interpreted as either favorable or unfavorable. People in the modern age, however, are most familiar with horoscopes. These are normally circular charts, displaying the positions of the planets, the Sun and the Moon at a specific time, such as when someone was born. The significance of the arrangement is explained and predictions are made. This art is called horoscopy (Skt. *horā*).[1]

The personality and life events of an individual are believed to be either signaled or directly influenced by the arrangement of bodies in the sky at the time of birth. This is natal or genethliacal astrology (Skt. *jātaka*). Additionally, there is electional astrology, also called katarchic astrology (Skt. *muhūrta*), in which the opportune time of activities is decided based upon astrological considerations, such as the day of the week, the positions of the planets, and/or the hour of the day. Related to this is hemerology, in which the success of activities is coordinated with days understood as auspicious on the calendar. Hemerology is effectively a branch of electional astrology. These branches of astrology are not defined in this manner in the Chinese tradition, but nevertheless in Chinese Buddhist astrology we still see these same categories in practice, in particular horoscopy and hemerology.

In modern English, a strong distinction is drawn between astronomy and astrology, though for "many of the ancients astronomy was simply the mathematics needed to practise astrology."[2] In both the West and Asia historically, scientific observation and calculation of celestial bodies were not strictly delineated from the belief that one could discern the fate of an individual or nation through accurate interpretation of celestial bodies and their movements. In accordance with present conventions, however, I will adopt the modern definitions. Astronomy here will refer to scientifically falsifiable observations and calculations. Astrology will refer to largely unfalsifiable truth claims concerning the significance or influences of the stars and planets. In accordance with modern conventions I will also not refer to astrology as a science, but rather as an

[1] The Sanskrit term is a loanword from Greek (ὥρα), originally meaning hour, such as the hour of one's birth.

[2] Tamsyn Barton, *Ancient Astrology* (London: Routledge, 1994), xxi.

art, meaning a field of non-scientific knowledge. As will become clear from this study, astrology is better understood as religion, rather than science. Additionally, when referring to planets, this will include the Sun and the Moon, unless otherwise specified, following the understanding of the term prior to the 1630s in Europe.[3] This moreover accommodates the traditional understanding in Asian languages. In Europe, the planets until recent centuries only referred to bodies visible to the naked eye. The 'outer planets' of Uranus, Neptune and Pluto were unknown to the ancients.

2.2. The Ecliptic in Three Civilizations

Astrology has historically been geocentric, rather than heliocentric. This means that the point of reference for observations and measurements is from the perspective of the observer on the ground of the Earth. Astrologers are chiefly concerned with the movement of planets through the ecliptic, the band of space representing the apparent annual path of the Sun as seen from the Earth. It is within this space that the planets, including the Moon, move. This perspective is produced as a result of the bodies of the solar system orbiting on a relative plane.

The occidental systems of astronomy divide the ecliptic radially into 360 degrees. This is further divided into twelve sectors. These sectors are each comprised of 30 degrees and collectively make up the zodiac. Individually these sectors constitute the zodiac signs: Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius and Pisces. Their respective names are derived from constellations. It must be understood that the zodiac signs are only nominally connected to these constellations. The zodiac signs were finalized in Mesopotamia around the year 500 BCE, being an amalgamation of an earlier model of eighteen signs.[4] They were formulated relative to stars including the constellations from which they are named. This is called a sidereal zodiac. The zodiac signs were originally calibrated to the seasons, so that certain stars would always rise on the horizon at dawn at specific times of the year (for instance, the stars comprising Aries would rise at the vernal equinox), but over time the positions of the stars move due to axial precession.[5] This became an issue with Hellenistic astronomers, particularly Claudius Ptolemy (fl. 2nd cent.), who redefined the zodiac so that the first degree of Aries (the first zodiac sign) is defined by the position of the Sun on the day of the vernal equinox. This ensures that the zodiac signs are kept in

[3] See 'planet' in Julia Cresswell, *The Oxford Dictionary of Word Origins* (Oxford: Oxford University Press, 2010), 329–330. See also 'planet' on Online Etymology Dictionary (http://www.etymonline.com/).

[4] John Lankford, ed., *A History of Astronomy An Encyclopedia* (New York: Garland Publishing, 1997), 160.

[5] Axial precession is the changing orientation of the earth's rotational axis. The visible result from earth is the apparent movement of otherwise stationary stars over time.

alignment with the seasons (as was their original function), but they are no longer defined in relation to the stars that formerly defined them. This model is called the tropical zodiac and is characteristic of late Hellenistic astrology.[6] Although Indian astronomers absorbed much Hellenistic astronomy, Indians largely continued using the sidereal (Skt. *niryaṇa*) zodiac, rather than adopting the tropical zodiac (Skt. *sāyana*).[7] The difference between the sidereal and tropical zodiacs became a major difference between Indian astrology and those based on the Hellenistic model, a difference we will see in China later on.

Indian sources originally defined the ecliptic in relation to the path of the Moon. The Moon revolves around the earth in a period of 27.32 days, hence it appears to move around the sky and 'lodge' in 27 or 28 positions over the course of its revolution period. These are called lunar stations, or in Sanskrit *nakṣatra*–s.[8] They were originally defined by determinative stars (*yogatārā*), and were of unequal dimensions,[9] but these were never uniformly defined, which is why there are multiple systems of *nakṣatra*–s.[10] They were measured by the amount of *muhūrta*–s required for the Moon to transit through each. The day in India was divided into 30 units (*muhūrta*), each comprised of 48 modern minutes.

Prior to the importation of Hellenistic astronomy into India, beginning perhaps from the late fourth century CE, Indian astrology generally focused on the position of the Moon in the *nakṣtra*–s. The name of each respective month is based on the *nakṣatra* in which the Moon is nominally lodged (see table 2.1), which then marks the first day of the month. This Moon could be either the full (*pūrṇimānta*) or the new (*amānta*) Moon. There were a number of different calendars and dating systems used throughout ancient Indian civilization. The Greeks introduced their own separate models.[11]

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[6] James H. Holden, *A History of Horoscopic Astrology* (American Federation of Astrologers, 2006), 46.

[7] There is a noteworthy example of the tropical zodiac in India. As Henning points out, the Kālacakra Tantra from the early eleventh century adopted the tropical zodiac. See Edward Henning, *Kālacakra and the Tibetan Calendar* (New York: The American Institute of Buddhist Studies at Columbia University, 2007), 220, 258–260.

[8] The complete list of twenty-eight *nakṣatra–s* first appears in the Atharva Veda. Yano Michio, "Planet Worship in Ancient India" in *Studies in the History of the Exact Sciences in Honour of David Pingree* (Leiden: Brill, 2004), 333. The twenty-seven model drops Abhijit, which is of small dimensions. This will be discussed below (4.2).

[9] As they are of unequal dimensions it becomes a complicated process to accurately track the Moon's progress through them. This stands in contrast to the zodiac signs, which are of uniform dimensions. This difference in systems would become an issue later on when the zodiac signs were introduced into Indian astronomy. See below.

[10] David Pingree and Patrick Morrissey, "On the Identification of the Yogatārās of the Indian Nakṣatras," *Journal for the History of Astronomy* 20, no. 2 (1986): 99–119.

[11] See David Pingree, "A Note on the Calendars Used in Early Indian Inscripts," *Journal of the American Oriental Society* 102, no. 2 (1982): 355–359.

Table 2.1. Chinese lunar stations and *nakṣatra*–s.[12]			
Chinese Lunar Station		**Sanskrit *Nakṣatra***	**Sanskrit Month**
Mao	昴	Kṛttikā	Kārttika
Bi	畢	Rohiṇī	
Zi	觜	Mṛgaśīrṣa	Mārgaśīra
Shen	參	Ārdrā	
Jing	井	Punarvasū	
Gui	鬼	Puṣya	Pauṣa
Liu	柳	Aślesā	
Xing	星	Maghā	Māgha
Zhang	張	Pūrvaphālgunī	
Yi	翼	Uttaraphālgunī	Phālguna
Zhen	軫	Hasta	
Jiao	角	Citrā	Caitra
Kang	亢	Svāti	
Di	氐	Viśākhā	Vaiśākha
Fang	房	Anurādhā	
Xin	心	Jyeṣṭha	Jyaiṣṭha
Wei	尾	Mūla	
Qi	箕	Pūrvāṣāḍhā	Āṣāḍha
Dou	斗	Uttarāṣāḍhā	
Niu	牛	Abhijit	
Nü	女	Śravaṇa	Śrāvaṇa
Xu	虛	Dhaniṣṭhā	
Wei	危	Śatabhiṣaj	
Shi	室	Pūrvabhādrapadā	Bhādrapada
Bi	壁	Uttarabhādrapadā	
Kui	奎	Revatī	
Lou	婁	Aśvinī	Āśvina
Wei	胃	Bharaṇī	

Chinese civilization also independently developed a model of astronomy based on twenty-eight lunar stations (*xiu* 宿) of unequal dimensions. These are defined by a set of constellations relative to the celestial equator, which are different from the Indian system. Ancient Chinese astronomy divides the equator into 365.25 degrees, and thus the standard definition of a ‘degree’ (*du* 度) differs from the Hellenistic and Indian models.

[12] Table adapted from Yano Michio 矢野道雄, *Mikkyō senseijutsu* 密教占星術 (Tōkyō: Tōyōshoin, 2013), 69.

The lunar stations first appear in their entire sequence in a tomb dating from 433 BCE.[13] Although Chinese lunar stations are not identical to any *nakṣatra* system, they were used as functional equivalents when translating Indian texts. The lunar stations and *nakṣatra*–s are presented in table 2.1.

It has often been speculated in modern scholarship that these two systems must share a common origin based on their similarities, or that one civilization first developed the model of lunar stations before transmitting it to the other. The evidence, however, now indicates independent origins for both.[14]

It is necessary to bear in mind the differences in these models – specifically the Hellenistic, Indian and Chinese models of the ecliptic – because, despite their incompatibilities, they were eventually all integrated into Buddhist astrology in China. This also resulted in a number of predictable problems, which will be discussed throughout this study.

2.3. Occidental Astrology

'Occidental astrology' in this study refers to traditions from west of China that have connections to Mesopotamia. 'Western astrology', conversely, generally refers to European traditions of astrology, which are unrelated to the present study. For the purposes of this study, we will divide these traditions into five relevant developments: Mesopotamian omenology, Hellenistic astrology, pre-Hellenized Indian astrology, Hellenized Indian astrology and Iranian astrology. During the Tang dynasty, many relevant developments came together with Chinese astrology, leading to new traditions of astrology that were integrated into Buddhism and Daoism.

In Mesopotamia, a practice of accurate and constant astronomical observation developed as a result of a belief that divine omens concerning present and future developments – particularly with respect to the military, ruler and state – could be discerned from natural cycles and apparent anomalies.[15] These omens were not regarded as fatalistic or deterministic, since rituals could be carried out in order to appease the gods and prevent undesirable outcomes that had been prognosticated. The

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[13] David W. Pankenier, *Astrology and Cosmology in Early China: Conforming Earth to Heaven* (Cambridge: Cambridge University Press, 2013), 57.

[14] David Pankenier recently (2014) refuted a longstanding theory proposed by the Assyriologist Carl Bezold. In 1919, Bezold claimed to have discerned Babylonian influences in early Chinese astronomical texts in translation. This was subsequently accepted by influential figures like Joseph Needham and Edward Schafer. See David W. Pankenier, "Did Babylonian Astrology Influence Early Chinese Astral Prognostication Xing Zhan Shu 星占術?" *Early China* 37, no. 1 (2014): 1–13.

[15] These observations were recorded on clay Cuneiform tablets. The *Enuma Anu Enlil*, running to a total of seventy tablets, included 7000 recorded omens and provided advice concerning what were perceived to be divine signals. Clive L. N. Ruggles, *Ancient Astronomy: An Encyclopedia of Cosmologies and Myth* (Santa Barbara, CA: ABC-CLIO, 2005), 39.

Mesopotamians became aware of the periodicity of celestial phenomena, and therefore developed methods for prediction by around 1000 BCE.[16] The zodiac signs, which came to have a prominent function in Hellenistic astronomy, and later in India and East Asia, also originated in Mesopotamia. Around 700 BCE, a series of Babylonian star lists recorded the twelve zodiacal constellations among eighteen star groups along the path of the Moon.[17] Around 500 BCE, the Babylonian zodiac of twelve signs, an amalgamation of an earlier model of eighteen signs, was fully developed into the form which was transmitted to the Greek world.[18]

Mesopotamian omenology coupled with its predictive astronomical knowledge produced the first forms of astrology that were introduced into the Hellenistic world. Hellenistic astrology was the result of vast hybridization of multiple traditions, which Pingree describes as being "a union of aspects of advanced Babylonian celestial divination with Aristotelian physics and Hellenistic astronomy."[19] After Alexander's death in 323 BCE, his generals divided up his short-lived empire, and the Hellenistic world was born, consisting of three primary cultural and political spheres: Greece, Ptolemaic Egypt and the Seleucid Empire. This new political landscape with its common language of Greek facilitated unprecedented interactions between Greece, Mesopotamia and Egypt. It was within such an environment that astrologers could draw on materials from multiple traditions in Babylon and Egypt, while also enjoying a greater freedom of movement than before. Mesopotamian astronomy was, within this political, linguistic and social environment, transmitted by figures such as the Greek astronomer Hipparchus (c.150-125 BCE).[20]

Advanced practices of astrology appeared following the development of observational astronomy. The practice of horoscopy requires such advanced knowledge in order to accurately calculate the positions of planets at any given hour in the past or future. The earliest examples of Babylonian 'proto-horoscopes' that include the date of birth, and planetary positions (in the order of Moon, Sun, Jupiter, Venus, Mercury, Saturn, and Mars) in the zodiac signs, are from the fifth century BCE.[21] Horoscopes as charts displaying the positions of planets at a specific hour for specifically predicting the fate of an individual (the 'native') at birth were developed in Hellenistic Egypt starting in the second century BCE.[22]

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[16] Hermann Hunger and David Pingree, *Astral Sciences in Mesopotamia* (Leiden: Brill, 1999), 50.

[17] Lankford, ed., *A History of Astronomy: An Encyclopedia*, 160.

[18] Ibid., 43.

[19] David Pingree, "Hellenophilia versus the History of Science," *ISIS* 83, no. 4 (1992): 560.

[20] Lankford, ed., *A History of Astronomy: An Encyclopedia*, 12.

[21] Hunger and Pingree, *Astral Sciences in Mesopotamia*, 26–27.

[22] David Pingree, *A History of Indian Literature Vol. 6 Scientific and Technical Literature Part 3, Fasc. 4: Jyotiḥśāstra Astral and Mathematical Literature, Volume 6, Part 4* (Otto Harrassowitz Verlag, 1981), 81.

Horoscopy a less arduous task if one is in possession of planetary ephemerides, i.e., tables providing the calculated positions of planets over the course of time. The astrologer therefore need only refer to such a guide in drawing up a horoscope, either on parchment, or using a board and stone markers for the same purpose.[23] Hellenistic horoscopes differed from those of Babylon in that the former were based on geometry, whereas the latter were arithmetically formulated.[24]

The popularity of astrology in the first few centuries CE in the Mediterranean must be understood in its context within Roman history. As Rome seized Greece and the Mediterranean, it inevitably met with astrologers who provided an alternative practice to traditional forms of Roman divination. Horoscopy was tailored to the individual and, at least initially, was foreign and exotic to the Romans. In the upheaval of the late Roman Republic of the first century BCE, astrology was utilized towards political ends, and with this came an increasing awareness of it among elites.[25] It was an often-contentious art.[26] Attempts at restricting it did not hinder the further development of astrology, as demonstrated by the successful careers of authors on astrology such as Vettius Valens and Ptolemy of Alexandria in the second century CE. Astrology by this time was quite popular across the Roman empire both among Latin and Greek speakers, which facilitated its vibrant evolution. Hellenistic astrology would likely not have developed to the extent it did without elite Roman interest.

Hellenistic astrology was connected to the Greco-Egyptian practices of astral magic,[27] which was heavily concerned with the timing of rituals and calendrical considerations.[28] It regarded planets as deities, and assigned certain gods to specific hours of the day. Specific stones were used to represent them on horoscope boards and also in art. Incense are also prescribed for each planet.[29] As will be explored below, elements of

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[23] Astrologers in Alexandria would use boards representing the ecliptic, atop which they would place colored stones representing the planets. A basic chart could be easily constructed this way if one is in possession of ephemerides. The colors of these stones correspond to the prescribed colors for the planets in later literature. See James Evans, "The Astrologer's Apparatus: A Picture of Professional Practice in Greco-Roman Egypt," *Journal for the History of Astronomy* 35, no 1 (2004): 1–44.

[24] Roger Beck, *A Brief History of Ancient Astrology* (Oxford: Blackwell Publishing, 2007), 20.

[25] Tamsyn S. Barton, *Power and Knowledge Astrology, Physiognomics and Medicine under the Roman Empire* (Michigan: The University of Michigan Press, 1994), 38–47.

[26] In 33 BCE, Augustus banned astrologers and magicians from the city of Rome. In 11 CE, he issued a ruling criminalizing all consultations about death (i.e., genethiological astrology) across the empire. Nevertheless, it seems he simultaneously officially published his own horoscope. In the year 16, Tiberius reasserted the official stance against unsolicited astrological consultation, expelling astrologers from both Rome and Italy. Steven J. Green, *Disclosure and Discretion in Roman Astrology: Manilius and His Augustan Contemporaries* (Oxford: Oxford University Press, 2014), 103–105.

[27] For a relevant study of this magic see Stephen Skinner, *Techniques of Graeco-Egyptian Magic* (Golden Hoard Press, 2014).

[28] Ibid., 55–69.

[29] PGM CX. 1–12 (Betz, 312). PGM XIII.16–22 (Betz, 172). PGM XIII. 353–354 (Betz, 182).

this magic were actually transmitted to China, where Buddhists and Daoists integrated it into their respective magical traditions.

As to astrology in India, Pingree's model suggests that astrology was introduced into India initially through Iranian intermediaries, with a second later dispersement, bringing with it the new developments of the Hellenistic tradition. His outline of the relevant chronology is as follows:

> I. Vedic (c.1000–400 BCE).
> II. Babylonian (400 BCE–200 CE).
> III. Greco-Babylonian (c200–400).
> IV. Greek (c400–1600).
> V. Islamic (c1600–1800).[30]

As will be discussed below, some of Pingree's conclusions are problematic, but this general scheme still generally holds good.

Babylonian astronomy was initially introduced into India through Persian intermediaries, for example the *Jyotiṣavedāṅga* (c.400 BCE), which Pingree explains as "one of the six *aṅgas* or 'limbs' studied by Vedic priests; its purpose was to provide them with a means of computing the times for which the performances of sacrifices are prescribed, primarily new and full moons." This transmission, according to Pingree, occurred during the Achaemenid occupation of the Indus Valley (c.513–326 BCE).[31]

Trade in the subsequent centuries picked up between the eastern Mediterranean world and India, especially at the port of Alexandria that came under Roman control from 30 BCE. Pliny and Tiberius in the first century expressed concerns about Roman wealth flowing eastward, with at least a fifth headed to India. The empire simultaneously imported luxury goods from India.[32] In light of such active trade relations, Pingree's conclusion that horoscopy was introduced into India in the second century CE would be plausible,[33] but recent analysis has cast doubts on such dating. Pingree identified Śāka ruler Rudradāman I, who reigned c.130–160, as a prominent figure in this respect, as he

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[30] Pingree, *A History of Indian Literature*, 8–9.

[31] David Pingree, "The Mesopotamian Origin of Early Indian Mathematical Astronomy," *Journal for the History of Astronomy* 4 (1973): 1–3. See also David Pingree, "The Purāṇas and Jyotiḥśāstra Astronomy," *Journal of the American Oriental Society* 110, no. 2 (1990): 275. An early foreign account of India is provided in *The Geography* by Strabo (born c.64 BCE), in which he cites Megathenes, a diplomat of the early Seleucid empire who purportedly visited the Maurya empire, who stated that their Brachmanes (Brahmins) "are of the same opinion as the Greeks about many things" such as the universe being spherical in shape. Assuming this account has any truth to it, it suggests foreign influences were perhaps discernible in this period. Strabo, *Geography*, Book XV, trans. Horace Leonard Jones, published in Vol. VII of Loeb Classical Library (Cambridge, MA: Harvard University Press, 1932), 103.

[32] Romila Thapar, *The Penguin History of Early India: From the Origins to AD 1300* (London: Penguin Books Ltd, 2002), 242–243.

[33] Pingree, *A History of Indian Literature*, 81.

and his successors, Pingree suggests, encouraged the study of Greek astral sciences. Until recently it was widely thought – on account of Pingree's conclusions – that in 149/150, an Alexandrian text on Hellenistic astrology, originally composed in Egypt sometime shortly after 100 CE, was translated into Sanskrit prose by a certain Yavaneśvara in western India. This was later apparently preserved as the *Yavanajātaka*, composed by Rāja Sphujidhvaja in 269–270 during the Reign of Rudrasena II (r. c. 255-276).[34] Recently, however, Mak has disputed this in light of new manuscript evidence, and suggests it "is dated some time after 22 CE and could be as late as the early seventh century …"[35] If Mak is correct, then Pingree's chronology is disrupted at this point, though Hellenistic influences still become apparent in later works in India. For example, around the year 400, persons having access to Greek astronomical texts, often based on the work of Hipparchus and other Hellenistic astronomers, combined these Greek traditions with the cosmology and chronology of the Purāṇas.[36] Later, the first known text to define the weekday in India was the *Āryabhaṭīya* by Āryabhaṭa (born 476).[37] This model of weekdays goes back to the Mediterranean world, where in 120 Vettius Valens referred to the days of the week beginning with Sunday. The first usage of weekdays using the modern ordering of planets is found in the work of Dio Cassius (born 155 CE).[38] The sixth century also saw a number of prominent works appear. The astrologer Varāhamihira (505–587), who was of Persian ancestry and lived at or near Ujjayinī, wrote the *Pañcasiddhāntikā*, which summarized five astronomical texts including two entitled *Romakasiddhānta* (Roman astronomical treatise) and a *Pauliśasiddānta* (Paulus' astronomical treatise), demonstrating the extent of Hellenistic astral science present by this period.[39]

There were multiple calendars in use throughout ancient Indian history, both indigenous models and those directly influenced by foreign calendars. These differences, which will be discussed below, are apparent in the relevant Buddhist literature that was translated into Chinese throughout the first millennium CE. Pingree notes that the earliest Indian inscriptions (those by Aśoka in the mid-third century BCE) refer to solar years (*vāsa* or *saṃvachara*), three *ṛtu*–s (seasons) each made up of four months (*cātuṃmāsa*), *nakṣatra*–s occupied by the Moon, and nights (*lāti*, Skt. *rātri*). However, the Greek

[34] See his study and translation: David Pingree, *The Yavanajātaka of Sphujidhvaja* (Cambridge, MA: Harvard University Press, 1978).

[35] Bill M. Mak, "The Transmission of Greek Astral Science Into India Reconsidered – Critical Remarks on the Contents and the Newly Discovered Manuscript of the *Yavanajātaka*," *History of Science in South Asia* 1 (2013): 17.

[36] Pingree, "The Purāṇas and Jyotiḥśāstra Astronomy," 276.

[37] Yano Michio, "Planet Worship in Ancient India," 336.

[38] Ibid., 335.

[39] David Pingree, "The Recovery of Early Greek Astronomy from India," *Journal for the History of Astronomy* 7 (1976): 110. For a translation and study see Otto Neugebauer and David Pingree, *The Pañcasiddhāntikā of Varāhamihira* (København: Munksgaard, 1970-1971).

(*Yavana*) culture in the northwest of India introduced a new calendar based on the Macedonian model during the second century BCE. It used months and days (rather than nights), as was the custom in the Indo-Greek kingdoms. Pingree speculates that this might have been the Seleucid calendar, which was itself an adaptation of the Babylonian calendar as employed by the earlier Achaemenid Persian empire. The Macedonian months were what the Indians call *amānta* (commencing from the new Moon), whereas the Indian month could be either *amānta* or *pūrṇimānta* (commencing from the full-Moon). The Indian month was divided into two parts (*pakṣa*): the waning (*kṛṣṇa-pakṣa*) and waxing (*śukla-pakṣa*) periods, both of which are comprised of fifteen *tithi*–s or lunar days, though alternatively days of the whole month could also be used (first day to thirtieth day). During the Śaka and Kuṣāṇa rule of areas around Mathurā in the first centuries CE, the calendar integrated the northwestern custom of twenty-nine or thirty-day months into the Indian model of three seasons, each comprised of four months. This calendar was in use by Hindu, Jain and Buddhist traditions, hence it was probably implemented also by the civil administration.[40]

It is therefore important to bear in mind that multiple calendars and systems of astrology and astronomy were simultaneously present throughout ancient India. There was, in reality, never a single 'Indian calendar', although, as will be seen throughout this study, this was not always apparent to the Chinese, who were unaware of the complex history of Indian calendrical science, a subject which Buddhist literature seldom mentions. Similarly, there were multiple schools of astronomy active throughout the centuries. These disparate calendrical systems were introduced in an unsystematic fashion into China through Buddhist scriptures, monks proficient in astrology, and several professional Indian or Sino-Indian astronomers resident in China in the eighth century. Various calendrical systems are employed or mentioned in Indian Buddhist literature in Chinese translation. It was only in the mid-eighth century that an 'Indian calendar' was readily implemented in China that was easily convertible into the Chinese lunar calendar.

Another complicating factor within the Chinese context is that an additional source of astrological and astronomical knowledge was the Iranian cultural sphere, the astronomy and astrology of which are far less well documented compared to Indian materials. Tracing the history of Persian or specifically Sāsānian astrology is difficult because "virtually the entire corpus of astrological texts that once existed in Pahlavī has

[40] David Pingree, "A Note on the Calendars Used in Early Indian Inscriptions," *Journal of the American Oriental Society* 102, no. 2 (1982): 355–359. Falk and Bennett note, "On circumstantial grounds we might suppose that the Bactrian Greeks used the Seleucid calendar, though they certainly abandoned the Seleucid era." See Harry Falk and Chris Bennett, "Macedonian Intercalary Months and the Era of Azes," *Acta Orientalia* 70 (2009): 204.

long since disappeared."[41] It is also unfortunate that "virtually nothing is known of the astronomy and astrology of pre-Sāsānian Iran."[42] Translations of some Sāsānian works were made into Arabic, which is how they are now largely known,[43] though the present study will contribute some new knowledge based on what is contained in Chinese translations. Astrology was widely practiced in Sāsānian Iran, and Sāsānian rulers hosted Greek or Greco-Syrian and Indian scholars within their realms. Sāsānian astrology therefore included elements from both traditions. Iranian astrologers can also be credited with some innovations.[44] As will be discussed later in this study, the Sogdians, who were active in Tang China, seem to have primarily practiced astrology sourced from Iran. Persians active at the court in the late eighth century also contributed to the transmission of Iranian knowledge into China.

2.4. Chinese Astrology

China had its own indigenous traditions of astronomy and astrology. They initially developed independent of foreign influences. As Yu Xin notes, "Divination on the basis of the stars dominant at the time of birth was derived from foreign cultures."[45] Long before such foreign astrology was introduced into China, there already existed a concept of astral-terrestrial resonance, i.e., the belief that human events on earth are reflected or forecast above in the skies as omens. Great interest was paid to the movements of celestial bodies, which deeply influenced rulers in their city planning and arrangement of the political hierarchy. Archaeological evidence from the Xia, Shang and Zhou dynasties all demonstrate cities and structures built with conscious consideration of cardinal orientation along the north–south axis.[46] The earliest example of a city in China built according to a plan, rather than following the natural landscape, is Erlitou 二里頭 (2000–1300 BCE). Pankenier argues that it was built according to cosmological theory.[47] Later the capitals of the Qin and Han dynasties were constructed with special consideration given to astral symbolism derived from observation of the heavens, in which the emperor was associated or correlated with the celestial pole. State organization

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[41] David Pingree, *From Astral Omens to Astrology: From Babylon to Bīkāner* (Rome: Ist. Italiano per l'Africa e l'Oriente, 1997), 39.

[42] David Pingree, "Astronomy and Astrology in India and Iran," *ISIS* 54, no. 2 (1963): 240.

[43] For a recent discussion of scholarship on Iranian astrology, see Antonio Panaino, "Sasanian Astronomy and Astrology in the Contribution of David Pingree," in *Kayd: Studies in the History of Mathematics, Astronomy and Astrology in Memory of David Pingree*, eds. Gherardo Gnoli and Antonio Panaino (Rome: Instituto Italiano Per L'Africa E L'Oriente, 2009), 73–103.

[44] Ibid., 245.

[45] Yu Xin, "Personal Fate and the Planets: A Documentary and Iconographical Study of Astrological Divination at Dunhuang, Focusing on the 'Dhāraṇī Talisman for Offerings to Ketu and Mercury, Planetary Deity of the North," *Cahiers d'Extrême-Asie* 20 (2011): 164.

[46] Pankenier, *Astrology and Cosmology in Early China: Conforming Earth to Heaven*, 118.

[47] Ibid., 146.

was in effect partly based on a symbolic model derived from the stars.[48] This model was to be employed throughout the rest of imperial Chinese history and demonstrates a constant interest in coordinating earthly endeavors with Heaven.

In addition to material culture, this deep interest in suitably aligning human activities with Heaven and Earth is also found within spiritual and political contexts. One key example of this is appears in the appended commentary (繫辭) included in the *Yijing* 易經 (*Book of Changes*).[49] It indicates a belief in prognostication through observation of the heavens, as well as the conviction that one should follow cosmic principles that are visible throughout Heaven and Earth. Although the *Yijing* commentaries have been attributed traditionally to Confucius 孔子 (551–479 BCE), modern scholarship assigns them to a time no earlier than the Warring States period (475 BCE to 221 BCE).[50] The commentary contains the following passage:

> 易與天地準，故能彌綸天地之道。仰以觀於天文，俯以察於地理，是故知幽明之故。原始反終，故知死生之說。
> The *Yi* accords with Heaven and Earth, thus it can govern the ways of Heaven and Earth. He looks up to observe celestial patterns, and looks down to examine terrestrial principles; thus, he knows the causes behind darkness and light. He traces the beginning and end of things, and thus knows the explanation of death and life.[51]

This passage is alluding to the concept of astral-terrestrial resonance in which cycles and anomalies above reflect the inclinations of Heaven (*tian* 天) or foretell developments on earth.

The native Chinese model of astral omenology is called *fenye* 分野 or 'field allocation' astrology, which 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)[52] 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

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[48] Ibid., 317–336.

[49] Ibid., 149.

[50] David. R. Knechtges and Taiping Chang, eds., *Ancient and Early Medieval Chinese Literature: A Reference Guide, Part Three* (Leiden, Brill: 2014), 1882–1883.

[51] Guo Yu 郭彧, ed., *Nansongchu keben zhouyi zhushu* 南宋初刻本周易注疏 (Shanghai: Shanghai Guji Chubanshe, 2014), 618.

[52] The sidereal orbital period of Jupiter is 11.86 years. Its orbit may therefore be roughly divided into twelve sections through which Jupiter transits over approximately twelve years.

commonly mentioned in contemporary sources, which Pankenier attributes to its hermetic nature.[53]

As mentioned above, this model was never static, as it evolved over time, which happened alongside political and philosophical developments. Harper notes that "the mechanisms that led to the proliferation of masters and to their profuse philosophical discourse during the Warring States transformed the practice of astrology and other specialties as well."[54] Unearthed tombs from the Warring States period also demonstrate the popularity of astrology among elites, as they have yielded astrological texts, as well as lacquer items with astrological features.[55] This interest in astrology continued into the Han period and beyond.

The *Han shu* 漢書, a history of the early Han dynasty that was finished in 111 CE, provides the following associations between the twenty-eight lunar stations and Chinese territories in the chronicle detailing astral matters (*Tianwen zhi* 天文志):[56]

Table 2.2. Astro-Terrestrial Associations	
Lunar Stations	**Associated Territory**
Jiao 角, Kang 亢, Di 氐.	Yanzhou 沇州.
Fang 房, Xin 心.	Yuzhou 豫州.
Wei 尾, Ji 箕.	Youzhou 幽州.
Dou 鬥 (= Dou 斗).	Jiang 江, Hu 湖.
Qian Niu 牽牛, Wu Nü 婺女.	Yangzhou 揚州.
Xu 虛, Wei 危.	Qingzhou 青州.
Ying Shi 營室, Dong Bi 東壁.	Bingzhou 并州.
Kui 奎, Lou 婁, Wei 胃.	Xuzhou 徐州.
Mao 昴, Bi 畢.	Jizhou 冀州.
Zi Xi 觜觿, Shen 參.	Yizhou 益州.
Dong Jing 東井, Yu Gui 輿鬼.	Yongzhou 雍州.
Liu 柳, Qi Xing 七星, Zhang 張.	San He 三河.
Yi 翼, Zhen 軫.	Jingzhou 荊州.

The *Han shu* also provides a model of predictive astrology based on convergences. The following sample is instructive.

[53] Pankenier, *Astrology and Cosmology in Early China: Conforming Earth to Heaven*, 6–7.

[54] Donald Harper, "Warring States Natural Philosophy and Occult Thought," in *The Cambridge History of Ancient China From the Origins of Civilization to 221 B.C.*, ed. Michael Loews et al. (Cambridge: Cambridge University Press, 1999), 813.

[55] Ibid., 819–820.

[56] *Han shu*, Zhonghua Shuju edn., vol. 5, 1288.

> 歲，與填合則爲內亂，與辰合則爲變謀而更事，與熒惑合則爲饑，爲旱，與太白合則爲白衣之會，爲水。太白在南，歲在北，名曰牝牡，年谷大孰。太白在北，歲在南，年或有或亡。
>
> Jupiter: when it converges with Saturn, there will be domestic turmoil; when it converges with Mercury, there will be conspiracies, but it will pass (?); when it converges with Mars, there will be famine and drought; and when it converges with Venus, there will be gatherings of white-clad people [in mourning] and floods. When Venus is in the south and Jupiter is in the north, it is called the union of male and female beasts. The year's harvest of grains will be bountiful. When Venus is in the north and Jupiter is in the south, there will be some gains and some losses in that year.[57]

Unlike occidental astrology, this form of astral divination is chiefly concerned with the whole country, rather than with individuals. Detailed knowledge of astrology in this period was largely only available to elite men in the state with access to the relevant texts. It does appear, however, that the significance of astrologically significant events, such as convergences, was understood by commoners. There was a noteworthy discovery in 1995 from Niya 尼雅 in Xinjiang of a silk brocade armguard from the Eastern Han period (25–220) with embroidered words reading, "When the Five Planets appear in the east it benefits the Middle Kingdom" (五星出東方利中國). If such garments were worn in remote outposts of Chinese civilization, they were presumably also fashionable in the capital.[58] Moreover, Jupiter, as a "Planet of the Year" (having a sidereal revolution of approximately twelve years), was also given special attention, even being deified.[59]

It was in the same period that a state bureau of astronomy was established under the supervision of high ranking officials. The court astronomer or *taishi ling* 太史令 was a fairly prestigious position and well paid.[60] This office required knowledge of astrology. The *Hou Han shu* 後漢書, the history of the later Han dynasty, details his duties as follows:

> 掌天時，星曆。凡歲將終，奏新年曆。凡國祭祀，喪，娶之事，掌奏良日及時節禁忌。凡國有瑞應，災異，掌記之。
>
> He is charge of [monitoring] the sky and the calendar. He reports on the new year's calendar whenever the year is about to conclude. He is in charge of reporting good days and taboo times whenever there are national sacrifices,

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[57] *Han shu*, Zhonghua Shuju edn., vol. 5, 1285–1286.

[58] David W. Pankenier, "Seeing Stars in the Han Sky," *Early China* 25 (2000): 185.

[59] Hou Ching-Lang 侯錦郎, "The Chinese Belief in Balefal Stars," in *Facets of Taoism: Essays in Chinese Religions*, eds. Holmes Welch and Anna Siedel (New Haven: Yale University Press, 1979), 205–209.

[60] For a discussion of court positions and their pay grades see Han Bielenstein, *The Bureaucracy in Han Times* (New York, NY: Cambridge University Press, 1980), 131.

> funerals or weddings. He is in charge of recording auspicious responses [of Heaven], calamities and abnormalities whenever the country has them.[61]

This interest in the movements of stars continued into the Tang dynasty. It seems that there also emerged a belief in the astrological luck justifying the founding of the Tang. The Tang history has the following.

> 隋大業十三年六月，鎮星贏而旅於參。參，唐星也。李淳風曰：「鎮星主福，未當居而居，所宿國吉。」
> In the sixth lunar month of year 13 in reign era Daye [617] in the Sui, Saturn appeared early and stayed in the constellation Shen. Shen comprises the stars of Tang. Li Chunfeng[62] said, "Saturn presides over fortune. The country in which it lodges is lucky when it resides there before it is supposed to."[63]

This refers to the aforementioned 'field-allocation' astrology system, in which the original realm of Tang in the ancient Zhou period was associated with a specific region of the sky. Here Saturn is regarded as auspicious, which stands in contrast to occidental astrology, in which it is regarded as malefic. It apparently moved unexpectedly into the constellation Shen during the last days of the Sui before the rise of the Tang in 618. This was subsequently interpreted as auspicious, and an indication of Heaven's sanction of the recently established Tang dynasty. This was probably not immediately apparent at the time, but later Li Chunfeng, who was a professional astrologer, and spent his life serving the court, retrospectively interpreted the development in a way favorable to the new order, or so the dynastic history tells us.

As in Indian and Greco-Egyptian traditions of astral magic, China also developed its own astral pantheon, which has its origins in the earliest known years of Chinese civilization. During the Warring States period, the numerological calculations of the calendar were arranged alongside the organization of spirits or gods.[64] Much later in the Tang, the native astral deities of Tianhuang Dadi 天皇大帝, Beichen 北辰, Beidou 北斗, Tianyi 天一 and Taiyi 太一 were also part of the court rites for the winter solstice.[65] It is

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[61] *Houhan shu*, Zhonghua Shuju edn., vol. 12, 3572.

[62] Li Chunfeng (602–670) was an astronomer and mathematician of the early Tang. For his biography see the *Jiu Tang shu* (fasc. 79) and *Xin Tang shu* (fasc. 204).

[63] *Xin Tang shu*, Zhonghua Shuju edn., vol. 3, 851.

[64] Harper, "Warring States Natural Philosophy and Occult Thought," 851.

[65] *Xin Tang shu*, Zhonghua Shuju edn., vol. 2, 326. Tianhuang Dadi and his counterpart Ziwei Dadi 紫微大帝 "are the gods of the Sourthern and Northern Dipper; the former is in charge of fixing the date of birth of human beings, and the latter their date of death." Pregadio, ed., *The Encyclopedia of Taoism*, vol. 1, 382. Beichen is Polaris. Beidou is the stars of the Big Dipper. Tianyi and Taiyi are two of the nine palaces 九宮, i.e., spirits of nine constellations of the nine directions. In 744 (year 3 of Tianbao 天寶), their nine altars were built in the capital as follows. Southeast: Zhaoyao 招搖. East: Xuanyuan 軒轅.

important to note here that native Chinese astrological lore regarded the five visible planets as essences of the five elements (五行) rather than as sentient deities, though the Chinese perspective was later influenced by Indian and Iranian conceptions of the planets as gods starting in the eighth century, which we will discuss in chapters four and five.[66]

In the Sui dynasty (581–618), Xiao Ji 蕭吉 (c. 530–610)[67] was able to provide a comprehensive survey of the cosmic hierarchy and its main deities in his *Wuxing da yi* 五行大義 (*Great Meaning of the Five Elements*).[68] In Needham's words, it is the "most important medieval book on the five elements."[69] This work catalogs and explains various natural phenomena (in particular their relationships to *yin-yang* and the five elements), while also detailing classical Chinese metaphysics. Xiao Ji exhaustively details Chinese astrological lore.[70] This material is highly significant because it represents the native Chinese conception of astrology and the cosmic hierarchy as it was generally understood at the beginning of the Tang dynasty. Astral magic and astral deities based on native Chinese models were already ancient, and quite widely known in the Tang period. There were few conceptual issues with introducing new foreign elements.

These long-standing beliefs in astrology and a teleology intimately connected to celestial phenomena from early on in China encouraged the development of observational astronomy, as well as the mathematics necessary for advanced predictions. As will be documented below, advanced Indian astronomy was introduced and translated into Chinese in the eighth century, though it was never widely studied outside of a small community of specialists in the capital (see 4.6 below). It was also unncessary for the practice of astrology. Basic Chinese astronomy was sufficient to calculate the positions of the planets and draw up ephemerides. In short, although there were some foreign influences in Chinese astronomy, the core of it remained unaffected, whereas astrology in China, which employed the Chinese system, was deeply influenced by foreign systems of astrology that were transmitted from India and Iran. The details of these developments will be made clear throughout this study.

Astronomy and astrology were highly regarded throughout Chinese history, but they were also restricted fields of knowledge. The calender in particular was an important component of the state apparatus and its legitimacy. As Pankenier points out, one reason

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Northeast: Taiyin 太陰. South: Tianyi. Center: Tianfu 天符. North: Taiyi. Southwest: Sheti 攝提. West: Xianchi 咸池. Northwest: Qinglong 青龍. See *Jiu Tang shu*, Zhonghua Shuju edn., vol. 3, 929.

[66] The one exception to this is in the obscure native occult tradition in which the planets are identified as the sons of the Five Heavenly Emperors 五天帝. Their qualities are different from the Indian and Iranian traditions. *Wuxing dayi* 五行大義 (see below) in *Xuxiu siku quanshu* 續修四庫全書, vol. 1060 (Shanghai Guji Chubanshe, 2002), 249–250.

[67] His biography is in the *Sui shu* 隋書, fasc. 78. See Zhonghua Shuju edn., vol. 6, 1774–1775.

[68] For relevant studies see works of Nakamura Shōhachi 中村璋八 in the bibliography.

[69] Joseph Needham, *Science and Civilization in China Volume 2 History of Scientific Thought* (Cambridge: Cambridge University Press, 1956), 253.

[70] See *Xuxiu siku quanshu*, vol. 1060, 248–253.

why Chinese rulers after the fall of the Han sought to restrict astrology was the earlier chaos that erupted as a result of planetary portents that had been interpreted as unfavorable to the Han state.[71] This explains why later governments actively sought to control the study of related subjects, including astronomy. One early example is from the Western Jin dynasty (265–316). In 267, a decree recorded in the *Jin shu* 晉書, the history of the Jin compiled in 648, forbids the study of astral and atmospheric divination methods, as well as *Chenwei* 讖緯 works.[72] The Jin law code also included an article prohibiting private possession of books on astronomy and divination.[73] The *Jin shu* describes the historical restrictions on astronomical instruments:

> 此則儀象之設，其來遠矣。綿代相傳，史官禁密，學者不睹 …
> Astronomical instruments have therefore been employed for a long time. They have been transmitted to succeeding dynasties. Court recorders have kept them guarded and secret. Scholars do not examine them. …[74]

Astronomy and divination were permitted fields of study for specific employees of the state, but otherwise unauthorized persons were not permitted access to such knowledge, since it had the potential to be employed against the state. These restrictions carried on into the Tang period. The Tang legal code was first compiled in 624, with subsequent revisions in 627 and 637 before including a commentary in 653, which is the *Tang lü shuyi* 唐律疏議 (*Commentary on Tang Law Codes*). The received text we presently have is from 737.[75] The code provides a penal code based mostly on earlier legal codes and the Chinese classics, altogether comprising 502 articles. It had been preceded by an earlier code published in 564 under the Northern Zhou (557–581), which had been based on codes such as that of the Western Jin (268).[76] Article #110 details the proscription against private possession of books and instruments related to astronomy with the following commentary.

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[71] David Pankenier, "Astrological Origins of Chinese Dynastic Ideology," *Vistas in Astronomy* 39 (1995): 511.

[72] 禁星氣讖緯之學. Cited by Susan Whitfield, "Under the Censor's Eye: Printed Almanacs and Censorship in Ninth-Century China," *The British Library Journal* 24 (1998): 10. *Chen* refers to divination manuals while *wei* refers to esoteric commentaries on the Chinese classics. Often the two are cited together to refer to a specific genre of occult literature.

[73] Ibid., 11.

[74] *Jin shu*, Zhonghua Shuju edn., vol. 2, 284.

[75] Anthony J. Barbieri-Low and Robin D.S. Yates, *Law, State, and Society in Early Imperial China: Volume I* (Leiden: Brill, 2015), 233. It is noted that "a close analysis reveals that the Han and Qin laws were clearly ancestral to the Tang laws, both in their general principles and in dozens of concrete instances, despite the intervening nine centuries."

[76] Jacques Gernet, *A History of Chinese Civilization* (Cambridge: Cambridge University Press, 1996), 244–245.

諸玄象器物，天文，圖書，讖書，兵書，七曜曆，太一，雷公式，私家不得有，違者徒二年。私習天文者亦同。其緯候及論語讖，不在禁限。疏議曰：玄象者，玄，天也，謂象天爲器具，以經星之文及日月所行之道，轉之以觀時變。易曰：「玄象著明，莫大於日月。故天垂象，聖人則之。」尚書云：「在璇璣玉衡，以齊七政。」天文者，史記天官書云天文，日月，五星，二十八宿等，故易曰：「仰則觀於天文。」圖書者，「河出圖，洛出書」是也。讖書者，先代聖賢所記未來徵祥之書。兵書，謂太公六韜、黃石公三略之類。七曜曆，謂日，月，五星之曆。太一，雷公式者，並是式名，以占吉凶者。私家皆不得有，違者，徒二年。若將傳用，言涉不順者，自從「造袄言」之法。「私習天文者」，謂非自有書，轉相習學者，亦得二年徒坐。

Private households may not possess celestial imaging instruments, astronomical charts, divination manuals (*tushu* and *chenshu*), military manuals, ephemerides for the seven planets, and divination plates for Taiyi and Leigong [the god of thunder]. Offenders will be subject to penal servitude for a period of two years, and also likewise for those who secretly study astronomy. *Wei*, *Hou* and *Lunyu chen* are not within the limitations of the prohibition. Commentary: 'Astronomical' (*xuan xiang*): *xuan* is Heaven; that is to say, to image Heaven (*xiang tian*), one makes a device to trace the patterns of stars, and the paths of the Sun and the Moon, rotating it to observe time's passage. The *Yijing* states, "Of astronomical bodies bright and clear, there are none greater than the Sun and Moon; thus, heaven suspends figures, and the sages employs them."[77] The *Shang shu* states, "He examined the Jade Pivot and Beam to calibrate [the movements of] the Seven Directors [planets]."[78] 'Astronomical charts' – the *Tianguan shu* in the *Shiji* speaks of astronomical charts, the Sun, the Moon, five planets and twenty-eight constellations. Hence the *Yijing* states, "He looks up and observes celestial patterns."[79] '*Tushu*' refers to "the diagram that emerged from the Yellow River, and writings coming forth from the Luo River". *Chenshu* are texts concerning future prognostication recorded by sages of past ages. 'Military manuals' are works such as the *Six Secret Quivers of Taigong* and the *Three Strategies of Huangshi Gong*. 'Ephemerides for the seven planets' are ephemerides for the Sun, Moon and five planets. 'Taiyi' and 'Leigong' are names of methods to divine fortune and misfortune. No private household may possess them. Offenders are subject to penal servitude of two years. In the case of them being passed on, it constitutes involvement and non-compliance, which follows the law regarding fabricating bogus stories. 'Secretly studying astronomy' refers

[77] This is abbreviated text based on content found in *Xici shang* 繫辭上 11.

[78] *Yu shu* 虞書, *Shun dian* 舜典 3.

[79] *Xici shang* 繫辭上 4.

> to when the texts are not personally owned, and the [knowledge] is conveyed for study; they will also be subject to two years penal servitude.[80]

It does not appear that the authors of the code possessed sophisticated knowledge of astronomy. Despite the existence of laws against the private study of astronomy, as Whitfield points out, there were, in fact, popular calendars produced in the later period of the Tang dynasty, yet this only happened after the An Lushan rebellion (755–763), when the authority and reach of the central government were severely diminished. She further points out "it was also at this time that there was another threat to the state's attempts to monopolize any information it deemed potentially subversive: the development of printing."[81] The Chinese state in the ninth century was, however, still aware of this problem. In 841 the state forbid court astronomers from associating with people outside that bureau.

> 開成五年十二月，敕：「司天臺占候災祥，理宜秘密，如聞近日監司官吏及所由等，多與朝官並雜色人交遊，既乖慎守，須明制約。自今已後，監司官吏不得更與朝官及諸色人等交通往來，委禦史台察訪。」
> In the twelfth lunar month of year 5 in reign era Kaicheng [841],[82] it was ordered by imperial decree: "The Bureau of Astronomy should maintain secrecy with respect to its divination of favorable and unfavorable omens, as it has been heard in recent days that there has been much intercourse between bureau officials and their subordinates with court officials and various commoners. As it constitutes a breach of security, there must be clear understanding of the restrictions. From now on officials [of the Bureau of Astronomy] must not intermingle with court officials and commoners. The imperial censors will be entrusted to investigate [any violations]."[83]

2.5. Astrology in Early Buddhism and Brahmanism

Having outlined the relevant history of astrology, we now turn to the relationship between astrology and Buddhism, first in India and thereafter in China.

Some members of the early sangha, so far as the extant literature indicates, prohibited astrology on the grounds that it was an inappropriate for a *śramaṇa* to practice

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[80] *Tang lü shuyi* 唐律疏議, Taiwan Shangwu Yinshug Guan edn., 1968, vol. 4, 82. I must thank David Pankenier for helping me to translate this passage. Johnson's translation differs from mine. He mistranslates some of the technical terms, for instance, *qiyao li* 七曜曆 as "books on the seven days". China in this period did not observe the seven-day week. See Wallace Johnson, *The T'ang Code: Volume II, Specific Articles* (Princeton: Princeton University Press, 1997), 78–79.

[81] Whitfield, "Under the Censor's Eye," 13.

[82] Kaicheng 5 corresponds to the year 840, but lunar 12/1 fell on January 1st, 841.

[83] *Jiu Tang shu*, Zhonghua Shuju edn., vol. 4, 1336.

divination as a livelihood, though the validity of astrology and its underlying belief that the auspiciousness of a time is determined by favorable arrangements of celestial bodies were not refuted. As explained above, astrology in India must be understood within the context of cultural exchanges between the Indian subcontinent and civilizations to the west. Pingree states that the "influence of Babylonian astronomy on Indian thought is already perceptible in Sanskrit texts of the first half of the last millennium B.C." These influences are further evident in the Pāli canon. As Pingree points out, in the *Brahmajāla-sutta* in the Dīghanikāya, the Buddha is recorded as castigating *śramaṇa*–s and *brāhmaṇa*–s who engage in certain activities for offerings of food, which include sacrifices, apotropaic rites and divination. Pingree states, "Almost every type of omen mentioned by the Buddha is found in both the earlier cuneiform literature and in the later Sanskrit texts; and the terrestrial omens are numerated in an order – houses, ghosts, snakes, poisons, scorpions, mice, vultures, crows, and quadrupeds – that corresponds almost completely with the order of the Tablets of *Šumma ālu*."[84] The Buddha further is made to list omens related to eclipses, stars (*nakṣatra*–s), meteors and so forth.[85] The parallel passage in the Chinese Dīrgha-Āgama 長阿含經 (T 1), translated into Chinese in 413, states that some *śramaṇa*–s and *brāhmaṇa*–s maintain a wicked livelihood through reciting books on astronomy/astrology (天文書).[86] This indicates an awareness of astrological works in circulation by the compilers of this recension. This also suggests that some *śramaṇa*–s actually studied such works in light of the prohibitions against it. Johannes Bronkhorst, on the other hand, believes that Buddhists did not participate in the development of *jyotiḥśāstra* (a field including astronomy, astrology and mathematics). He suggests that the early Buddhist sangha frowned upon such an art so connected with mundane matters through which one could earn a living.[87] This conclusion is problematic in light of other early texts, to be discussed shortly, that teach astrology or presuppose knowledge of astrology or the *nakṣatra* calendar. The evidence actually indicates that some (but clearly not all) Buddhists from early on were at ease with astrology. The condemnation of monks who practice astrology seems to stem from only one side of the discussion on the acceptability of astrology.

Similar sentiments to those found in the *Brahmajāla-sutta* are also seen in *dharmaśāstra* works from Brahmanical traditions. Contemporary Brahmanical culture had a low opinion of astrologers. As Gansten explains, "Before the acculturation of horoscopic astrology proper, introduced from the Greek speaking world in the first centuries of the Common Era, practitioners of astral divination were described in not very

[84] The *Šumma ālu* is a collection of omens. It was standardized around the middle of the seventh century BCE. See Sally M. Moren, "The Omen Series 'Summa Alu': A Preliminary Investigation," PhD diss. University of Pennsylvania (1978), 4.

[85] Pingree, *From Astral Omens to Astrology: From Babylon to Bīkāner*, 32–33.

[86] T 1, 1: 84b18-c9.

[87] Johannes Bronkhorst, *Buddhism in the Shadow of Brahmanism* (Leiden: Brill, 2011), 120.

flattering terms by the authors of religious codes of law."[88] Gansten points out that the *Manusmṛti* (3.162) and *Baudhāyanadharma-sūtra* (2.2.15–16) both unfavorably regard astrologers. The former bans upper-caste astrologers from attending sacrifices. As in some Buddhist literature, divination itself was *not* regarded as invalid, but merely as lowly and base within Brahmanical society.

Following the increasing sophistication of astrology in the first few centuries CE, astrologers enjoyed growing appreciation and prestige, so much so that in the sixth century a figure like Varāhamihira in his *Bṛhatsaṃhitā* (2.8) could state, "Just as the night does not shine without a lamp, and the sky without the Sun, so will a king have pitfalls like a blind person, if he has no astrologer to guide him."[89] The shift in which astrology was increasingly seen in a positive light is reflected in Buddhist literature.

2.6. Astrology in Sūtra and Vinaya Literature

The earliest example of astrology being explained in Buddhist literature is the *Śārdūlakarṇāvadāna*, now included in the Divyāvadāna collection.[90] As to its dating, Pingree suggests that it "was probably written in the first century A.D. and is described in detail in the *Gargasaṃhitā* and in the sixth-century *Bṛhatsaṃhitā* of Varāhamihira."[91] This dating is problematic since Pingree seems to have based his opinion on the traditionally held date of a certain Chinese translation, the *Mātaṅga-sūtra* 摩登伽經 (T 1300), which is a version of the *Śārdūlakarṇāvadāna* attributed to Lüyan 律炎 (fl. 224) and Zhi Qian 支謙 (fl. 223–253). 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 Zhisheng 智昇 (669–740) finished in 730, states that Lüyan translated four sūtras including the *Mātaṅga-sūtra* in Huanglong 黃龍 2 (230 CE) under Sun Quan 孫權 (r. 222–252) in Yangdu 揚都.[92] Hayashiya, however, points out that the style of translation clearly postdates the time of Kumārajīva (344–413). He suggests a date sometime after the late fifth century.[93] His argument is supported by an entry in the *Da Tang neidian lu* 大唐內典錄 (T 2149; *Catalog of Buddhist Texts of the Great Tang*), a catalog from 664

[88] Martin Gansten, "Astrologers," in *Brill's Encyclopedia of Hinduism*, vol. 3, ed. Knut A. Jacobsen, Helene Basu, Angelika Malinar, Vasudha Narayanan (Leiden: Brill, 2011), 217.

[89] Panditbhushan V. Subrahmanya Shastri and Vidwan M. Ramkrishna Bhat, *Varahamihira's Brihat Samhita with an English Translation and Notes* (Bangalore: V.B. Soobbiah and Sons, 1946), 18.

[90] For printed Sanskrit editions see Cowell and Neil (1886), Mukhopadhyaya (1954) and Vaidya (1959). For Sanskrit manuscripts see Bodleian Library 1091(1-8)-MS. Sansk.e.23(P), and British Library Or.15010/6, 20. For Tibetan translation see D 358, Q 1027.

[91] Pingree, "Astronomy and Astrology in India and Iran," 233.

[92] T 2154, 55: 487c20-24.

[93] Hayashiya Tomojirō 林屋友次郎, *Iyaku kyōrui no kenkyū* 異譯經類の研究 (Tōkyō: Tōyō Bunko, 1945), 541.

by Daoxuan 道宣 (596–667), in which Guṇabhadra 求那跋陀羅 (394–468) of the Liu-Song period (420–479) is cited as the translator.[94]

The oldest extant version of the *Śārdūlakarṇāvadāna* is found in a fragmentary Central Asian manuscript now held at the St. Petersburg Branch of the Institute of Oriental Manuscripts of the Russian Academy of Sciences (SI 1942) dating from around the fourth century.[95] The earliest Chinese translation by Dharmarakṣa 竺法護, the *Shetoujian Taizi ershiba xiu jing* 舍頭諫太子二十八宿經 (T 1301; *Sūtra of Prince Śārdūlakarṇa and the Twenty-eight Nakṣatras*), is closer to the Central Asian manuscript when compared to the *Mātaṅga-sūtra*.[96] Dharmarakṣa's text is said to have been translated between 307–313 (the Yongjia 永嘉 era).[97] In light of these points, a dating to the third or possibly second century for the *Śārdūlakarṇāvadāna* is more probable than Pingree's date of the first century. As to where it was composed, in light of the references to the measurements of Magadha such as the *māgadha-yojana* and *māgadhaka-prastha* (摩伽陀鉢悉他),[98] it was likely composed in Magadha.

The initial story in the sūtra relates how Ānanda was magically summoned against his will into a home by the mother of a *caṇḍāla* girl. The girl found him attractive and sought to marry him. The Buddha freed him with the use of a mantra. The girl later became a bhikṣuṇī and sees the error of her ways. The rest of the text explaining astrology, measurements and other mundane matters is related by a *caṇḍāla* King Triśaṅku, and appears to be a divination manual appended onto the sūtra.

One aim of providing such information on divination seems to have been to demonstrate that a member of the *caṇḍāla* caste could be equally as learned as a *brāhmaṇa*, thereby discrediting the claims to religious authority held by Brahmins. Knowledge of astrology was a form of social capital, and the author of the text, with a clear anti-Vedic agenda, evidently sought to advance Buddhist interests by spreading this knowledge in the form of a sūtra. Neither the Buddha, nor any of his disciples, is responsible for providing such information, which perhaps indicates a sentiment that sangha members are not to teach such mundane things. Nevertheless, the validity and value of astrological knowledge is affirmed in this text.

There were those in the Buddhist community in India, however, who objected to both the practice and validity of astrology. Such arguments are given in the

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[94] T 2149, 55: 298a18-20.

[95] Miyazaki Tensho and others, "The *Śārdūlakarṇāvadāna* from Central Asia," in *Buddhist Manuscripts from Central Asia The St. Petersburg Sanskrit Fragments*, vol. 1, ed. Seishi Karashima and Margarita I. Vorobyova-Desyatovskaya (Tōkyō: The Institute of Oriental Manuscripts of the Russian Academy of Sciences and The International Research Institute for Advanced Buddhology Soka University, 2015), 2.

[96] Ibid., 2.

[97] T 2149, 55: 298a16-17.

[98] T 1301, 21: 416c13. T 1300, 21: 409b1. For the Sanskrit see Sujitkumar Mukhopadhyaya, ed., *The Śārdūlakarṇāvadāna* (Viśvabharati, 1954), 58–59.

Saddharmasmṛtyupasthāna-sūtra 正法念處經 (T 721), which was translated into Chinese by Gautama Prajñāruci 539.[99] Daniel M. Stuart proposes that this sūtra was compiled over many years between 150–400 CE.[100] With respect to the sectarian affiliation of this text, Warder suggests it "was apparently the Mūlasarvāstivādins who composed the *Saddharmasmṛtyupasthāna Sūtra*".[101] Stuart, however, contests this, stating, "As far as the philosophical background of the text is concerned, the authors/compilers/redactors were no doubt learned in some species of Sarvāstivāda."[102]

In quite strong language this sūtra condemns the practice of astrology by bhikṣus. It lists it among thirteen other practices, which include painting, singing, closely associating with kings and residing with evil people, warning that such practices are a hindrance to meditation and recitation. Such hindrances result in rebirth in the hell, *preta* and animal realms. Such individuals are even abandoned by their protective deities.[103]

The refutation of astrology in the *Saddharmasmṛtyupasthāna-sūtra* was likely a reaction to bhikṣus practicing what was an increasingly popular art of astrology and, to some at least, perhaps a lucrative profession. The sūtra attempts to creatively convince the bhikṣu to turn away from mundane star gazing.

> 有三大曜，謂病老死，此爲最大，常住世間。彼惡沙門，不思惟此而更思惟餘世間曜。彼人愚癡，無有聞慧，思惟世間二十八宿。如是思惟，則有罪過。而不思惟彼出世間二十八宿。若能思惟實觀察者，入涅槃城。二十八者，所謂五陰及五取陰十八界等。思惟此者，到於涅槃。以如實觀，離欲持戒，故得涅槃。數星思惟則不能得。
>
> There are three great luminaries [*graha*, i.e., planets], called illness, old age and death. These are the greatest and perpetually present in the world. That wicked *śramaṇa* does not contemplate this, but further contemplates other worldly luminaries. That person is foolish, not having wisdom gained through hearing [**śrutamayī prajñā*?], contemplating the twenty-eight worldly *nakṣatra*–s [constellations]. One is at fault to contemplate like this and not contemplate the twenty-eight transcendental *nakṣatra*–s. One will enter the city of *nirvāṇa* should one be able to contemplate and truly observe them. The twenty-eight are the five *skandha*–s, five *upādāna-skandha*–s and eighteen *dhātu*–s. One who contemplates these will arrive at *nirvāṇa*. When there is observation of things as they truly are, detachment from desire and the upholding of precepts, *nirvāṇa* is consequently

[99] These arguments are in fasc. 49 of the Chinese translation. Astrology is counted as the fifth unacceptable practice.

[100] Daniel M. Stuart, *A Less Traveled Path: Saddharmasmṛtyupasthānasūtra Chapter 2*, vol. I (Austrian Academy of Sciences and China Tibetology Research Center, 2015), 43.

[101] A.K. Warder, *Indian Buddhism* (Delhi: Motilal Banarsidass, 2004), 394–395.

[102] Stuart, *A Less Traveled Path*, vol. I, 199.

[103] T 721, 17: 284c7–17.

attained. It cannot be attained through the contemplation of counting stars [i.e., astrology].[104]

The attack on astrology also includes refutation of its efficacy through various arguments. For instance, the text asks why the lives of people differ, even when they are born under the same stars. It is pointed out that humans, animals and *preta*–s might be born under the same star, yet they also are not identical. It is argued that it is through the force of karma, rather than the force of the stars, that there are differences among living beings.[105]

The sūtra further discusses the untenability of such concepts as astral influence (the belief that stars directly influence life events), a concept we will see conversely affirmed in later literature.

> 又復彼人，數星思惟，而實不善，亦不寂靜。所謂彼星，力不常定，更有妨故，有勝劣故。此星復爲勝星所覆，彼星異時而復更爲異星所覆，是故當知數星思惟，義不相應。若其有人，數星思惟，謂星因緣，有苦有樂，非是自身有苦有樂，彼星更有餘星所覆，云何而能與他苦樂。故知由業而得。如是善不善果，非星能與。… 如日與月，羅睺蝕之，則得苦惱。若此日月，自不能救，何能救他。
>
> Furthermore, that man is truly non-virtuous to contemplate the stars, nor will he attain peace. As to that star, its power is not constantly fixed, as it is also hindered and has superior and inferior capacities. This star is again covered by a superior star. That star at a different time is again covered by a different star. Thus it should be understood that contemplation of the stars [i.e., astrology] is untenable. If there is someone who contemplates the stars, thinking that it is due to the stars that there are sufferings and ease, and that it is not from oneself that there are sufferings and ease, then how is it that when those stars are covered by other stars, that they can impart sufferings and ease to others? Thus, it is understood that [sufferings and ease] come about because of karma. It is not the stars which can impart the fruits of virtue and non-virtue like this. … When the Sun and the Moon are devoured by Rāhu, they experience anguish. If the Sun and the Moon cannot save themselves [from being devoured by eclipses], how could they save others?[106]

The *Saddharmasmṛtyupasthāna-sūtra* indicates that in addition to undesirable artist *śramaṇa*–s, there were also a sufficient number of monks who practiced astrology to merit such extensive criticism and condemnation. This is an interesting example in Indian Buddhist literature of astrology being systematically attacked. It seems, however, that

[104] T 721, 17: 290b12-19.
[105] T 721, 17: 290a6-29.
[106] T 17, 721: 290b1-10.

such views were actually in the minority, because other examples of a passive belief in astrology are to be found in earlier literature, such as vinaya texts.

There is an account in the *Dharmaguptaka-vinaya* 四分律 (T 1428)[107] in which the group of 'six bhikṣuṇīs' tells laypeople that the constellations and stars are favorable, and that they should engage in various activities such as building shelters and shaving a child's head. The Buddha scolds them for this, but states that they should tell laypeople that when the stars are favorable they should visit monasteries, make offerings to the sangha and engage in fasting.[108] This presupposes that the bhikṣuṇīs have knowledge of astrology. The concern in this incident, however, is that they encourage mundane activities upon having determined by the stars that the time is auspicious. The Buddha instructs that they should instead direct laypeople towards religious activities on such days.

As another example, the *Mahīśāsaka-vinaya* 五分律 (T 1421)[109] states that the *āraṇyaka* bhikṣu (a solitary recluse) should fully understand the features of the four directions, *nakṣatra*–s, seasons and dates, though these are for practical purposes. Knowing the four directions helps when escaping from bandits. Knowing the *nakṣatra*–s helps one know when it is time to sleep and move on the road. One will know the way back by observing the stars. Knowing the seasons and dates helps determine the times for *poṣadha* and retreat.[110] Although familiarity with *nakṣatra*–s assumes some traditional astronomical knowledge, there is nothing concerning astrology here. The same text, however, records an account in which bhikṣus were excessively washing, much to the disdain of the laypeople who condemned them for not following proper *śramaṇa* etiquette. At the time, a diviner of King Bimbisāra informed his lord that an inauspicious star (不吉星) had appeared, and that the king ought to go to the waters of a certain spring and wash to expel the evil. If not, the country and his life would be at risk. The king ordered his retainers to prepare the spring, but they reported that the bhikṣus were washing. The king told his retainers to wait for them to finish, but this went on for a day and night. The Brahmins warned the king that the star was hanging above him and that he had to go, otherwise the ritual washing would prove ineffective. The king went to the spring and washed downstream instead. His ministers complained about these bhikṣus' poor practice as *śramaṇa*–s. The elder bhikṣus reported this to the Buddha, who then established a rule against excessive bathing.[111] Here there is no repudiation of the idea itself of a star foretelling catastrophe. The appearance of such an inauspicious star is taken quite seriously. The point of this story is to provide a background story for the rule

[107] Translated by Buddhayaśas (fl. early 5th cent.) between 410–412. See Shayne Clarke, "Vinayas," in *Brill's Encyclopedia of Buddhism*, vol. I, ed. Jonathan A. Silk (Leiden: Brill, 2015), 68–69.

[108] T 1428, 22: 775a15–b26.

[109] Translated between 423–424 by a team led by Buddhajīva 佛陀什 (fl. early 5th cent.). See Clarke, "Vinayas," 69.

[110] T 1421, 22: 180a3–24.

[111] T 1421, 22: 65c29-66a18.

against excessive bathing, but it indirectly indicates a strong belief in astrological determinism.

This passive belief in astrology is also an underlying element in the calendar of the sangha. The Buddhist sangha believed in astrological hemerology based on the *pakṣa* cycle. This is expressly stated in the *Mahāsāṃghika-vinaya* 摩訶僧祇律 (T 1425), which was translated between 416–418.[112]

> 爾時，尊者阿難共行弟子，欲行摩那埵。白佛言：世尊，我共行弟子，欲詣聚落中小住處行摩那埵，時是十四日。佛語阿難：此十四日，星宿隨順，時隨順，眾隨順。應作布薩竟然後去。
> At that time Venerable Ānanda was travelling together with disciples and wanted to perform *mānatva* [i.e., repentance]. He said to the Buddha, "World Honored One, I am travelling with disciples and wish to go to the village to perform *mānatva* in a small dwelling. The time is the 14th day." The Buddha said to Ānanda, "This 14th day agrees with the *nakṣatra*–s, time and assembly[113] – you should leave after performing *poṣadha*.[114]

It is notable that the Buddha is the one stating the 14th day is in agreement with the *nakṣatra*–s. From the emic Buddhist perspective, this is an indirect affirmation of astrological determinism by the figure of the Buddha himself. The underlying belief is that certain days of the lunar cycle are inherently more auspicious and suitable for certain activities than others. The *poṣadha* schedule according to lunar phases is furthermore linked with a belief in deities descending into the world on certain days of the cycle. This belief is expressly stated even in later Abhidharma literature such as the **Abhidharma-mahāvibhāṣā* (T 1545) as follows:

> 問：何故唯說三十三天。答：以彼諸天數數雲集，論善惡事，故偏說之。謂彼諸天於白黑月，每常八日，若十四日，若十五日，集善法堂，稱量世間善

[112] Faxian 法顯 in his travelogue to India in the early fifth century records that "this Mahāsāṃghika Vinaya was practiced by the earliest Great Assembly when the Buddha was in the world. They transmitted that version at Jetavana-vihāra." 是摩訶僧祇眾律，佛在世時最初大眾所行也。於祇洹精舍傳其本. T 2085, 51: 864b19-21. One traditional account suggests that the initial schism between the future Mahāsāṃghikas and Sthaviras was due to the latter wanting to add additional rules to the vinaya. The extant recensions of the *Mahāsāṃghika-vinaya* have the fewest number of precepts compared to those of the Sthaviravāda branch. For details see Janice J. Nattier and Charles S. Prebish, "Mahāsāṃghika Origins: The Beginnings of Buddhist Sectarianism," *History of Religions* 16, no. 3 (1977): 268. See also Clarke, "Vinayas," 62, 64. This stated belief in auspicious days is therefore quite early.

[113] The *nakṣatra* in which the Moon is lodged ought to be auspicious. It is uncertain what 'assembly' (*zhong* 眾) here refers to specifically.

[114] T 1425, 22: 447a15-19.

惡多少。復次，三十三天常共伺察造善惡者，見造善者，便擁護之。見造惡者，即共嫌毀。是故偏說。
Question: Why only speak of thirty-three devas? Answer: The devas frequently gather to debate good deeds and misdeeds, hence the partial discussion of them. The devas during the waxing and waning moons on every eighth, fourteenth and fifteenth always gather in the 'Hall of Sudharmā'[115] to weigh the volume of good deeds and misdeeds in the world. Furthermore, the thirty-three devas constantly together to inspect the makers of good deeds and misdeeds. Seeing one who has done good deeds, they then protect them. Seeing one who has done misdeeds, they then resent them. Hence the partial discussion of them.[116]

In this case, the auspiciousness of these days appears to be determined by these deities. Although this is not astrological determinism, it is a system of hemerology based on lunar phases, and moreover justified by a belief in deities connected to this cycle. This is significant because it establishes a belief structure atop which both Indian and foreign astrologies, as well as astral deities, could be regarded as viable and valid. The *Mahāsāṃghika-vinaya* interestingly already describes the *nakṣatra*–s as protective deities long before the emergence of Tantra, in which such deities play a more prominent role (see discussion below). It is noteworthy that a major Śrāvakayāna text teaches this, as it indicates that such a belief was already existent among some Buddhist communities.

東方有七星。常護世間，令得如願。一名吉利帝，二名路呵尼，三名僧陀那，四名分婆咦，五名弗施，六名婆羅那，七名阿舍利。是名七星。在東方常護世間。今當護汝，令得安隱，得利早還。一切星宿皆當護汝。…
In the eastern direction are seven stars. They constantly protect the world and let [people] gain what they desire. The first is called Kṛttikā. The second is called Rohiṇī. The third is called *Sengtuona. The fourth is called Punarvasū. The fifth is called Puṣya. The sixth is called *Poluona. The seventh is called Aślesā. These are called the seven stars. In the eastern direction they constantly protect the world. Now they will protect you and let you attain ease and benefit, and early return. All *nakṣatra*–s will protect you. … [117]

[115] Located in the city of Indra (善見城). See T 24, 01: 341b7-8.

[116] T 1545, 27: 211c10-15.

[117] T 1425, 22: 500c28-501a3. This appears to be an evocation of stellar and directional deities. The ordering, transliteration and translation of the *nakṣatr*a names are unusual. It commences with Kṛttikā, which is the older starting point for listing the *nakṣatra*-s. In the first half of the first millennium it became customary to list them from Aśvinī, a change which reflects axial precession. Faxian retrieved the manuscript of this text in Pāṭaliputra 巴連弗邑, which likely means it reflects Magadha Buddhism and its conventions and terms. See T 2085, 51: 864b16-19.

Other vinaya texts demonstrate a belief in astrology and call for it to be observed. For example, the Mūlasarvāstivāda *Vinayabhaṅga* permits a monk to dig in the earth under certain conditions, one of which is that the astrological conjunctions are correct.[118] Again, here it assumes that the monk would first of all have studied astrology, and moreover that he is expected to follow its conventions.

2.7. Astrology in Mahāyāna and Tantra

In contrast to Śrāvakayāna traditions, Mahāyāna literature fully endorses the practice of astrology and calendrical science. The later Tantric texts subsequently integrate both into their ideological and practical frameworks.

A prominent example of Mahāyāna literture, the *Daśabhūmika-sūtra* 十住經 (T 286), translated into Chinese by Kumārajīva, states that the bodhisattva engages in not only worldly learning and medicine for the benefit of beings, but also practices divination based on the Sun, Moon, five planets, twenty-eight *nakṣatra*–s and earthquakes,[119] which is not unlike what is described in the *Śārdūlakarṇāvadāna*. Mahāyāna authors seem to have recognized the value of astrological knowledge, which was losing its earlier negative associations in India, as demonstrated by the remarks of Varāhamihira cited above. This potentially placed someone with such knowledge in an advantageous position, especially within an aristrocratic society in which such skills would have been appreciated.

The study of calendrical science was part of a standard layman's education at least by the seventh century. The account of India by Xuanzang 玄奘 (602–664) confirms this. He states that from the age of seven, youths gradually receive training in the great treatises related to the five sciences, the second of which expressly includes calendrical calculations.[120] This would have also meant that educated monks presumably would have almost all had some background training in calendrical science, which was likely closely tied to astrological concerns.

During the seventh century, the emerging tradition of Buddhist Tantra integrated astrological lore into their practice, most notably the twelve zodiac signs from Hellenistic astrology. In addition, they adopted the Hellenistic custom of the seven-day week. This is already clear in the *Vairocanābhisaṃbodhi* (**Mahāvairocana-sūtra* 大日經; T 848) from the mid-seventh century, and its accompanying commentary in Chinese from the 720s by Śubhakarasiṃha and Yixing. This will be discussed below in detail (4.2), but here it is

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[118] See Jonathan A. Silk, *Managing Monks Administrators and Administrative Roles in Indian Buddhist Monasticism* (Oxford: Oxford University Press, 2008), 82.

[119]「是人利益眾生故，世間所有經書，伎藝文章，算數，名性經書，治病醫方 … 日，月，五星，二十八宿，占相吉凶，地動夢書怪相 …」 T 286, 10: 512c1-8. See also the *Avataṃsaka-sūtra* 華嚴經 (T 278) translated by Buddhabhadra 佛馱跋陀羅 (359–429) in 422. T 278, 09: 556c1-10.

[120] 二工巧明，伎術機關，陰陽曆數. T 2087, 51: 876c18-19.

relevant to point out that the explanation of the *maṇḍala* mentions the deities of the twenty-seven *nakṣatra*–s and twelve zodiac signs as the retinue of the Moon deity.[121] The commentary in defining an auspicious day also mentions the twelve zodiac signs along the ecliptic, without providing any details. It also describes the seven-day week based on planets presiding over each day, and each day is regarded as either positive or negative. Again, it fails to provide details, and instead just states "as it is described in the Indian calendar."[122] This is significant because it demonstrates how a highly educated Indian monk, such as Śubhakarasiṃha, born and raised in the seventh century, when the emergence of Tantra was underway,[123] felt it necessary to mention two major features of Hellenistic astrology (the zodiac signs and seven day week) that had become a major part of the Buddhist tradition and Indian thinking in general.[124] Śubhakarasiṃha was from Magadha and once resided at Nālanda.[125] His recorded explanations therefore likely reflect Buddhism in Magadha in the late seventh century, which suggests a wide appreciation for an astrological schedule incorporating what we would identify as Hellenistic elements.[126] That this additional system of foreign hemerology was integrated into early Tantra alongside the ancient *nakṣatra* calendar suggests a firm belief in a kind of calendrical determinism, in which a day's auspicious or inauspicious quality is determined by numerous astrological factors. This demonstrates that by the seventh century, astrology was fully embraced and incorporated into the Buddhist traditions of Magadha. We should, however, note that the emphasis on astrological considerations appears to have been reconsidered later on in Tantric Buddhism. Christian K. Wedemeyer points out that "the frequently-repeated injunctions in Mahāyoga Tantra materials against

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[121] 西門之南。與日天相對，應置月天，乘白鵝車。於其左右置廿七宿，十二宮神等，以爲眷屬. T 1736, 39: 634c12-14.

[122] T 1796, 39: 618a8-17.

[123] Wuxing 無行 (b. 630), a Chinese monk who studied in India, witnessed the rising popularity of Mantrayāna there. Xuanzang returned to China in 645. He never mentions Mantrayāna in India. Wuxing around the year 685, however, sent a letter to China, stating, "Recently the new Mantra teachings have become revered in the country" 近者新有眞言教法擧國崇仰. This line is preserved in a Japanese work by Annen 安然 (841–915?), the *Shingon shūkyō jigi* 眞言宗教時義. Wuxing's original letter (南荊州沙門無行在天竺國致於唐國書一卷) is not extant. It was brought to Japan by the Japanese monk Ennin 圓仁 (794–864) in 847. See T 2396, 75: 431a11 & T 2167, 55: 1086c21-22. Wuxing's account indicates that Mantrayāna, as a self-conscious movement, was only arising in India in the latter half of the seventh century. See Yoritomi Motohiro 頼富本宏, "Mikkyō no kakuritsu" 密教の確立, in *Indo mikkyō* インド密教, eds. Tachikawa Musashi 立川武蔵 and Yoritomi Motohiro (Tōkyō: Shunjūsha, 1999), 37.

[124] Śubhakarasiṃha's guru seems to have been the human author of the *Mahāvairocana-sūtra*. A document detailing the history of the *maṇḍala* lineages from 834 quotes Śubhakarasiṃha as saying, "This Dharma is from Vairocana Buddha. It was entrusted to Vajrapāṇi Bodhisattva. After hundreds of years Vajrapāṇi Bodhisattva entrusted it to *ācārya* Dharmagupta from Nālanda monastery in Central India. The *ācārya* Dharmagupta then entrusted it to Tripiṭaka Śubhakarasiṃha of the Śākya clan from Central India." T 2081, 51: 786b5-9.

[125] 中印度摩伽陀國人，住王舍城那爛陀寺. T 2055, 50: 290a9-10.

[126] It is uncertain if they at the time would have regarded it as *Yavana* or foreign.

taking account of astrological phenomena such as lunar mansions (*nakṣatra*), lunar days (*tithi*), and so on, in ritual practice would seem to be a response to earlier esoteric scriptures that enjoin practitioners, on the contrary, to schedule their ritual activities in accordance with such considerations." For example, the *Cittaviśuddhiprakaraṇa* (verses 71-75) mentions technical features of astrology, but also suggests that one should not be attached to these, which are "conceptually posited by the whole world."[127] The urge to dismiss concerns for astrology perhaps points to widespread and deep interest in astrology among contemporary Buddhist practitioners.

It is significant that the *Śārdūlakarṇāvadāna*, *Mahāsāṃghika-vinaya* and *Mahāvairocana-sūtra* all contain elements of astrology and/or astral magic, while, moreover, all having connections to Magadha. This possibly indicates that Buddhism in Magadha had a great appreciation for astrology. This stands in contrast to the *Saddharmasmṛtyupasthāna-sūtra*, which appears to have been written by authors with a Sarvāstivādin background, possibly therefore indicating that the acceptability of astrology among Indian Buddhists might have to some extent differed along sectarian or regional lines.

In light of the Indian Buddhist interest in astrology, it is unsurprising that astrology was transmitted to China via Buddhism. Nevertheless, there were a number of ethical and legal issues that existed in Chinese Buddhism with respect to astrology that should be addressed.

2.8. Astrology in the Chinese Buddhist Context

Chinese Buddhist literature from at least the fifth century reproduced the general injunctions against divination as found in Indian texts. The tradition of vinaya exegetes in China also specifically understood astrology to be an inappropriate practice for a *śramaṇa*. The early model of Chinese bodhisattva precepts also expressly forbid divination.[128] Nevertheless, as will be explored in the following chapters, these prohibitions did not deter the popularization of astrology, nor its practice, by sangha members.

An earlier influential sūtra in China, which specifically forbids a bhikṣu from practicing astrology and calendrical science, is the *Sūtra of the Buddha's Bequeathed Teachings* 佛遺教經 (T 389). This sūtra, which was composed in China, summarizes the

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[127] Christian K. Wedemeyer, *Making Sense of Tantric Buddhism: History, Semiology, and Transgression in the Indian Traditions* (New York: Columbia University Press, 2014), 241n64. *Idem*, "Vajrayāna and its Doubles: A Critical Historiography, Exposition and Translation of the Tantric Works of Āryadeva" (PhD diss., Columbia University, 1999), 371.

[128] These precepts are extracted from the *Brahmā Net Sūtra* 梵網經 (T 1484), a scripture composed in China. It became quite popular, providing the standard set of bodhisattva precepts for East Asian Buddhism. Divination is listed among other wicked acts. Astrology is not specifically mentioned. See T 1484, 24: 1007a23-27.

Buddha's teachings shortly before his death between the twin *śāla* trees in Kushinagar. The translation is attributed to Kumārajīva (344–413). During the early Tang period, emperor Taizong 太宗 (r. 626–649) in 639 decreed that all Buddhist clergy would have to abide by the proscriptions of the sūtra.[129] This is significant because the text expressly forbids bhikṣus from several mundane arts. The relevant part of the sūtra reads as follows:

> 持淨戒者，不得販賣貿易，安置田宅，畜養人民，奴婢，畜生，一切種殖及諸財寶，皆當遠離，如避火坑。不得斬伐草木，墾土掘地，合和湯藥，占相吉凶，仰觀星宿，推步盈虛，曆數算計，皆所不應。… 此則略說持戒之相。
>
> He who maintains the pure precepts may not engage in commerce and trade, the establishment of fields and estate, nor may he keep common people, slaves and livestock. They should all remain far away from all manner of planting and wealth as they would avoid a pit of fire. They may not cut grass and trees, till the soil, dig in the ground, mix medicines, divine fortunes, observe the stars, make astronomical calculations, or make calendrical calculations. All such activities are improper. ... This is a general explanation of the qualities of maintaining the precepts.[130]

It was still understood during the early Tang within the tradition of vinaya exegesis that practicing astrology was inappropriate for a bhikṣu. This tradition is best represented by Daoxuan 道宣 (596–667) who, repeating relevant Indian literature, included divination and astrology among wicked lifestyles, though the wording seems to suggest it is defined as inappropriate only if it is for personal gain or profit, which would not preclude the acceptability of practing divination for some beneficial purpose.

> 破正命者，謂非法乞求邪意活命，則有五種四種。言五邪者：一謂爲求利養改常威儀詐現異相。二謂說己功德。三者高聲現威。四者說己所得利養激動令施。五者爲求利故強占他吉凶。言四邪者：一方邪者。通使四方爲求衣食。二仰邪者。謂上觀星象盈虛之相。三者下邪。即耕田種殖種種下業。四者四維口食。習小小呪術以邀利活命。此智論解也。
>
> Destroying right livelihood is inappropriate solicitation or by wicked intent supporting oneself, of which there are five and four types. The five types of wicked acts: I. For personal gain reforming standard observances and dishonestly displaying strange signs. II. Speaking of one's own merit. III. Loudly displaying one's power. IV. Speaking of one's own obtainment of offerings to prompt

[129] Stanley Weinstein, *Buddhism Under the T'ang* (Cambridge: Cambridge University Press, 1987), 21.

[130] T 389, 12: 1110c22-1111a2.

> giving. V. Divining the fortune of another for gain. The four types: I. Wickedness at a distance: dispatching envoys to the four directions in pursuit of clothing and food. II. Wickedness by looking upwards: surveying above features of star signs and lunar cycles. III. Wickedness below: tilling fields, planting seeds and various acts directed downwards. IV. The four ways to eat by way of the mouth: learning various[131] spells to invite profit to support oneself. This is the understanding of the *Mahāprājñāpāramitā-upadeśa*.[132]

Despite these proscriptions against astrology, it must be understood that monastic precepts were not strictly observed throughout the Tang dynasty, and it appears that many rejected them in favor of a flexible system of bodhisattva precepts. Daoxuan himself laments this development.

> 今時不知教者多自毀傷，云: 此戒律所禁止是聲聞之法，於我大乘棄同糞土。猶如黃葉，木牛，木馬，誑止小兒，此之戒法亦復如是，誑汝聲聞子也。
> In present times many of those who do not know the teachings destroy themselves. They say, "These vinaya proscriptions are a *śrāvaka* teaching. In our Mahāyāna we toss it away just as if it were filth. Like yellow leaves, a wooden ox or a wooden horse deceiving a little child, these precept teachings are also like this. They deceive you *śrāvaka*!"[133]

Flexible interpretation of bodhisattva precepts was facilitated by the translation of the *Yogācārabhūmi* 瑜伽師地論 (T 1579), translated by Xuanzang between 646–648. In this work, a bodhisattva is permitted to commit even homicide if the situation warrants it.[134] These passages were later cited by the Huayan patriarch Fazang 法藏 (643–712) in his *Fanwangjing pusa jieben shu* 梵網經菩薩戒本疏 (T 1813; *Commentary on the Brahmā Net Sūtra Bodhisattva Precepts*).[135] This trend of neglecting, or even rejecting, bhikṣu conventions while allowing, if not encouraging, Mahāyāna practitioners to act according to conscience, rather than the strict letter of scripture, meant that minor conventions against divination and astrology could be ignored. As we will explore below, monks in the Tang dynasty in fact practiced astrology despite their monastic precepts prohibiting it.

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[131] Judging from the text in the *Mahāprājñāpāramitā-upadeśa*, *xiao xiao* 小小 is a scribal error for *zhong zhong* 種種. T 1509, 25: 79c13.

[132] T 1804, 40: 19a8-16. These four are adapted from the *Mahāprājñāpāramitā-upadeśa*. See T 1509, 25: 79c6-14.

[133] T 1804, 40: 49b27-c1.

[134] T 1579, 30: 517b8-17.

[135] T 1813, 40: 611a1-2.

We should also note here that early Daoist proscriptions explicitly forbid the study of astrology, which it seems was in emulation of the Buddhist model. The relevant rule is explicitly stated as precept seventy-eight in *The 180 Precepts Spoken by Lord Lao* 老君說一百八十戒 (included in *Taishang Laojun jinglü* 太上老君經律; DZ 786): "You should not read the stars or prognosticate the seasons 不得干知星文卜相天時."[136] Benjamin Penny notes that the "appearance in China of Buddhist precepts inspired Daoists to write precepts of their own, and, in all probability at an early stage, the Daoist clerisy also developed structures and practices that were based on Buddhist models." It was likely produced sometime during the sixth century.[137] This Daoist prohibition should be kept in mind later in this study as we examine Daoist astrological texts.

2.9. Conclusion

The foregoing discussion covered the general historical background of astrology as it relates to Buddhism in India and China. It is clear that astrology was important in both civilizations from early on. It was therefore natural for Buddhists to take an interest in the art. Having outlined the essential background information for the following chapters, which explain the introduction and development of Buddhist astrology in China, we should note a few things.

First, astrology is an art found throughout Eurasian civilizations, and has been perhaps the only art to transcend so many cultural and linguistic barriers, having been incorporated into several major world religions. It is therefore unsurprising that Buddhists also took an interest. The evidence indicates that many Buddhists, in fact, practiced astrology, with such an interest actually increasing over the centuries, and eventually being incorporated into Tantric practice.

There were views opposed to astrology within Buddhism. Although there are proscriptions that forbid monks from practicing divination, at the same time in Buddhist literature we find many examples of passive knowledge of astrology, in addition to evidence of belief in astral deities. The reality, so far as present evidence suggests, is that those who specifically opposed astrology in Indian Buddhist history constituted a minority. It is clear that Buddhists generally believed in the efficacy of astrology. The Chinese vinaya tradition in the Tang period also specifically forbids monks from practicing astrology as a means of earning a livelihood, but the reality was that such rules were effectively ignored, as we will see.

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[136] DZ 786, Wenwu Chubanshe edn., vol. 18, 220a7. For translation see Barbara Hendrischke and Benjamin Penny, "*The 180 Precepts Spoken by Lord Lao*: A Translation and Textual Study," *Taoist Resources* 6, no. 2: 24.

[137] Benjamin Penny, "Buddhism and Daoism in *The 180 Precepts Spoken by Lord Lao*," *Taoist Resources* 6, no. 2 (1996): 2–3.

Chinese civilization from early on also developed its own systems of astrology and observational astronomy. Throughout the first millennium, legal codes specifically prohibited the private study of astronomy, which is an important point to bear in mind throughout the following chapters as such prohibitions were, at least in theory, in effect throughout the Tang dynasty. The technical astronomical knowledge required to practice astrology is another aspect of astrology that must be kept in mind, especially as we explore how the Chinese approached foreign astrology.

Chapter 3
Early Buddhist Astrology in China: the Fourth to Seventh Centuries

The fourth through seventh centuries saw the transmission of astrological lore into China via the translation of several Buddhist and non-Buddhist texts dealing with Indian astrology, but these had limited influence on Chinese Buddhism. The question to ask here is why the literature related to astrology in this period did not become widely practiced or popularized, in contrast to later developments in the eighth century, during which time foreign astrology was widely studied and further developed in China. The answer, I propose, is that it was not necessary for Chinese Buddhists to observe astrology during these centuries. Although *nakṣatra* astrology was first introduced through Buddhism, there was no pressing need to implement it, especially on an institutional level, until the introduction of Mantrayāna in the eighth century, when ritual timing became essential knowledge for some Buddhist clergy.[1]

Despite the insignificance of these early translations in China itself, these texts, translated from the fourth to seventh centuries, are still instructive for what they tell us about developments in India and Central Asia. They furthermore display the successive developments that laid the foundation for the system which was ultimately adopted in China in the eighth century. Much more significant to the long-term development of Chinese Buddhism than *nakṣatra* astrology was the introduction of Buddhist hemerology during these centuries, i.e., the astrological schedule based on the lunar cycle, around which Buddhist activities are carried out, such as *poṣadha*, the bi-monthly meeting of the sangha to 'purify' the monastic community.

3.1. Translations of the *Śārdūlakarṇāvadāna*

As discussed in chapter 2, the earliest extant Buddhist work with substantial astrological lore is the *Śārdūlakarṇāvadāna*. This was first translated into Chinese by Dharmarakṣa between 307–313. Another translation was carried out in the late fifth century by Guṇabhadra, titled the *Mātaṅga-sūtra*. This latter text is longer than Dharmarakṣa's translation and displays some Hellenistic influences. Aoyama Tōru compared the contents of these two translations to Mukhopadhyaya's Sanskrit edition. He concluded that Dharmarakṣa's translation is closer to the Sanskrit version compared to the *Mātaṅga-sūtra*, especially in light of all the additional material found in the *Mātaṅga-*

[1] Monks, both Chinese and foreign, indeed practiced various forms of divination, including astrology, during the fourth to seventh centuries. See John Kieschnick, *The Eminent Monk: Buddhist Ideals in Medieval Chinese Hagiography* (Honolulu: University of Hawai'i Press, 1997), 80. My point is that astrology as an essential practice within a Buddhist framework only became popular after the introduction of Mantrayāna, which will be discussed below.

sūtra.[2] The *Mātaṅga-sūtra* is therefore a translation of a significantly revised version of the *Śārdūlakarṇāvadāna*.

As Zenba notes, there are two features of the text that indicate Hellenistic influences. First, chapter seven ("Explaining Time Divisions" 明時分別品) explains the Metonic cycle.[3] Seven intercalary months are to be added in a nineteen-year period (於十九年凡有七閏).[4] This is not present in the Tibetan or Sanskrit texts surveyed by Zenba.[5] The *Mātaṅga-sūtra* also subsequently mentions adding an intercalary month every five years (五年再閏), which has a parallel in the Tibetan, according to Zenba. The second Hellenistic feature, also in chapter seven, is the Greco-Egyptian ordering of planets which differs from that found in chapter five, in the order of Sun, Moon, Mars, Mercury, Jupiter, Venus and Saturn.[6] As Zenba notes, the ordering of planets in chapter seven of the *Mātaṅga-sūtra* differs from the Tibetan and Sanskrit.[7]

As to when the seven-day week was transmitted to India, Markel suggests that "it is apparent that the seven-day week was introduced into India sometime around the beginning of the 4th century, during a period when the trade between India and Rome began to resume after the Roman wars and disruption in the 3rd century."[8] This ordering does not reappear in extant Chinese Buddhist literature until the eighth century (see 4.2, 4.5 below). This ordering was also not employed with relation to the seven-day week in China until the seventh century at the earliest.[9]

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[2] Aoyama Tōru 青山亨, "Śārdūlakarṇāvadāna no kenkyū" Śārdūlakarṇāvadāna の研究, *Indogaku bukkyōgaku kenkyū* 印度學仏教學研究 60, no. 30-2 (1982): 152–153.

[3] Mēton was an Athenian astronomer in the fifth century BCE. He proposed a system of intercalation based on lunar months, later called the Metonic cycle, in which there are seven intercalary months every nineteen years. This is designed to keep lunar months in pace with the solar year. See M.C. Howatson, *The Oxford Companion to Classical Literature* (Oxford: Oxford University Press, 2013), 376–377.

[4] T 1300, 21: 410a11.

[5] Zenba Makoto 善波周, "*Matōga gyō* no tenmonrekisū ni tsuite" 摩登伽經の天文暦數について, in *Tōyōgaku ronsō: Konishi, Takahata, Maeda san kyōju shōju kinen* 東洋學論叢：小西高畠前田三教授頌壽記念 (Kyōto: Heirakuji shoten, 1952), 202.

[6] 日月熒惑辰星歲星太白鎮星. T 1300, 21: 410a14-15. This ordering of the seven-day week is an amalgamation of the Egyptian belief in deities overseeing each of the twenty-four hours and the Greek cosmological concept of concentric spheres. The spheres run in the descending order of Saturn, Jupiter, Mars, the Sun, Venus, Mercury and the Moon. The first hour of the first day is assigned to Saturn, the second hour to Jupiter, the third to Mars, and so on. The twenty-fifth hour (the first hour of the second day) is assigned to the Sun. The forty-ninth hour is assigned to the Moon. This ordering was known in the second century BCE. Yano Michio, "Calendar, Astrology, and Astronomy," in *The Blackwell Guide to Hinduism*, ed. Gavin Flood (Oxford: Blackwell Publishing, 2003), 383.

[7] Zenba, "*Matōga gyō* no tenmonrekisū ni tsuite," 190.

[8] Stephen Markel, "The Genesis of the Indian Planetary Deities," *East and West* 41, no. 1/4 (1991): 181.

[9] One of the earliest references to the seven-day week in China is found in a Nestorian Christian text, the *Jesus-Messiah Scripture* 序聽迷詩所經 (T 2142). This states that the Messiah was "tied to wood [cross] for five hours. This was on the 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, having been produced by the first Christian mission

There is evidence that the *Mātaṅga-sūtra* was produced in Central Asia rather than India. The text's gnomonic measurements,[10] which Shinjō Shinzō calculated for an average northern latitude of 43 degrees, indicate a point of reference somewhere in Central Asia, such as Samarkand.[11] Conversely, the Tibetan translation provides a calculated average latitude of 27.5 degrees (corrected to 26.5 degrees if a potential scribal error is considered), which indicates a location in the vicinity of Magadha.[12] Additionally, chapter seven of the *Mātaṅga-sūtra* details the division of daytime into fifteen units (*muhūrta*), in which each is defined by the length of a shadow cast by a man on day one of lunar month two. "At noon the shadow is of equal length to the man 於日正中影共人等."[13] From this Zenba calculated a northern latitude of approximately 39 degrees.[14] In consideration of these points, the Chinese translation of the *Mātaṅga-sūtra* was based on a recension of the *Śārdūlakarṇāvadāna* that originated from somewhere in Central Asia. This recension included numbers revised to account for a higher latitude. This is significant since it shows that the first Central Asian influences in Chinese Buddhist astrological literature can be traced back to the late fifth century.

Dharmarakṣa's earlier translation of the *Śārdūlakarṇāvadāna* was the first text in Chinese to introduce in detail the Indian *nakṣatra*–s. Unlike in later Chinese translations, Dharmarakṣa semantically translated their names rather than using the Chinese lunar stations (*xiu* 宿) as functional equivalents. They are also unequal in their respective dimensions, which are measured by *muhūrta*–s. The *Mātaṅga-sūtra* uses *nakṣatra*–s of unequal dimensions, though they are defined differently from those in Dharmarakṣa's translation. This is significant because the *nakṣatra* system that was later introduced in the eighth century uses *nakṣatra*–s of equal dimensions, which reflects an Indian reconfiguration of an earlier *nakṣatra* system to accommodate the equal dimensions of the zodiac signs of Hellenistic astronomy. The *Śārdūlakarṇāvadāna* provides parameters that reflect the earlier *nakṣatra* system in India prior to the Hellenization of Indian astronomy. It does not appear, however, that this system of unequal *nakṣatra*–s was ever implemented in China. In the absence of additional materials or a foreign specialist, it

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to China. The seven-day week may have been observed by the early Nestorian church in China, but it was not observed by the Chinese until the late eighth century at the earliest. For a detailed study of this text see Haneda Tōru 羽田亨, *Haneda Hakushi shigaku ronbunshū* 羽田博士史學論文集, vol. 2 (Kyōto: Tōyōshi Kenkyūkai, 1958), 240–269. Note that the authenticity of the scripture is contested by some scholars. For a recent discussion see Wang Lanping 王蘭平, "Riben Xingyu shuwu zang Fugang wenshu Gaonan wenshu zhenwei zaiyanjiu" 日本杏雨書屋藏富岡文書高楠文書真僞再研究, *Dunhuangxue jikan* 敦煌學輯刊 (2016-1): 10–15.

[10] A gnomon is a pillar or rod that casts a shadow from which one can take measurements to determine latitude and seasons.

[11] Shinjō Shinzō 新城新藏, *Tōyō tenmongakushi kenkyū* 東洋天文學史研究 (Kyōto: Rinsen shoten, 1989), 417–418. Reprint of 1928 work.

[12] Zenba, "*Matōga gyō* no tenmonrekisū ni tsuite," 201.

[13] T 1300, 21: 409a4.

[14] Zenba, "*Matōga gyō* no tenmonrekisū ni tsuite," 205.

would have been difficult for even a Chinese astronomer to track the position of the Moon relative to these vaguely defined parameters for the *nakṣatra*–s.[15] There was also no known need to do so at this point in Chinese Buddhist history. The issue of how to adequately define the *nakṣatra*–s in a Chinese context was not addressed in this period.

3.2. Astrological Elements in the *Mahāsaṃnipāta*

The voluminous *Mahāsaṃnipāta* 大方等大集經 (T 397), which is comprised of translations by several translators, contains three sections that explain astrology.

The first is the **Samādhi-ṛddhi-pāda* 三昧神足品 chapter of the *Ratnaketu-parivarta* 寶幢分 (fasc. 20). The translation of this text is attributed to Dharmakṣema 曇無讖 (385–433). The relevant section has a discussion between the Buddha and an astrologer named *Jyotīrasa 光味. The latter is questioned about the value of reading books on astrology (星宿書). He replies that he teaches beings with this Dharma, and thereby receives many offerings, but does not answer how to transcend saṃsāra. The astrologer is asked to describe his path. He explains the twenty-eight *nakṣatra*–s, as well as natal predictions for individuals born under each one. This is an example of pre-Hellenized Indian astrology, similar to that of the *Śārdūlakarṇāvadāna*. The individual's personality, fate, proclivities, birthmarks, illnesses and longevity plus anticipated disasters at certain ages are explained. He concludes by stating that one who knows these matters well will 'reach the other shore' and attain great wisdom. The Buddha then replies as follows:

> 佛言：眾生闇行，著於顛倒，煩惱繫縛。隨逐如是星宿書籍，仙人星宿雖好，亦復生於牛馬狗猪。亦有同屬一星生者而有貧賤富貴參差。是故我知是不定法。仙人汝雖得禪，我是一切大智之人。何故不問解脫因緣。
> The Buddha said, "Beings move in the dark, attached to erroneous views, and bound in afflictions. Following these sorts of astrological books, the stars of you the sage might be good, but you will still be reborn among cows, horses, dogs and swine. Moreover, there are those born together under the same star, yet there are differences in wealth and status. Thus, I know this is not a certain method. Although you as a sage might attain *dhyāna*, I am someone with omniscience. Why not ask of the causes and conditions for liberation?"[16]

Here it seems that the validity of astrology is not being outright rejected. The point is rather that astrology does not lead to liberation, and thus it is inferior to the Buddha's teaching. The detailed natal predictions nevertheless indicate that the author of the text

[15] Their dimensions are defined by units of time, which stands in contrast to the way the lunar stations are defined with standardized degrees relative to fixed stars in Chinese astronomy.

[16] T 397, 13: 140a3-7.

was familiar with astrology, yet simultaneously believed it was not to be understood as a method of liberation. There is another translation of this section as a separate text entitled **Ratnaketudhāraṇī-sūtra* 寶星陀羅尼經 (T 402; fasc. 4), translated in 630 by Prabhāmitra (Prabhākaramitra) 波羅頗蜜多羅 (565–633), a monk from Magadha who had studied at Nālanda. He arrived in Chang'an in 627.[17] The details of the natal predictions in this work differ from the earlier translation. The Buddha's response to astrology in the **Ratnaketudhāraṇī-sūtra* is outright rejection.[18]

Zenba pointed out some features of the *Mahāsaṃnipāta* version of the *Ratnaketu-parivarta* that led him to doubt that it was actually translated by Dharmakṣema. The twenty-eight *nakṣatra*–s are named starting from *jiao* 角 in the east (he assumed that this corresponded to the *nakṣatra* Citrā), which is a convention of China and not India (in India the *nakṣatra*–s originally commenced from Kṛttikā, and later this was changed to Aśvinī). He suspected the presence of Chinese influences in this work. The latter translation by Prabhāmitra, however, commences from *mao* 昴 (Kṛttikā), one of the two standard starting points when listing the *nakṣatra*–s. According to Zenba, the *nakṣatra* predictions in the texts are largely contradictory. He suggested that these points indicate not only different sources from which the Chinese versions were produced, but also different astrological traditions, concluding that since Dharmakṣema was from Middle India, he would not have employed any 'regional' system of astrology.[19] On the contrary, Mak assigns a date of 426 to the translation.[20] He also points out that "[b]y later standard, the Chinese translation *jiao* 角 is associated with the *nakṣatra* Citrā, not Kṛttikā. However, by comparing the astrological content presented here and those of ŚKA [*Śārdūlakarṇāvadāna*] and Amoghavajra's XYJ [*Xiuyao jing*], we can see that the original text starts with *Kṛttikā* indeed."[21] In the other words, Zenba made the mistake of assuming that the later Chinese associations between the Chinese lunar stations and Indian *nakṣatra*–s were identical to those found in the *Mahāsaṃnipāta* version of the *Ratnaketu-parivarta*. However, as Mak points out, the lore associated with the *nakṣatra*–s provided in other texts reveals that the sequence does in fact commence from *Kṛttikā* despite having been translated as *jiao* 角, which only later was associated with Citrā. Dharmakṣema's choice of vocabulary in this regard again reveals the use of functional equivalents in Chinese that were too ambiguous to feasibly implement.

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[17] See his biography: T 2060, 50: 439c26-a03.

[18] T 402, 13: 556b9-13.

[19] Zenba Makoto 善波周, "Daishū-kyō no tenmon kiji – sono seiritsu mondai ni kanren shite" 大集經の天文記事 – その成立問題に關連して, *Nihon Bukkyōgakkai nenpō* 日本佛教學會年報 22 (1957): 102–107.

[20] Bill M. Mak, "The Transmission of Astral Science from India to East Asia: The Central Asian Connection," *Historia Scientiarum* 24, no. 2 (2015): 64.

[21] Bill M. Mak, "Indian Jyotiṣa Through the Lens of Chinese Buddhist Canon," *Journal of Oriental Studies* 48, no. 1 (2015): 10.

The second text containing astrological elements is the *Candragarbha-parivarta* 月藏分, translated by Narendrayaśas 那連提耶舍 (490–589) in 566.[22] Chapter nine (fasc. 51) commences with Brahmā explaining the deities, *nakṣatra*–s and planets presiding over the four continents. Chapter eleven (fasc. 52) sees the Sun and Moon rulers (Sūrya and Candra) dispatch an envoy to the Buddha to pay respects at an assembly, and state that they will look after the Buddhadharma in addition to "also ensuring that the five planets and twenty-eight *nakṣatra*–s all maintain correct movements."[23] This is a noteworthy idea that gods either directly control or are supporting conditions behind celestial movements, rather than it being explained by a 'wind-wheel' (*vāyu-maṇḍalaka*) and the collective karma of beings, as is the case in at least one Abhidharma text.[24] This illustrates how there were differing Buddhist perspectives on celestial mechanics, perhaps aimed at different audiences. Some clearly favored the concept of divine beings presiding over celestial bodies, whereas others preferred a mechanistic theory. It does not appear, however, that Chinese Buddhists favored either model of cosmology, though the 'wind-wheel' system is cited in a later Tang-era work, as we will later see.

Chapter eighteen (fasc. 56) commences with the Buddha addressing Brahmā, Indra and the four Mahārājas, asking them how the past sages 天仙 (**ṛṣi*) arranged the stellar bodies and constellations. The gods reply, dividing the twenty-eight *nakṣatra*–s into the four groups under each respective cardinal direction, before briefly describing the things, places, people or animals that they preside over. The Buddha then commands the stellar bodies and constellations to protect countries and raise beings.[25] This brings to mind the invocation of astral deities in the *Mahāsāṃghika-vinaya*, discussed in the previous chapter (2.6).

The *Candragarbha-parivarta* includes the earliest known mention in Chinese of the twelve zodiac signs, which are phonetically transliterated from Sanskrit into Chinese (table 3.1).

These zodiac signs are deified in the same manner as the *nakṣatra*–s and planets. The Buddha states, "I now command these planets and stars to protect countries, cities,

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[22] For date of translation see T 2154, 55: 543c12-13.

[23] 亦令五星二十八宿皆得正行. T 397, 13: 346c3.

[24] The **Lokasthānābhidharma-śāstra* 立世阿毘曇論 (T 1644), for example, states, "With the karma of beings as contributing conditions, there is thus the wind-wheel [*vāyu-maṇḍalaka*] perpetually blowing on a circuit. It is due to the wind blowing that the palaces of the Sun and Moon circuit around endlessly." 以眾生業增上緣故，故有風輪恒吹迴轉。以風吹故，日月等宮，迴轉不息. T 1644, 32: 195b22-24.

[25] "At that time the Buddha said unto King Brahmā and the others, 'All of you, listen well! I see all and am foremost among sages in the world, also causing the *nakṣatra*-s, planets and stars to protect countries and raise beings.'" 爾時佛告梵王等言：汝等諦聽，我於世間天人仙中一切知見最爲殊勝。亦使諸宿曜辰攝護國土養育眾生. T 397, 13: 371b10-12. The use of *shi* 使 here is causative. This implies that the Buddha is not just the knower of these astro-terrestrial correspondences, but the agent controlling them. This same idea of commanding the stars is again seen below following the naming of planets and the twelve zodiac signs.

villages, and to raise beings. You all must proclaim [this] and ensure that they know it."[26] There is no precedent in the Hellenistic world of zodiac signs being deified in this manner. This development in India was likely a result of the *nakṣatra*–s having long been envisioned as deities. It was therefore easy to conceive of the zodiac signs in the same manner. These deified zodiac signs also appear in the early Mantrayāna tradition of the seventh century (see 4.3 below). The emergence of zodiac deities within Buddhism can therefore be traced back to these earlier texts of the sixth century.

Table 3.1. Zodiac signs of the *Candragarbha-parivarta*.[27]			
	Chinese	**Sanskrit**	**Zodiac Sign**
1	*Misha* 彌沙	Meṣa	Aries
2	*Pilisha* 毘利沙	Vṛṣabha	Taurus
3	*Mutouna* 彌偷那	Mithuna	Gemini
4	*Jiejiazhajia* 羯迦吒迦	Karkaṭa	Cancer
5	*Xinghe* 綟呵	Siṃha	Leo
6	*Jiaruo* 迦若	Kanyā	Virgo
7	*Douluo* 兜邏	Tulā	Libra
8	*Pilizhijia* 毘梨支迦	Vṛścika	Scorpio
9	*Tannipi* 檀尼毘	Dhanus	Sagittarius
10	*Mojialuo* 摩伽羅	Makara	Capricorn
11	*Jiupan* 鳩槃	Kumbha	Aquarius
12	*Mina* 彌那	Mīna	Pisces

The third text with astrological elements is the *Sūryagarbha-parivarta* 日藏分, translated by Narendrayaśas in 585.[28] The relevant section is chapter eight (fasc. 41 and 42). It appears to be an astrology manual embedded into an otherwise unrelated narrative within the sūtra. Some *nāga* kings in distress are referred to a certain *Jyotīrasa Bodhisattva 殊致羅娑菩薩. His name ('Flavor of Light') and the following remarks characterize him as an astrologer, and moreover indicate a belief in astrological determinism within a Mahāyāna context:

[26] 我今令此諸曜辰等攝護國土，城邑，聚落，養育眾生，汝等宣告令彼得知. T 397, 13: 373a27-29.

[27] T 397, 13: 373a23-29.

[28] For the date of translation see T 2154, 55: 547c15-17.

爾時殊致羅娑菩薩，善解方便知世因緣，欲爲諸龍說星宿法。星宿法者，各有度數，和合時節。合時則易，不合則難。時節未合，不得解脫。諦聽次第，我當爲汝分別解說。今此月者名奢婆拏，星宿名爲富那婆藪。富那婆藪屬此五月。此月復繫屬於日天。汝諸龍王，與此星辰時未和合。

At that time, *Jyotīrasa Bodhisattva adeptly understood expedient means (*upāya*) and knew worldly[29] causes and conditions. He wanted to teach the Dharma of *nakṣatra*–s to the *nāga*–s. The Dharma of *nakṣatra*–s: each has degrees, which correspond to specific times. It is easy when in agreement with time. It is difficult when not in agreement. When not in agreement with the specific times, it is not possible to attain liberation. "Listen well to [this] sequence! I will explain in detail for you. Presently this month is called Śrāvaṇa. The name of the *nakṣatra* is Punarvasū. Punarvasū belongs to this fifth month. This month is further connected to the solar deity. All you *nāga* kings are not in agreement with this *nakṣatra* and time."[30]

The details in this passage are problematic as they are not in accord with the general Indian *nakṣatra* calendar. The fifth month is Śrāvaṇa, but it is normally associated with Viṣṇu. Punarvasū is not a month, but it can be a day of the month. Punarvasū is the fourth *nakṣatra* from Kṛttikā. Normally Punarvasū is associated with Aditi. The translator or original manuscript might have misread Aditi as Āditya.[31] Āditya the solar deity is associated with the *nakṣatra* Hasta.[32] Below again Punarvasū is associated with the solar deity,[33] while Hasta is associated with *Shapilidi 沙毘梨帝, which is clearly a corrupted transliteration for Savitṛ, the solar deity (it should read Shapidili 沙毘帝梨).[34]

The *nakṣatra*-deity associations are given in the *Nakṣatrakalpa* (I.4.3) of the *Atharvavedapariśiṣṭā*.[35] It reads, "*aditeḥ punarvasū … haste ca savitā daivaṃ …*"[36] Savitṛ is clearly associated with Hasta. The *Sūryagarbha-parivarta* in Chinese translation therefore displays misunderstandings about Indian astrological lore, though it still represents itself as providing authoritative knowledge on the subject. The message from the bodhisattva is that the *nāga*–s should understand the calendar and subsequently attain

[29] Alternatively, this could be an abbreviation of *su shi* 宿世, *xian shi* 先世 or *qian shi* 前世: past life.

[30] T 397, 13: 274a7-13.

[31] This same error is made in the *Xiuyao jing* (4.5 below). Punarvasū is associated with the solar deity 日神. As Yano points out, in this case Aditi was misunderstood as Āditya. See Yano, *Mikkyō senseijutsu*, 90.

[32] See table in Yano, "Calendar, Astrology, and Astronomy," 380.

[33] 井爲第五宿屬於日天. T 397, 13: 275a1.

[34] 軫爲第四宿屬沙毘梨帝天. T 397, 13: 275a21.

[35] I must thank Peter Bisschop (Leiden University) for pointing this out to me.

[36] Bolling, George Melville and Julius Von Negelein, ed, *The Pariśiṣṭās of the Atharvaveda* (Leipzig: Otto Harrassowitz, 1909), 3.

relief from their distress. Attainment of liberation is said to depend upon correct calendrical knowledge. Despite the emphasis on such knowledge in this scripture, problematic as it is, it does not seem that Chinese Buddhists ever made serious use of such lore before the eighth century.[37]

The bodhisattva is then asked for details on the calendar, to which he replies by relating a story about a donkey-headed sage. Within that narrative, details are provided on the *nakṣatra*–s (starting from Kṛttikā) and Indian calendar. The following chapter provides further details on prescribed and proscribed activities under each *nakṣatra*, as well as related medical procedures and natal predictions. In its description of the Indian calendar, it also mentions the twelve zodiac signs presiding over their respective months. Here they are semantically translated (table 3.2).

Table 3.2. Zodiac signs of the *Sūryagarbha-parivarta*.

Month	**Chinese**	**Semantic Meaning**	**Zodiac**
8	蝎神	Scorpion Deity	Scorpio
9	射神	Shooting Deity	Sagittarius
10	磨竭之神	*Makara* Deity	Capricorn
11	水器之神	Water Vessel Deity	Aquarius
12	天魚之神	Heavenly Fish Deity	Pisces
1	持羊之神[38]	Ram Deity	Aries
2	持牛之神[39]	Bull Deity	Taurus
3	雙鳥之神	Bird Pair Deity	Gemini
4	蟹神	Crab Deity	Cancer
5	師子之神	Lion Deity	Leo
6	天女之神	Heavenly Woman Deity	Virgo
7	秤量之神	Scales Deity	Libra

The zodiac signs here, however, play no other stated role other than presiding over their respective months.

One other interesting feature of this text is a listing of eight planets in the order of Jupiter, Mars, Saturn, Venus, Mercury, Sun, Moon and *Rāhu (荷羅睺).[40] This is remarkable for two reasons. First, the ordering of the first five follows the cycle of five elements in Chinese metaphysics (each planet is respectively assigned one: wood 木, fire

[37] The text is cited in the encyclopedic *Fayuan zhulin* 法苑珠林 of 668 by 道世 (d. 683), though it does not appear that such lore was utilized in any significant way. T 2122, 53: 293a19-296b13.

[38] *Chi* 持 (holding) is probably an error for *te* 特 (male animal).

[39] Again, *chi* 持 is probably an error for *te* 特.

[40] T 397, 13: 282a24-25.

火, earth 土, metal 金 and water 水), which indicates Chinese influence or editing.[41] Secondly, normally Ketu is included among the standard nine planets (*nava-graha*). However, this is from a time when Ketu was still regarded as a comet or comets, rather than as a hidden planet like Rāhu with a specific astronomical function.[42] It was therefore only later that Ketu's function as a planet was known in China.

To summarize: before the late fifth century translation of the *Mātaṅga-sūtra* – it was *not* translated in 230 as is traditionally held to be the case (see 2.6 above) – there are no apparent Hellenistic influences within Indian literature translated into Chinese, but from the late fifth century, elements such as the twelve zodiac houses, the Metonic cycle, and the modern planet ordering appear in Chinese. This reflects the absorption and popularity of Hellenistic astrology/astronomy in India during the fifth century. Although these datable texts in China provide valuable information concerning developments in India and Central Asia, it does not seem that they had much immediate impact in China. Prior to the eighth century, there appears to have been little interest or need for the *nakṣatra* calendar in China. Buddhist hemerology based on the lunar cycle of waxing and waning (the *pakṣa* cycle) was, however, integrated into Chinese Buddhist practice due to its importance in scheduling the *poṣadha* rites, and later the regular recitation of the bodhisattva precepts.

3.3. Early Buddhist Hemerology in China

Early Buddhist hemerology, i.e., that preceding Hellenistic influences, was introduced through various sūtra and vinaya works in this period. A relevant sūtra produced in China during the period in question is the *Four Deva Kings Sūtra* 佛說四天王經 (**Catur-devarāja-sūtra*; T 590), purportedly translated by Zhiyan 智嚴 (350–427) and Baoyun 寶雲 (376–449).[43] Like the *Abhidharma-mahāvibhāṣā* cited above, it states that various gods descend into the world on specific days of the waxing and waning periods of the lunar cycle.

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[41] Mak also points this out and suggests that it places "some doubt as to the source of the material." Mak, "Indian Jyotiṣa Through the Lens of Chinese Buddhist Canon," 11.

[42] There is a precedent for this in Indian archaeology. As Pingree notes, the oldest representations of the planets as sculptures from India date from the late Gupta period. He notes that these sculptures were usually placed above doorways. The earliest extant specimen, which is probably from Mathurā, shows eight figures with Ketu omitted." David Pingree, "Indian Planetary Images and the Tradition of Astral Magic," *Journal of the Warburg and Courtauld Institutes* 52 (1989): 6.

[43] Sørensen concludes that the "*Si tianwang jing* as it appears in T 590 is obviously not a translation into Chinese of a classican Indian sūtra, but it is not a completely apocryphal scripture either, at least not if we thereby mean a complete fabrication." He suggests that the text "was composed in China, and most likely during the first half of the fifth century." See Henrik H. Sørensen, "Divine Scrutiny of Human Morals in an Early Chinese Buddhist *Sūtra*:A Study of the *Si tianwang jing* (T.590)," *Studies in Central Asian and East Asian Religions* 8 (1995): 78–79.

諸天齋日伺人善惡。須彌山上即第二忉利天，天帝名因，福德巍巍。典主四天，四天神王即因四鎮王也，各理一方。常以月八日遣使者下，案行天下，伺察帝王，臣民，龍鬼，蜎蜚，蚑行，蠕動之類，心念，口言，身行善惡。十四日遣太子下，十五日四天王自下，二十三日使者復下，二十九日太子復下，三十日四王復自下。

The devas on the fasting days examine the good deeds and misdeeds of people. Atop Mount Sumeru there is the second [desire realm heaven] of Trāyastriṃśa where there is the celestial sovereign named Indra, whose virtues are lofty. The chief four devas, the four deva kings, are Indra's four guardian kings, each presiding over one direction. On the eighth day of the month, envoys are always dispatched. They descend on an inspection tour of the whole world. They investigate the sovereigns, kings, officials, citizens, nāgas, spirits, fliers, crawlers and wrigglers; the good deeds and misdeeds in the thoughts of their minds, the speech of their mouths, and the actions of their bodies. On the fourteenth day, they dispatch down the princes. On the fifteenth day, the four kings themselves descend. On the twenty-third day, the envoys again descend. On the twenty-ninth day, the princes again descend. On the thirtieth day, the four kings again descend.[44]

The sangha holds the *poṣadha* ritual according to this same cycle. On three days per *pakṣa*, the monks are to confess their transgressions, recite the *prātimokṣa* and administer precepts to laypeople. The specific days on which this is to occur, however, vary according to the text.[45] Early on in Chinese Buddhism, perhaps from around the fifth century, there was a preference to carry it out every half-month (i.e., twice a month on the new and full moons). The *Brahmā Net Sūtra* states that 'newly training bodhisattvas' 新學菩薩 should recite the ten major and forty-eight minor bodhisattva precepts every half-month.[46]

The *pakṣa* schedule was a major component of Indian calendars that came to be integrated into Chinese Buddhist practice. This would have been easy to implement, given that the Chinese month counts thirty days while closely observing the lunar cycle. It was relatively simple to accommodate the Indian system of *pakṣa*–s and *tithi*–s. The *nakṣatra* calendar, however, does not appear to have been implemented in Chinese Buddhism in these early centuries.

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[44] T 590, 15: 118b2-9.

[45] The *Madhyamāgama* 中阿含 (T 26) and *Ekottarikāgama* 增一阿含 (T 125) schedule the *poṣadha* rite on lunar days 8, 14, 15, 23, 29 and 30. The *Dharmaguptaka-vinaya* 四分律 (T 1428) schedules it on lunar days 1, 14 and 15. The **Mahāprajñāpāramitōpadeśa* 大智度論 (T 1509) schedules it on lunar days 1, 8, 14, 16, 23 and 29. The custom clearly is to carry out the *poṣadha* rite three times per *pakṣa*. For further details, see *Foguang dacidian* 佛光大辭典, 1910–1911 (digital edn.).

[46] 若布薩日新學菩薩，半月半月布薩誦十重四十八輕戒. T 1484, 24: 1008a20-21.

3.4. Brahmanical Astrological Literature in Chinese Translation

Other materials related to Indian astrology were translated into Chinese before the end of the Sui dynasty (581–618). There are three "Brahmin astronomical" works listed in the catalog of texts in the *Sui shu* 隋書 (the history of the Sui, compiled in the early Tang between 636–656) which are no longer extant:[47]

> 1. 婆羅門天文經，二十一卷，婆羅門捨仙人所說。
> *Poluomen tianwen jing* [*Book on Brahmin Astronomy*], 21 fascicles, taught by Brahmin Sage **She*.

The *Lidai sanbao ji* 歷代三寶紀 (T 2034; *Account of the Triple Gem in Past Generations*), compiled by Fei Changfang 費長房 (d.u.) in 598, lists a work entitled *Poluomen tianwen* 婆羅門天文 (*Brahmin Astronomy*) in 20 fascicles, which is likely the same work. A comment notes that it was produced in the Tianhe 天和 reign era (566–572) under Wu Di 武帝 (r. 560–578) by a *śramaṇa* from Magadha named Dharmaruci 達摩流支 or Damoliuzhi 達摩留支 (d.u.).[48] His translation in 20 fascicles is also rendered as *Fan tianwen* 梵天文 (*Brahmin Astronomy*).[49]

While the content of the work is unknown, we know that it was not a Buddhist work because of a comment in the sūtra catalog *Kaiyuan shijiao lu* from 730. It repeats Fei Changfang's account and states, "Now it is not preserved [in this catalog] because it is not a teaching of the Tripiṭaka."[50] This is an interesting case of a foreign Buddhist monk in China translating a non-Buddhist manual on astronomy or astrology, although it was not the last, as Amoghavajra's work incorporated non-Buddhist astrological materials, which will be discussed later.

> 2. 婆羅門竭伽仙人天文說，三十卷。
> *Poluomen Jiejia xianren tianwen shuo* [*Astronomical Teachings of Brahmin Sage *Garga*], 30 fascicles.

Here *Jiejia* 竭伽 is likely a transliteration of Garga or Gārgya, in which case this work, in light of its length, might have been the *Gārgīya-jyotiṣa* (**Garga-saṃhitā*) or a work

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[47] Kawai Kōzō 川合康三 and Kōzen Hiroshi 興膳宏, *Zui sho keisekishi shōkō* 隋書經籍志詳攷 (Tōkyō: Kyuko Shoin, 1995), 603–604.

[48] T 2034, 49: 100b9-11. Elsewhere it is specified as specifically year 4 of Tianhe (569). See T 2154, 55: 544c28.

[49] T 2034, 49: 95a24.

[50] 今以非三藏教故不存之．T 2154, 55: 544c29.

attributed to the sage (*vṛddha*?) Garga.[51] The title only indicates that its content was related to Indian astrology or astronomy, otherwise nothing else is known. If this was, in fact, the *Gārgīya-jyotiṣa*, then it also would have explained cosmic cycles of time including the *kaliyuga*.

3. 婆羅門天文，一卷。
Poluomen tian wen [*Brahmin Astronomy*], 1 fascicle.

There are no further details available on this short work.

There is no immediate indication that these works were widely studied in the Sui-Tang period, though as Kawai and Kōzen point out, they also appear in the *Tong zhi* 通志 compiled in 1161 by Zheng Qiao 鄭樵 (1104–1162), which indicates that they were preserved, most likely in the imperial library, until at least the Song period.[52] I will argue below that these works might have been consulted by Amoghavajra when he compiled his manual on astrology.

Fei Changfang also states that there was a state sponsored project during the Sui dynasty to translate 'Brahmanical classics' (梵古書) and astronomical works (乾文), which commenced in year 5 of Kaihuang 開皇 (585) before the project's conclusion in year 12 (592). It finally amounted to altogether more than two-hundred fascicles. This team was comprised of monks and laymen, though the project seems to have been initiated by the state, and not the Buddhist sangha.[53] The titles are not listed, but it is possible that the final two works listed above might have been produced under this project.

Zhisheng's expressly stated exclusion of the Brahmanical work on astrology from his catalog in 730 is significant because it highlights the unwillingness of Buddhists at this stage to accept foreign astrology to any significant extent. Foreign astrology of the non-Buddhist type was clearly understood as heterodox**.**

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[51] The presently extant *Yuga-purāṇa* comprises two chapters within this work on *jyotiṣa* attributed to Garga. It was written sometime before 25 CE. Although the names Garga and Vṛddha-Garga appear in the text, it appears that historically there were two figures. Mitchiner states, "Varāhamihira states in several contexts in the *Bṛhat-saṃhitā* that he is expounding the teachings of either Garga or Vṛddha-Garga: the passages in which he cites Garga do appear in the present work, whereas the teachings which he takes from Vṛddha-Garga do not appear therein. ... Similarly, the commentator Utpala quotes a large number of lines from both Garga and Vṛddha-Garga: those quoted from Garga do appear in the present work, while those quoted from Vṛddha-Garga do not appear therein. It would seem, therefore, that the present work is, correctly-speaking, the work of Garga rather than of Vṛddha-Garga." There are furthermore several *jyotiṣa*-related manuscripts in India bearing titles such as *Garga-saṃhitā*, *Gārgya-saṃhitā*, *Vṛddha-Gārgya-saṃhitā*, *Vṛddha-Gārgī-saṃhitā* and *Uttara-Gārgya-saṃhitā*. See John E. Mitchiner, *The Yuga Purāṇa* (Calcutta: The Asiatic Society, 1986), 3–13.

[52] Kawai and Kōzen, *Zui sho keisekishi shōkō*, 603–604.

[53] T 2034, 49: 104b14-18.

3.5. Conclusion

There were several manuals on Indian astrology translated into Chinese between the fourth to the seventh centuries. These introduced the *nakṣatra* calendar and astrological lore into China, but their impact in these centuries was negligible. Although these texts provide datable examples of Indian astrology, while displaying noteworthy innovations, such as the Hellenistic seven-day week and the first mention of the zodiac signs in Chinese, their systems of astrology were not implemented during these centuries in China, since there was no pressing need to practice foreign astrology. It was also impractical, given that the *nakṣatra* dimensions stated in the extant texts from this period are imprecise, and could not have been effectively incorporated within the framework of Chinese astronomy.

The first introduction of Indian astrology into China, a critical starting point for the chronology which this study establishes, was not the traditionally held date of 230 CE when the first version of the *Śārdūlakarṇāvadāna* was purportedly translated as the *Mātaṅga-sūtra*. The first authentic and verifiable introduction of Indian astrology was actually via the translation of the *Śārdūlakarṇāvadāna* into Chinese, which was carried out by Dharmarakṣa between 307–313.

The *Mahāsaṃnipāta* collection includes three separate texts which provide details on astrology: the *Ratnaketu-parivarta* translated by Dharmakṣema (385–433), followed by the *Candragarbha-parivarta* (566) and *Sūryagarbha-parivarta* (585) translated by Narendrayaśas. The latter two are noted for being the first texts to introduce the twelve zodiac signs into Chinese, but equally important are the statements relating that gods or even the Buddha himself are effectively architects of the cosmos. This stands in contrast to more mechanistic cosmological models, such as that of the *Lokasthānābhidharma-śāstra*. The *Mahāsaṃnipāta* further reveals an increasing Buddhist interest in cosmological speculation, and attributing increasingly powerful abilities to the Buddha. Although the *Sūryagarbha-parivarta* in Chinese translation erroneously explains a component of the Indian calendar, it still stresses the importance of calendrical knowledge for liberation. Astrology was increasingly integrated into Buddhist models of practice and cosmology, a feature which became especially prominent in Mantrayāna, a topic which will be discussed in the following chapter.

What was more significant to the long-term development of Chinese Buddhism from these centuries was the introduction of Buddhist hemerology, specifically the schedule for the *poṣadha* ritual based on the *pakṣa* cycle (waxing and waning periods), which formed a key part of the vinaya tradition and later the observance of Chinese bodhisattva precepts.

There were at least three manuals on Brahmanical astrology or astronomy translated before the end of the Sui dynasty in 618. There had also been a project to translate Indian classics, staffed by monks and laymen between the years (585–592),

which included works on astronomy/astrology. Despite such translations, the Chinese sangha had no need for such works until the mid-Tang, to which our attention now turns.

Chapter 4
Buddhist Astrology in the Mid-Tang: the Eighth Century

4.1. The Historical Yixing: Buddhist Monk and Astronomer

In the year 719, the country of Kapiśā 罽賓國 (located in modern Afghanistan)[1] sent an envoy to the Tang court, and offered as tribute an astronomical text, secret medicinal prescriptions, and foreign medicines.[2] This text, the *Tianwen jing* 天文經 (*Scripture of Astronomy*), would become one of several texts related to astrology brought to China and translated throughout the eighth and ninth centuries.[3] Starting from this work, the eighth century saw many developments with respect to astrology in China, especially within the Buddhist community.

One of the best known, albeit perhaps most misunderstood figure, in the history of Tang Buddhist astrology is the monk Yixing 一行 (683–727), who was a court astronomer, in addition to having participated in the translation of the *Mahāvairocana-sūtra*.[4] Discerning his role in the development of Buddhist astrology in China is a complex task, because in addition to the historical Yixing, who developed a new state calendar and reformed the state system of astrology, there existed a legendary image of Yixing (a pseudo-Yixing) that developed in the late-Tang. As will be explored below, a number of works on astral magic from the ninth century were attributed to him, which

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[1] Jibin 罽賓 referred to different places before the Tang. During the Tang, it was identified as Kapiśā 迦畢試. See *Zhenyuan xinding shijiao mulu* 貞元新定釋教目錄: "On the border of northern India are the people of Kapiśā (Jibin is an accented abbreviation) 北天竺境迦畢試國人也(言罽賓者訛略)." T 2157, 55: 891c10. For further details, see Enomoto Fumio, "A Note on Kashmir as Referred to in Chinese Literature: Ji-bin," in *A Study on the Nīlamata: Aspects of Hinduism in Ancient Kashmir*, ed. Ikari Yasuke (Kyōto: Institute for Research in Humanities, 1994), 357–365.

[2] See *Jiu Tang shu*, fasc., 198: 開元七年，遣使來朝，進天文經一夾、秘要方並蕃藥等物. Zhonghua Shuju edn., vol. 16, 5309.

[3] Although this text is not extant, the *Yuhai* 玉海 (*Jade Sea*), a catalog of texts by Wang Yinglin 王應麟 (1223–1296), notes that the text was cited in the *Qianxiang xinshu* 乾象新書, a divination manual. 開元七年罽賓遣使獻天文經 (乾象新書嘗引之). See *Yingyin guji Qinding siku quanshu* 影印古籍欽定四庫全書, Zibu 子部 11, fasc. 3, p. 15. This indicates that the text was translated into Chinese after 719. The *Qianxiang xinshu* by Yang Weide 楊惟德 (active 1034–1038) is preserved as twelve fasicles (of an original thirty) in vol. 1050 of the *Xuxiu siku quanshu* 續修四庫全書, *zi-bu* 子部, *shushulei* 術數類, 1–196. I have not identified any citations therein of the *Tianwen jing*.

[4] For modern studies on Yixing see the following: Osabe Kazuo 長部和雄, *Ichigyō Zenji no kenkyū* 一行禪師の研究 (Kōbe: Kōbe Shōka Daigaku Keizai Kenkyūsho, 1963). Jinhua Chen, "The Birth of a Polymath: The Genealogical Background of the Tang Monk-Scientist Yixing (673-727)," *Tang Studies* 18-19 (2000-2001): 1–39. For analysis of Yixing's mathematical astronomy see Ohashi Yukio, "Astronomy and Mathematics of Yixing," in *Mapping the Oriental Sky: Proceedings of the Seventh International Conference on Oriental Astronomy*, eds. Nakamura Tsukō et al (Tōkyō: National Astronomical Observatory of Japan, 2011), 171–178.

has led to significant misunderstandings in modern scholarship regarding the historical man and his career. Here we will focus on the historical Yixing, reconstructing his life and discussing his achievements in order to separate fact from fiction.

The earliest source material concerning Yixing's life comes from a copy of his memorial stele erected by Emperor Xuanzong, preserved in the *Shingon fuhō den* 真言付法傳 (*Account of the Transmission of Mantra*) by Kūkai 空海 (774–835).[5] Here he is remembered as an erudite Buddhist monk, whereas the *Jiu Tang shu* lists him under the esoteric arts (方伎) section, and celebrates his accomplishments in astronomy. Information on Yixing's career is found in the latter in the section on astronomy (fasc. 35, 36) and his biography (fasc. 191). The *Xin Tang shu* includes additional materials concerning his calendar (fasc. 27–28). The *Naishō buppō sōshō kechimyaku fu* 内證佛法相承血脈譜 (*Transmitted Lineage Account of the Inner-realized Buddhadharma*) of 819, and the *Taizō engi* 胎藏緣起 (*Genesis of the Garbhadhātu*), both by Saichō 最澄 (767–822), also provide accounts of his life, with the latter being more detailed.[6]

It is from these sources that we know that Yixing was born as Zhang Sui 張遂 in Changle 昌樂 in Weizhou 魏州 (modern Nanle 南樂 in Hebei), though some sources indicate that his place of birth was the nearby Julu 鉅鹿 (modern Pingxiang 平鄉 in Hebei). Yixing was great-grandson of Zhang Gongjin 張公謹 (584–632), an influential figure during the early turbulent years of the Tang dynasty.[7] The *Jiu Tang shu* states that he was exceptionally intelligent in his youth, reading the classics with a particular interest in astronomy, calendrical science and traditional Chinese metaphysics.[8] The *Taizō engi* records that at the age of twenty-one, both his parents died, and he thus felt compelled to reject the mundane life. He met the monk Hongjing 弘景 (634–712)[9] in Jingzhou 荊州, who provided instruction and inspired Yixing to ordain as a monk. He also studied under a certain Facheng 法誠 (d.u.) of Huagan-si 化感寺. In 707 (year 1 of Jinglong 景龍), Yixing arrived in the eastern capital of Luoyang where he was fully ordained. He is said to have borrowed a copy of the *prātimokṣa* (precepts manual), and been able to recite it from memory after one reading. He was also said to have been quite diligent in his practice of the vinaya.

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[5] In *Kōbōdaishi zenshū* 弘法大師全集, vol. 1 (Yoshikawa Kōbunkan 吉川弘文館, 1911), 63–65. Alternate title of *Ryaku fuhō den* 略付法傳 (*Brief Account of the Transmission*).

[6] In *Dengyōdaishi zenshū* 傳教大師全集 (Hieizan Senshūin Fuzoku Ezan Gakuin 比叡山專修院附屬叡山學院, 1926). See vol. 1, 238–242, and vol. 4, 387–393.

[7] Chen Jinhua's investigation of his genealogy indicates that Yixing hailed from a prestigious clan with early connections to Dunhuang. Chen suggests that Yixing's family was also a possible factor in his later recruitment by the Emperor Xuanzong who desired to strengthen his position by recruiting descendants of old Tang loyalists after the restoration of the Tang regime following the Zhou interregnum (690–705) of Wu Zetian 武則天. See Chen, "The Birth of a Polymath," 37–38.

[8] *Jiu Tang shu*, Zhonghua Shuju edn., vol. 16, 5112.

[9] His name is also rendered as Hengjing 恆景.

The *Jiu Tang shu* relates that Wu Sansi 武三思 (d. 707), a relative of the empress Wu Zetian 武則天 (624–705), and a powerful minister, admired Yixing's work and requested a meeting, but Yixing 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.[10] The *Taizō engi* states that Yixing constantly cultivated 'single-practice *samādhi*' (*yixing sanmei* 一行三昧, Skt. **ekavyūha-samādhi*), which is the origin of his monastic name. 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. 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, where he studied the 'Indian Vinaya' 梵律 under Wuzhen 悟真 (673–751), otherwise called Huizhen 惠真. It seems that it was around this time that he intensively studied vinaya works, 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.[12] Yixing's interest in the vinaya is also demonstrated by a work on the topic he wrote entitled *Shishixi lu* 釋氏系錄 (*Account of the Śākya Lineage*) in one fascicle. Although not extant, a text catalog by Yuanzhao 圓照 (fl. eighth cent.) states that it covers four items, including 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), along with an appended article on procedures for the midday meal (中齋法).[13]

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.) –

[10] 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. T 2076, 51: 224c12.

[11] Chen, "The Birth of a Polymath," 26–30. See *Quan Tang wen* 全唐文, Zhonghua Shuju edn., vol. 10, 9525–9526.

[12] The *Jiu Tang shu* lists this work as *She tiaofu zang* 攝調伏藏. *Jiu Tang shu*, Zhonghua Shuju edn., vol. 16, 5112.

[13] T 2156, 55: 765a7-10.

the paternal younger male cousin of Yixing's father[14] – 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 early introduction of Mantrayāna into China.

In the last decade of his life, Yixing received instruction from the Indian masters Śubhakarasiṃha and Vajrabodhi 金剛智 (671–741). Yixing collaborated with the former to translate the *Mahāvairocana-sūtra*.[15] The Sanskrit source text that they translated was the one carried from India by a certain Chinese monk named Wuxing who had travelled to India, and while returning to China died in northern India. The texts he carried were forwarded to China.[16] The *Kaiyuan shijiao lu* explains that Yixing and Śubhakarasiṃha 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 Śubhakarasiṃha, while Yixing acted as scribe and editor.[17] In light of this, Yixing was not strictly a translator. Yixing 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 commentary traditionally attributed to Amoghavajra,[18] states that Yixing sought the Vajraśekhara *abhiṣeka* from Vajrabodhi after the latter arrived in Chang'an in 719. Yixing further assisted Vajrabodhi's translation work, but

[14] Chen, "The Birth of a Polymath," 12.

[15] For a survey of this text see Kano Kazuo, "Vairocanābhisaṃbodhi," in *Brill's Encyclopedia of Buddhism*, vol. I, ed. Jonathan A. Silk (Leiden: Brill, 2015), 382–389. For a summary of all primary and secondary sources related to this text see 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.

[16] 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 (p. 88).

[17] T 2154, 55: 572a15-23. For details on how Buddhist works were translated into Chinese, see 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), 53–86.

[18] For a discussion of this text see 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.

again here he is described as a scribe, and not a translator.[19] There are no credible accounts indicating that Yixing was proficient in Sanskrit.

Yixing also flourished as a court astronomer, being the only example in the history of Chinese Buddhism of a monk fulfilling such a role. His knowledge of the vinaya did not seem to hinder his professional interest in astronomy.

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.[20] Yixing, who clearly had extensively studied astronomy beforehand, 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, but the problem 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 worked together with the military engineer Liang Lingzan 梁令瓚 (d.u.) to build a mechanical water-powered armillary sphere.[21] Its construction was completed in 725. Although it eventually rusted and ceased to operate, the 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 (*Comprehensive Chronicle*), compiled in 801 by Du You 杜佑 (735–812), gives an account of Yixing and Nangong Yue 南宮說 (d.u.) analyzing astronomical observations from various locations around the year 724.[22] 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.[23] The *Xin Tang shu* states that although other calendars were later adopted by the state, they all emulated the *Dayan li.* This calendar was Yixing's most significant work on astronomy.[24] It furthermore states that he was the first to specifically employ number theory derived from the *Yijing*.[25] Text

[19] T 1798, 39: 808b25-27.

[20] *Jiu Tang shu*, Zhonghua Shuju edn., vol. 4, 1293.

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

[22] Du You 杜佑, *Tongdian* 通典 (Taipei: Taiwan Shangwu Yinshuguan, 1987), 156c.

[23] Ohashi, "Astronomy and Mathematics of Yixing," 172.

[24] *Xin Tang shu*, Zhonghua Shuju edn., vol. 2, 587.

[25] *Xin Tang shu*, Zhonghua Shuju edn., vol. 2, 533. For extensive details see fasc. 27 of the *Xin Tang shu*.

catalogs also indicate that Yixing wrote extensively on the *Yijing*. Osabe identifies seven presently non-extant texts by or attributed to Yixing.[26]

The *Xin Tang shu* reports that Yixing died in 727 while his calendar was in draft form. The court ordered Zhang Yue and Chen Xuanjing 陳玄景 (d.u.) to edit it.[27] The *Dayan li* came into official use from 729 until 762.[28]

Yixing's work was later criticized by the court astronomer Gautama Zhuan 瞿曇譔 (712–776), a figure to be discussed below. In 733, he and Chen Xuanjing reported to the court that the *Dayan li* had plagiarized the **Navagraha-karaṇa* (*Jiuzhi li* 九執曆), a work on Indian mathematical astronomy translated in 718 by his father Gautama Siddhārtha 瞿曇悉達 (fl. 718).[29] An investigation, however, concluded that these allegations were false, though modern scholarship suggests that Yixing, in fact, had probably studied some foreign science.[30]

In addition to his work on the state calendar, Yixing also reformed the native Chinese system of "field allocation" astrology (*fenye* 分野). As the territory of China had expanded since ancient times, it became necessary to account for these new lands, and Yixing had a role in updating the system.[31] As we will recall (2.4 above), this system of astrology is entirely separate from foreign systems of astrology. It can therefore be said that Yixing was proficient in native Chinese astrology, but *not* foreign astrology.

There are several significant points to take away from Yixing's reconstructed life story above. First, Yixing was an eminent Buddhist monk with specialization in the vinaya, Chan and Mantrayāna, in addition to his other skills related to the *Yijing*, calendrical science and astronomy. Although he reformed the state system of native Chinese astrology, this does not necessarily mean he was proficient in Indian astrology, though the *Mahāvairocana-sūtra* commentary discussed above indicates that he might have had passing familiarity with it, which will be discussed further shortly.

These are important points to bear in mind because in the 720s, Buddhist astrology in China was only starting to be seriously studied and observed under the guidance of resident Indian monks. This helps to explain why it was Yixing's junior,

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[26] Osabe, *Ichigyō Zenji no kenkyū*, 124. 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 yijue* 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*). 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.

[27] *Xin Tang shu*, Zhonghua Shuju edn., vol. 2, 587.

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

[29] *Xin Tang shu*, Zhonghua Shuju edn., vol. 2, 587. See 4.6 below for further discussion.

[30] Tansen Sen, "Gautama Zhuan: An Indian Astronomer at the Tang Court," *China Report* 31, no. 2 (1995): 278–279.

[31] Pankenier, *Astrology and Cosmology in Early China*, 278–279.

Amoghavajra, who became the primary architect of Buddhist astrology in the mid-Tang. The significance of these points will become apparent as we discuss how Tang Buddhist astrology developed from this point on.

4.2. Tantric Hemerology

Tantric hemerology is different from the system employed in the vinaya as discussed earlier, although it still takes into consideration the *pakṣa* cycle. The practice of Mantrayāna often specifically requires *abhiṣeka* (an initiation or consecration) from a lineage holder, and the drawing of a *maṇḍala*, an iconic representation of the deities of the associated text, or the ritual altar or space within which the relevant rituals are carried out.

The creation of the *maṇḍala* has to be timed so as to take place when it is deemed astrologically auspicious. This is expressly stated in the *Mahāvairocana-sūtra*. In the second chapter of the text the following prescription is given.

> 遇良日晨，定日時分宿直諸執皆悉相應，於食前時值吉祥相者。
> … on the morning of a propitious day, having determined a day on which the time, lunar mansion [*nakṣatra*], and planets are all in harmony, and at a time before the [morning] meal, with an auspicious sign …[32]

The text does not specifically define a propitious day, and the definition of such a day according to the Indian system would not have been readily understood by Chinese readers. There were many such unclear parts of the text, and this was likely one reason that Yixing compiled a commentary on the text with Śubhakarasiṃha – the *Dari jing shu* 大日經疏 (T 1796; *Commentary on the Mahāvairocana-sūtra*) – which was completed sometime before Yixing's death in 727.

Here we should note that Osabe doubted whether Yixing really compiled this commentary, on the basis that it is not mentioned in Tang period catalogs and biographies, among other issues such as its complex history of recensions in China and Japan.[33] There is furthermore a revised version of the commentary, the *Dari jing yishi* 大日經義釋 (X 23; *Exegesis of the Mahāvairocana-sūtra*), which in Japan has traditionally been attributed to Zhiyan 智儼 (d.u.) and Wengu 溫古 (fl. 723), but this attribution has also been called into question by Shimizu Akisumi due to problematic statements in the preface (Wengu in the preface states he could not examine the original Sanskrit, yet the revised commentary actually consults the Sanskrit), and other concerns such as early

[32] See the following English translation of the sūtra: *Vairocanābhisaṃbodhi Sūtra*, trans. Rolf W. Giebel (Berkeley: Numata Center for Buddhist Translation and Research, 2005), 19. T 848, 18: 4c4–5.

[33] Osabe Kazuo 長部和雄, "Dainichikyō no sensha to gishaku no zaijisha ni kansuru gimon" 大日經疏の撰者と義釋の再治者に關する疑問, *Mikkyō bunka* 密教文化 27 (1954): 40–47.

references to the preface constituting a separate text.[34] The traditionally attributed authorship of the original commentary is, despite these critiques and doubts, not universally contested. Kameyama Takahiko has discussed how the text is comprised of Śubhakarasiṃha's oral explanations and Yixing's inserted comments.[35] Mano Shinya's study points out two extant prefaces and one Tang-era work mentioning Yixing writing an exegesis to accompany the sūtra.[36] The biography of Yixing in the *Taizō engi* also states that Yixing wrote a commentary on the sūtra.[37]

So far as the section of the commentary on astrology is concerned, it represents a phase of development that clearly precedes later developments associated with Amoghavajra. For instance, it refers to the zodiac signs as *fang* 房 ('chambers'), rather than the later term *gong* 宮 ('palaces'). The latter became the standard term at a later date. Ketu 計都 is translated as 'banner' 旗, which is understood as meaning 'comet' 彗星.[38] This feature reflects an earlier Indian definition that stands in contrast to its later function as a 'planet' (see 5.3 below). There is nothing anachronistic or problematic that would lead one to conclude that this section of the text is not, as is traditionally believed, the words of Śubhakarasiṃha written down and slightly elaborated by Yixing.[39]

Returning to the content of the commentary, the following remarks concerning the definition of a propitious day are provided in the commentary. These remarks are highly significant as they reflect, with some supplementary remarks by Yixing, Śubhakarasiṃha's understanding of how to ascertain an auspicious day, and therefore likely represent the system employed in the early Nālanda tradition. They moreover constitute the first outline of Tantric hemerology in Chinese Buddhism. They are thus reproduced in full. We furthermore see the first attempt in China to address the technical challenges posed by employing an Indian calendar.

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[34] Shimizu Akisumi 清水明澄, "Tōdo ni okeru Dainichikyō chūshakusho no seiritsu katei: Onkojo wo chūshin toshite" 唐土における『大日經』注釋書の成立過程:『温古序』を中心として, *Mikkyō bunka* 密教文化 221 (2008): 49–72.

[35] Kameyama Takahiko 龜山隆彦, "Dainichikyō sho ni okeru senryakushaku shinpishaku ni tsuite" 『大日經疏』における淺略釋・深秘釋について, *Indogaku Bukkyōgaku Kenkyū* 印度學佛教學研究 56, no. 1 (2007): 169–172.

[36] Mano Shinya 真野新也, "Kan'yaku *Dainichikyō* no chūshakusho seiritsu ni kansuru ichi, noi no mondai" 漢譯『大日經』の註釋書成立に關する一、二の問題, *Indogaku bukkyōgaku kenkyū* 印度學佛教學研究 64, no. 1 (2015): 218–219.

[37] "He himself translated the Sanskrit into Chinese. It was altogether seven fascicles. It was circulated throughout the world. He simultaneously wrote an exegesis of it. 自譯梵文以爲漢典，凡七卷，見傳於世，兼爲疏義." *Dengyōdaishi zenshū* 傳教大師全集, vol. 4 (1926), 391.

[38] T 1796, 39: 618a8 & T 1796, 39: 618a15-16.

[39] Note also that in the *Gishaku mokuroku* 義釋目錄 (*Catalog of Commentaries*) by Enchin 圓珍 (814–891) there is the following item: *Fanwen Piluzhena chengfo jing chaoji* 梵本毗盧遮那成佛經抄記 (X 23, 438: 299b21), which appears to have been notes for the Sanskrit *Mahāvairocana-sūtra*. Zhisheng in 730, only a few years after Yixing's death in 727, reported that Baoyue 寶月 (*Ratnacandra) translated the text and Yixing acted as scribe and editor. See T 2154, 55: 572a22-23. This supports the traditional account that Śubhakarasiṃha's remarks were readily incorporated into the commentary.

因擇地事便明擇時支分也。凡所爲法事皆須與時義契合。今將擇治此地，故於吉日警發地神。餘法事例可知耳。
Selection of the period of time is explained when there is selection of the location. All Dharma rituals must be in accord with the temporal considerations. Now there is to be a selection and preparation of this location. Thus, on an auspicious day the earth deities are alerted. The other Dharma rituals can be understood based on the example.
良日晨者。謂作法當用白分月，就中一日三日五日七日十三日皆爲吉祥，堪作漫荼羅。又月八日十四日十五日最勝，至此日常念誦，亦應加功也。
...*the morning of a propitious day*: The ceremony should occur during the waxing period of the month (*śukla-pakṣa*), of which the first, third, fifth, seventh and thirteenth are all considered auspicious, and one may make the *maṇḍala*. Furthermore, the eighth, fourteenth and fifteenth are supreme. One these days constantly do recitations; furthermore, one should make extra efforts.
定日者。西方曆法通計小月，合當何日。若小月在白分內者，其月十五日即屬黑分，不堪用也。又曆法通計日月，平行度作平朔，皆合一小一大。緣日月於平行中又更有遲疾，或時過於平行或時不及平行，所以定朔或進退一日。定望或在十四日或在十六日。大抵月望正圓滿時，名爲白分十五日。月正半如弦時，亦爲八日。但以此准約之，即得定日也。
… *having determined a day* … : The Western calendar calculates lesser months [i.e., a *pakṣa* with less than fifteen days]. What are the corresponding days? If the lesser month is in the waxing period of the month, the fifteenth of that month will end up belonging to the waning period (*kṛṣṇa-pakṣa*). It cannot be used.[40] Also, the calendar calculates the Sun and the Moon. The date of the averaged new Moon is based on its averaged degrees of movement. It will always incorporate a lesser [29] or greater [30] month. Sometimes [the date for the new Moon] will pass or be late with respect to the averaged movements of the Sun and Moon as their speeds will also differ. This is why a fixed new Moon[41] will sometimes be ahead or behind a day. A fixed full Moon will sometimes be on the fourteenth or on the sixteenth. For most months, the time when the Moon is completely full is designated as the fifteenth day of the waxing period. The time when the Moon is exactly half like a bow string will be the eighth. It may be arranged based on this, and then one can determine the day.

[40] If the waning commences on the fifteenth, then that day is part of an extended-sixteen day *kṛṣṇa-pakṣa*.

[41] A fixed new Moon here refers to the convention of establishing a fixed day of the month as the new Moon regardless of whether the Moon is observed to be waxing or waning. In practice this means that the nominal new Moon will sometimes be out of sync with the true new Moon by up to a day.

時分者。西方曆法晝夜各有三十時。一一時別有名號。如晝日即量影長短計之，某時作事則吉，某時則凶，某時中平。各各皆有像類。

… *the time*: In the Western calendar, day and night are altogether comprised of thirty units of time [*muhūrta*]. Each unit of time has its designation. If it is daytime, one may then measure the length of a shadow. At one time it is auspicious to do something. At one time it is inauspicious. At one time it is neutral. Each have their respective imageries.

言宿直者。謂二十七宿也。分周天作十二房，猶如此間十二次。每次有九足，周天凡一百八足，每宿均得四足，即是月行一日裎。經二十七日，即月行一周天也。依曆算之。月所在之宿，即是此宿直日。宿有上中下，性剛柔躁靜不同。所作法事亦宜相順也。

...*lunar mansion*: The 27 *nakṣatra*–s. The ecliptic[42] is divided into 12 chambers like the 12 Jupiter stations here [in China]. Each station has 9 quarters [*pāda*]. The ecliptic is altogether 108 quarters. Each *nakṣatra* gets 4 quarters, which constitutes the course of movement that the Moon travels in one day. The Moon has gone once around the ecliptic after transiting for 27 days. It is calculated according to the calendar. The *nakṣatra* in which the Moon is present will constitute a convergence with this *nakṣatra*.[43] The *nakṣatra*–s possess a hierarchy, and they differ by nature with respect to their strengths and weaknesses, as well as action and inaction. The ritual to be performed should also be in accord.

諸執者。執有九種，即是日月火水木金土七曜，及與羅睺計都合爲九執。羅睺是交會食神。計都正翻爲旗，旗星謂彗星也。除此二執之外，其餘七曜相次直日，其性類亦有善惡，如梵曆中說。

… *planets*: there are nine *graha*, which are the Sun, the Moon, Mars, Mercury, Jupiter, Venus and Saturn (the seven luminaries).[44] If combined with Rāhu and Ketu, they altogether comprise nine *graha*. Rāhu is the nodal eclipse deity. Ketu is directly translated as banner. The banner star is a comet.[45] Apart from these two planets, the other seven have their sequential convergences [i.e., the days of the week]; their qualities also differ in being either benefic or malefic, as it is explained in the Indian calendar.

食前時者。晝夜各有三時。食前可作息災，暮間可作增益，夜可作降伏事也。入漫荼羅灌頂與息災相應，故云食前。

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[42] The Chinese here could also refer to the celestial equator, but given the Indian context I am inclined to think that this is in reference to the ecliptic.

[43] The *nakṣatra* presiding over a day is determined by the *nakṣatra* in which the Moon is lodged.

[44] Note that this is the Hellenistic ordering.

[45] Note that in later literature Ketu is defined as the descending node of the Moon or lunar apogee (see 5.3 below). Ketu included in the *navagraha* as a comet stands in contrast to the earlier development in which there were eight planets (the seven visible planets plus Rāhu), as seen in the *Sūryagarbha-parivarta* (3.2 above).

… *a time before the* [morning] *meal*: The day and night are altogether comprised of three periods. There should be elimination of obstacles prior to eating. In the evening there should be increase of benefits. At night there should be acts related to subduing [enemies]. Entry into the *maṇḍala* and the consecration [*abhiṣeka*] correspond to the elimination of obstacles, which is why the text states "before eating".[46]

遇善境界意者。謂作法時，或地上或空中有色聲等種種異相。…

...*meeting with a good state*:[47] The time to do the rite, when on the earth or in the air there are various types of unusual signs comprised of form, sound and so on. …

所以須順世諦者，以勝義漫荼羅微妙寂滅。醇信白心人尚難信受、況懷疑慮乎。以所度之人，曾習韋陀祠典，伎藝明處。若見造漫荼羅時分舛謬，慮恐致不吉祥便生疑怪，言：「我聞總持智慧者無所不達，而今觀之，尚不能擇得好星善時，況餘深事乎。」由此疑師疑法，故失堅信力反招重罪，故須順彼情機也。復次如是執曜，即是漫荼羅中一種善知識門，彼諸本尊，即能順世間事業而作加持方便。以阿闍梨善擇吉祥時故，與彼真言本誓法爾相關，爲作加持，得離諸障也。復次種種世諦門，皆是法界摽幟。

As to why one must conform to conventional truths, it is because the *maṇḍala* of the ultimate meaning is subtle and quiescent. Those people with pure faith and clear minds still find it difficult to accept, to say nothing of those harboring doubts. The accomplished individual has studied the Vedic scriptures, and is skilled and discerning in the arts. If they see that the *maṇḍala* was created at an erroneous time, they will worry that it will result in something inauspicious, and subsequently this produces apprehension. They will say, "I have heard that there is nothing that those wise in *dhāraṇī* do not accomplish, but now I see this. They cannot even select an auspicious time with good stars. This is to say nothing of other profound matters!" As a result of this, they doubt the teacher and his teaching. They thus lose the power of firm conviction and instead bring about grave transgressions. This is why [conventions] must be in accord with the dispositions of the beings. Furthermore, such *graha* are a gateway to virtuous friends within the *maṇḍala*. Those worthies [of the *maṇḍala*] can create the means

[46] This definition might initially seem to differ from the conventional reckoning of the day in India, as defined in the **Mahāprajñāpāramitā-upadeśa*, in which a day is defined "from sunrise to sunrise: the first division, middle division and later division, with the night also being three divisions 日名從旦至旦，初分中分後分，夜亦三分 (T 1509, 25: 409b25-26)." Five *muhūrtas* comprise one *kāla*, hence a day and a night comprise six *kāla* (see definition by Xuanzang: T 2087, 51: 875c18-20). In light of this, we might read 晝夜各有三時 in the commentary as "day and night are each comprised of three periods", even though the following sentence mentions only three specific times. These three specific times appear to be specific times within the framework of the six *kālas* (i..e, the general times of morning, sunset and nighttime), rather than being a unique way of dividing the day and night together into three separate periods.

[47] The Chinese here differs from the original quote from the sūtra.

> for empowerment [*adhiṣṭhāna*] in accord with worldly activities. As the *ācārya* skilfully selects an auspicious time, it will naturally align with their [the deities'] mantras and root vows, producing empowerment, and freedom from obstacles. Furthermore, the various methods of conventional truth are all markers of the *dharma-dhātu*.[48]

Here we find Yixing discussing new and full Moons determined according to an average or fixed time. This is a topic upon which he touched in his calendrical discussions. The *Liben yi* 曆本議 ("Discussion on the Calendar") is a summary of Yixing's comments on old and new calendrical systems that was compiled following his death. We see therein the following remarks, which appear to echo the above statements in the commentary:

> 古者平朔，月朝見曰朒，夕見曰朓。今以日之所盈縮，月之所遲疾，損益之，或進退其日，以為定朔。
> With respect to the averaged new Moon of the ancients, the Moon appearing in the morning is called the "Moon rising at sunrise", while it appearing in the evening is called the "Moon rising at sunset". Now these are calculated according to the progression of the Sun and the velocity of the Moon. The day [of the new Moon] can be ahead or behind [the averaged new Moon]. This is considered a fixed new Moon.[49]

Moving on, the commentary provides the esoteric interpretations of these terms. For example, the Sun represents fundamental and pure *bodhicitta*, which is the body of Vairocana, while the Moon represents the actions related to *bodhi*. The commentary suggests that although astrological considerations are worldly, they are still important in order to conform to mundane conventions, and to gain blessings for worldly endeavors. In this respect, astrology is not only employed to determine auspicious times, since there is also the aim of gaining the blessings of the *navagraha* deities through astrological knowledge. This is an important development because the planets (*graha*) are conceived of as deities capable of facilitating worldly endeavors. Thus, a basis for astral magic is directly affirmed in this commentary.[50]

Although this schedule alone would suffice for determining the day of a ritual within the *pakṣa* cycle, the commentary here is alluding to several important elements in an astrological schedule that remain unexplained: the *muhūrta*–s, twenty-seven *nakṣatra*–

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[48] T 1796, 39: 617c18-b14.

[49] *Xin Tang shu*, Zhonghua Shuju edn., vol. 2, 591. These remarks incidentally lend additional evidence in support of the traditional attribution of the commentary to Yixing.

[50] Shingon and Tendai in Japan preserved the *maṇḍala* and associated practices (mantras and *mudrā*-s). The icons and mantras of the planets, while not of primary significance, are still nevertheless a form of astral magic as they are directed to the *navagraha* and *nakṣatra* deities. For details on all these deities see Somekawa Eisuke 染川英輔, *Mandara zuten* 曼荼羅圖典 (Tōkyō: Daihōrinkaku, 2013).

s, twelve zodiac signs, and the seven-day week. Śubhakarasiṃha and other Indians resident in Chang'an would have been able to provide more detailed instructions on the Indian calendar, and take into consideration the above unexplained elements in determining a suitable date and time of day for a ritual, but most Chinese monks would not have possessed such knowledge.

This issue furthermore points to a key difference between the Mantrayāna of Śubhakarasiṃha's time and Amoghavajra's time. In the 720s, the community was under the direct guidance of foreign monks, whereas in the 750s and 760s, Mantrayāna was becoming increasingly integrated within Chinese Buddhism and elite society.[51] The practical requirements to adequately practice Mantrayāna in the Chinese speaking world were only beginning to be addressed in the 720s, as is clear from the commentary.

One noteworthy development in the 720s is the appearance of a system of twenty-seven *nakṣatra*–s of equal dimensions. As will be recalled, earlier translations such as the *Śārdūlakarṇāvadāna* describe twenty-eight *nakṣatra*–s of unequal dimensions. The *nakṣatra* of Abhijit 牛宿 is dropped from this set of twenty-seven. These twenty-seven *nakṣatra*–s are defined in relation to the twelve zodiac signs (and we recall that the zodiac signs have always been of uniformly equal dimensions). The ecliptic is comprised of 108 *pāda*–s, with each zodiac sign comprised of 9 *pāda*–s, and each *nakṣatra* comprised of 4 *pāda*–s. This possibly helps to explain why 27 *nakṣatra*–s were preferred: 108/28 = 3.85, whereas 27 divides into integers (108/27 = 4). This model is the Indian theory of *navāṃsa*–s or ninths of a zodiac sign. This reform occurred after the introduction of Hellenistic astronomy into India, marking a significant departure from the earlier *nakṣatra* system as defined in texts such as the *Śārdūlakarṇāvadāna*. The commentary, however, does not provide any substantial details on the new system, and thus the Chinese reader would have been unable to determine the *nakṣatra* presiding over a specific day without additional information.

4.3. Early Astral Iconography

The commentary to the *Mahāvairocana-sūtra* refers to the *navagraha* deities as "a gateway to virtuous friends within the *maṇḍala*." Although not primary deities within Mantrayāna, they are nevertheless regarded as potentially beneficial. The earlier Buddhist literature surveyed above refers to astral deities, but Mantrayāna introduced into China the means by which one could interact with these deities and gain their blessings.

[51] As Geoffrey Goble points out, "The patronage that Amoghavajra received from members of the Tang imperial family, from high-ranking officials in the central government, and from elite military commanders may be read more broadly as the adoption of Esoteric Buddhism in these various sectors of the Tang government." Geoffrey Goble, "The Politics of Esoteric Buddhism: Amoghavajra and the Tang State," in *Esoteric Buddhism in Mediaeval Maritime Asia*, ed. Andrea Acri (Singapore: ISEAS – Yusof Ishak Institute, 2016), 133.

A component of this magic was the astrological iconography that accompanied the system of the *Mahāvairocana-sūtra*, specifically the visual representations of the twelve zodiac signs, and the *navagraha* and *nakṣatra* deities. These are some of the first known visual representations of the twelve zodiac signs in China. These figures became important elements in the East Asian Buddhist art record. Their introduction also marks the early practice of Buddhist astral magic and star worship by Chinese Buddhists. During the eighth century, these deities were depicted in the Indian fashion, in contrast to later developments in which Iranian representations dominate, a topic to which we will return in the following chapter. It is important to survey these icons in order to understand how they differ from the later icons.

Yixing's commentary on the *Mahāvairocana-sūtra* gives the following details regarding the positions of the astral deities in the *Garbhadhātu-maṇḍala 胎藏界曼荼羅.

> 日天眷屬布諸執曜。盎伽在西。輸伽在東。勃陀在南。勿落薩鉢底在北。沒儞沒遮在東南。羅睺在西南。劒婆在西北。計都在東北。
> Place the planets as the retainers of the solar deity: Aṅgāraka [Mars] in the west, Śukra [Venus] in the east, Budha [Mercury] in the south, Bṛhaspati [Jupiter] in the north, Śanaiścara[52] [Saturn] in the southeast, Rāhu in the southwest, Kampa[53] in the northwest, and Ketu in the northeast.[54]

The inclusion of Kampa, the deity of earthquakes, as one of the *graha*–s (planets) here is unique. It is unclear why it is designated as a *graha*, though we might speculate it was to fill in all eight directions.

> 西門之南，與日天相對應置月天，乘白鵝車。於其左右，置廿七宿，十二宮神等。
> South of the west gate, place the lunar deity opposite the solar deity. He rides in a chariot [pulled by] white geese. To his left and right are the deities of the twenty-seven *nakṣatra*–s and twelve zodiac palaces.[55]

Descriptions of the astral deities are not given in the text, but they are visually depicted in the *Taizō zuzō* 胎藏圖象, which includes drawings of the *maṇḍala* deities (table 4.1).[56]

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[52] Read *mei* 沒 as *she* 設.

[53] Earthquake deity. In Chinese also known as *zhendong shen* 震動神. See depiction below.

[54] T 1796, 39: 634b20-23.

[55] T 1796, 39: 634c12-13.

[56] Compare with the similar icons of the *Taizō kuzuzōyō* 胎藏舊圖像樣 (*Old Icons of the Garbhadhātu*). TZ vol. 2, 477–566. a collection of icons from the Garbhadhātu-maṇḍala brought to Japan by Enchin. The original document is lost, but a copy from 1193 in the Mutō 武藤 collection is reproduced in the TZ. These icons are thought to be those of the tradition of Vajrabodhi 金剛智 (671–741) and Amoghavajra 不空 (705–774).

These icons were reproduced in 1194 based on those brought to Japan from China by Enchin 圓珍 (814–891), who copied them in 855 in Chang'an at Qinglong-si 青龍寺, one of the main temples in the capital for the study of Mantrayāna. It is said that these icons were first drawn by Śubhakarasiṃha.[57] These icons do not display any of the Iranian influences that become prominent in the ninth century. One will note the similarity between these twelve zodiac signs and those of the modern West.

Table 4.1. Astral Deities of the Garbhadhātu-maṇḍala	
	Fig. 4.1. Aries – Meṣa.
	Fig. 4.2. Taurus – Vṛṣabha.

[57] For details see National Institutes for Cultural Heritage, Japan. The document is designated as an "Important Cultural Property". (http://www.emuseum.jp/detail/100034). See TZ, vol. 2, 277–279.

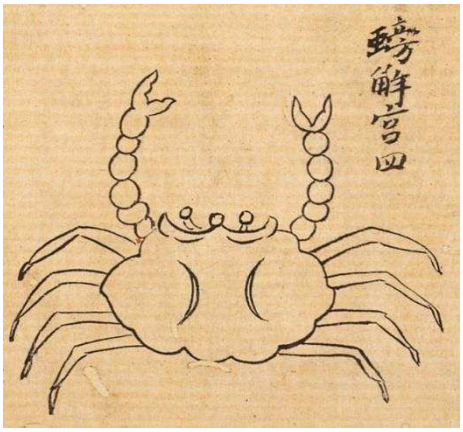
	Fig. 4.3. Gemini – Mithuna.
	Fig. 4.4. Cancer – Karkaṭa.
	Fig. 4.5. Leo - Siṃha.

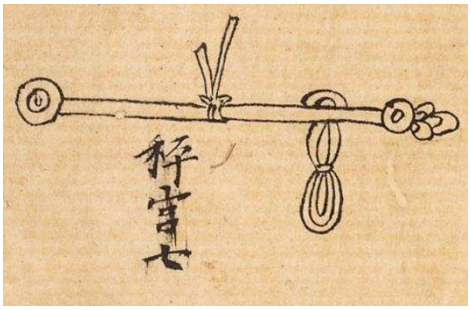
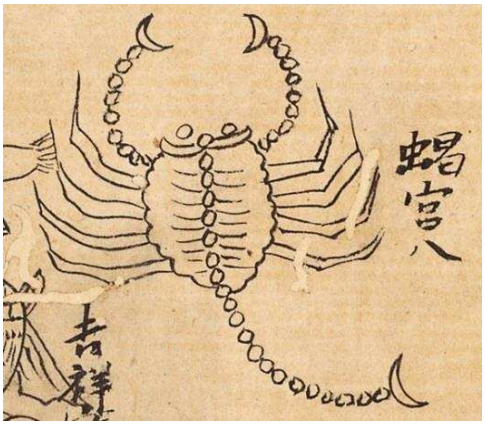
	Fig. 4.6. Virgo – Kanyā.
	Fig. 4.7. Libra – Tulā.
	Fig. 4.8. Scorpio – Vṛścika.

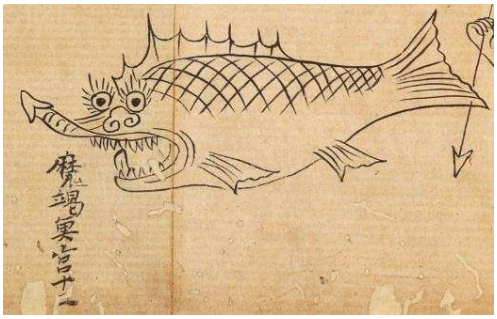
	Fig. 4.9. Sagittarius – Dhanus.
	Fig. 4.10. Capricorn – Makara.
	Fig. 4.11. Aquarius – Kumbha.

	Fig. 4.12. Pisces – Mīna.
	Fig. 4.13. Sun – Āditya.

	Fig. 4.14. Moon – Candra.
	Fig. 4.15. Mars - Aṅgāraka.

	Fig. 4.16. Venus – Śukra.
	Fig. 4.17. Mercury – Budha.

	Fig. 4.18. Jupiter - Bṛhaspati.
	Fig. 4.19. Saturn – Śanaiścara.

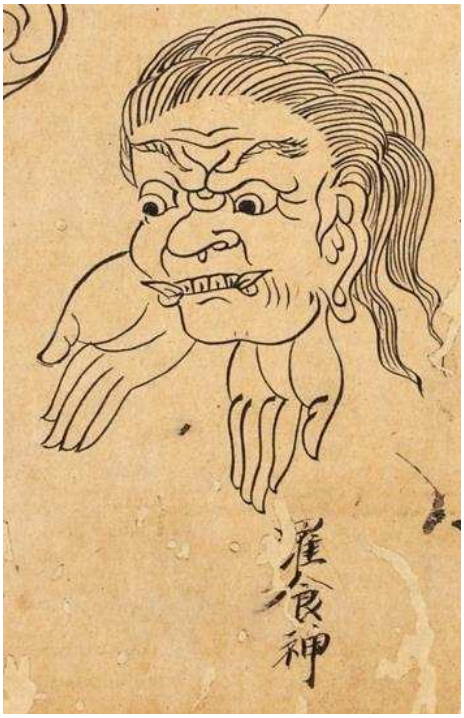


Fig. 4.20. Rāhu.

Fig. 4.21. Ketu (譟星神). Here *zao* 譟 is a scribal error for *jidu* 計都.[58]

[58] In the *Śivadharmaśāstra*, a text of Śaivism which Peter Bisschop dates to the 6th or 7th century, Ketu is said to be "shaped like smoke" (*dhūmākāro*) and "appearing like smoke from straw"

	Fig. 4.22. Kampa.
	Fig. 4.23. *Nakṣatra*. The *nakṣatra* deities are similarly depicted with small variations.

4.4. Amoghavajra and Astrology

Amoghavajra (705–774) led an active and influential life as a Vajra master in China, though his contribution to the development of Buddhist astrology in East Asia is less well known.[59]

One scripture translated by Amoghavajra shows the extent to which astrological determinism was being integrated into early Tantric literature. His translation of the

(*palāladhūmasaṃkāśo*). He is positioned in the northeast. See Peter Bisschop, trans., *Śivadharmaśāstra* (forthcoming). The *Mahāvairocana-sūtra* commentary also positions Ketu in the northeast (計都在東北). See T 1796, 39: 634b22-23. Compare with *Taizō kuzuyō* (TZ, vol. 2, 556).

[59] For biographical details see Martin Lehnert, "Amoghavajra: His Role in and Influence on the Development of Buddhism," in *Esoteric Buddhism and the Tantras in East Asia*, ed. Charles D. Orzech et al (Leiden: Brill, 2011), 352–359.

Parṇaśabarī-avalokiteśvara-bodhisattva-sūtra 葉衣觀自在菩薩經 (T 1100) includes a stated belief in astrological determinism.

> 若國王男女，難長難養，或短壽，疾病纏眠[60]，寢食不安，皆由宿業因緣，生惡宿直。或數被五曜陵逼本宿，令身不安。
> Whether king, man or woman, [some] will be difficult to raise and nourish; some will have short lifespans, bound in illness and at unease with sleep and food. All is due to past karma and causes-conditions, being born under a bad *nakṣatra* convergence. Some often have their natal *nakṣatra* intruded upon by the five planets, making their bodies uneasy.[61]

The Chinese of this passage could be interpreted in two ways: either that one is born under unfavorable stars as a result of past life karma, or that unfortunate life circumstances are a result of past life karma *and* being born under unfavorable stars. In either case, the last remark expresses a belief that planets intruding into one's natal sign causes unease. As one will recall from above, the *Saddharmasmṛtyupasthāna-sūtra* rejects such a concept. It states, "It is not the stars which can impart the fruits of virtue and non-virtue like this."[62] In this later period, however, a belief in astrological determinism becomes essential within Mantrayāna. In light of the popularity of Mantrayāna, and Amoghavajra's elevated status as a court priest,[63] it is reasonable to assume that many people, elites and commoners alike, felt compelled to understand the astrological circumstances of their own birth and life, and subsequently take measures to counteract undesirable influences through the use of rituals and mantras. This was another element that initiated the widespread interest in astrology from the mid-eighth century. In other words, astrology was not only useful for determining auspicious days to maximize the effectiveness of rituals, as there was now a specifically Buddhist interest in understanding one's fate as determined through the practice of astrology. Native Chinese astrology, which focuses on state interests and not those of the individual, could not provide the necessary lore and methods. The need for foreign astrological lore in Chinese translation became all the more pressing as a result.

We might also note that the Emperor Xuanzong (r. 712–756) expressed a particular interest in court astrology during his long reign.[64] This interest, we might imagine, also likely extended to the emerging practice of Buddhist astrology.

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[60] Read *mian* 眠 as *mian* 綿.

[61] T 1100, 20: 448b11-13.

[62] 善不善果非星能與. T 721, 17: 290b7-8.

[63] For discussion concerning Amoghavajra's connections to the imperial, military and bureaucratic elites see Geoffrey Goble, "Chinese Esoteric Buddhism: Amoghavajra and the Ruling Elite," (PhD Dissertation, Indiana University, 2012), 177–200.

[64] As Victor Xiong points out, "Xuanzong helped advance the cause of court astrology by promoting its government agency. In the wake of Wu Zetian's fall from power, this agency suffered a

Until the 750s, there had been a lack of materials in Chinese for understanding the Indian calendar, a necessary component for the effective practice of Mantrayāna. Amoghavajra returned to China from India in 746, which was around twenty years after Yixing had compiled the commentary on the *Mahāvairocana-sūtra*. As discussed above, the inadequecies of the commentary in describing the Indian calendar would have been problematic, and this was likely one motivating factor behind Amoghavajra's compilation of an astrology manual that addressed the challenges of implementing the *nakṣatra* calendar and seven-day week in China. As Mantrayāna became increasingly available to members of the Chinese sangha, they required an authoritative astrology manual. Amoghavajra took on the responsibility of compiling such a work, which despite being intended for Buddhists, still largely drew on non-Buddhist sources. Our attention now turns to Amoghavajra's manual.

4.5. *Xiuyao jing* 宿曜經 (T 1299)

Amoghavajra compiled the *Xiuyao jing* 宿曜經 (T 1299) first in 759, and then subsequently revised it in 764. The full title in the Japanese Taishō canon reads *Sūtra on Mañjuśrī Bodhisattva and the Sages' Teaching on Auspicious and Inauspicious Times, Good and Evil Constellations and Planets* 文殊師利菩薩及諸仙所說吉凶時日善惡宿曜經. Although this text is attributed to Mañjuśrī Bodhisattva and "sages" (*ṛṣi*?), this is merely an attribution designed to legitimize this text for Buddhist use. We might recall here how Zhisheng in 730 excluded a work on Brahmanical astrology from his catalog of sūtras as it was deemed to be heterodox. There was likely still a concern in Amoghavajra's time regarding the non-Buddhist nature of most Indian astrology, which helps to explain why the work at hand is attributed to Mañjuśrī, although this bodhisattva actually plays no major role in the text. As we will explore, the *Xiuyao jing* is, in fact, based on non-Buddhist astrology, with some of its content even being antithetical to Buddhist precepts. There is no known parallel of this work in Sanskrit or Tibetan. According to the preface of the text, it was translated (*yi* 譯) by Amoghavajra, but a reading of the text leads one to conclude it is a compilation of otherwise disconnected materials.

We should first note that the recension in the Taishō (T 1299) is not the original version of the work. According to the extensive research of Yano (1986/2013), the extant textual transmissions of the *Xiuyao jing* are comprised of the mainland (China and Korea) recensions and the Japanese manuscripts traced back to Kūkai, who returned to Japan with a copy in 806, or the Tendai monks Ennin and Enchin, who returned with copies in

setback and was demoted again to the Bureau of the Grand Astrologer. Xuanzong permanently restored the agency's independence, elevating it once more to the position of an inspectorate and disassociating it from the Department of the Palace Library." Victor Cunrui Xiong, "Astrological Divination at the Tang Court," *Early Medieval China* 13-14, no. 1 (2007): 227.

847 and 858 respectively.[65] These two transmissions significantly differ, which was noticed in the Edo period (1603–1868) in Japan by the monk Kakushō 覺勝 (d.u.) at Kōyasan 高野山. He compared the multiple versions available to him, from which he drafted his edition published in 1736, entitled the *Sukuyō yōketsu* 宿曜要訣 (*Essential Key to Sukuyō*).[66] The Taishō version (T 1299) is based on the Korean canon's version with reference to the Ming edition, but gives no mention of Kakushō's edition. The mainland transmission displays evidence of later editorial revisions, which led Yano to believe that the Japanese transmission – specifically Kakushō's edition – is closest to the original text.[67]

As the preface to the original version states, the first version of the *Xiuyao jing* was compiled with the assistance of Shi Yao 史瑤 (d.u.), and completed in 759. We are told that the resulting text was too difficult to grasp, and consequently it was revised with running comments inserted into the text by Yang Jingfeng 楊景風 (d.u.) in 764.[68] It is noteworthy here that neither of these assistants to Amoghavajra appear to have been monks. The latter was a calendar specialist who worked at the court on calendar reforms under Tang emperor Dezong 德宗 (r. 779–805) around the year 783.[69] This also explains why the Chinese of the text does not read like a Buddhist translation. Although Amoghavajra knew Sanskrit, and could have translated the materials himself, he might also have drawn on existing Chinese translations of Indian astrological material from earlier times, such as those listed in the *Sui shu* discussed above. This would explain the presence of expressly non-Buddhist elements in the text, to be discussed shortly.

The mainland and Japanese versions of the *Xiuyao jing* are all comprised of two fascicles. Yuanzhao's catalog of esoteric works that were translated or composed between 730–794 lists the *Xiuyao jing* with the following comment.

> 上卷前譯，下卷後譯，有序，共四十紙。
> The upper fascicle is the earlier translation. The lower fascicle is the later translation. It includes a preface. It totals forty sheets of paper.[70]

[65] One handwritten Japanese manuscript consulted in this study is from 1322, presently owned by Dōshisha University (148.8 | F9632).

[66] This was printed in modern typeset by Wakita Bunshō 脇田文紹 in 1897 as the *Sukuyō-kyō shukusatsu* 宿曜經縮刷 (*Typset Xiuyao jing*). This version was included in the *Shukuyōkyō uranai shinden* 宿曜經占真傳 (*The True Transmission of Xiuyao jing Divination*), a compilation with modern commentary by Wakahara Yukitsune 若原敬經 (1854–1926), published in 1908.

[67] For an analysis of all *Xiuyao jing* manuscripts see Yano, *Mikkyō senseijutsu*, 226–264.

[68] Wakita Bunshō 脇田文紹, ed, *Sukuyō-kyō shukusatsu* 宿曜經縮刷, vol.1 (Nagoya: Wakita Bunshō, 1897), 4.

[69] *Xin Tang shu*, Zhonghua Shuju edn., vol. 3, 716.

[70] T 2156, 55: 753c28-29.

The fascicle ordering of the extant versions is the reverse of this. The 'upper' is the revised version by Yang Jingfeng and the 'lower' is the earlier version by Shi Yao. The content of the 'lower fascicle' is similar to that of the 'upper', which led Zenba (1968), who it seems to have relied exclusively on the Taishō edition, to incorrectly assume that the 'lower' was comprised of supplementary notes. Later Yano (1986) correctly established that the 'upper fascicle' is the later version by Yang Jingfeng, while the 'lower fascicle' is the previous version produced by Shi Yao. This is specifically stated in the preface of the Japanese recension.

> 和上以乾元二年翻出此本。端州司馬史瑤執受纂集，不能品序，使文義煩猥，恐學者難用，於是弟子揚景風親奉指揮，再爲修注，起草以畢敬寫奉行。凡是門人各持一卷。于時歲次甲辰大唐廣德二年春也。今此經文見有兩本，一是史瑤初筆受本，二是楊景風再加修注本。
>
> The Master [Amoghavajra] translated this work in year 2 of reign era Qianyuan [759]. Sima[71] Shi Yao of Duanzhou penned and collated it. He could not manage it well, making the meaning of the content abstruse. There was a concern that scholars would find it difficult to implement. As a result, the disciple Yang Jingfeng personally revised and annotated a new draft according to direct instructions, after which it was respectfully copied. Each disciple carried off one scroll. The time was spring of year 2 in the reign era Guangde [764] of the Great Tang. Now there are two extant versions of this sūtra. The first is the version Shi Yao first recorded. The second the revised edition is by Yang Jingfeng.[72]

The preface in the Taishō version does not mention that the text is comprised of the first draft and the following updated version, which is a curious omission.[73] Exactly when these editorial revisions on the mainland occurred is difficult to determine, but as will be explored in the following chapter, other works on astrology from the mid-ninth century still refer to the earlier recension of the *Xiuyao jing*, which indicates that it was used well into the ninth century, when Japanese monks brought back copies.

It appears that the content of the *Xiuyao jing* was further developed. The Japanese Tendai monk Annen 安然 (841–915?) in his *Sho ajari Shingon mikkyō burui sōroku* 諸阿闍梨真言密教部類總錄 (*A Complete Catalog of the Shingon Mikkyō Collection of the Ācāryas*) includes the following items under the astrology section:

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[71] Sima 司馬, "Master of Horses" is an office title. In the Sui-Tang: "Adjutant, a 2nd- or 3rd-level executive officer found in most military guards stationed at the dynastic capital." Charles O. Hucker, *A Dictionary of Official Titles in Imperial China* (Stanford: Stanford University Press, 1985), 452.

[72] Wakita Bunshō 脇田文紹, ed, *Sukuyō-kyō shukusatsu* 宿曜經縮刷, vol.1 (Nagoya: Wakita Bunshō, 1897), 4.

[73] T 1299, 21: 387a11-16.

新撰宿曜經七卷，加年記一卷，安礙述。
宿曜經那繁補闕鈔七卷，玄靜闍梨集。
New Compilation Xiuyao Jing, 7 fascicles. Appended ephemerides, 1 fasicle. Taught by An'ai [d.u.].
Xiuyao jing Edited Commentary, 7 fascicles. Compiled by Ācārya Xuanjing [d.u.].[74]

These two works are not extant, but they do indicate that the work was further developed between its composition and Annen's time. The latter work appears to have been a commentary. Another point that demonstrates the currency of the *Xiuyao jing* in the ninth century is that Kūkai felt it necessary to transmit it to Japan in 806, and insist on its implementation, which perhaps stemmed from what he had been directly taught in Chang'an. His biography, the *Kōya Daishi go kōden* 高野大師御廣傳 (*Extensive Biography of the Kōya Great Master*), produced by Shōken 聖賢 (1083–1147) in year 1 of the reign era Gen'ei 元永 (1118), reports that calendar specialists in Japan at the time were unaware of such an astrological schedule, in particular the concept of Sunday:

大同以往，曆家無知密日，是故日辰吉凶雜亂，人多犯之。大師歸朝之後，傳此事。
Before the Daidō reign era [806–810], calendar experts did not know of Sunday. This is why there was confusion about astrological auspiciousness and inauspiciousness. People often violated this. After the Great Master [Kūkai] returned to court, he transmitted this practice.[75]

This indicates that between 764 when Amoghavajra's *Xiuyao jing* was completed, and 806 when Kūkai returned to Japan, Amoghavajra's system had become a primary text amongst practitioners of Mantrayāna in China. Kūkai was thus instructed on its importance, which was unknown in Japan until his return.

With these background details in mind, the present discussion turns to the content of the work, and specifically the challenges it addressed. In light of the fact that the Japanese transmission of the text is closest to the original version, reference will be made primarily to Wakita's typeset edition of Kakushō's version.

The second fascicle, which was compiled in 759, commences with an overview of the *pakṣa* cycle. It first cites verses attributed to Mañjuśrī concerning the qualities of days. These verses describe the waning (*kṛṣṇa-pakṣa*) and waxing (*śukla-pakṣa*) periods (each comprised of fifteen days), but the subsequent prose redefines the cycle using the thirty-day lunar month, which appears to have been for ease of reference when using the Chinese calendar. The details are summarized in table 4.2. This is far more detailed than

[74] T 2176, 55: 1127c2-3.
[75] Z 8-2: 661b14-17.

what is given in the *Mahāvairocana-sūtra* commentary, and different from it. The commentary defines lunar days 1, 3, 5, 7 and 13 as auspicious, while days 8, 14 and 15 are regarded as best (see 4.2 above).

The following section expands on the *pakṣa* cycle by specifying the fifteen deities who respectively descend on one of fifteen lunar days (*tithi*–s) within a *pakṣa*. These are Vedic deities. They differ from the deities who are said to descend into the world on three specific days of a *pakṣa* as described in earlier Buddhist texts. As Yano points out, there are additional parallels with Varāhamihira's *Bṛhatsaṃhitā* (chapter 99), a major sixth century compendium detailing *jyotiḥśāstra*, among other subjects.[76] These points reveal that Amoghavajra's source material here was non-Buddhist.[77] The names of the deities in Sanskrit are provided in transliterated Chinese, accompanied by Chinese translations as notes inserted by Yang Jingfeng (table 4.3). The list of associated deities from a separate tradition are also listed.[78]

The heading of the following section reads "Twenty-Seven *Nakṣatra*–s Twelve Zodiac Signs Diagram" 二十七宿十二宮圖. An inserted note points out that China uses twenty-eight lunar stations, while in the western country (i.e., India) they exclude Abhijit 牛宿. Among the *nakṣatra*–s in the earlier system, outlined in the *Śārdūlakarṇāvadāna*, Abhijit has extremely small dimensions, and thus could be easily excluded to form a system of twenty-seven *nakṣatra*–s. One important point to iterate here is that the Indian *nakṣatra*–s are functionally equated to the Chinese lunar stations, but in reality the two systems are still different. This imprecision was perhaps the natural result of translating the Indian terms using Chinese terms, yet inadequately defining them. Similarly, the text explains that the twelve zodiac signs are similar to the twelve Jupiter stations (十二次) of China. This is the same understanding expressed in the *Mahāvairocana-sūtra* commentary.[79] This is different from the sidereal zodiac, which is defined by a different set of stars, but came to serve as a functional equivalent for the zodiac signs in China. This strategy of employing functional equivalents became the norm in Buddhist astrology in China.

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[76] Yano, *Mikkyō senseijutsu*, 128–129.

[77] Amoghavajra's sources were also post-Vedic. Einoo notes that "it is clear that in post-Vedic rituals the use of various *tithis* for determining the day of performance of deities is common phenomenon [sic]." See Einoo Shingo, "Ritual Calendar. Change in the Conceptions of Time and Space," *Journal Asiatique* 293, no. 1 (2005): 101.

[78] Brāhmaṇabala (fl. c. 11th cent. CE) lists deities presiding over the *tithi*–s in his commentary on the *Kāṭhaka Gṛhyasūtra*. Bhaṭṭanārāyaṇa (d.u.) provides a very similar list in his commentary on the Gobhila Gṛhyasūtra. See Einoo, "Ritual Calendar," 103–104.

[79] This is also expressly stated in notes for Yixing's *Dayan li* calendar in which the twelve zodiac signs of India are equated to the twelve Jupiter stations of China. "The twelve palaces [zodiac signs] as they are called in India are the twelve Jupiter stations of China. The palace of *Meṣa [Aries] is the Jupiter station of Jianglou. 天竺所雲十二宮，即中國之十二次。鬱車宮者，降婁之次也." Note here that *yu* 鬱 (equivalent to *yu* 郁) is a scribal error for another character, perhaps *ming* 鄍. *Xin Tang shu*, Zhonghua Shuju edn., vol. 3, 673.

Table 4.2. *Xiuyao jing* (fasc. 2) *Pakṣa* Cycle.				
		Auspicious	**Inauspicious[80]**	**Determined by *nakṣatra* + day of week[81]**
śukla	1	*		
	2			*
	3	*		
	4		Night	
	5	*		
	6			*
	7	*		
	8		Daytime	
	9			*
	10	*		
	11	*	Night	
	12			*
	13	*		
	14			*
	15		Daytime	
kṛṣṇa	1 (16)	*		
	2 (17)			*
	3 (18)	*	Night	
	4 (19)			*
	5 (20)	*		
	6 (21)			*
	7 (22)	*	Daytime	
	8 (23)			*
	9 (24)			*
	10 (25)	*	Night	
	11 (26)	*		
	12 (27)			*
	13 (28)	*		
	14 (29)		Daytime	
	15 (30)			*

[80] The text further notes that a negative daytime period becomes auspicious after noon, and that a negative night period becomes auspicious after midnight.

[81] A day is auspicious if the *nakṣatra* presiding over it and the day of the week are auspicious. It is inauspicious if the *nakṣatra* and day of the week are inauspicious.

Table 4.3. *Xiuyao jing* (fasc. 2) Presiding Deity Cycle				
Days	**Deity**[82]	**Chinese**	**Day Name**[83]	**Brāhmaṇabala & Bhaṭṭanārāyaṇa**
1, 16	Prajāpati 鉢闍鉢底	梵王 Brahmā King	建日 (*pratipad*)	Brahmā
2, 17	Bṛhaspati 苾利訶駅鉢底	造化神 Creation Deva	得財日 (*bhadrā*)	Tvaṣṭṛ
3, 18	Viṣṇu 毘紐神	那羅延天 Nārāyaṇa	威力日 (*balā*)	Viṣṇu
4, 19	Yama 閻謨	閻羅王 King Yama	猛武日 (*riktā*)	Yama
5, 20	Soma 蘇謨	月天子 Moon Deva	圓滿日 (*pūrṇā*)	Soma
6, 21	Kumāra 摩羅	童子天 Boy Deva	求名日 (*māsā*)	Kumāra
7, 22	Saptarṣayaḥ 七仙	北斗 Big Dipper	朋友日 (*mitrā*)	Munis
8, 23	Vasavaḥ 婆娑	婆藪天 Vasudeva	力戰日 (*mahābalā*)	Vasus
9, 24	Rudrāṇī 嚕達囉尼	毘舍闍鬼王 King of Piśācas	凶猛日 (*ugrasenā*)	Piśācas
10, 25	Dharma 達謨[84]	善法神 Saddharma Deva	善法日 (*sudhanvā*)	Dharma
11, 26	Rudra 嚕捺嚧	自在天 Īśvara Deva	慈猛日 (*sunandā*)	Rudras/Rudra
12, 27	Āditya 阿逸都	日天子 Sun Deva	名聞日 (*yamā*)	Ādityas
13, 28	Piśāca (?) 鉢折底	天魔 Deva Māra(?)	最勝日 (*jayā*)	Kāma
14, 29	Yakṣa 藥蓺	藥叉將 Yakṣa General	勇猛日 (*ugrā*)	Bhūtas / Yakṣas
15, 30	Pitaraḥ 多盧[85]	魂靈神 Deity of Spirits	吉相日 (*siddhārthā*)	Pitṛs / Viśve devāḥ

The original diagram is omitted in the Wakita and Wakahara editions. Wakita notes that it is perhaps that in the first fascicle, and thus omits it.[86] The diagram as a circular representation of the ecliptic is found in the aforementioned Dōshisha manuscript from 1322, but the contents are somewhat corrupted and out of alignment. Aries, however, is clearly designated as the first zodiac sign. It further specifies the domiciles of each respective planet, the parallel *nakṣatra*–s and the times of the year when signs rise.

[82] Reconstruction of Sanskrit names from Chinese transliteration adapted from Yano, *Mikkyō senseijutsu*, 130–131.

[83] The Sanskrit terms in parentheses are derived from those specified by a certain "Garga" in Utpala's commentary of the 98th chapter of Varāhamihira's *Bṛhatsaṃhitā.* See Yano, *Mikkyō senseijutsu*, 128–129.

[84] In T 1299 rendered as *Sudharmā 蘇達謨. T 1299, 21: 394b21.

[85] The Dōshisha manuscript gives *Biduolu* 必多盧.

[86] Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 6.

In Hellenistic astrology, the zodiac signs are each considered a "house" (Greek: οἶκος) or domicile in which planets reside. Mars, for example, has two domiciles: Aries and Scorpio. This feature is taken into consideration when interpreting a horoscope chart, as a planet in its domicile is thought to be in a "dignified" position and therefore potent, though here it seems to possess no function. Ths presence of the domiciles does, however, represent the gradual introduction of what were originally Hellenistic elements into Chinese Buddhist astrology. This is the earliest known example of the domiciles in China.

The *Xiuyao jing* introduced the *pūrṇimānta* system, which reckons the start of the month from the full moon. As noted above, there were multiple calendrical systems in India. The Indian calendar of the *Xiuyao jing* is explained as follows (note that the month names in Sanskrit differ from the names of the *nakṣatra*–s themselves; see table 2.1)

> 西國皆以十五日望宿，爲一月之名。故二月爲角月。(西國以二月爲歲首，以其道齊景正，月停夜分，時淑氣和，草木榮茂，一切增長，故梵天折爲曆元也) 。三月名氐月。四月名心月。五月名箕月。六月名女月。七月名室月。八月名婁月。九月爲昴月。(梵語昴星名迦提。西國五月十六日雨安居，至八月十五日，滿已後至九月十五日已來自恣，故號爲迦栗提迦，但取星名而已。今中國迦提月，即是其，而妄者，別爲訓釋，蓋大謬焉)。十月名觜月。十一月名鬼月。十二月名星月。正月名翼月。
> The western countries all derive the name of the month from the *nakṣatra* in which the full Moon is lodged on the fifteenth day. Hence the second [Chinese] lunar month is called Caitra.[87] (*The western countries reckon the second [Chinese] lunar month as the year's start; the start of the year as the [solar] path is aligned and the light [of day] is equal, while the Moon [=Sun]*[88] *halts night time [the vernal equinox]; the weather of the time is warm, vegetation and trees flourish and everything increases, hence Brahmā declares it to be the epoch of the calendar.)* The third month is called Vaiśākha, the fourth month is called Jyaiṣṭha, the fifth month is called Āṣāḍha, the sixth month is called Śrāvaṇa, the seventh month is called Bhādraphada, the eighth month is called Āśvina and the ninth month is called Kārttika. (*In Sanskrit the constellation of Mao [the Pleiades] is called Kṛttikā. In the western countries, the sixteenth day of the fifth month is the [start of the] rains retreat until the fifteenth day of the eighth month, after which time are the repentance ceremonies [pravāraṇā] after the fifteenth day of the ninth month. Calling it Kārttika is therefore just a derivation from the nakṣatra's name. Now in China the month of Kārttika …*[89] *they are confused and instead*

[87] The full Moon will 'lodge' in the *nakṣatra* of Citrā, hence the name of the month Caitra.
[88] *Yue* 月 here is a scribal error for *ri* 日.
[89] The text here appears to be corrupted.

> *etymologically interpret it, greatly erring.*)[90] The tenth month is called Mārgaśira, the eleventh month is called Pauṣa, the twelfth month is called Māgha and the first month is called Phālguna.[91]

The Chinese lunar calendar, which numerically counts the days of the month, did not originally track any sort of cycle related to the twenty-eight Chinese lunar stations. The twenty-seven *nakṣatra* calendar was thus an entirely new system to China, and moreover presented the challenge of how to keep track of which day falls under which *nakṣatra*. The explanation for how to do this is given as follows:

> 夫取宿直者，皆月臨宿處，則是彼宿當直。又月行有遲疾。宿月復有南北前後隨合。如何可知，則以後頌言，求之可解，頌：六宿未到名合月，十二宿月左右合，九宿如犢隨母行，從奎宿數應當知。
> To determine the *nakṣatra* convergence: the *nakṣatra* in which the Moon is present constitutes the corresponding *nakṣatra* convergence. Furthermore, lunar movement varies in terms of speed. Moreover, there are convergences between the *nakṣatra*–s and the Moon that occur to the north or south, or ahead or behind one another [along the ecliptic]. How can these be known? It can be understood with reference to the following verses. Six *nakṣatra*–s: they are said to converge with the Moon before [the Moon's] arrival. Twelve *nakṣatra*–s: the Moon meets with them in the same approximate space. Nine *nakṣatra*–s: like a calf following its mother. It should be understood counting from the *nakṣatra* of Revatī.[92]

This explains that the Moon will sometimes be ahead of or behind the *nakṣatra* that is supposed to preside over a given day. In other words, the convergence in many cases is simply in name only.[93]

The *Xiuyao jing*, however, also states, "Always check these verses against the sky and there will be no disparities in applying the [convergences] between the *nakṣatra*–s

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[90] This seems to be referring to the mistaken interpretation of *jiati yue* 迦提月 as the month of *kaṭhina*. The *kaṭhina* is a robe provided to monks after the summer retreat. The vinaya exegete Daoxuan makes the same mistake. His commentary on the *Dharmaguptaka-vinaya* may be the source of this widespread misunderstanding. He states that *jiati* 迦提 (Kārttika) is an abbreviation of *jiachi'na* 迦絺那 (*kaṭhina*). See T 1804, 40: 40b9-11.

[91] Wakita, *Sukuyō-kyō shukusatsu*, vol.2, 6–7. The bracketed text is running commentary presumably inserted by Yang Jingfeng. The Japanese recensions of the *Xiuyao jing* do not expressly mark the beginning and ends of the running commentary, but a comparison with the Taishō edition clarifies this.

[92] Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 7–8.

[93] As Zenba point s out, this simile of a calf and its mother is already found in the *Śārdūlakarṇāvadāna*, and Amoghavajra perhaps took it from there. See Zenba, "*Matōga gyō* no tenmonrekisū ni tsuite," 188–189. These three types of convergences are also mentioned in the *Mātaṅga-sūtra*, though without the simile of a calf and mother. T 1300, 21: 405b12-13.

and Moon."[94] One issue is that the *nakṣatra* dimensions are not adequately defined, so the assumption appears to be that the reader will use the Chinese lunar stations excluding *niu xiu* 牛宿, the equivalent of Abhijit, but this would have been highly impractical due to the fact that the Chinese system strictly uses twenty-eight lunar stations of varying dimensions with only general correspondences to any Indian *nakṣatra* model. To complicate matters further, the *Mahāvairocana-sūtra* commentary expressly states that the twenty-seven *nakṣatra*–s are of equal dimensions, which differs from the *Śārdūlakarṇāvadāna*, in which unequal dimensions are defined. The Indian calendar so impractically introduced like this could not have been feasibly implemented by Chinese practitioners of Buddhism without assistance from an Indian specialist.

The subsequent section details the prescribed and proscribed activities of each of the twenty-seven *nakṣatra* days, starting from Kṛttikā, in contrast to the later ordering, which commences from Aśvinī. Many of these prescribed activities are antithetical to conventional Buddhist values. For example, alcohol production is prescribed for Ārdrā, Pūrvāṣāḍhā, Śatabhiṣaj and Revatī. It is expressly stated that under Punarvasū one "should carry out sacrifices; Brahmanical sacrifices for the gods."[95] This is another element that indicates that Amoghavajra drew upon non-Buddhist sources in compiling the *Xiuyao jing*.

Several other astrological practices are explained, including taboo directions based on the *nakṣatra* in which the Sun is present, as well auspicious directions to travel based on *nakṣatra* days that are associated with specific zodiac signs, and the predicted outcomes following the tailoring of new clothing on specific *nakṣatra* days (such as losing the garment or becoming ill).

One of the more complex practices taught is a method called 'three sets of nine' 三九法, which is a method of electional astrology calibrated to the individual, in which the twenty-seven *nakṣatra*–s are divided into three sets.[96] The individual's natal *nakṣatra* is assigned under 'life' 命, and the following *nakṣatra*–s are respectively assigned under 'prosperity' 榮, 'decay' 衰, 'security' 安, 'danger' 危, 'completion' 成, 'destruction' 壞, 'friend' 友 and 'family' 親 (命榮衰安危成壞友親). The first *nakṣatra* of the second set is assigned under 'activity' 業 (karma?), and the following eight the same sequence of eight as before (業榮衰安危成壞友親). The first *nakṣatra* of the third set is assigned under 'womb' 胎, and the following eight the same sequence of eight as before (胎榮衰安危成壞友親). Prescriptions and proscriptions are given for times when the Moon lodges in each. These would only apply to the individual in question since the three sets are assigned based on one's natal *nakṣatra*. Thus, two persons born on different *nakṣatra* days will have different assignments. The text, however, also explains that the planets

[94] 常以此頌復驗之於天則宿月用之無差. Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 8.
[95] 宜作諸祭法，婆羅門祭天法. Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 9.
[96] Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 19–20.

have influences on these specific sets, but in order to know these influences one must ask the Bureau of Astronomy:

> 如此當須聞知司天者，乃知此年此月熒惑鎮星歲星辰星太白及日等在何宿。以此知之。其法甚妙，宜細審也。
> As such one must inquire about this with the court astronomers, since they will know for a given year and month in which *nakṣatra* Mars, Saturn, Jupiter, Mercury, Venus and the Sun are present. It is through them that one can know this. Their methods are quite excellent, and should be investigated in detail.[97]

This comment alludes to the elite community within which the text was originally produced. The *Xiuyao jing*, although it became popularly practiced in subsequent decades, was originally compiled with elite monks and officials in mind. In light of the politically sensitive nature of astrology throughout earlier Chinese history, outlined earlier, and the fact that Amoghavajra was working directly with non-monastic court officials when compiling the *Xiuyao jing*, it seems likely that the work was originally never meant for popular distribution, but rather was intended for use at court. It furthermore reflects the fact that Mantrayāna in these years was still largely confined to the elites of society in the capital.

A significant component of this fasicle of the text is the introduction of the seven-day week. This custom was not yet widely known in China, though it was observed by non-Han groups resident in China, such as Nestorian Christians, as noted earlier. The reader is therefore advised to ask foreigners the day of the week.

> 忽記不得，但當問胡及波斯并五天竺人摠知。尼乾子末摩尼，常以蜜日持齋。波斯亦事此日爲大日。此等事持不忘。
> If you suddenly forget [the day of the week], just ask the Hu [Sogdians], Persians or peoples of the Five Indias as they all know. The "Nirgranthas"[98] and Manicheans always maintain a fast on Sundays. The Persians also regard this day as an important day. These matters are never forgotten.[99]

To facilitate such inquiries, the text also provides the names of the seven planets in Chinese and transliterated Sogdian, Persian and Sanskrit (table 4.4).

[97] Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 21–22.
[98] This likely refers to non-Buddhist Indians in China, rather than to Jains.
[99] Wakita, *Sukuyō-kyō shukusatsu*, vol.2, 22.

Table 4.4. Planet Names in *Xiuyao jing* (fasc. 2)[100]				
Planet[101]	**Chinese**	**Sogdian**	**Persian**	**Sanskrit**
Sun	太陽 *taiyang*	蜜 *myr*	曜 *ēw*	阿儞底耶 *āditya*
Moon	太陰 *taiyin*	漠 *m'x*	婁禍 *dō*	蘇摩 *soma*
Mars	熒惑 *yinghuo*	雲漢 *wnx'n*	勢 *sě*	盎誐囉迦 *aṅgāraka*
Mercury	辰星 *chenxing*	咥 *ṭyr*	掣 *čahār*	部陀 *budha*
Jupiter	歲星 *suixing*	鶻鳩勿 *wrmzṭ*	本 *panǰ*	勿哩訶娑跛底 *bṛhaspati*
Venus	太白 *taibai*	那歇 *n'xyδ*	數 *šaš*	戍羯羅 *śukra*
Saturn	鎮星 *zhenxing*	枳浣 *kyw'n*	翕 *haft*	賒乃以室折羅 *śanaiścara*

The text explains the astrological features of each day of the seven-day week, in addition to making natal predictions for individuals born on each respective day of the week, such as their personal qualities.

As the text notes, the seven-day week is observed by both Buddhists and non-Buddhists in the north, west and south; only China remains unaware of it. Although the seven-day week is briefly mentioned in the *Mahāvairocana-sūtra* commentary, the *Xiuyao jing* seems to have been the first major text in Chinese to introduce it in detail. Its importance to Mantrayāna prompted its rapid adoption in China. Numerous manuals on the seven-day week were uncovered at Dunhuang (see chapter 6.1 below).

An additional practice detailed in the text links the *nakṣatra* calendar with the seven-day week. These convergences add another element to consider when determining optimally auspicious days. These convergences represent the mature union of Indian and Hellenistic calendrical elements (table 4.5).

[100] Table adapted from Yano, *Mikkyō senseijutsu*, 110. Wakita, *Sukuyō-kyō shukusatsu*, vol. 2, 22–23. As Yano notes, the Persian names are actually the numerals one to seven used to count the days of the week. Nicholas Sims-Williams informs me that the Sogdian terms are transcriptions of the names from Middle Persian. Private communication. July 25th, 2016. See also table 5.4.

[101] Note that these are listed in the Hellenistic ordering.

Table 4.5: *Nakṣatra*-weekday Convergences					
Day of Amṛta 甘露日 Greatly auspicious for receiving initiations, building temples, receiving precepts, renouncing the home life, etc.		*Day of Vajra Peak* 金剛峯日 Auspicious for subjugation rites, chanting the mantra of the Sun ruler and performing *homa*.		*Day of the Rākṣasa* 羅刹日 Inauspicious for all activities except hunting and harmful acts.	
Hasta 軫	Sunday	Mūla 尾	Sunday	Bharaṇī 胃	Sunday
Rohiṇī 畢	Monday	Śravaṇa 女	Monday	Puṣya 鬼	Monday
Mūla 尾	Tuesday	U.b.padā 壁	Tuesday	U.p.gunī 翼	Tuesday
Aślesā 柳	Wednesday	Kṛttikā 昴	Wednesday	Ārdrā 參	Wednesday
Puṣya 鬼	Thursday	Punarvasū 井	Thursday	Viśākhā 氐	Thursday
Anurādhā 房	Friday	P.phālgunī 張	Friday	Revatī 奎	Friday
Maghā 星	Saturday	Svāti 亢	Saturday	Aślesā 柳	Saturday

Although the second fascicle provides a diverse body of astrological lore, there were still a number of issues. As discussed above, it does not adequately explain how to determine which *nakṣatra* presides over which day. Moreover, the dimensions of the *nakṣatra*–s are not defined, although the Chinese terms for the lunar stations are used as functional equivalents. The zodiac signs are likewise not clearly defined, nor are their functions discussed. This seems to be why the preface of the text states, "Shi Yao of Duanzhou penned and collated it. He could not manage it well, making the meaning of the content abstruse. There was a concern that scholars would find it difficult to implement." The *Xiuyao jing* was subsequently revised in 764 with the assistance of Yang Jingfeng, who was a calendar specialist.

The first fascile of the text (in the revised version) includes much of the same content as the second, but with various reworkings and additional content. It furthermore addresses the issues outlined above, while introducing a structure in the form of chapter titles. It was this updated version of the text that became the authoritative astrological manual for Mantrayāna practitioners in East Asia. The introductory remarks reveal characteristically Chinese elements.[102]

> 天地初建寒暑之精化爲日月。烏兔抗衡生成萬物，分宿設宮管標群品。日理陽位，從星宿順行，取張翼軫角亢氐房心尾箕斗女等一十三宿，迄至于虛宿之半，恰當子地之中。分爲六宮也。月理陰位，從柳宿逆行，取鬼井參觜畢昴胃婁奎壁室危等一十三宿，迄至虛宿之半，恰當子地之中。分爲六宮也。

[102] This is discussed in Shimizu Hiroko 清水浩子, "Sukuyō kyō to nijūhachi suku ni tsuite" 宿曜經と二十八宿について, in *Satō Ryōjun kyōju koki kinen ronbunshū* 佐藤良純教授古稀記念論文集, vol. 2 (Tōkyō: Sankibō, 2003), 96–97.

然日月天子俱以五星爲臣佐，而日光炎猛，物類相感。以陽獸師子爲宮神也。月光清涼，物類相感。以陰蟲巨蟹爲宮神也。又日性剛義。月性柔惠。義以濟下惠以及臣。而日月亦各以神宮均賜五星。… 即辰星太白熒惑歲鎭，排爲次第。行度緩急於斯彰焉。凡十二宮即七曜之躔次。每歷示禍福，經緯災祥。

When heaven and earth were first established, the essence of cold and heat formed into the Sun and Moon. The contest between the Crow and Rabbit produced myriad phenomena, dividing the constellations and establishing the zodiac mansions while demarcating things and beings. The Sun presides over the positions of *yang*, which run counterclockwise from the constellation Maghā, encompassing thirteen constellations including Pūrvaphālgunī, Uttaraphālgunī, Hasta, Citrā, Svāti, Viśākhā, Anurādhā, Jyeṣṭha, Mūla, Pūrvāṣāḍhā, Uttarāṣāḍhā, and Śravaṇa up to half of the constellation of Dhaniṣṭhā, corresponding to the center of north. These are divided into six zodiac houses. The Moon presides over the positions of *yin*, which run clockwise from the constellation Aślesā, encompassing thirteen constellations including Puṣya, Punarvasū, Ārdrā, Mṛgaśīrṣa, Rohiṇī, Kṛttikā, Bharaṇī, Aśvinī, Revatī, Uttarabhādrapadā, Pūrvabhādrapadā and Śatabhiṣaj up to the half of the constellation of Dhaniṣṭhā, corresponding to the center of north. These are divided into six zodiac houses. Thus the Devaputras of the Sun and Moon together have the five planets as their retainers. Things react to the fieriness of sunlight, the zodiac deity of which is Leo, the beast of *yang*. Things react to the coolness of moonlight, the zodiac deity of which is Cancer, the creature of *yin*. Furthermore, the nature of the Sun is firm and virtuous. The nature of the Moon is gentle and benevolent. Virtue aids those below while benevolence extends to subordinates. The Sun and Moon also bestow onto each of the five planets divine palaces. … They are arranged in the sequence of Mercury, Venus, Mars, Jupiter and Saturn. The degrees of their movements and speeds appear here [among the zodiac houses]. The twelve zodiac houses comprise the course within which the seven luminaries move. Every passage reveals disasters and fortune, while their paths [reveal] calamities and fortune.[103]

These introductory remarks perhaps reflect Yang Jingfeng's attempt to address the earlier issue of the text being difficult for Chinese readers to grasp, hence the use of Chinese terminology and a literary style unlike what is found in Buddhist translations. This also marks one of the first major steps in sinicizing foreign astrology, a trend which resulted in the major developments of the subsequent century.

The text goes on to briefly describe the planets and their diameters according to Indian parameters, though there are no definitions given for the *yojana* or *krośa*.

[103] Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 4–5. The omitted text above appears to be an incomplete or corrupted sentence.

日廣五十一由旬，月廣五十由旬。風精太白廣十由旬。空精歲星廣九由旬。月精辰星廣八由旬。火精熒[惑]廣七由旬。日精鎮星廣六由旬。星最小者廣一俱盧舍。日宮下面頗梨之寶，火之質也。溫舒能照萬物。月宮下面琉璃之寶，水之質也。清涼能照萬物。日月諸曜，衆生業力置於空中，乘風而止。當須彌之半逾乾陀羅之上。運行於廿七宿十二宮焉。

The Sun is fifty-one *yojana*–s in diameter. The Moon is fifty *yojana*–s in diameter. Venus of wind essence is ten *yojana*–s in diameter. Jupiter of space essence is nine *yojana*–s in diameter. Mercury of Moon essence is eight *yojana*–s in diameter. Mars of fire essence is seven *yojana*–s in diameter. Saturn of Sun essence is six *yojana*–s in diameter. The smallest stars are one *krośa* in diameter. The bottom surface of the Sun palace is of crystal stone and of fire essence. It warms and can illuminate myriad things. The bottom surface of the Moon palace is of lapis lazuli stone and of water essence. It cools and can illuminate myriad things. The Sun, Moon and planets are placed in the sky through the karmic power of beings, riding the winds. Above Mount Yugaṃdhara, which is half the height of Mount Sumeru, they move through the twenty-seven *nakṣatra*–s and twelve zodiac signs.[104]

This cosmology is similar to that found in the **Lokasthānābhidharma-śāstra* 佛說立世阿毘曇論 (T 1644), which indicates that the similar material was likely drawn from an Abhidharma source, marking one of the few places in the *Xiuyao jing* that draws from identifiable Buddhist material. The **Lokasthānābhidharma-śāstra* defines the Sun and Moon as follows.

是月宮者，厚五十由旬，廣五十由旬，周迴一百五十由旬。是月宮殿，琉璃所成，白銀所覆。水大分多，下際水分，復爲最多。其下際光，亦爲最勝。… 是日宮者，厚五十一由旬，廣五十一由旬，周迴一百五十三由旬。是日宮殿，頗梨所成，赤金所覆。火大分多，下際火分，復爲最多。其下際光，亦爲最勝。

The Moon palace is fifty *yojana*–s in depth, fifty *yojana*–s in diameter, and one-hundred fifty *yojana*–s in circumference. The hall of the Moon palace is made of lapis lazuli and covered in silver. It is in large part water with most of the water [concentrated] at the bottom. It is also most luminous at the bottom. … The Sun palace is fifty-one *yojana*–s in depth, fifty-one *yojana*–s in diameter and one-hundred fifty-three *yojana*–s in circumference. This Moon palace is made of crystal and covered in copper. It is in large part fire with most of the fire [concentrated] at the bottom. It is also most luminous at the bottom.[105]

[104] Ibid., 5.

[105] T 1644, 32: 195a11-b4.

In contrast to the earlier version of the *Xiuyao jing*, the twelve zodiac signs are defined with predictions given concerning individuals born under them. Here the ecliptic is comprised of 108 *pāda*–s 足 (‘quarters’) in which each zodiac house is assigned 9 *pāda*–s (108 ÷ 12 = 9). These are divided among three *nakṣatra*–s. Each of the 27 *nakṣatra*–s is assigned 4 *pāda*–s (108 ÷ 27 = 4). Any remaining *pāda*–s can be assigned to the following zodiac house. This system of dividing the ecliptic was mentioned in the earlier *Mahāvairocana-sūtra* commentary, but here it is explained in greater detail. The system of the *Xiuyao jing* is arithmetically formulated, rather than being observational, which appears to be a significant Indian modification to the *nakṣatra*–s in order to adapt them to the twelve zodiac signs. The ordering of the zodiacs is Leo 師子, Virgo 女, Libra 秤, Scorpio 蝎, Sagittarius 弓, Capricorn 磨竭, Aquarius 瓶, Pisces 魚, Aries 羊, Taurus 牛, Gemini 夫妻, and Cancer 蟹. The second fascicle expressly names Aries as the first zodiac sign,[106] which is standard in astrology, but here it commences with Leo. This appears to merely be a way of dividing the signs into solar and lunar hemispheres. The details of the zodiac signs are displayed in table 4.6.

Table 4.6. Twelve Zodiac Signs *Xiuyao jing* (fasc. 1)

Zodiac	***Pāda* Allocations**	**Domicile**	**Presides Over**	**Natal Prediction**	
Leo	Maghā: 4 Pūrvaphālgunī: 4 Uttaraphālgunī: 1	Sun	Promotion and wealth acquisition.	Spirited, wealthy, honored and filial. Suited to positions in the military.	**Solar**
Virgo	Uttaraphālgunī: 3 Hasta: 4 Citrā: 2	Mercury	Wives, concubines and ladies.	Will have difficulty in obtaining trusted aides. Will have many children and bountiful wealth. Suited to positions in the palace quarters.	
Libra	Citrā: 2 Svāti: 4 Viśākhā: 3	Venus	Treasure stores.	Direct in mind, fair, trustworthy, and having much wealth. Suited to positions in the storehouse.	
Scorpio	Viśākhā: 1 Anurādhā: 4 Jyeṣṭha: 4	Mars	Restraining of illness and the subduing of the body.	Much disease, being frail, a wicked mind and jealousy. Suited to positions related to illness.	
Sagittarius	Mūla: 4 Pūrvāṣāḍhā: 4 Uttarāṣāḍhā: 1	Jupiter	Celebrations and obtaining wealth.	Much planning and deliberation. Suited to positions in civil and military ministries.	

[106] Wakita, *Sukuyō-kyō shukusatsu*, vol.2, 18.

Capricorn	Uttarāṣāḍhā: 3 Śravaṇa: 4 Dhaniṣṭhā: 2	Saturn	Conflict.	Mentally coarse, the five grave transgressions, and not respecting their wives and children. Suited to positions related to executions.	
Aquarius	Dhaniṣṭhā: 2 Śatabhiṣaj: 4 Pūrvabhādrapadā: 3	Saturn	Matters of victory and strength.	Good sincerity, while having much learning, wealth and honors. Suited to positions in the academy.	**Lunar**
Pisces	Pūrvabhādrapadā: 1 Uttarabhādrapadā: 4 Revatī: 4	Jupiter	Promotions and increased duties.	Higher minister of war or civil affairs. Without error or neglect. Learned as well as respected and an authority, being loyal and upright. Suited to positions in the archives of history.	
Aries	Aśvinī: 4 Bharaṇī: 4 Kṛttikā: 1	Mars	Bipedals and people.	Much merit, few ailments and a long lifespan. Further they can tolerate disgrace. Suited to a position in the kitchen.	
Taurus	Kṛttikā: 3 Rohiṇī: 4 Mṛgaśīrṣa: 2	Venus	Affairs related to quadrupeds and the raising of animals.	Fortune of the mouth [bountiful fortune] while having many close friends. A long lifespan. Obtaining status and respect among people. Suited to a position in the stables and pastures.	
Gemini	Mṛgaśīrṣa: 2 Ārdrā: 4 Punarvasū: 3	Mercury	Matters related to posterity.	Many wives and consorts while gaining the love and respect of people. Suited to the gatekeeper position.	
Cancer	Punarvasū: 1 Puṣya: 4 Aślesā: 4	Moon	Government and discourse.	A wicked nature, deception and intelligence, though they will not live long. Suited to a position in justice.	

While not actually stated in the text, it might be assumed that an individual could be subject to multiple zodiacal influences as one's birth *nakṣatra* might be divided equally between two zodiac signs, such as Citrā, which is assigned to Virgo and Libra.

The zodiac signs, however, appear to be of minor importance in the *Xiuyao jing*, in contrast to later developments in which they gain a central importance.

There are two circular tables provided in Yang Jingfeng's revision for the purpose of representing the twelve zodiac signs and their spatial relations to the *nakṣatra*–s. The first lists the months for the rising of each sign from lunar day 15, which is the full Moon, i.e., the start of the month according to the Indian calendar, but these appear to be out of alignment, perhaps due to scribal errors. Yang Jingfeng's commentary states that there was confusion and subsequently it was requested that the table be revised with the months commencing from lunar day 1 or the new Moon (table 4.7). Listing the months in this way would have made it more easily understandable to Chinese readers.

This revised table also lists the twelve Jupiter stations and earthly branches (地支) with the aim, it seems, of providing similar parallels in Chinese astronomy in order to facilitate understanding of the Indian system. Yang Jingfeng's explanatory notes further clarify the differences between the Chinese and Indian calendars. It notes that Chinese scholars finally could understand it clearly.[107]

Following this, Yang Jingfeng's commentary includes a chart of 360 days which gives one-to-one correspondences between the *nakṣatra* days and Chinese lunar days (table 4.8).[108] The earlier version explained that one should observe the *nakṣatra* in which the Moon is lodged to determine the corresponding *nakṣatra* day, with the consideration that the Moon might be ahead or behind the assigned *nakṣatra* for that day.[109]

Such an imprecise system was evidently problematic, thus this simplified system displayed on a chart was devised. Note that the fifteenth of each month (the nominal full Moon) corresponds to the corresponding Indian month. This table enables one to easily determine the *nakṣatra* of any given day of the year. It furthermore has the advantage of not requiring any observation.

This is an important adaptation, as the Indian *nakṣatra*–s defined above with equal dimensions are completely different from the Chinese lunar stations, thereby eliminating the need to define the *nakṣatra*–s and zodiac signs based on specific stars. The astrologer, or Mantrayāna practitioner, has only to know the lunar day of the year.[110]

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[107] Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 10–13.

[108] Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 13–15.

[109] Wakita, *Sukuyō-kyō shukusatsu*, vol.2, 7–8.

[110] The Japanese recension of the text (displayed above) excludes Abhijit 牛, constituting 27 *nakṣatra*-s, though the later Taishō uses 28 *nakṣatra*-s, resulting in the sequence of Indian months being disrupted.

Table 4.7. Revised Table of Twelve Zodiac Signs *Xiuyao jing* (fasc. 1)

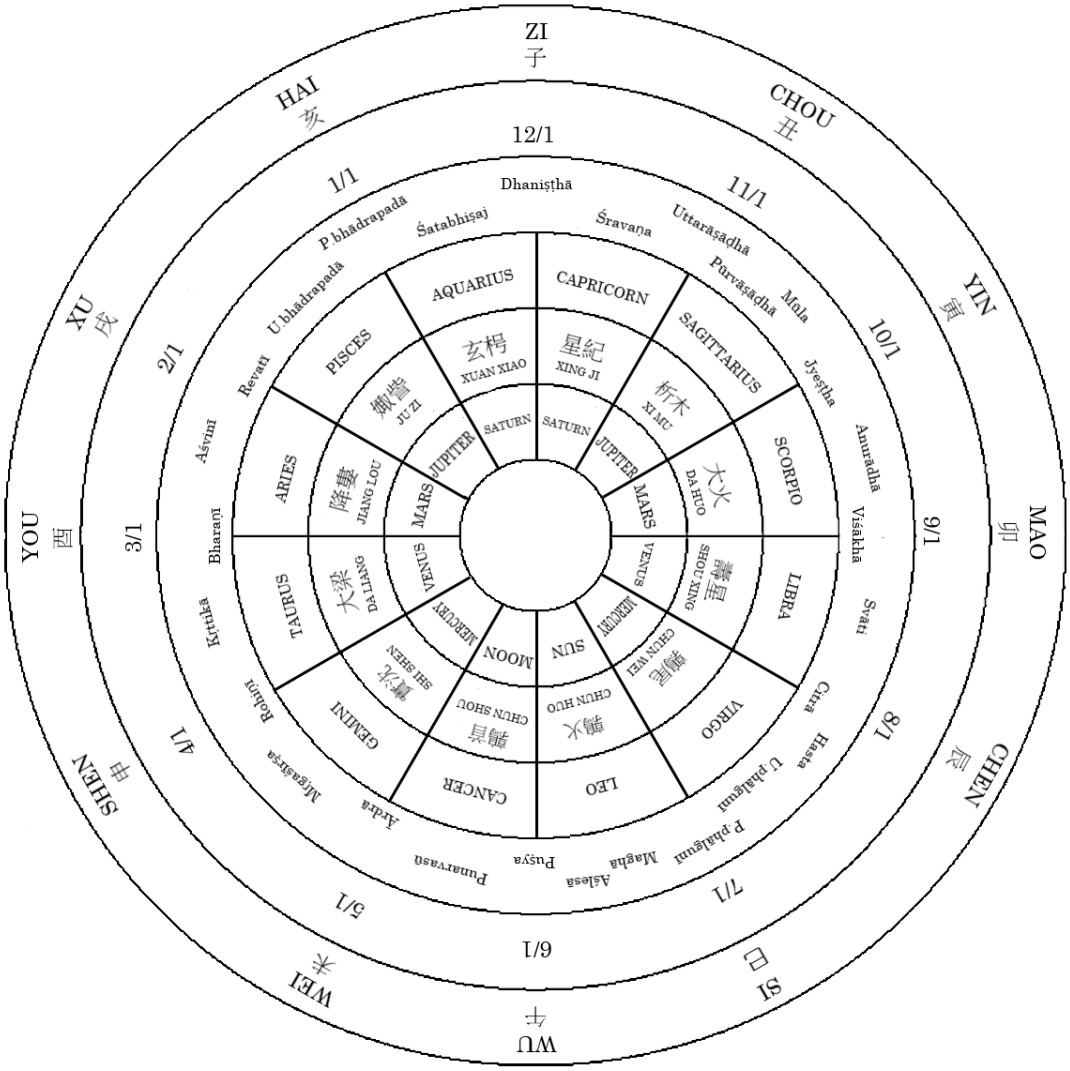

Table 4.8. *Nakṣatra*-Lunar Day Correspondences *Xiuyao jing* (fasc. 1)

Chinese Lunar Months										
1	**P.bhādrapadā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**
12	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**
11	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**
10	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**
9	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**
8	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**
7	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**
6	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**
5	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**
4	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**
3	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**
2	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**
	1	2	3	4	5	6	7	8	9	10
	śukla-pakṣa waxing period									

Puṣya	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**
Ārdrā	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**
Rohiṇī	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**
Aśvinī	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**
U.b.padā	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**
Śatabhiṣaj	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**
Uttarāṣāḍhā	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**
Jyeṣṭha	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**
Viśākhā	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**
Citrā	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**
U.phālgunī	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**
Maghā	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**
11	12	13	14	15	16	17	18	19	20	21
					kṛṣṇa-pakṣa waning period					

Mūla	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**
Anurādhā	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**
Svāti	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**	**Uttarāṣāḍhā**	**Śravaṇa**	**Dhaniṣṭhā**
U.phālgunī	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**	**Mūla**	**Pūrvāṣāḍhā**
Maghā	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**	**Anurādhā**	**Jyeṣṭha**
Puṣya	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**	**Citrā**	**Svāti**	**Viśākhā**
Mṛgaśīrṣa	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**	**P.phālgunī**	**U.phālgunī**	**Hasta**
Bharaṇī	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**	**Aślesā**	**Maghā**
Revatī	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**	**Punarvasū**	**Puṣya**
P.b.padā	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**	**Mṛgaśīrṣa**	**Ārdrā**
Dhaniṣṭhā	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**	**Kṛttikā**	**Rohiṇī**
Uttarāṣāḍhā	**Śravaṇa**	**Dhaniṣṭhā**	**Śatabhiṣaj**	**P.b.padā**	**U.b.padā**	**Revatī**	**Aśvinī**	**Bharaṇī**
22	23	24	25	26	27	28	29	30

One problem that this table does not address, however, is that Chinese calendars use short months of 29 days in coordination with intercalary months[111] to ensure that lunar days 1 and 15 fall on the new and full moons, respectively. This *Xiuyao jing* itself does not explain how to account for these. For example, if there is no lunar day 30 in a given month, what happens to the *nakṣatra* assignment for that day?

Transcripts of Kūkai's oral testimonies address the question of how to deal with short months and intercalary months. It seems that he learnt these solutions in Chang'an, where he studied under the Mantrayāna master Huiguo 惠果 (746–806) from 805 to 806, before returning to Japan in 806. The *Hino'o kuketsu* 檜尾口訣 (T 2465; *The Oral Testimony at Hino'o*) is a record by his disciple Jichie 實慧 (786–847) of Tō-ji 東寺 that preserves these instructions:

> 勘宿曜經取潤月之宿及小月之闕日分宿法。依口訣記。若有閏月時，其正月直宿即亦重直閏月，謂假令十二月有閏月，而其十二月一日直宿是虛宿。十五日直宿是星宿，乃至三十日直宿是星宿。如是閏十二月直宿亦同之，更無異也。先月是正十二月，閏月是傍十二月也。故傍月直宿三十日皆用正十二月直宿，更不異宿也。餘月聞[112]月准之知耳。
>
> Inquiry concerning which *nakṣatra*–s to use during an intercalary month and method for allocating *nakṣatra*–s for missing days in a lesser month. Recorded according to oral instructions. When there is an intercalary month, the *nakṣatra* convergences of the true month[113] repeat themselves in the intercalary month. Supposing month 12 has an intercalary month, the *nakṣatra* convergence of day 1 of month 12 will be Dhaniṣṭhā, the *nakṣatra* convergence of day 15 will be Maghā and the *nakṣatra* convergence of day 30 will be *Maghā [=Pūrvabhādrapadā].[114] Like this the *nakṣatra* convergences of intercalary month 12 will be identical. There are no differences. The preceding month is the true month 12. The intercalary month is the accompanying month 12. Hence the *nakṣatra* convergences and 30 days of the accompanying month all use the *nakṣatra* convergences of the true month 12 without any different *nakṣatra*–s. The other months and intercalary months can be understood according to this.

Here Kūkai states that the thirty-day sequence from Dhaniṣṭhā to Pūrvabhādrapadā will be identically reproduced in an intercalary month. This is not immediately apparent from reading the *Xiuyao jing*. The transcript continues:

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[111] A thirteenth month ensures that the lunar calendar stays in line with the seasons.

[112] Read *wen* 聞 as *run* 閏.

[113] A 'true month' here refers to a normal month that is not an intercalary month.

[114] Looking at the table above, lunar 12/1 is Dhaniṣṭhā, 12/15 is Maghā and 12/30 is Pūrvabhādrapadā. Magha defined as lunar 12/30 is an error.

> 取小月闕第三十日直宿之法。假令正月小闕第三十日，雖無其第三十日，而彼日分直宿猶有故，次二月初一日半已上者正月闕日之分宿直也。半已下者即彼當日宿直，故雖大小異日有增減，而小月闕日直宿無日不得。次月初一日真宿無改代也 。
>
> Method for selecting the *nakṣatra* convergence on the missing thirtieth day in a lesser month. Now suppose month 1 lacks the 30th day. Even without that 30th day, that day still has a *nakṣatra* convergence. The first half of the first day of the following month 2 is assigned the *nakṣatra* convergence of the missing day in month 1, while the second half is that day's *nakṣatra* convergence. Hence even if there are fluctuations with the days, in the case of a lesser month lacking a day, the *nakṣatra* convergence will always apply to a day. The actual *nakṣatra* of day 1 in the following month does not change.[115]

This point is also not apparent in the above table, which likely indicates that such issues were not immediately addressed when the *Xiuyao jing* was finalized. These conventions that Kūkai describes were likely learnt in Chang'an sometime before 806, thus reflecting the ongoing use and development of the *Xiuyao jing* in China. These conventions ensure that the sequence of *nakṣatra*–s remains uninterrupted, thus preserving its alignment with the Chinese lunar calendar. This also presumably means that if someone were born on such a split day, then their natal *nakṣatra* would be determined by the time of their birth (the first or second half of the day), although this is not explicitly stated.

The revised fascicle of the *Xiuyao jing* details the twenty-eight *nakṣatra*–s (including Abhijit, even though it is excluded from the table above), providing their respective star counts, shapes, associated deities (with a few exceptions these deities are the same as those in the *Nakṣatrakalpa* of the *Atharvavedapariśiṣṭā*, demonstrating that Amoghavajra drew from Brahmanical material),[116] *gotra*–s and foods. The *gotra* names cannot be reconstructed from the transliterated Chinese. Predictions concerning individuals born under each *nakṣatra* are also provided, not unlike what is seen in the *Śārdūlakarṇāvadāna*. The *Xiuyao jing* notes how some *nakṣatra*–s differ from, or more rarely correspond to, the Chinese lunar stations. Despite these differences, the table of lunar day–*nakṣatra* convergences (table 4.8) alone is sufficient to determine under which *nakṣatra* a person is born.

Another issue that the revised text addresses is how to determine a person's *nakṣatra* when they do not know their date of birth. It describes the *nakṣatra-puruṣa*, which differs from that described in the *Bṛhatsaṃhitā* of Varāhamihira (chapter 105). The *nakṣatra-puruṣa* is a human figure represented by individual *nakṣatra*–s that are associated with or comprise specific parts of the body. The *Xiuyao jing* explains that if someone does not know their natal *nakṣatra*, this will then be determined by the part of

[115] T 2465, 78: 30c13-c26.

[116] I must thank Peter Bisschop for pointing this out.

the body that the person touches when they first meet the astrologer.[117] Although the system of Varāhamihira differs from that described in the *Xiuyao jing*, this point further highlights that Amoghavajra's source material was largely based on non-Buddhist literature. It is evident that he primarily drew upon common Indian astrological works.

As in the earlier version, the revised text still defers to professional astronomers. A note by Yang Jingfeng mentions use of the Indian calendar, and the Indian or Sino-Indians working for the court as professional astronomers:

> 凡欲知日月五星所在宿分者，據天竺曆術，推之可知也。今有迦葉氏、瞿曇氏、僧俱摩羅等三本梵曆，並掌在司天，然則今之行用瞿曇氏曆本。
> Anyone wanting to know the positions of the Sun, Moon and five planets in the *nakṣatra*–s can know where they are by calculating them according to Indian calendrical science. Presently there are three Indian calendars: those of the Kāśyapa and Gautama families, and the monk Kumāra.[118] They all have appointments in the observatory. However, what is presently employed is the calendar of the Gautama family.[119]

These figures had prominent roles in developments related to state calenders and astronomy in China in the eighth century, in particular the Gautama family, which will be discussed in detail shortly. It is quite certain that Amoghavajra and Yang Jingfeng had direct contact with these astronomers, in light of the fact that they and the astronomers were all employed by the court in related capacities. Moreover, the seventh section[120] of the *Xiuyao jing* is a complex formula for calculating weekdays 算曜直, based on the *Navagraha-karaṇa*, a manual of Indian mathematical astronomy, translated by the Gautamas in 718, a text we shall return to below.[121]

The purpose of the *Xiuyao jing* was to introduce the essential components of Tantric hemerology, which had been earlier only briefly outlined in the *Mahāvairocana-sūtra* commentary in the 720s, in addition to providing basic models of natal and electional astrology based primarily on the *nakṣatra* astrology. The *Xiuyao jing* succeeded in providing this necessary astrological information in Chinese, and it thus

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[117] Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 46.

[118] The character *seng* 僧 here appears also in the Dōshisha manuscript (fasc. 1, p. 33). In the Taishō, the name is rendered as *Jumoluo* 拘摩羅 with *seng* 僧 omitted (T 1299, 21: 391c4), leaving it unclear if it is an individual or family name. The monk Kumāra is mentioned in the *Jiu Tang shu*. He taught a method for predicting solar eclipses (Zhonghua Shuju edn., vol. 4, 1265). Kumāra was therefore a monk's name, and not the name of a family.

[119] Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 29.

[120] An inserted note states that this was not taught by Mañjuśrī, hence it is an appended section. Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 40–41.

[121] Yano notes this. For a study of the complex mathematics of this section see Yano, *Mikkyō senseijutsu*, 132–142.

established a solid foundation for further developments. However, Yang Jingfeng's comments briefly mention advanced astrological techniques that require the means to determine the positions of planets. Such techniques require either mathematical calculations or an ephemeris (a table indicating the location of a planet on given dates in the past). Such knowledge was largely still unavailable to the public due to relevant legal prohibitions still in effect, but this rapidly changed in the subsequent decades following the decline of state authority after the An Lushan rebellion (see 2.4 above). The *Xiuyao jing* therefore offered some solutions, but at the same time, like the *Mahāvairocana-sūtra* commentary, it also referred to practices that were still largely inaccessible to commoners. There was now a need for an accessible calendar designed for the practice of advanced foreign astrology. This is the point where foreign astronomers start to play an important role in the history of astrology in China.

4.6. Indian and Persian Astronomers at the Tang Court

As noted above, Yang Jingfeng mentioned the presence of ethnically Indian men specialized in astronomy working for the Chinese court. As we will now explore, two or three decades later an ethnically Persian astronomer was appointed at court. This transition from Indian astronomers to a Persian astronomer also clearly mirrors a transition from Indian sources of astrology to Iranian. Although Iranian astrology was not connected with Buddhism, it impacted both Chinese Buddhism as well as Daoism. Here we will discuss these court astronomers and the respective roles they had in influencing astronomy and astrology in China.

An important archaeological discovery in modern times providing details about the Gautama family, who were specialists in astronomy, was the tomb of Gautama Zhuan 瞿曇譔 (712–776), which was unearthed in Xi'an (Chang'an) in May, 1977.[122] The inscription of the tomb provides details about his family, who for several generations had served the Chinese court. Gautama Zhuan's great grandfather was Gautama Yi 瞿曇逸 (d.u.). Tansen Sen suggests that Yi might be a rendering of 'Ajita', and that he was possibly "the kin of Indian Brahmans, with the same surname, who had come to China during the Eastern Wei period (AD 534–550): Qutan Poluoliuzhi (Gautama Prajñāruci?) and his 'eldest son' Qutan Damoshena (Gautama Dharmajñāna?)." He also suggests that 'Ajita' was brother to Dharmajñāna (d.u.).[123] This is possible, but not certain. 'Ajita' had a son named Gautama Luo 瞿曇羅 (d.u.). Sen suggests Rāhula for Luo. He was born under Emperor Taizong 太宗 (r. 626–649). He served as *taishi ling* 太史令 (court astronomer) between 665–698. He also drafted calendars: in 665 the *Jingwei li* 經緯曆 (*Calendar of the Warp and Woof*), and then in 698 the *Guangzhai li* 光宅曆 (*Calendar of*

[122] For the first report on the discovery see Chao Huashan 晁華山, "Tangdai tianwenxuejia Judan Zhuan mu de faxian" 唐代天文學家瞿曇譔墓的發現, *Wenwu* 文物 10 (1978): 49–53.

[123] Sen, "Gautama Zhuan: An Indian Astronomer at the Tang Court," 199–200.

the Luminous Abode) under Empress Wu Zetian 武則天 (r. 690–705). The latter was in use until 700. 'Rāhula' had a son named Gautama Siddhārtha 瞿曇悉達 (d.u.), who was born under Emperor Gaozong 高宗 (r. 649–683).

Gautama Siddhārtha served as court astronomer between 712–718. Between 712–713, he worked on the court's armillary sphere (*hun yi* 渾儀). In 718, by imperial decree, he translated the aforementioned *Navagraha-karaṇa*. Yabuuchi Kiyoshi states that this text is based primarily on the Indian *Pañcasiddhāntikā* (c. 550) by Varāhamihira.[124] However, in chapters eleven and thirty-five, the tabulated latitude value of 35 degrees is most likely that for Chang'an (34°16), indicating that the text was adapted for use in China rather than being a strict translation. It notably displays Greek influences, which had been adopted by Indian astronomers in preceding centuries. It is a *karaṇa* text providing calculation methods, rather than being a more comprehensive *siddhānta* text.[125] It further explains concepts such as a dot for zero, a table of sine functions, and advanced methods for eclipse prediction. Despite its objective scientific value, the text was not widely studied after the eighth century. Yabuuchi attributes this to the Sino-centric attitude of astronomers in the Tang, and also the difficulty of understanding the foreign concepts.[126] Although Chinese astronomers might not have studied the *Navagraha-karaṇa* in detail, the Indian astronomers at court, such as the Gautamas, were still consulted. This is demonstrated by the *Navagraha-karaṇa* being cited in the *Xiuyao jing*, as noted above.[127]

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[124] The *Pañcasiddhāntikā* or "Treatise on the Five Astronomical Treatises" is a summary of five astronomical treatises studied by Varāhamihira, including most notably the *Romakasiddhānta* (the 'Roman treatise') and *Pauliśasiddhānta* (the 'treatise of Paul', i.e., a Hellenistic treatise). These two reflect the introduction of Western astronomical knowledge into India. For a translation and study see Otto Neugebauer and David Pingree, *The Pañcasiddhāntikā of Varāhamihira* (København: Munksgaard, 1970-1971).

[125] A *siddhānta* provides a comprehensive astronomical theory. A *karaṇa* is a purely practical guide that provides essential calculations.

[126] For a study and English translation of the *Navagraha-karaṇa* see Yabuuchi Kiyoshi 薮内清, *Zōtei Zuitō rekihō shi no kenkyū*, 1–42. It was otherwise thought lost until rediscovered inside a Buddha statue around 1600 by Cheng Mingshan 程明善 (d.u.) along with the rest of the *Kaiyuan zhan jing* 開元占經 (*Divination Scriptures of the Kaiyuan Period*) collection, within which it is included. The *Navagraha-karaṇa* is fasc. 104.

[127] As discussed earlier, accurate predictive astronomical knowledge was an important element to claims of imperial legitimacy by any reigning Chinese dynasty, thus hosting foreign astronomers at court was politically expedient. The work of Indian astronomers in China was significant enough to attract the attention of Arab leadership. Kevin van Bladel argues that "al-Maṣūr [the second caliph of the Abbasid Caliphate; r. 754–775] was made aware that Indian astronomers were working in the Chinese Tang court and that he was, in his interest in Indian astronomy, effectively emulating the prestigious example that the Tang emperors established." See Kevin van Bladel, "Eighth-Century Indian Astronomy in the Two Cities of Peace," in *Islamic Cultures, Islamic Contexts: Essays in Honor of Professor Patricia Crone*, eds. Behnam Sadeghi et al. (Leiden: Brill, 2014), p. 264.

Gautama Zhuan, the occupant of the unearthed tomb, was the fourth son of Siddhārtha, born in 712. In 733 he was part of a group that criticized Yixing's calendar, saying it was based on the aforementioned *Navagraha*. This was ruled by the emperor to be untrue, and consequently Gautama Zhuan was forced out of capital, only to return in 758. Several years into the An Lushan rebellion in 761, Gautama Zhuan connected the occurrence of a solar eclipse with the rebel commander Shi Siming 史思明 (703–761) in Henan province, predicting his demise. He cites the *Yisi zhan* 乙巳占 (*Divination of Yisi*), a divination manual by Li Chunfeng 李淳風 (602–670), which states, "A country will be destroyed under a solar eclipse 日蝕之下有破國."[128] His use of Chinese divination indicates the extent to which his family had assimilated into Chinese society. However, in 763, one of his divination reports was regarded as erroneous. Emperor Daizong stripped him of his court rank, although this was again restored in 764. In 765 he was appointed *sitian jian* 司天監 (Director of the Bureau of Astronomy), dying in 776. Zhuan had six sons: Sheng 昇, Bian 昇, Yu 昱, Huang 晃, Yan 晏 and Mao 昴 (each having the 'Sun' radical 日 in their names). Gautama Zhuan was active at court when the *Xiuyao jing* was drafted, and thus would have certainly known Amoghavajra. He might also have been a consultant for the team compiling the *Xiuyao jing*.

The Gautamas were among other Sino-Indians working at the Tang court as astronomers in the eighth century. The Kāśyapa 迦葉 family and the monk Kumāra 俱摩羅 were also present.[129] These astronomers facilitated the introduction of foreign astrology and astronomy into China. As discussed above, the commentary on the *Mahāvairocana-sūtra* and the *Xiuyao jing* both refer to the 'Indian calendar'. The reference at this time was most certainly to the calendars produced by these astronomers in the capital, which indicates that the texts in question were initially drafted with elite practitioners in mind, rather than common members of the sangha, given that astronomy was a restricted subject of study. This is an important difference between the astrology of this period and that of the late-Tang, as it was only in the latter period that advanced foreign astrology, in particular horoscopy which requires advanced astronomical knowledge, became popularized and widely available.

It seems that the Gautama family lost its longstanding position at court in the late eighth century. In 1980, a tombstone was unearthed in Xi'an with inscriptions providing accounts of the lives of a Persian Li Su 李素 (743–817) and his wife Bei Shi 卑失 (d.u.).[130] It states he was Persian 波斯人 and nephew to the Persian king. His grandfather Li Yi 李益 in the Tianbao 天寶 era (742–756) had been dispatched from Persia to the

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[128] *Jiu Tang shu*, Zhonghua Shuju edn., vol. 4, 1324. This appears to be in reference to chapter six of the *Yisi zhan*, which concerns solar eclipses (日蝕占第六). See fasc. 1, 30–35. China-America Digital Academic Library (CADAL) edition (https://archive.org/details/02094176.cn).

[129] Wakita, *Sukuyō-kyō shukusatsu*, vol.1, 29.

[130] Chen Guoying 陳國英, "Xi'an Dongjiao Sanzuo Tang mu qingli ji" 西安東郊三座唐墓清理記, *Kaogu yu wenwu* 考古與文物 (1981-2): 25–31.

Tang court as an envoy, and held as hostage. As Rong Xinjiang has pointed out, there were envoys from former Persian territoritories at this time, but no record of a Li Yi or any hostages, and moreover at the time Persia was under Arab domination, hence this account of Li Yi is dubious. His son, Li Zhi 李志 (Li Su's father), served the government in Guangzhou, probably around the years 756–779, a region which maintained trade relations with Persia, and hosted a community of East-Syrian or Nestorian (*Jingjiao* 景教) Christians.[131] As a youth Li Su was adept in astronomy and calendrical science, which presumably was either partially or wholly non-Chinese in character. Rong suggests that he possibly learnt these subjects from Christian clergymen in Guangzhou. It seems that he was a clergyman himself. As Rong points out, the 'Nestorian Stele' 大秦景教流行中國碑 (T 2144) erected in Chang'an in 781, which has both Chinese and Syriac inscribed upon it, lists his 'courtesy name' 字 of Wen Zhen 文貞 with the corresponding name Luka in Syriac script.[132]

Sometime during the Dali 大曆 (766–779) era, Li Su was summoned to Chang'an to serve in the court Bureau of Astronomy 司天台. Gautama Zhuan died in 776, so Li Su was perhaps chosen as his replacement. It has been suggested that a Christian clergyman from Byzantium or Syria was involved in astronomy in China earlier in 745, but this is mistaken.[133] The first court astronomer from a Persian or Near Eastern background was, in fact, Li Su. He attained the rank of *sitian jian* 司天監, equivalent to a chief director of the Bureau of Astronomy, not unlike the achievements of the Gautamas in earlier decades. In light of the earlier non-Chinese astronomers at court, Mak suggests that "Li Su and his colleagues must have found themselves in the position where they had to justify the superiority of their scientific knowledge and skills, prompting the translation

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[131] 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 (Beijing: Sanlian shudian, 2001), 244–245. The term "Nestorian" is controversial in present academia, with an increasing preference for the term "East Syriac Church", though "Nestorian" has been the standard term until recently. For details on this issue see S.P. Brock, "The 'Nestorian Church: A Lamentable Misnomer," *Bulletin of the John Rylands Library of Manchester* 78 (1996): 23–36. For a recent survey of research on Nestorianism in Tang China see Zhao Jiadong 趙家棟 and Nie Zhijun 聶志軍, "Qianlun Tangdai Jingjiao wenxian de zhengli yu yanjiu" 淺論唐代景教文獻的整理與研究, *Guji zhengli yanjiu xuekan* 古籍整理研究學刊 6 (2010): 8–13.

[132] Rong, "Yi ge shi Tangchao de Bosi Jingjiao jiazu," 255–257. See T 2144, 54: 1290b12.

[133] Zhang Xushan misreads the Nestorian stele, suggesting that a certain clergyman from 'Byzantium' named Jihe 僧佶和 was involved in astronomy in the year 745. Wylie interpreted this terse passage as honorific language about the Chinese court (三載，大秦國有僧佶和，瞻星向化，望日朝尊). See T 2144, 54: 1289c4-5. He translated this as "looking towards the star (of China), was attracted by its transforming influence, and observing the Sun (i.e., emperor), came to pay court to the most honorable." Pelliot disagreed with Wylie's interpretation, suggesting that the "transformation" indicated China, civilized by its leaders, and that Jihe was guided by the stars and sun. See Alexander Wylie, "On the Nestorian Tablet of Se-gan Foo," *Journal of the American Oriental Society* 5 (1855-1856): 283. Zhang Xushan 張緒山, "Jingjiao dongjian ji chuanru Zhongguo de Xila - Baizhanting wenhua" 景教東漸及傳入中國的希臘-拜占庭文化, *Shijie lishi* 世界歷史 (2005-6): 87. Antonino Forte, ed., *L'Inscription Nestorienne De Si-Ngan-Fou* (Italian School of East Asian Studies & Collège de France, 1996), 262.

of new astral treatises."[134] This is perhaps true to some extent, but I would argue that it was more likely that the increasing widespread interest in astrology, following the success of Buddhist astrology, actually prompted the translation of additional works on astrology and astronomy by foreign specialists like Li Su. In light of the relevant remarks of Yang Jingfeng in the *Xiuyao jing*, there was certainly awareness of the existence of advanced horoscopy at this point, and a figure such as Li Su would have been knowledgeable about it, considering his connection to Near Eastern astronomy.

Until Li Su's appointment sometime after 776, the majority of astrological lore translated into Chinese came from Indian sources, but as we will now explore, toward the end of the eighth century, Iranian and Near Eastern sources were increasingly studied. It appears that Li Su and other Persians initially carried out the necessary translation work, but later, in the ninth century, Sogdians, who were culturally and linguistically related to Persians as fellow Iranians, also came to have an important role in transmitting additional astrological materials into China.[135]

4.7. The *Duli yusi jing* 都利聿斯經: Dorotheus in China

A few decades after the *Xiuyao jing* was produced, a text entitled *Duli yusi jing* 都利聿斯經 [**Dorotheus*][136] was translated into Chinese during the Zhenyuan 貞元 period (785–805). It is no longer extant, though fragments of the original Chinese work are

[134] Bill M. Mak, "Yusi Jing – A treatise of 'Western' Astral Science in Chinese and its versified version Xitian yusi jing," *SCIAMVS* 15 (2014): 122.

[135] Tang sources did not necessarily strongly differentiate between Persians and Sogdians. This is apparent when we consider the shifting meaning of Anxi-guo 安息國, which is a transliteration of the Persian Arśak, the name of the founder of the Parthian empire. During the Han dynasty, it referred to the Parthian dynasty (250 BCE – 226 CE), yet the term was still used in Chinese after its collapse. Saitō (1998) argues that Anxi referred to Bukhara in Central Asia from around the mid-sixth century. Saitō (2007) also points out that from the 1st to 3rd centuries, the surname An 安 was used by peoples originally from the Parthian empire, but later it appears that Sogdians from Bukhara began using this surname. He suggests that the Chinese identification of Bukhara with Anxi was a result of those same Sogdians using the surname An. The first reference to Bukhara in Chinese is as Niumi 忸密國 in the *Wei shu* 魏書 (Zhonghua Shuju edn., vol. 6, 2270), compiled in 559. The MC pronunciation is *ŋjuk mjet* (Schuessler IPA), which corresponds to Nūmijkat, another name for Bukhara in Sogdian. The term that specifically refers to Sassanian Iran is Bosi 波斯 (Fars, i.e., Persia), though this term was still used after the collapse of the Sassanian dynasty during the early seventh century. The homelands of ethnically Iranian figures in China in the eighth and ninth centuries are therefore often uncertain, thus I am inclined to simply refer to general "Iranian" astrology and astronomy, rather than attempting to distinguish the Sogdian from the Persian.

[136] The Chinese title could derive from "Dhurūthiyūs in Arabic." See Isahaya Yoichi and Lin Jyuh Fuh, "Entangled Representation of Heaven: A Chinese Divination Text from a Tenth-Century Dunhuang Fragment (P. 4071)," *Historia Scientiarum* 26, no. 3 (2017): 165.

found as citations in later texts.[137] The *Xin Tang shu* has the following account in its catalog of texts:

> 都利聿斯經，二卷，貞元中，都利術士李彌乾傳自西天竺，有璩公者譯其文。
> *Duli yusi jing*. 2 fascicles. In the Zhenyuan period the *duli*[138] diviner Li Miqian transmitted it from Western India. There was someone [named] Qu Gong who translated the text.[139]

We will recall that this is the same text that Song Lian in the Ming dynasty referred to in his essay on divination cited in the introduction above (1.1). From Song Lian's perspective, astrology as a form of divining individual fortunes was introduced into China through this work, which highlights the influence it had in the subsequent centuries. Song Lian, however, was unaware of the earlier Buddhist interest in astrology.

As with Li Su above, the surname Li here likely indicates a Persian. As to Qu Gong, the *Yiqie jing yinyi* 一切經音義 (T 2128; *The Sounds and Meanings in All Sūtras*) by Huilin 慧琳 (737–820), a Buddhist glossary of terms with pronunciations based on earlier materials completed in 810, does list 'Qu Gong', but simply states that it is a person's name, rather than being a title.[140] Mak tentatively suggests that these two names are transliterations of Micā and [Lū]qā, and that the latter was Li Su who, according to Rong, is the Lūqā on the Nestorian stele.[141] Given the general absence of Buddhist involvement in court astronomy, the monks Yixing and Kumāra being exceptions in the early eighth century, Mak's suggestion is quite plausible.

In modern scholarship there have been several theories concerning the meaning of *Duli yusi*. Jao Tsung-i asserts that *Duli* is a transliteration of 'Talas' 都賴, as in the Talas River 都賴水,[142] which echoes the remarks of Song Lian cited above. Yano, however, proposed that the title phonetically represents *Ptolemaios* (i.e., Ptolemy, the second-century CE Greco-Egyptian astronomer of Alexandria). He suggests that the translation into Chinese might have been from a language not representing vowels, whereby P-T-L-M-Y-V-S was rendered T-L-YV-S, and thereafter *Duli yusi* in Chinese. In addition, there was a text (not extant) listed in the *Xin Tang shu* entitled *Yusi si-men jing* 聿斯四門經

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[137] Ishida Mikinosuke 石田幹之助 collected fragments of the work from a Japanese source. See "*Tori-isshi-kyō* to sono itsubun" 都利聿斯經とその佚文, in *Tōyō ronsō: Haneda Hakushi shōju kinen* 東洋史論叢：羽田博士頌壽記念 (Kyōto: Tōyōshi Kenkyūkai, 1950), 49–62.

[138] *Duli* here appears to be an abbreviation of *Duli yusi jing* 都利聿斯經.

[139] *Xin Tang shu*, Zhonghua shuju edn., vol. 5, 1548.

[140]璩公(巨魚反人名也). T 2128, 54: 921a7.

[141] Mak, "*Yusi Jing*," 121. See T 2144, 54: 1290b12.

[142] Jao Tsung-i 饒宗頤, "Lun Qiyao Yu Shiyiyao" 論七曜與十一曜, in *Xuantang jilin* 選堂集林 (Taipei: Mingwen shuju, 1984), 578.

(*Yusi Four Gates Scripture*) in one fascicle by Chen Fu 陳輔,[143] which possibly indicates that the work could be Ptolemy's *Tetrabiblos*, i.e., '*Four Books*'.[144] Mak's study of the text's extant fragments and a short versified version, the *Xitian yusi jing* 西天聿斯經 *(Yusi jing of Western India*),[145] concludes, however, that the original work was a translation of a version of Dorotheus' work, now titled the *Carmen Astrologicum*,[146] which had likely been brought to China by East-Syrian (Nestorian) Christians. He concludes that the *Xitian yusi jing* "bears a close resemblance to the work of Dorotheus and not of Ptolemy." The title could thus be a phonetic transliteration of Dorotheus.[147] This proposed Christian connection with astrology in China is supported by the fact that some astrologers of the Sasanian court were Christian.[148]

Dorotheus of Sidon (c. 75 CE) was a Hellenistic poet and astrologer. His work, however, is only fully extant in Arabic, although Latin, Greek and Chinese fragments exist. Dorotheus' work was first translated into Pahlavī (Middle Persian) from Greek under the Sassanians between 222–267, and later expanded between 531–578. Around the year 800, this recension was translated into Arabic.[149] It is uncertain from which language the Chinese translation was produced, though it was likely Pahlavī in light of the Iranian specialists present in China when it was produced.

The *Duli yusi jing* is the first known work in Chinese to introduce into East Asia a Hellenistic system of horoscopy, in particular the concept of 'aspect' (i.e., the angles planets make with respect to one another on a horoscopic chart). This requires drafting a horoscopic chart, either circular or rectangular, which represents the ecliptic.[150] A natal chart will indicate the positions of the planets on the ecliptic at the time of birth. From these positions their angular relationships relative to one another are identified and interpreted according to established lore. The positions of the planets in zodiac signs are also essential in interpreting a chart. The zodiac signs, originally defined as twelve segments each comprised of thirty degrees, similarly move and their positions have to be determined. The drafting of a horoscope chart therefore requires a certain level of precise

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[143] *Xin Tang shu*, Zhonghua shuju edn., vol. 5, 1548.

[144] Yano, *Mikkyō senseijutsu*, 160–164. *Xin Tang shu*, Zhonghua shuju edn., vol. 5, 1548.

[145] For the *Xitian yusi jing*, see Wan Minying 萬民英, *Xingxue dacheng* 星學大成 (fasc. 7), in SKQS 809: 435–438.

[146] Dorotheus' work is divided into five books. It can be called *Pentateuch*, or *Five Books*. The first four explain natal astrology, while the fifth teaches electional or katarchic astrology. See Holden, *A History of Horoscopic Astrology*, 33–43.

[147] Mak, "*Yusi Jing*," 129.

[148] Shaul Shaked, *Dualism in Transformation: Varieties of Religion in Sasanian Iran* (London: School of Oriental and African Studies, 1994), 89, fn. 44.

[149] David Pingree, "Classical and Byzantine Astrology in Sassanian Persia," *Dumbarton Oaks Papers* 44 (1989): 229.

[150] This was originally drawn up with 360 degrees, but the Chinese system of astronomy uses 365.25 degrees. This is another example of Chinese astrologers avoiding the implementation of foreign astronomy, preferring to use functional equivalents from the native Chinese system.

astronomical knowledge, although this is not necessarily so difficult with various tables in hand.

A complicating factor for Chinese astrologers was that the Hellenistic system of astrology transmitted to China used a tropical zodiac, rather than a sidereal zodiac. As will be recalled (see 2.2 above), a sidereal zodiac defines the twelve zodiac signs (each comprised of 30 degrees) according to fixed stars. The stars that rise on the horizon at a specific time of the year (such as the vernal equinox) gradually move over the course of several decades due to axial precession,[151] and therefore those stars' positions, and the zodiac signs that they define, become disconnected from the seasons over time (they were, however, originally devised to align with the seasons). The classical Greek system of astronomy, however, came to define the twelve zodiac signs based on the position on the ecliptic into which the Sun rises at the vernal equinox. The first degree of Aries (the first zodiac sign) is therefore defined as the position of the Sun at the vernal equinox, and not in relation to the stars that comprise the constellation of Aries. This is an important distinction because the Indian system of zodiac signs, as in the *Xiuyao jing* described above, is defined in relation to the *nakṣatra*–s and/or Chinese lunar stations. Both *nakṣatra*–s and Chinese lunar stations are defined in relation to fixed stars. The Indians used the sidereal zodiac, whereas some late Hellenistic astrologers, and evidently the Persians in China, used a tropical zodiac.[152]

As to evidence that a tropical zodiac was employed in China, there is a terse Japanese scribal note at the end of the *Qiyao rangzai jue* (see 5.3 below) from the year 999 (year 1 of Chōhō 長保) that cites an unspecified text. It states that the Moon 月 (a scribal error for the graphically similar Sun 日) is fixed at the third degree of Revatī / Kui 奎 (here the Chinese lunar station) at the vernal equinox in the second lunar month.[153] It further states that Aries (白羊宮, 'white ram')[154] is defined from this point, although there was now a discrepancy of more than 3 degrees (here this refers to Chinese degrees), and that a new table should be made as the earlier divisions remain.[155] This is explained by the fact that between 724 (when the solar table of the *Qiyao rangzai jue* is stated to have been produced)[156] and 999, a total of 275 years had elapsed. By the year 999, the Sun had retreated about 3.84 degrees (3.89 Chinese degrees). Japanese astrologers, who practiced a system that had been directly imported from China, employed the tropical

[151] Axial precession is the apparent movement of the stars (1 degree every 71.6 years) that results from the change of the rotational axis of the Earth.

[152] It is unclear whether this was Ptolemy's model in China.

[153] This is in reference to the solar table of the *Qiyao rangzai jue*: Taishō 1308, vol. 21: 450c5-451a11. Note that the *Qiyao rangzai jue* itself employs a sidereal zodiac, though Japanese astrologers who used this text alongside the *Duli yusi jing* employed the tropical zodiac.

[154] It can be inferred that the term 'white ram' 白羊宮 for Aries is derived from the *Duli yusi jing* as it appears in the aforementioned *Xitian yusi jing* 西天聿斯經, but not in earlier extant materials. See Wan Minying, *Xingxue dacheng*, 436.

[155] Taishō 1308, vol. 21: 452b1-4.

[156] See T 1308, 21: 450c6.

zodiac, and made necessary corrections to older texts in their possession, in order to ensure that the zodiac signs were properly aligned with the vernal equinox. This was undoubtedly also the case earlier in China.

It seems that this tropical zodiac in China was first defined in relation to the Chinese lunar stations. This would become problematic over time because these stars, as just discussed above, would shift due to axial precession, and thus become unaligned with the seasons. An eleventh century military manual, the *Wujing zongyao* 武經總要 (*Complete Essentials for the Military Classics*),[157] compiled by Zeng Gongliang 曾公亮 (999–1078) and Ding Du 丁度 (990–1053) between 1040–1044, also mentions the changes in degrees over time (a retreat of 1 Chinese degree every 85 years),[158] and defines Aries in relation to the vernal equinox as it is to be observed in year 4 of Qingli 慶曆 (1044):

> 春分二月中，日在奎二度四分，後三日入白羊宮，其神天魁。
> At the vernal equinox, the central solar term of the second month,[159] the Sun is in Kui 2.25 degrees. Three days later it enters Aries. The deity is Tian Kui.[160]

Technically the Sun should enter the first degree of Aries immediately at the vernal equinox. The additional required time of three days reflects an outdated definition of Aries from about two centuries prior. In other words, the zodiac sign of Aries in the ninth century was originally aligned with the vernal equinox, yet it was also defined according to a sidereal parameter. Thus, due to the passage of time and a failure to make adjustments, it became detached from the vernal equinox. This indicates that the tropical zodiac in China was originally defined in relation to the sidereal lunar stations. Japanese astrologers were aware that it had to be aligned with the vernal equinox, and updated their system accordingly, but this key point appears to have been forgotten in China.

In another Japanese source, the *Byakuhō kushō* 白寶口抄 (discussed in 6.4 & 6.5 below), the *Duli yusi jing* is also said to define the first month from Pisces (TZ vol. 7, 315a20), which in the solar table of the *Qiyao rangzai jue* would correspond exactly thirty days prior to the seventeenth degree of Wei 危 (the first day of the solar term of

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[157] As Marcia Butler points out, such manuals as this "are exceptional because they are the earliest extant comprehensive manuals, covering all aspects of pre-modern warfare ... they also contain sections on cosmological ideas, moral mandates, sanctioned deities, prayer texts, sacrifices, oaths, and divination rituals, such as watching the ether, divining Heavenly bodies, methods of 'inferring' future events, and calendrical and spatial divination." Marcia Butler, "Reflections of a Military Medium: Ritual and Magic in Eleventh and Twelfth Century Chinese Military Manuals" (PhD dissertation, Cornell University, 2007), 17.

[158] Compare with the *Qiyao rangzai jue* which states that there will be a difference of 1 Chinese degree after 83 years (滿八十三年即差一度). T 1308, 21: 450c6-7.

[159] *Zhong* here 中 refers to *zhongqi* 中氣. I must thank Yano Michio for pointing this out to me (private communication 2015/10/16).

[160] See Zeng Gongliang 曾公亮, *Wujing zongyao houji* 武經總要後集, fasc. 20, in SKQS 726: 941. Kui 魁 seems to refer to the lunar station Kui 奎宿.

Yushui 雨水). The zodiac here is clearly aligned with the solar terms, which themselves are aligned with the equinoxes and solstices. One problem that East Asian astrologers had to address was that Chinese observational astronomy, which was adopted in Japan, is based on the Chinese system of twenty-eight lunar stations. These lunar stations are of varying lengths and traditionally add up to 365.25 degrees, which stand in contrast to the zodiac signs that are uniformly comprised of 30 degrees each, totaling 360 degrees. It appears that when Li Miqian introduced horoscopy between 795–805, he or perhaps his team also developed a system to reconcile these two systems by dividing the twenty-eight Chinese lunar stations into twelve divisions. Interestingly, these twelve divisions were made exactly equal by assigning thirty solar days (not civil days) to each based, it seems, on the table of solar terms that is preserved in the *Qiyao rangzai jue*. The *Qiyao rangzai jue* states that this table was calculated in year 12 of Kaiyuan (724).

The exact parameters for the zodiac signs devised for use with the *Duli yusi jing*[161] can be inferred based on the above details (see table 4.9). The year 724 is furthermore significant because at this time the court astronomer and monk Yixing was active in the capital. However, his calendar, the *Dayan li*, a work in progress when he died in 727, gives slightly different parameters that include fractions.[162] The table of solar terms of the *Qiyao rangzai jue*, however, equals 360 degrees, which is an occidental parameter, and one that was used in the *Navagraha-karaṇa*.[163] The original creator of the original solar table itself, therefore, might have been a figure such as Gautama Siddhārtha.

The use of a tropical zodiac in China points to the active practice of Hellenistic astrology in China. As to the school of Hellenistic astrology that was practiced, we should return to Mak's thesis that the *Duli yusi jing* was a translation of Dorotheus' work. This is definitely shown to be correct in light of further evidence from a Daoist astrological work.

[161] Curiously, the circular table in the *Qiyao rangzai jue* uses a different model of dividing the zodiac signs amongst the lunar stations. It defines Aries from the thirteenth degree of Lou 婁, which would not have aligned with the vernal equinox. In short, the author of the *Qiyao rangzai jue* does not appear to have utilized the *Duli yusi jing*, but astrologers from the same period made use of the same table of solar terms originally produced in 724. The definitions of the zodiac signs in relation to the twenty-eight lunar stations are given in the *Xingxue dacheng*: it defines Xu 戌 (i.e., the earthly branch corresponding to Aries) as starting from the first degree of Kui 奎 (SKQS 806: 296b3).

[162] Compare columns "T" and "Ch" in Yano, "The *Chi'yao jang-tsai-chueh* and its Ephemerides," *Centaurus* 29, no. 1 (1986): 30. Yano, however, does not seem aware that the table is designed with 360 degrees in mind.

[163] The *Xin Tang shu* (vol. 3, 692) explains that the *Navagraha-karaṇa* uses 360 degrees.

Table 4.9: Lunar Stations – Zodiac Signs – Solar Terms Correspondences

	11月 Capricorn		12月 Aquarius		1月 Pisces		2月 Aries		3月 Taurus		4月 Gemini	
	冬至	小寒	大寒	立春	雨水	驚蟄	春分	清明	穀雨	立夏	小滿	芒種
日	Winter Solstice						Vernal Equinox					
1	斗 9	牛 1	女 8	危 2	危 17	室 15	奎 3	婁 1	胃 3	昴 4	畢 8	參 6
2	斗 10	牛 2	女 9	危 3	室 1	室 16	奎 4	婁 2	胃 4	昴 5	畢 9	參 7
3	斗 11	牛 3	女 10	危 4	室 2	室 17	奎 5	婁 3	胃 5	昴 6	畢 10	參 8
4	斗 12	牛 4	女 11	危 5	室 3	壁 1	奎 6	婁 4	胃 6	昴 7	畢 11	參 9
5	斗 13	牛 5	虛 1	危 6	室 4	壁 2	奎 7	婁 5	胃 7	昴 8	畢 12	參 10
6	斗 14	牛 6	虛 2	危 7	室 5	壁 3	奎 8	婁 6	胃 8	昴 9	畢 13	井 1
7	斗 15	牛 7	虛 3	危 8	室 6	壁 4	奎 9	婁 7	胃 9	昴 10	畢 14	井 2
8	斗 16	牛 8	虛 4	危 9	室 7	壁 5	奎 10	婁 8	胃 10	昴 11	畢 15	井 3
9	斗 17	女 1	虛 5	危 10	室 8	壁 6	奎 11	婁 9	胃 11	畢 1	畢 16	井 4
10	斗 18	女 2	虛 6	危 11	室 9	壁 7	奎 12	婁 10	胃 12	畢 2	觜 1	井 5
11	斗 19	女 3	虛 7	危 12	室 10	壁 8	奎 13	婁 11	胃 13	畢 3	參 1	井 6
12	斗 20	女 4	虛 8	危 13	室 11	壁 9	奎 14	婁 12	胃 14	畢 4	參 2	井 7
13	斗 21	女 5	虛 9	危 14	室 12	壁 10	奎 15	婁 13	昴 1	畢 5	參 3	井 8
14	斗 22	女 6	虛 10	危 15	室 13	奎 1	奎 16	胃 1	昴 2	畢 6	參 4	井 9
15	斗 23	女 7	危 1	危 16	室 14	奎 2	奎 17	胃 2	昴 3	畢 7	參 5	井 10
	5月 Cancer		6月 Leo		7月 Virgo		8月 Libra		9月 Scorpio		10月 Sagittarius	
	夏至	小暑	大暑	立秋	處暑	白露	秋分	寒露	霜降	立冬	小雪	大雪
	Summer Solstice						Autum Equinox					
1	井 12*	井 27	柳 10	張 4	張 19	翼 16*	軫 12	角 8	氐 1	氐 16	尾 6	箕 4
2	井 13	井 28	柳 11	張 5	翼 1	翼 17	軫 13	角 9	氐 2	房 1	尾 7	箕 5
3	井 14	井 29	柳 12	張 6	翼 2	翼 18	軫 14	角 10	氐 3	房 2	尾 8	箕 6
4	井 15	井 30	柳 13	張 7	翼 3	翼 19	軫 15	角 11	氐 4	房 3	尾 9	箕 7
5	井 16	鬼 1	柳 14	張 8	翼 4	軫 1	軫 16	角 12	氐 5	房 4	尾 10	箕 8
6	井 17	鬼 2	星 1	張 9	翼 5	軫 2	軫 17	角 13	氐 6	房 5	尾 11	箕 9
7	井 18	柳 1	星 2	張 10	翼 6	軫 3	軫 18	亢 1	氐 7	心 1	尾 12	箕 10
8	井 19	柳 2	星 3	張 11	翼 7	軫 4	軫 19	亢 2	氐 8	心 2	尾 13	斗 1
9	井 20	柳 3	星 4	張 12	翼 8	軫 5	角 1	亢 3	氐 9	心 3	尾 14	斗 2
10	井 21	柳 4	星 5	張 13	翼 9	軫 6	角 2	亢 4	氐 10	心 4	尾 15	斗 3
11	井 22	柳 5	星 6	張 14	翼 10	軫 7	角 3	亢 5	氐 11	尾 1	尾 16	斗 4
12	井 23	柳 6	星 7	張 15	翼 11	軫 8	角 4	亢 6	氐 12	尾 2	尾 17	斗 5
13	井 24	柳 7	張 1	張 16	翼 12	軫 9	角 5	亢 7	氐 13	尾 3	箕 1	斗 6
14	井 25	柳 8	張 2	張 17	翼 13	軫 10	角 6	亢 8	氐 14	尾 4	箕 2	斗 7
15	井 26	柳 9	張 3	張 18	翼 14	軫 11	角 7	亢 9	氐 15	尾 5	箕 3	斗 8

* Some days see one degree skipped over, apparently in order to fit 365 degrees into 360 days. These might otherwise appear to be scribal errors (although there are obvious such errors in the table). This table does not use fractions, and therefore does not total 365.25 degrees (the traditional Chinese definition of the celestial equator and ecliptic), but instead equals 360 degrees, an occidental parameter. This table is also important in identifying some icons (see chapter 5.4).

The Ming-era Zhengtong Daoist canon 正統道藏 of 1445 includes at least two texts containing discernible Hellenistic elements: the *Lingtai jing* 靈臺經 (DZ 288)[164] and the *Chengxing lingtai miyao jing* 秤星靈臺祕要經 (DZ 289), a fragmentary work written within a few decades after 894–898 (the Qianning 乾寧 era).[165] Their titles may be translated as *Scripture of the Spiritual Terrace* and *Scripture of the Secret Essentials of the Compass Spiritual Terrace*.[166] The former, whose extant version is missing the first eight chapters, is a manual on horoscopic astrology. The latter, which will be explored in detail below (5.4), is a ritual manual that appears to be used in coordination with the *Lingtai jing*. The *Lingtai jing* contains elements of Hellenistic astrology that were clearly derived from the *Duli yusi jing*; thus it was likely compiled sometime between 785–898.

As to the original title of the *Lingtai jing* and its author, the *Song shi* 宋史 lists a *Chengxing jing* 秤星經 (*Compass Scripture*) by Tang Mei 唐昧, who was an ancient Chinese astronomer.[167] The Song-era text catalog *Junzhai dushu zhi* 郡齋讀書誌 (*Chronicle of Books Read in the Commandery Estate*) by Chao Gongwu 晁公武 (1105–1180) lists this text in three fascicles with no author. Its brief description of the text reads as follows:

> 秤星經，三卷。右不著撰人。以日，月，五星，羅睺，計都，紫炁，月孛十一曜，演十二宮宿度，以推人貴賤，壽夭，休咎。不知其術之所起，或云天竺梵學也。
>
> *Chengxing jing*, 3 fascicles. The above does not ascribe a compiler. It prognosticates a person's status, longevity and fortune through the eleven planets through the Sun, Moon, five planets, Rāhu, Ketu, Ziqi, and Yuebei,[168] and an explanation of the parameters for the twelve zodiac signs and [twenty-eight] lunar

[164] Marc Kalinowski dates this to the beginning of the tenth century, but I am in favor of dating it to the mid-ninth century. See below. Marc Kalinowski, "Lingtai 靈臺經," in *The Taoist Canon A Historical Companion to the Daozang*, vol. 1, ed. Kristofer Schipper and Franciscus Verellen (Chicago: The University of Chicago Press, 2004), 337.

[165] Marc Kalinowski, "*Chengxing lingtai biyao jing* 秤星靈臺祕要經," in *The Taoist Canon A Historical Companion to the Daozang*, vol. 1, ed. Kristofer Schipper and Franciscus Verellen (Chicago: The University of Chicago Press, 2004), 337–338. The contents of these two works are outlined by Ren Jiyu and Zhong Zhaopeng, but it seems they were unaware of their various foreign elements. See Ren Jiyu 任繼愈 and Zhong Zhaopeng 鐘肇鵬, eds., *Daozang tiyao* 道藏提要 (Beijing: Zhongguo Shehui Kexue Chubanshe, 1991), 214–215.

[166] *Chengxing* 秤星 ('scale & star') here seems to refers to a *dingpan-xing* 定盤星, which is a flat circular or square plate on which marks of graduation are indicated (*xing* 星), i.e., a compass. *Chengxing* therefore likely refers to a plate representing the ecliptic or equator with the degrees marked. As a metaphor, the term refers to a standard for something. See *Foguang dacidian* 佛光大辭典, 3184.

[167] *Song shi* 宋史, Zhonghua shuju edn., vol. 15, 5233. Tang Mei was an ancient figure from the state of Chu 楚. The *Jin shu* 晉書 (Zhonghua Shuju edn., vol. 2, 277–278) states he was proficient in astronomy.

[168] Ziqi and Yuebei will be discussed in detail below.

stations.[169] The origins of the technique are unknown. Some say it is an Indian science.[170]

The content of the extant *Lingtai jing* corresponds to this description. In light of the above points, the original title of the *Lingtai jing* was likely *Chengxing lingtai jing* 秤星靈臺經 (*Scripture of the Compass Spiritual Terrace*). Whoever compiled it seems to have attributed it to the ancient astronomer Tang Mei as a means of legitimizing its contents, and disguising the foreign origins of much of its content.

The *Lingtai jing* is especially important since it draws upon, albeit without specificially citing, the *Duli yusi jing*. The Japanese monk Shūei 宗叡 (809–884), who returned to Japan from China in 865, noted that the *Duli yusi jing* was important for worldly purposes.[171] In light of the important role that this text came to play in Japan (see 6.4 below), and the popularity of astrology in the late-Tang, together with Shūei's remarks, we can infer that Buddhist astrologers in the mid-ninth century were familiar with, and likely proficient in, the type of astrology that we find in the *Lingtai jing*. The content of this work is therefore instructive with respect to Buddhist astrology in the late-Tang.

The extant *Lingtai jing* includes a number of distinctly Hellenistic concepts that can be traced back to Dorotheus' work. Some of the other content, however, is clearly from Iranian, Indian and Chinese sources, most notably the twenty-eight *nakṣatra*–s,[172] and the mention of the Chinese astral deities Tianyi 天一 and Taiyi 太一. It also draws on a concept first explained in Amoghavajra's *Xiuyao jing*, in which six *nakṣatra*–s are assigned as 'life' 命宿, 'affairs' 事宿, 'intention' 意宿, 'gathering' 聚宿, 'common' 同宿, and 'overcoming' 克宿. The *Lingtai jing* even reproduces Yang Jingfeng's commentary from the *Xiuyao jing*, in which an example of how to determine these assignments is given, though instead of the *Xiuyao jing* being cited, a certain *Zi Tang jing* 紫唐經 (*Purple Tang Scripture*) is quoted.[173] Thus, what was originally a concept from a

[169] This likely refers to a table in which the spatial dimensions of the zodiac signs are aligned with the lunar stations. An authoritative table of this type would have been necessary to practice horoscopy based on the twelve zodiac signs, while using Chinese observational astronomy, which is based on the lunar stations.

[170] Taiwan Shangwu Yinshuguan edn., vol. 4, 842.

[171] See Shūei's catalog: "The assorted works above might not be gates of Dharma [i.e., Buddhist works], but they are held as important in the world" 右雜書等雖非法門世者所要也. T 2174A, 55: 111c1.

[172] We must, however, bear in mind that the *nakṣatra*–s were also incorporated from India into Iranian astrology and cosmology, such as in chapter II of the *Bundahišn*. See E.W. West, trans., *The Bundahis*, Pahlavi Texts Part I, Sacred Books of the East, vol. V, ed. F. Max Muller (Oxford: Clarendon Press, 1880), 11. The *nakṣatra* lore in Chinese therefore may actually be more directly derived from Iranian rather than Indian sources in many cases, especially from the turn of the ninth century.

[173] The difference between the two systems is that in the *Xiuyao jing*, the position of the Moon determines the natal *nakṣatra*, whereas in the *Lingtai jing* it is the Sun. See T 1299, 21: 392b4-9. DZ 288, Wenwu Chubanshe edn., vol. 5, 23c6-18. *Sukuyō-kyō shukusatsu*, vol. 1, 35.

Buddhist scripture was adopted into a new Daoist context. This is a prime example of cross-religious textual reuse. The compiler of the *Lingtai jing* clearly drew on multiple sources. The concepts drawn from Hellenistic astrology are of particular present interest as they were derived from Dorotheus.

The opening lines of chapter nine of the *Lingtai jing* define the triplicity (*sanfangzhu* 三方主).[174] The concept of triplicity divides the twelve zodiac signs into four even sets of three signs. The three signs are positioned relative to one another to form an equilateral triangle. Each set is associated with planetary rulers, which have special significance within a chart when identified as rulers. These differ based on whether the horoscope is nocturnal or diurnal (i.e., whether the time of the chart is night or day). If nocturnal, the zodiac sign in which the Moon is located will determine the planetary rulers. If diurnal, the zodiac sign in which the Sun is located will determine the planetary rulers. The zodiac signs are indicated with the earthly branches (地支) as functional equivalents, a feature that we already saw in the *Xiuyao jing* (see table 4.7).

> 寅午戌。晝生，日木土。夜生，木日土。申子辰。晝生，土水木。夜生，水土木。亥卯未。晝生，金火月。夜生，火金月。巳酉丑。晝生，金月火。夜生，月金火。
> **Sagittarius, Leo, Aries**. Diurnal birth: Sun, Jupiter, Saturn. Nocturnal birth: Jupiter, Sun, Saturn. **Gemini, Aquarius, Libra**. Diurnal birth: Saturn, Mercury, Jupiter. Nocturnal birth: Mercury, Saturn, Jupiter. **Pisces, Scorpio, Cancer**. Diurnal birth: Venus, Mars, Moon. Nocturnal birth: Mars, Venus, Moon. **Virgo, Taurus, Capricorn**. Diurnal birth: Venus, Moon, Mars. Nocturnal birth: Moon, Venus, Mars.[175]

An almost identical definition is given in Book I of Dorotheus' *Carmen Astrologicum* as follows:

> **Aries, Leo, and Sagittarius** are a triplicity; **Taurus, Virgo and Capricorn** are a triplicity, **Gemini, Libra, and Aquarius** are a triplicity; and **Cancer, Scorpio, and Pisces** are a triplicity. Know the lords of the triplicities of the signs: the lords of the triplicity of **Aries** by day are the Sun, then Jupiter, then Saturn, by night Jupiter, then the Sun, then Saturn; the lords of the triplicity of **Taurus** by day are Venus, then the Moon, then Mars, by night the Moon, then Venus, then Mars, and in **Virgo** is also a share for Mercury; the lords of the triplicity of **Gemini** by day are Saturn, then Mercury, then Jupiter, by night Mercury, then Saturn, then

[174] Greek: τρίγωνον. Latin: *trigonum*.
[175] DZ 288, Wenwu Chubanshe edn., vol. 5, 22c6-8. Emphasis on zodiac signs added for clarity.

> Jupiter, the lords of the triplicity of **Cancer** by day are Venus, then Mars, then the Moon, by night Mars, then Venus, then the Moon.[176]

Vettius Valens (b. 120 CE), a major Hellenistic astrologer, also defines the triplicities in this manner (II,1).[177] Note that Al-Bīrūnī (973–c.1052), a noteworthy Iranian-Muslim scholar and astronomer, also defines the triplicities in a similar manner, although he only provides two rather than three lords.[178] The concept of triplicity was therefore fundamental to classical astrology even outside the original Hellenistic context. Dorotheus himself states, "I tell you that everything which is decided or indicated is from the lords of the triplicities."[179] It is therefore unsurprising that the triplicity came to have an important function in Chinese astrology.

This definition of the triplicity in Chinese was most certainly directly cited from the *Duli yusi jing*. This can be established with great certainty since this concept appears in Dunhuang document Pelliot chinois 4071, a horoscope dated to 975, compiled by a certain Kang Zun 康遵 (d.u.), who was likely a Sogdian in light of the surname Kang. Jao Tsung-i identified in this horoscope citations of the *Duli yusi jing*.[180] Triplicity is also employed in extant Japanese horoscopes, one of which also cites the *Duli yusi jing* as *Yusi jing* 聿斯經 (see 6.5 below).

Chapter ten of the *Lingtai jing* deals with the concept of '*lots*'.[181] Much of the content appears to be derived from Dorotheus. The parallels between the Chinese text and Dorotheus cited below will demonstrate this. The Chinese term for '*lots*' is *fei pei* 飛配 ('flying assignments'). This seems to reflect the Greek κλῆροι: lots, as in to assign or appoint by lot (verb: κληρόω). *Lots* are points on the horoscopic chart that are determined by measuring the distance in degrees between two specific planets, and then applying that same measured distance from the ascendant (the eastern horizon) or another third point to determine a specific point on the chart. This specific point on the chart is associated with some matter in life such as fortune or marriage, and thus the astrologer analyzes these sensitive areas of the chart with these *lots* in mind. The *lot* will refer to a specific degree on the chart, but in practice the zodiac sign upon which the *lot* falls becomes associated

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[176] David Pingree, *Dorothei Sidonii Carmen Astrologicum* (Leipzig: Teubner, 1976), 161–162.

[177] Otto Neugebauer and Henry Bartlett Van Hoesen, *Greek Horoscopes*, (Philadelphia: American Philosophical Society, 1959), 13. Vettius Valens, *Anthologies*, trans. Mark T. Riley (unpublished translation), 25.

[178] See Al-Bīrūnī, *The Book of Instruction in the Elements of the Art of Astrology*, 259. This scheme was perhaps derived from Ptolemy's *Tetrabiblos* (I,18).

[179] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 162.

[180] Jao Tsung-i, "Lun qiyao yu shiyi yao," 771–793. For a relevant survey of the document see Weixing Niu, "On the Dunhuang Manuscript P.4071: A Case Study on the Sinicization of Western Horoscope in Late 10th Century China," in *The Circulation of Astronomical Knowledge in the Ancient World*, ed. John M. Steele (Leiden: Brill, 2016), 527–558.

[181] In modern astrology these are called 'Arabic parts'.

with the topic of the *lot*.[182] The *lot* of fortune (福德) is defined as follows in the *Lingtai jing*:

> 晝生從日，夜生從月，從東出配之至終。如配在七強，福祿殊常。配在五弱位，即福薄。
> If a diurnal birth, from the Sun. If a nocturnal birth, from the Moon. Assign [the *lot*] from the eastern [ascendant]. If the *lot* [falls] into one of the seven strong [places], fortune will be exceptional. If the *lot* [falls on] one of the seven weak places, the fortune will be meager.[183]

With respect to the *lot* of fortune, Dorotheus states, "[For him] whose birth is in the day count from the Sun to the Moon and add it to the degrees of the ascendent, and in a nocturnal nativity the opposite of this."[184] As to these seven strong and five weak places[185] mentioned in the Chinese, Dorotheus elsewhere defines the latter as the second, third, sixth, eighth and twelfth places, whereas the other seven are 'preferred' (understood in Chinese as 'weak' versus 'strong').[186] This *lot* of fortune is of particular note because "as we know it in our sources [it] is certainly the invention of Hellenistic Egypt, but it may ultimately be derived from an older Babylonian 'place of the Moon', the great god Sin."[187]

The lot of the father (父宮) is defined as follows in the *Lingtai jing*:

> 白日從日至土，夜生反此，東出配之，如有善星，父貴。
> Daytime: from the Sun to Saturn. If a nocturnal birth, it is the reverse of this. Assign [the *lot*] from the eastern [ascendant]. If there is a good star [i.e., planet] present [at the *lot*], the father will be esteemed.[188]

Dorotheus also states that the *lot* of the father is to be calculated from the degree of the Sun to the degree of Saturn. This is reversed if the natal chart is nocturnal. He further states, "If you find its lord in a good place, it indicates the good of his father."[189] Here 'its lord' likely refers to the domicile ruler. Thus, if the lot falls on Aries, the lord is Mars.

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[182] I must thank Chris Brennan, a private scholar of Hellenistic astrology, for instruction on the definition of these *lots*.

[183] DZ 288, Wenwu Chubanshe edn., vol. 5, 24a1-2.

[184] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 191.

[185] This in reference to the system of twelve 'places' (Greek τόποι and Latin *loci*), a topic we will discuss below (5.3). The twelve *places* are twelve static demarcations of the ecliptic through which the zodiac signs and planets move. The stars and planets move, but the twelve places as spatial sections of the ecliptic remain static.

[186] Ibid., 164.

[187] Stanley J. Tester, *A History of Western Astrology* (Woodbridge: Boydell Press, 1987), 28.

[188] DZ 288, Wenwu Chubanshe edn., vol. 5, 26a12-13.

[189] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 174.

Although this latter point is slightly different from the Chinese, it still reflects a common source.

The *lot* of the mother in the *Lingtai jing* (母宮) is defined as "from Venus to the Moon if a diurnal birth and the reverse of this if a nocturnal birth." It also gives the following prediction:

> 日月同在翻復宮，又居東方，此人父母不同類。
> If the Sun and the Moon are in tropical signs, and also [a tropical sign] is resident in the East, then this person's parents will be of different types [races].[190]

Dorotheus states, "If you find the Sun and the Moon in tropical signs, and the ascendent is a tropical sign, then the parents of this native are not from one race."[191] The term *fanfu gong* 翻復宮 ('tropical palace') in the Chinese refers to tropical or solstitial signs, i.e., Cancer and Capricorn. These are the points in which the Sun 'turns' in relation to its celestial latitude or, in other words, reaches its zenith at the solstices before 'turning back'. The zodiac sign of Cancer is defined from the summer solstice, and Capricorn is defined from the winter solstice.[192] Thus the Chinese rendering of *fanfu* 翻復, 'turning' or 'reversing', semantically reflects the original Greek term τροπικός, 'pertaining to turning'. Similarly, in English the term 'tropical' is etymologically derived from this term.[193] This particular line is significant since it indicates how the integrity of the original Greek concept was kept relatively intact in Chinese translation. It strongly indicates an awareness of the tropical zodiac in China. It is furthermore a rare example of what was originally an astronomical Greek term translated into Chinese, long before contact with Christian Europe.[194]

In the *Lingtai jing*, the *lot* of brothers (兄弟宮) is defined as "from Saturn to Jupiter".[195] Dorotheus also defines it as from Saturn to Jupiter. Dorotheus states the follow on the matter of brothers:

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[190] DZ 288, Wenwu Chubanshe edn., vol. 5, 26a15-18.

[191] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 174.

[192] Ptolemy states, "For there are two solstitial signs, the first interval of 30° from the summer solstice, the sign of Cancer, and the first from the winter solstice, Capricorn; and they have received their name from what takes place in them. For the Sun turns when he is at the beginning of these signs and reverses his latitudinal progress, causing summer in Cancer and winter in Capricorn." Claudius Ptolemy, *Tetrabiblos*, trans. Frank Egleston Robbins, Loeb Classical Library (Cambridge, MA: Harvard University Press, 1940), 67. Note that Manilius in his *Astronomica* also defines Aries and Libra as tropical signs, though these are actually equinoctial signs. This indicates that there were some variant definitions in the classical tradition. See Manilius, *Astronomica*, Loeb Classical Library, trans. G.P. Goold (Cambridge, MA: Harvard University Press, 1977), 97.

[193] See "tropical" in Online Etymology Dictionary. http://www.etymonline.com/

[194] It is of course unlikely that the translation was directly from Greek into Chinese.

[195] DZ 288, Wenwu Chubanshe edn., vol. 5, 25b1.

> I am showing you the matter of brothers: know that he for whom the Moon is in Leo or Sagittarius or whose ascendant is one of these two signs will have few brothers. … Whoever has Scorpio or Cancer or Pisces for his ascendant, know that his mother will bear numerous children.[196]

There is a close parallel to this in the *Lingtai jing*:

> 若身命及此宮配，在師子，人馬，磨竭，寶瓶，雙女，皆主少兄弟。如得魚，羊蝎，蟹，即多兄弟。
> If the body or life signs [i.e., the signs in which the Moon and Sun are respectively present] and the *lot* of this sign [the sign signifying the lot of brothers] are in Leo, Sagittarius, Capricorn, Aquarius or Virgo, it will always preside over few brothers. If they take Pisces, Scorpio[197] or Cancer, then they will have many brothers.[198]

The Chinese passage is saying that if the Sun or Moon fall on the sign signifying the *lot* of brothers, then it will indicate few or many brothers, depending on the zodiac sign on which the Sun or Moon fell. This is slightly different from Pingree's translation of Dorotheus, but the latter point about Scorpio, Cancer and Pisces indicating few brothers within the context of the *lot* of brothers clearly indicates a common source. Note that *shen* 身 and *ming* 命 here are abbreviations of *shen gong* 身宮 ('body palace') and *ming gong* 命宮 ('life palace'). Elsewhere in the text, these are defined in relation to the Moon and the Sun respectively.[199] Dorian Gieseler Greenbaum notes that in Hellenistic astrology "the Moon is associated with the body, and the Sun with the mind, the soul and spirit." One major basis for this is Valens, whom she quotes as saying, "For cosmically the Moon is fortune and body and breath, and since she is close to the earth and sends her effluence into us, she brings about something similar as she has authority over our body."[200] In a perhaps related context, there was a concept, attributed to the legendary early astrologers of Hellenistic Egypt, Nechepso and Petosiris, that "the ascendent at birth is the sign of the Moon at the time of conception."[201] This connection between the Moon and body is therefore entirely Hellenistic in origin, and well preserved in the Chinese tradition.

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[196] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 178–179.

[197] *Yang xie* 羊蝎 is a scribal error for *Tian xie* 天蝎.

[198] DZ 288, Wenwu Chubanshe edn., vol. 5, 25b2-4.

[199] "First determine the sign in which the Moon is present as the *body sign* 先定太陰所在之宮便爲身宮." vol. 5, 23b8-9. "The *life sign* is the zodiac sign-*nakṣatra* in which the Sun is present 以太陽所生之宮宿爲命宮." vol. 5, 23c6. Read *sheng* 生 as *zai* 在.

[200] Dorian Gieseler Greenbaum, *The Daimon in Hellenistic Astrology: Origins and Influence* (Leiden: Brill, 2015), 305.

[201] Tester, *A History of Western Astrology*, 79.

The *lot* of wives (妻妾宮) in the *Lingtai jing* is defined as "from Saturn to Venus". The text states that "if Mars appears [in the sign signifying the *lot* of wives], then she will act as a whore."[202] Dorotheus states that the *lot* of marriage is defined from Venus to Saturn. With respect to appearance of Mars in the *lot*, "it indicates women who will marry [several] men in succession and will play the whore with men."[203] As above, there is a slight difference in meaning, but the prediction that the appearance of Mars in the *lot* of marriage as signifying that one's wife will "act as a whore" demonstrates a clear parallel. In addition, Dorotheus states, "Also if Mars aspects[204] Venus and Venus also aspects it [Mars] as I mentioned to you, it indicates a marriage of short duration."[205] Similarly, the *Lingtai jing* states, "If Mars sees Venus, the wife will be no good."[206]

Although this type of horoscopy is strongly Greek in character, and was originally discussed within the framework of Greek physics and cosmology within the Hellenistic world,[207] it does not appear that Chinese astrologers in this period ever attempted to explain the physical or theological underpinnings of astrology. The methods and lore translated into Chinese alone were sufficient to practice horoscopy. As to the cosmology of Chinese astrologers, apart from the aforementioned *Navagraha-karaṇa*, which was ultimately of limited impact in Chinese astronomy, there are no extant foreign texts proving that the world is spherical. Thus, in the case of Chinese Buddhist astrologers, we might imagine that they practiced horoscopy with a traditional flat earth Mt. Meru cosmology in mind. Nevertheless, despite such issues, an astrologer relying on tables would have been able to produce a reasonably accurate horoscope chart without any reference to physical theories.

The foregoing discussion demonstrates that Hellenistic astrology, in particular the concepts of triplicity and *lots*, constitute a significant component in the *Lingtai jing*, a text that draws from the *Duli yusi jing*. This highlights the indirect Hellenistic influence on Chinese religions of the late-Tang. The earlier exposure to foreign astrology through Buddhist scriptures likely provided an already familiar foundation atop which Iranians in

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[202] 晝夜皆從土至金，東出配之 … 若更火，即爲娼婦。DZ 288, *Wenwu Chubanshe* edn., vol. 5, 25b14-17. Reading *geng* 更 as *jian* 見.

[203] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 199.

[204] *Aspect* is the geometrical relationship between two planets on a chart determined by the number of degrees between them. The term 'aspect' in English is derived from the Latin *aspectus* (sight, look). The astrological concept of *aspect* was originally conceived as planets 'seeing' one another. Ptolemy formally recognized four types of *aspect*: *opposition* (180°), *trine* (120°), *quartile* (90°) and *sextile* (60°). See Book 1.13 of Ptolemy's *Tetrabiblos*. Ptolemy, *Tetrabiblos*, 73–75. *Trine* was translated as *san he* 三合 in Chinese. Yano, *Mikkyō senseijutsu*, 202.

[205] Ibid., 205.

[206] "若火見金，妻不良." DZ 288, Wenwu Chubanshe edn., vol. 5, 25c6.

[207] For a relevant discussion see Alexander Jones, "The Stoics and the Astronomical Sciences," in *The Cambridge Companion to the Stoics*, ed. Brad Inwood (Cambridge: Cambridge University Press, 2003), 337–342.

China, be they Persians or Sogdians, could begin practicing advanced forms of horoscopy.

The *Duli yusi jing* was an immensely influential text not only in China, but also in Japan, where it became the core manual for horoscopy as practiced by Buddhist monks. The extant horoscopes from Japan shed light on many technical details, giving us a picture of how horoscopy was utilized in practice. We will return to this topic below, when we discuss Japanese Buddhist astrology (see 6.5 below).

4.8. Cao Shiwei's *Futian li* 符天曆

Although the *Duli yusi jing* provided abundant astrological lore to interpret a horoscope, in order to draw up a horoscope one must be able to calculate the positions of planets at any point of time. In the case of Indian astrology, which also deeply influenced Iranian astrology, it is not only the seven visible planets (the five visible planets plus the Sun and Moon) that must be calculated, but also the 'hidden planets' of Rāhu and Ketu. As mentioned earlier, the *Xiuyao jing* also mentions the need for an Indian calendar, but these at the time were presumably unavailable to the general populace. Consequently, native Chinese calendars were either unavailable or simply incomplete for this task.

This problem was solved by Cao Shiwei 曹士蔿 (d.u.). Before the translation of the *Duli yusi jing*, he compiled the *Futian li* 符天曆 (*Calendar that Tallies with Heaven*) between 780–783. The *Xin Wudai shi* 新五代史 (a history of the five post-Tang regimes) provides the following details:

> 唐建中時，術者曹士蔿始變古法，以顯慶五年爲上元，雨水爲歲首，號符天歷。然世謂之小歷，祇行於民間。
> During the Jianzhong reign era [780–783] of the Tang, the diviner Cao Shiwei first changed the old methods, making Xianqing 5 [660] the start of the calendar[208] and *yushui*[209] the start of the year, calling [this calendar] the *Futian li*. However, it was popularly considered a lesser calendar and only circulated among the masses.[210]

Cao Shiwei originally only drafted the *Futian li* with the seven planets, but he later revised it to accommodate all nine planets. This occurred during the time when the Persian Li Su was active in the capital after 776. The *Xin Tang shu* lists a title, *Qiyao futian li* 七曜符天曆 (*Seven Planets Futian Li*), by Cao Shiwei, indicating a system

[208] Its start date for the seven planets of year 5 of Xianqing (660) is close to the starting point of the aforementioned *Navagraha*: year 2 of Xianqing (657).

[209] One of twenty-four solar terms 二十四節氣.

[210] *Xin Wudai shi*, Zhonghua shuju edn., vol. 3, 670. It appears that the legal prohibition against unauthorized study of calendrical science was not being enforced by this period (see 2.4 above).

specifically comprised of the seven planets,[211] but we know that he subsequently supplemented his work to account for Rāhu and Ketu in light of an account by Song Lian in the fourteenth century.

> 唐貞元初，李弼乾始推十一星行歷，鮑該，曹士蔿，皆業之。士蔿又作羅計二隱曜立成曆，起元和元年 …
> Early in the Zhenyuan reign era [785–805] of the Tang, Li Biqian first calculated the ephemerides for the eleven stars. Bao Gai and Cao Shiwei both studied it. Shiwei also drafted ephemerides for the two hidden planets Rāhu and Ketu. It starts from the first year of reign era Yuanhe [806].[212]

We will recall that the *Duli yusi jing* was translated sometime between 785–805. Cao Shiwei drafted the first version of the *Futian li* a few years prior to this between 780–783. Following the translation of the *Duli yusi jing*, around or shortly after the year 806 it seems that he supplemented the *Futian li* with calculations for Rāhu and Ketu. The latter component was also circulated as a separate text.[213]

Song Lian mentions that Li Biqian introduced the 'eleven stars'. Rāhu and Ketu plus the Sun, the Moon and the five visible planets comprise the standard nine planets (*navagraha*), but there were two other 'hidden' or 'pseudo' planets that were introduced into China from abroad, called Ziqi 紫氣 / 紫炁 ('purple mist') and Yuebei 月孛 ('lunar *bei*'). The exact origin of these is unclear, but they most certainly are not a Chinese creation. A later work by Xing Yunlu 邢雲路 (fl. 1580) also associates these two planets, plus Rāhu and Ketu, with an *Astronomical Scripture of the Western Regions* (西域星經).[214] They are neither found in Hellenistic astrology as it is presently known, nor in Dorotheus' work. As identifiable points on a horoscopic chart they can function in the same way as do Rāhu and Ketu (i.e., as points on the ecliptic tracked as nominal planets).

Ziqi is conceived of as a moving point on the ecliptic that is used to keep track of the time to insert intercalary months. I am unaware of any Tang-era works that define its parameters, but they are provided by the Ming-era author Liu Dingzhi 劉定之 (1409–1469) in his notes on astronomy:

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[211] *Xin Tang shu*, Zhonghua Shuju edn., vol. 5, 1548.

[212] Ren Jiyu, ed, *Zhonghua chuanshi wenxuan Ming wen heng*, 151

[213] The thirteenth century text catalog *Zhizhai shulu jieti* 直齋書錄解題 by Chen Zhensun 陳振孫 also records a specific work entitled *Luoji er yinyao licheng li* 羅計二隱曜立成歷 (an ephemeris for Rāhu and Ketu) by Cao Shiwei, noting the epoch of the calendar. See Fasc. 12, p.30. Listed under the *Yin-yang jia lei* 陰陽家類 heading. Included in the *Qianlong yulan ben siku quanshu huiyao shi bu* 乾隆御覽本四庫全書薈要史部.

[214] This could also be read as "Astronomical Scriptures of the Western Regions", i.e., as a genre of such texts on foreign astronomy. Xing Yunlu 邢雲路, *Gujin lü likao* 古今律歷考, in SKQS 787: 327b7. Elsewhere it is stated that Li Chunfeng 李淳風 (602–670) first calculated Yuebei (vol. 787, 681b13). Xing Yunlu, however, conflates the lunar apogee with comets (vol. 787, 682a10-13).

炁生於閏，二十八年十閏，而炁行一周天。
The *qi* is produced from intercalation. In 28 years there are ten intercalary months, and the *qi* moves around the ecliptic once.[215]

Assuming 360 degrees rather than the Chinese value of 365.25 degrees, a system of whole numbers is produced.[216] Using the Chinese value does not produce whole numbers. This demonstrates that this concept was originally designed with the occidental zodiac in mind, indicating that it was devised by a non-Chinese specialist.

The etymology of the term Ziqi or "purple mist" remains uncertain. The term widely appears throughout earlier Chinese literature, but without any discernible astronomical meaning or function. A possible – and tentative – explanation is that this term in the astrological context is semantically translated from a Near Eastern language. The twelfth month in the Hebrew calendar, for instance, is called Adar, and the intercalary month is called Ve Adar ("And Adar"). Adar is a loan word from Akkadian: *Addaru* or *Adaru*, which in one interpretation means "the dark or clouded month" and derives from the Akkadian *adāru* ("to be dark").[217]

As to Yuebei, its associated icon indicates a foreign origin (see 6.2). In astrology, it is the lunar apogee.[218] Liu Dingzhi defines it as follows.

孛生于月，月之行遲速有常度，最遲之處即孛也，故謂之月孛，孛六十二年而七周天。
The *bei* is produced from the Moon. There are constants for the velocity of the Moon's movement. The slowest point is the *bei*, which is why it is called the lunar *bei*. The *bei* has 7 rotations in a 62 year period.[219]

The system of eleven planets or stars was incorporated into Daoist astrology, as seen in the *Lingtai jing*, as well as general Chinese horoscopy as represented by Pelliot chinois 4071, although it does not seem to have ever been widely adopted by Buddhist astrologers, either in China or Japan, who likely had a preference for the canonical

[215] See the *Za zhi* 雜志 (*Miscellaneous Articles*). Fasc. 56 in *Ming wen heng* 明文衡 collection, 38–39. Ren Jiyu, ed, *Zhonghua chuanshi wenxuan Ming wen heng*, 557.

[216] 28 years x 360 days = 10,080 days. 10,080 days ÷ 360 (degrees) = 28 days. Every 28 days the 'planet' progresses 1 degree as 28 days = 1 degree. 10,080 ÷ 10 (times for intercalary months) = 1008 days. 1008 days ÷ 28 days (= 1 degree each) = 36 degrees. Every 36 degrees (2.8 years) an intercalary month is inserted. 360 degrees ÷ 36 degrees = 10 positions to insert intercalary months.

[217] Ernest Klein, *A Comprehensive Etymological Dictionary of the Hebrew Language for Readers of English* (Jerusalem: The University of Haifa, 1987), 8.

[218] The lunar apogee is the point on the Moon's elliptical orbit which is farthest from the earth. The perigee is the point closest to the earth.

[219] 62 ÷ 7 = 8.85 years, i.e., the lunar apsidal precession. Ren Jiyu, ed, *Zhonghua chuanshi wenxuan Ming wen heng*, 557.

concept of *navagraha*. The eleven planets were incorporated into the systems of astronomy employed by court astronomers in China.[220] They were also incorporated into Chinese horoscopy.[221] The parameters of Yuebei, however, were employed in Buddhist astrology in a unique manner, which will be discussed in the following chapter.

Returning to the *Futian li*, it was likely developed in response to an increasing popular desire for accessible astronomical knowledge for the purposes of practicing astrology. It is important to note that this development occurred only after the An Lushan rebellion. The proliferation of unofficial calendars could only begin after the rebellion, when the reach and authority of the central government had declined.

The Chinese in the first decade of the ninth century thus had access to several systems of foreign astrology and a suitable calendar with which to calculate the positions of planets when drawing up horoscopes. This effectively enabled the subsequent widespread popular practice of occidental astrology in China throughout the following two to three centuries.

4.9. Conclusion

We discussed in this chapter the introduction of Tantric hemerology via the translation of the *Mahāvairocana-sūtra*, and the subsequent commentary on it compiled by Yixing. Unlike earlier astrological materials introduced into Chinese, such as the astrology of the *Śārdūlakarṇāvadāna*, there came to be a pressing need for a practical and accessible astrological schedule in Chinese following the introduction of Mantrayāna from the 720s. Yixing's commentary only briefly outlines the features of the Indian calendar, without providing substantial details. This lack of information was a motivating factor behind Amoghavajra's compilation of the *Xiuyao jing*, first in 759, before being subsequently revised in 764. It is likely that Amoghavajra drew upon existing non-Buddhist astrological materials that had already been translated in the sixth and seventh centuries. Amoghavajra's adaptation of such non-Buddhist sources for use within a specifically Buddhist framework is a prime example of not merely intertextuality, but actually cross-religious and cross-linguistic intertextuality. The *Xiuyao jing* itself testifies to the possibility that various elements from Indian astrology could and, in fact, were integrated into a quite practical Chinese Buddhist manual.

The *Xiuyao jing* provides a large body of astrological lore. This is not only for creating an astrological schedule, but also for making natal predictions based primarily

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[220] In the early Qing the validity of the four planets was called into question by Westerners in China. For a discussion see Huang Yinong 黃一農, "Qing qianqi dui siyu dingyi ji cunfei de zhengzhi" 清前期對「四餘」定義及存廢的爭執, *Ziran kexueshi yanjiu* 自然科學史研究 12, no. 3 (1993): 240–248. Article continued in no. 4 of same journal (344–354).

[221] The astrological lore of Ziqi (SKQS 809: 660b–673a) and Yuebei (SKQS 809: 674a–689b) are explained in the *Xingxue dacheng*.

on the *nakṣatra* calendar. The belief in astrological determinism was increasingly expressed in Tantric literature, such as the *Parṇaśabarī-avalokiteśvara-bodhisattva-sūtra* translated by Amoghavajra. This likely fostered further interest in astrology amongst Buddhists, who now had specifically Buddhist literature clearly linking 'karmic fate' with astrological factors.

The *Mahāvairocana-sūtra* also introduced visual icons of astral deities represented in the associated *maṇḍala*. The related literature describes these as deities. These icons formed the initial foundation for Buddhist astral magic in China, though their representations underwent a number of changes following the introduction of Iranian astrology, which are discussed in the following chapter.

At the beginning of the eighth century, the Chinese court employed ethnically Indian astronomers. One of the major figures was Gautama Siddhārtha, who translated in 718 the *Navagraha-karaṇa*, a manual on mathematical astronomy. Although this work did not greatly impact Chinese astronomy, perhaps because the content was quite alien to Chinese astronomers, it does highlight the extent of contemporary Chinese interest in foreign science. These astronomers were active, and likely consulted, when works such as the *Xiuyao jing* were compiled, given that the revised *Xiuyao jing* from 764 includes a mathematical method for calculating the day of the week based on the work of the Gautama family.

The ethnically Persian astronomer Li Su was summoned to court sometime between 766–779, perhaps to replace the late Gautama Zhuan. As Rong points out, Li Su was likely a Christian clergyman, in light of his name on the Nestorian stele from 781. It was during his time in office that the Hellenistic *Duli yusi jing* was translated, which Mak identified as most likely a version of Dorotheus' *Carmen Astrologicum*. I have provided further evidence in support of Mak's thesis. Even further evidence is found in Japanese sources, which are discussed below (6.5).

Finally, I argue that there was a transition from Indian to Iranian sources of astrology and astronomy in China around the turn of the ninth century. Although Buddhists had little to do with these later developments, they were deeply influenced by these new Iranian elements, and incorporated them into their practices of astrology and astral magic, which become evident in the subsequent century, to which our attention now turns.

Chapter 5
The Sinicization of Occidental Astrology: the Ninth Century

5.1. Popular Astrology in the Late-Tang

The ninth century witnessed the popularization of astrology and its associated practices of astral magic in China, not only amongst Buddhists, but also Daoists and literati. As Chan Man Sing has pointed out, this popular interest in astrology is reflected in the works of some late-Tang poets such as Han Yu 韓愈 (768–824) and Du Mu 杜牧 (803–852).[1] Han Yu in 807 wrote the following poem entitled "Way of the Three Stellar Constellations" (*San xing xing* 三星行):

> 我生之辰，月宿南斗。
> 牛奮其角，箕張其口。
> 牛不見服箱，斗不挹酒漿。
> 箕獨有神靈，無時停簸揚。
> 無善名以聞，無惡聲以攘。
> 名聲相乘除，得少失有餘。
> 三星各在天，什伍東西陳。
> 嗟汝牛與斗，汝獨不能神。
> On the day I was born, the Moon lodged in the Southern Dipper.
> The Ox raised its horn, and the Basket stretched wide its mouth.
> The Ox does not get yoked to a cart. The Dipper does not ladle out wine.
> The basket alone has spirit. At no time does it stop winnowing.
> No fine name by which to be known; no ill repute for which to be rejected
> Name and reputation wax and wane; gains are but few, but losses aplenty.[2]
> The three constellations individually in the sky, fifteen stars arrayed east to west.
> Alas you, Ox and Dipper! You alone are unable to be inspirited![3]

This poem expresses lament over the criticism that Han Yu suffered in life. His natal lunar station[4] is the Dipper (*Dou* 斗), though it and the following station, the Ox (*Niu* 牛),

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[1] Chan Man Sing 陳萬成, "Du Mu yu xingming" 杜牧與星命, *Tang yanjiu* 唐研究 8 (2002): 61–79.

[2] The basket seems to represent fate, which is impartial in sorting out his allotment of fortune and misfortune (in this case, referring to his reputation). Han Yu laments his fate of having a bad reputation.

[3] *Changli xiansheng ji* 昌黎先生集, fasc. 4. See *Changli xiansheng wenji* 昌黎先生文集, vol. 1 (Shanghai: Shanghai Guji Chubanshe, 1994), 123. I must thank David Pankenier for helping me translate this poem.

[4] Here the lunar stations as they are understood in Chinese are used, but the concept of a natal sign – be it a *nakṣatra* or a zodiac sign – is from occidental astrology.

have not figuratively served his interests. The preceding station, the Basket (*Ji* 箕), is an allusion to him having constantly winnowed, or dealt with, both criticism and praise. It further suggests that while his "natal lunar station" is the Dipper, his fate is actually elsewhere. This has not gone well, for he reports few gains, but many losses. As Liu Shaojun points out, the three lunar stations are "deployed" in an uneven formation, which is an allusion to the numbers of stars that individually comprise them. The Dipper and the Ox respectively consist of six stars, but the Basket consists of four. The stars, therefore, do not serve his advantage, being in such apparent disorder. The Ox and Dipper, he laments, fail to be as active and functional as the Basket. This poem does not indicate professional knowledge of astrology, but it does incorporate the concept of one's natal lunar station or *nakṣatra*, indicating strong contemporary influences from popular astrology.[5] According to Chan Man Sing, such references to one's birth constellation or lunar station in poetry were almost unknown before Han Yu.[6] This reflects the ongoing sinicization of *nakṣatra* astrology. In this case, the Chinese lunar stations, employed as functional equivalents of the Indian *nakṣatra*–s, are creatively incorporated into Han Yu's poem.

When Han Yu was in his twenties and thirties, Li Su was active as a court astronomer in the capital, and the *Duli yusi jing* was translated into Chinese. Han Yu was, it seems, influenced by the rising popularity of astrology in these decades.

Chan Man Sing also points out that Du Mu, another eminent poet of the late-Tang, also had an interest in astrology. His self-composed epitaph (自撰墓銘), written towards the end of his life, reflects his knowledge of horoscopy. It reads as follows:

> 予生於角，星昴畢於角爲第八宮，曰病厄宮，亦曰八殺宮，土星在焉，火星繼木。星工楊晞曰「木在張於角爲第十一福德宮，木爲福德，大君子救於其旁，無虞也。」予曰「自湖守不周歲遷舍人，木還福於角足矣，土火還死於角，宜哉。」
>
> I was born under Citrā, the stars of Kṛttikā and Rohiṇī constituting the eighth house in relation to Citrā, called the house of disease and distress; also called the eighth house of slaughter. Saturn was present there. Mars followed Jupiter. The astrologer Yang Xi said, "Jupiter in Pūrvaphālgunī, constituting the eleventh house of fortune in relation to Citrā; Jupiter is fortune, a great lord assisting at one's side. There shall be no worries." I say, "It has not been a full year since I was transferred from Huzhou[7] to become chamberlain. It is enough that Jupiter will return to [the house of] fortune in relation to Citrā. It is suitable that Saturn and Mars will return to [the house of] death in relation to Citrā."[8]

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[5] Liu Shaojun 劉韶軍, *Shenmi de xingxiang* 神秘的星象 (Shuquan Chubanshe, 1994), 76–77.

[6] Chan Man Sing, "Du Mu yu xingming," 62.

[7] Reading *Hu shou* 湖守 as *Huzhou* 湖州.

[8] *Quan Tang wen*, Zhonghua Shuju edn., vol. 8, 7823.

This excerpt in particular expresses a strong belief in astrological determinism.[9] The system being described here is that of the twelve places, a technical feature of Hellenistic astrology to which we shall later return.[10] What is important to note here is that a major late-Tang poet had written a piece so rich in astrological lore, derived from originally foreign sources. This is indicative of a familiarity with astrology found amongst contemporary literati.

As further evidence of the popularity of astrology, it seems that during the ninth century the highest levels of Chinese society, even the emperor, took an interest in horoscopy. This is suggested by the case of Du Guangting 杜光庭 (850–933), a Daoist adept who lived through the final years of the Tang dynasty.[11] Many of his writings are extant. Of particular interest are his shorter 'sacerdotal supplications' (*jiaoci* 醮詞), in which astrological elements appear. One of these is entitled *Sacerdotal Supplications Concerning the Sky for the Emperor* 皇帝周天醮詞, which is an astrological interpretation of planetary positions for the emperor. The first line reads, "I have heard that when the wind, rain, frost and snow are untimely, signs are indicated by the stars."[12] Astrology was a core part of court culture in China, but Du Guangting's type of astrology, which he evidently practiced at court, was heavily influenced by foreign ideas. For example, his *Sacerdotal Supplications on Saturn for Secretary Mashi Mu* 馬師穆尚書土星醮詞 appears to be remarks produced from a reading of an unfavorable horoscope. He states that "calamities pile up while illness lingers" as a result of "Saturn transiting through the *body sign* 身宮[13] and a hidden planet[14] passing through the root *nakṣatra* 本宿."[15] This particular passage expresses an understanding of what was originally foreign astrology, since Saturn here is understood as malefic and signaling hardship, whereas native Chinese astrology regards Saturn as signaling positive developments.[16]

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[9] Such sentiments are similarly directly expressed in works such as the aforementioned *Xitian yusi jing*. It states, "All disasters and fortunes are predetermined in human life. There is no fleeing from fate anywhere in heaven and earth 人生禍福皆前定，分數無逃於天地." See Wan Minying, *Xingxue dacheng*, 438.

[10] Although Schafer identified the significance of this passage and translated it, he did not identify the system behind it. Edward H. Schafer, *Pacing the Void: T'ang Approaches to the Stars* (Floating World Editions, 2005), 60–61. Schafer mistranslated several things, such *ba sha gong* 八殺宮 as the 'Palace of Eight Killings' (this actually refers to the eighth house of death), and *mu xing* 星工 as 'artist' (this actually means 'astrologer').

[11] Chan Man Sing points this out. See "Du Mu yu xingming," 62–64.

[12] "臣聞風雨霜雪之不時則星辰示象." *Quan Tang wen*, Zhonghua Shuju edn., vol. 10, 9777.

[13] As noted above (4.7), the concept of the *body sign* appears in the *Lingtai jing*, being defined as the zodiac sign in which the Moon is present at one's birth.

[14] *An xu* 暗虛 refers to the unseen pseudo-planets of Rāhu, Keti, Ziqi and Yuebei.

[15] *Quan Tang wen*, Zhonghua Shuju edn., vol. 10, 9783.

[16] Recall Li Chunfeng's favorable prognostication concerning the rise of the Tang as a result of the position of Saturn. See 2.4 above.

The popularity of astrology throughout Chinese society in the ninth century fostered a number of developments within Buddhism, in which uniquely Chinese systems of Buddhist astrology and astral magic emerged. These Buddhist texts also display strong Daoist elements. This is unsurprising in light of the contemporary Daoist interest in astrology. To frame this development, we might recall the observations of Erik Zürcher, who pointed out that "it can be demonstrated that, as soon as we go below that top level [of elite Buddhism], quite another picture emerges, in which Buddhism loses much of its sharp contour, as it is absorbed into the surrounding mass of Chinese indigenous religion."[17] The astrological works to be discussed in this chapter were produced in such an environment. It is important to note here that Buddhist astrology became available to a wider section of the population in the late-Tang; it shifted from being practiced within the supervised confines of the elite sangha of the capital, as in Amoghavajra's time, to a new popular environment, in which Buddhist astrologers were free to adopt new materials as they saw fit.

5.2. The Tejaprabhā and Sudṛṣṭi Cults

It becomes easy to explain the emergence of Buddhist astral deities in the late-Tang when we consider the contemporary state of astrology. One major development in Buddhist astrology that distinguishes the mid-Tang from the late-Tang is the notable development of major astrological deities in the latter period, during which time these deities were used as a means to counter undesirable astrological prognostications.

The cult of one such deity, *Tejaprabhā Buddha 熾盛光佛, arose in close connection with the Buddhist interest in astrology in China. The Tejaprabhā cult was, it seems, unique to China before spreading elsewhere in East Asia. Tejaprabhā is generally depicted or described alongside astral deities, in particular the planets in anthropomorphic forms. His *dhāraṇī* was also incorporated into astrological *sādhana*–s that will be discussed below.

There are actually no examples of a "Tejaprabhā Buddha" in Sanskrit literature, but nevertheless modern academic literature has continually used this name.[18] A potentially related figure is Tejorāśi.[19] This refers to the fourth *uṣṇīṣa* symbolizing the Tathāgata's light removing the darkness of beings, i.e., the Tejorāśyuṣṇīṣa (*guangju foding* 光聚佛頂 or *huoju ding* 火聚頂). This is depicted as a man in the Garbhadhātu-

[17] Erik Zürcher, "Perspectives in the Study of Chinese Buddhism," *Journal of the Royal Asiatic Society* 2 (1982): 173. Reproduced in *Buddhism in China: Collected Papers of Erik Zürcher*, ed. Jonathan Silk (Leiden: Brill, 2013), 276.

[18] Academic literature renders *chishengguang* 熾盛光 as *Tejaprabhā*. This reading appears to date back to the catalog of Nanjō Bun'yū 南條文雄 of 1883 (p. 222).

[19] I must thank Daniel Boucher for pointing this out to me.

maṇḍala.[20] His Chinese names are semantically similar to *chishengguang* 熾盛光, indicating a possible connection to the Tejaprabhā figure under present discussion.

As to the origins of the Tejaprabhā cult in China, one key work is the *Da shengmiao jixiang pusa shuo chuzai jiaoling falun* 大聖妙吉祥菩薩說除災教令法輪 (T 966; *Disaster Eliminating Edifying Dharma-Wheel as Taught by the Great and Holy Excellent Auspicious Bodhisattva*). Its alternate title is *Chishengguang Foding* 熾盛光佛頂 (Tejaprabhā-*buddhōṣṇīṣa*). The colophon states that this text was extracted from a certain *Wenshu dajihui jing* 文殊大集會經 (*Sūtra of Mañjuśrī's Great Gathering*), which cannot be identified.[21] The colophon does not indicate the translator, but an editorial note in the Taishō text states that appended written remarks (*okugaki* 奥書) provide the following details:

> 中天竺國，大那爛陀寺，梵僧尸羅跋陀羅三藏，於興元府譯，筆受僧慧琳，于時貞元十二年。
> Translated by the Indian monk from Mahānālanda Saṃghārāma in Central India, Tripiṭaka Master Śīlabhadra, at the Xingyuan-fu, with monk Huilin as scribe, in year 12 of Zhenyuan [796].

Although this text appears to be a translation of a manual describing a *maṇḍala* and set of mantras, an anomalous feature is that it mentions texts that had been earlier translated into Chinese. It states, "The Tathāgata has already explained [such matters] in sutras such as the *Sūryagarbha-parivarta* and *Candragarbha-parivarta* in the *Mahāsaṃnipata-sūtra*."[22] It also states, "It is best to write the name in Sanskrit, if possible. If one does not understand Sanskrit letters, it is also acceptable for the title to follow the local script."[23] This suggests that the extant version of the work was modified in China, or perhaps that it was even composed there. My present reading would suggest that an original text was translated from Sanskrit into Chinese, and then modified slightly. When listing the *navagraha*, it translates Rāhu and Ketu as 'eclipse deity' 蝕神 and 'comet' 彗星 respectively,[24] which is an Indian definition, in contrast to later developments seen in China and elsewhere, in which Ketu is defined as the tail of Rāhu. It therefore seems likely that the text was written by an Indian.

The principal figure to be drawn in the *maṇḍala* is **Tejaprabhā-buddhōṣṇīṣa* 熾盛光佛頂. This is not strictly one of the thirty-two marks since the accompanying description mentions that "the many pores of the body emit great light."[25] The *Tejaprabhā-buddhōṣṇīṣa* is therefore to be depicted as a fully represented Tathāgata,

[20] Somekawa, *Mandara zuten*, 110–111. T 1796, 39: 633c28-29.
[21] T 966, 19: 342b12-13.
[22] 如來，於方等大集，日藏月藏等經，早已宣說. T 966, 19: 342c11-12.
[23] 若能梵書其名，最爲上妙。若不識梵字者，隨方文字題之亦通. T 966, 19: 343a21-23.
[24] T 966, 19: 343c7.
[25] 畫熾盛光佛頂，身諸毛孔放大光明. T 966, 19: 343a26.

rather than as just the *uṣṇīṣa*. In addition to various bodhisattva and deity figures, astrological figures such as the *navagraha* and zodiac signs are also to be painted.[26] The following is also stated with respect to the time to carry out the ritual:

> 若有國界日月薄蝕，或五星失度形色變異，或妖星彗孛陵押王者貴人命宿，或日月虧損於本命宮中，此時應用此教息災護摩。
> If the nation [experiences] a solar or lunar eclipse, or the five planets fall out of order, their forms and colors becoming strange, or if ominous comets infringe upon the natal *nakṣatra*–s of the ruler or important people, or if the Sun and Moon harm one's natal zodiac sign, then the apotropaic *homa*[27] of this teaching should be performed.[28]

The translation date of 796 is significant because this was during a period in which horoscopic astrology was first being introduced into China. It was around this year that major astrological works, such as the *Duli yusi jing*, were translated into Chinese. Cao Shiwei was also active in developing his calendar, the *Futian li*. This appears to be the point in time from which the Tejaprabhā cult emerged in China. An earlier date for the beginning of the cult has been suggested. Sørensen states that Tejaprabhā was worshipped by Amoghavajra, citing the *Song gaoseng zhuan* 宋高僧傳 (T 2061; *Song Dynasty Biographies of High Monks*). He claims that "the Ācārya was called upon by the Chinese emperor to worship Tejaprabhā and the astral gods on Mt. Wutai 五台山 in order to dispel the evil omen caused by a comet."[29] However, the text in question actually mentions neither Tejaprabhā, nor astral deities:

> 五年夏有詔，請空往五臺山修功德，于時彗星出焉。法事告終，星亦隨沒。
> In the summer of year 5 [770], there was an imperial order. Amoghavajra was ordered to go to Mt. Wutai to cultivate merit. At the time, a comet appeared. As the ritual was announced as finished, the comet subsequently vanished.[30]

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[26] Image plate no. 13 of fasc. 58 of the thirteenth century *Asaba shō* 阿娑縛抄, a Japanese Tendai compendium of Mikkyō practice and lore, appears to be this *maṇḍala*. The accompanying inscription states that it was created in 1140 (year 6 of Hōen 保延) based on an earlier version from Tō-in 唐院. See TZ, vol. 9; image plate inserted between pages 30–31. See appendix 2 below.

[27] *Homa* is a religious offering burnt in a fire. It is traced back to earlier Indo-European culture. As Richard K. Payne points out, "Although sometimes spoken of – rather loosely – as a sacrificial ritual, since the offerings are destroyed in the fire, it is more appropriate to consider it a votive ritual. That is, the offerings are being conveyed to the deities in expectation of a *quid pro quo*. "Introduction," in *Homa Variations: the Study of Ritual Change across the Longue Durée*, eds. Richard K. Payne and Michael Witzel (Oxford University Press, 2016), 2.

[28] T 966, 19: 342c13-16.

[29] H. Sørensen, "Astrology and the Worship of Planets in Esoteric Buddhism of the Tang," in *Esoteric Buddhism and the Tantras in East Asia*, ed. Charles D. Orzech et al. (Leiden: Brill, 2011), 240.

[30] T 2061, 50: 713a17-19.

The translation of the *Chishengguang daweide xiaozai jixiang tuoluoni jing* 熾盛光大威德消災吉祥陀羅尼經 (T 963; *Great Venerable Disaster Eliminating Auspicious Dhāraṇī Sūtra of Tejaprabhā*) is attributed to Amoghavajra, but as Liao Yang points out, it does not appear in Tang-era catalogs. It first appears in the *Qisha* 磧砂 canon (completed in 1322) as *Zuisheng wubi daweide jinlun foding chishengguang xiaozai jixiang tuoluoni jing* 最勝無比大威德金輪佛頂熾盛光消災吉祥陀羅尼經 (*Supreme Incomparable Great Venerable Golden Wheel Buddhōṣṇīṣa Tejaprabhā Disaster Eliminating Auspicious Dhāraṇī Sūtra*). A very similar text is *Foshuo daweide jinlun-foding Chishengguang Rulai xiaochu yiqie zainan tuoluoni jing* 佛說大威德金輪佛頂熾盛光如來消除一切災難陀羅尼經 (T 964; *Buddha Teaches the All-Disaster Eliminating Dhāraṇī Sūtra of Great Virtuous Gold-Wheel *Buddhōṣṇīṣa-Tejaprabhā Tathāgata*). These two texts should be identified as Chinese compositions, since they refer to native Chinese "field allocation" astrology. The *Xu yiqiejing yinyi* 續一切經音義 (*Sounds and Meanings of All Sūtras Continued*), a Buddhist glossary of terms with pronunciations compiled by the monk Xilin 希麟 (d.u.) around 987, lists a similar title.[31] The terms he defines appear to be derived from T 963 or T 964. There are earlier instances in Chinese of *Chishengguang* 熾盛光 ("luminous") referring to buddhas or bodhisattvas, but these are unrelated to the Tejaprabhā cult.[32] Evidence would therefore indicate that the starting point of this cult was 796 at the earliest. We can therefore conclude that Amoghavajra, who died in 774, had no role in the Tejaprabhā cult. The *Song gaoseng zhuan* does, however, tell us about a monk named Wuji 無迹 (843–925) who taught a Tejaprabhā ritual in the Guangqi 光啟 reign era (885–888), and later set up a Tejaprabhā altar for a government official who heard of the efficacy of the ritual. This source mentions "disasters of 'field allocation'" (分野之災), which would refer to disasters predicted by native Chinese astrology, rather than foreign horoscopy. [33] This points to the amalgamation of the Tejaprabhā cult and native Chinese ideas by the late ninth century. T 963 and T 964 are therefore likely from the last decades of the Tang.

The Tejaprabhā ritual includes a *dhāraṇī* to be recited when facing astrologically unfavorable circumstances, which is why the cult likely also played a role in facilitating interest in other astral deities. The role of Tejaprabhā in which he presides over the planets and *nakṣatra*–s points to the Chinese fear of astral deities, and a widespread desire to counteract their negative astrological influences using magical means.

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[31] *Zuisheng wubi daweide jinlun foding chishengguang tuoluoni jing* 最勝無比大威德金輪佛頂熾盛光陀羅尼經 (*Supreme Incomparable Great Virtuous Gold-Wheel *Buddhōṣṇīṣa-Tejaprabhā Dhāraṇī Sūtra*). T 2129, 54: 962b22-23. See Liao Yang 廖暘, "Chishengguang Fo zaikao 熾盛光佛再考," *Yishu-shi yanjiu* 藝術史研究 5 (2003): 329.

[32] Liao, "Chishengguang Fo zaikao," 330.

[33] T 2061, 50: 898a16-18.

Another figure to develop into a major astral deity within the Chinese Buddhist pantheon was Sudṛṣṭi 妙見. In East Asia, Sudṛṣṭi is the personification of Polaris.[34] The primary texts of his cult included the *Beichen Pusa tuoluoni jing* 北辰菩薩陀羅尼經 (*Dhāraṇī Sūtra of the Polaris Bodhisattva*), *Beichen Miaojian zunxing wang pusa suoshuo tuoluoni jing* 北辰妙見尊星王菩薩所説陀羅尼經 (*Dhāraṇī Sūtra as Taught by the Venerable Star King Polaris Sudṛṣṭi*), and *Beichen Miaojian Pusa tuoluoni chengjiu gongde jing* 北辰妙見菩薩陀羅尼成就功德經 (*Sūtra of Attaining Merit [via] the Dhāraṇī of Polaris Sudṛṣṭi Bodhisattva*).[35] As Sørensen points out, the Japanese monk Ennin, who visited China between 838–847, observed worship of Sudṛṣṭi, which he recorded in his travelogue.[36] It does not appear that Sudṛṣṭi gained as much prominence as did Tejaprabhā in China, in light of the scarce references to Sudṛṣṭi in Chinese sources.

5.3. *Qiyao rangzai jue* 七曜攘災決 (T 1308): Mature Buddhist Astrology

The *Qiyao rangzai jue* (T 1308), the *Secrets of Seven-Planet Apotropaism*, is the only extant Buddhist manual of astrology from the ninth century. Although in the past it has been erroneously described as "non-Buddhist",[37] it actually prescribes Buddhist activities such as sūtra recitation, and moreover in several places is based on the nominally Buddhist astrology of the *Xiuyao jing* attributed to Mañjuśrī. This text represents an amalgamation of Chinese, Indian, Iranian, Sogdian and ultimately Near-Eastern elements. It especially draws on the new astrological techniques, lore and iconography from Iranian sources that had become available in Chinese translation from the late eighth century,[38] demonstrating the aforementioned shift in Chinese astrology from Indian to Iranian sources around the time of Li Su's career (see 4.6 above). It furthermore displays one of the key features of Tang Buddhist astrology: it employs Chinese astronomy (the astronomy of the text is almost entirely Chinese), while simultaneously depending on foreign astrological lore. This text provides much of the

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[34] The *Qifo Bapusa suoshuo da tuoluoni shenzhou jing* 七佛八菩薩所說大陀羅尼神咒經 (T 1332; *Great Dhāraṇī Sūtra Taught by the Seven Buddhas and Eight Bodhisattvas*), a *dhāraṇī* collection purportedly from the Jin period (265–420) has the following: "I am the bodhisattva of Polaris, named Sudṛṣṭi. I wish to teach incantations to protect countries; what I do is quite special, thus I am called Sudṛṣṭi. I am foremost among the stars within Jambudvīpa." 我北辰菩薩名曰妙見，今欲說神呪，擁護諸國土，所作甚奇特，故名曰妙見。處於閻浮提眾星中最勝. T 1332, 21: 546c23-547a1.

[35] Aruga Takumi 有賀匠, "Hoshi mandara to Myōken Bosatsu no zuzōgaku-teki kenkyū" 星曼荼羅と妙見菩薩の圖像學的研究, *Mikkyō bunka* 密教文化 2000 (204): 51. See also the texts cited in the *Kakuzen shō* 覺禪鈔. TZ, vol. 5, 397.

[36] Sørensen, "Astrology and the Worship of Planets in Esoteric Buddhism of the Tang," 239. Ennin's travelogue is entitled *Nittō guhō junrei gyōki* 入唐求法巡禮行記 (*The Record of a Pilgrimage to China in Search of the Dharma*). See Shanghai Guji edn., 3, 9, 22, 24, 35.

[37] Mak, "The Transmission of Astral Science from India to East Asia," 67.

[38] The Iranian influences within this text were noticed by Édouard Chavannes and Paul Pelliot, "Un traité manichéen retrouvé en Chine," *Journal Asiatique* 11, t. I (1913): 167–168.

advanced astrological techniques to which Amoghavajra's work only alludes, such as the drafting of a horoscope, which requires determining the past or present positions of the planets on a chart. It furthermore is the first extant Buddhist text to provide a complete system of astral magic to be used in coordination with astrological prognostications Here we will first discuss the astrology of the text, followed by its astral magic.

The Taishō edition of the text is corrupted in places. There are, fortunately, alternate editions extant in private Japanese collections. One manuscript in the public domain, which I have consulted, is from the Shimoura Collection 下浦文庫 (13–471) at the Tōkyō University of Science 東京理科大學.[39]

The *Qiyao rangzai jue* is attributed to a Brahmin monk 婆羅門僧 from western India 西天竺, named Jinjuzha 金俱吒. Mak suggests that this can be reconstructed as *Kaṃkuṭa, in which Kaṃ is a variant of the Sino-Sogdian surname Kang 康, but this is unlikely based on phonetic grounds.[40] Moreover, Jinjuzha was clearly not the author, since the text describes him ordering down the deities of the twenty-eight *nakṣatra*–s 二十八宿神 to make inquiries.[41] The text's contents are attributed to divine revelation, which is also a feature of a number of Indian *jyotiṣa* works, such as the *Sūrya-siddhānta* in which the contents are attributed to gods.[42]

As to the composition date of the *Qiyao rangzai jue*, it was compiled sometime between 806, when its ephemeris for Rāhu commences, and 865, when Shūei brought it to Japan from China.[43] Although it does not appear in Chinese catalogs, instructions in the text demand that it be kept secret.[44] It is therefore unclear exactly what significance it

[39] Another manuscript from 1673, from Ōbaku-san Hōzō-in 黃檗山寶藏院, is held at Kyōto University's library (call no. Q‖59‖15). In the past, other manuscripts have appeared on the market in Japan, but I have been unable to view them.

[40] Mak, "The Transmission of Astral Science from India to East Asia," 68fn31. Schuessler IPA reconstructs in Middle-Chinese *jin* 金 as *kjəm* and *kang* 康 as *kʰâŋ*. The phonetic difference is too great to consider the former a phonetic variant of the latter. Also, *zha* 吒 is reconstructed as **ʈjək* (note the consonant ending)

[41] "Now the western Brahmin monk Jinjuzha ordered down the deities of the twenty-eight lunar stations, and inquired after their auspicious and inauspicious qualities, while drawing their forms. He discerned the movements of the seven planets and apotropaic methods, as follows. 今西國婆羅門僧金俱吒，命得二十八宿神下，問其吉凶，畫其形狀，辨七曜所至，攘災法，如後." T 1308, 21: 426c3-5. There is a similar story in the *Qiyao xingchen bie xingfa* 七曜星辰別行法 (T 1309), attributed to the astronomer monk Yixing (see 5.7 below), in which Yixing draws down astral deities to similarly make inquiries.

[42] Ebenezer Burgess, *Translation of the Sūrya-Siddhānta: A Text-Book of Hindu Astronomy* (Calcutta: University of Calcutta, 1935), vii–viii.

[43] It appears in his catalog of items brought back from China: 七曜禳災決一卷. See *Shin shosha shōrai hōmon tō mokuroku* 新書寫請來法門等目錄. T 2174A, 55: 1111b21.

[44] "There are many disasters related to the movements of the seven planets as above. Now there is unlimited spiritual efficacy when it comes to avoiding disasters based on the apotropaic methods of the Western Country. Do not transmit them to the unwise. 右七曜所至多有災害, 今依西國法攘之避厄神驗無極, 非智勿傳." T 1308, 21: 427b15-17.

had in China. Nevertheless, the level of literacy and basic astronomical knowledge required to understand the work indicates that an educated circle of astrologers made use of it.

The astronomy of this text is primarily Chinese in origin. The first line of text defines the equator as 365.25 degrees, which is an ancient Chinese parameter (the occidental tradition defines the equator as comprised of 360 degrees).[45] A table is included detailing the dimensions of the unequally spaced Chinese lunar stations 宿度法 (these are not Indian *nakṣatra*–s). According to Yano, the coordinate system of the text, reconstructed from details provided in the text as a whole, is the polar longitude system used in China since the Former Han Dynasty.[46] This coordinate system is used in the text's ephemerides. This is an entirely different system from that described in the *Xiuyao jing*, in which equally spaced *nakṣatra*–s are defined. The majority of the astrological lore, however, is non-Chinese. Chinese astrologers simply had to use the native astronomical system, since there was no alternative model available.[47]

The text includes ephemerides in the Chinese ordering of Jupiter, Mars, Saturn, Venus and Mercury (木火土金水), followed by Rāhu and Ketu. Internal evidence strongly suggests that these were adopted directly from Cao Shiwei's *Futian li* calendar or a work based directly on it. This is significant because to date the *Futian li* has been thought to be non-extant.[48] The addition of Babylonian 'goal-years'[49] directly indicates foreign influences in the compilation of these tables, and likely reflects Cao Shiwei's interaction with foreign figures such as Li Miqian.

Each table provides planetary positions for each of the twelve months. The first month or start of the year (*suishou* 歲首) appears to begin from *yushui* 雨水 (the 'rains', i.e., the second of the twenty-four solar terms).[50] As will be recalled from above (4.8), this was a unique feature of the *Futian li*. The epoch for the five planets is specified by a Japanese hand as year 10 of Zhenyuan 貞元, corresponding to Japanese year 13 of Enryaku 延曆 (794).[51] Each ephemeris specifies constants for planetary movements that Yabuuchi has identified as being closest to the *Wuji li* 五紀曆 (*Five Periods Calendar*),

[45] T 1308, 21: 426b23.

[46] T 1308, 21: 427b18-c6. Yano Michio, "The Ch'iyao jang-tsai-chueh and its Ephemerides," 29–30.

[47] Recall that the *Navagraha-karaṇa* (4.6) had been translated in 718. It used the occidental system of 360 degrees, but it was never widely implemented.

[48] Weixing Niu, "On the Dunhuang Manuscript P.4071," 532.

[49] Babylonian goal-years are reoccurring planetary periodicities or cycles of movement from which predictions can be made. They were discovered in ancient Mesopotamia.

[50] Yano, "The Chi'yao jang-tsai-chueh and its Ephemerides," 29.

[51] It seems likely that the epoch of the original *Futian li* was updated to a more recent year from which the ephemerides were compiled for the purposes of practicing astrology. It was only necessary to have tables going back a lifetime, rather than all the way to the year 660.

which was in official use between 762–783.[52] We should recall that Cao Shiwei drafted the original *Futian li* for the seven planets between 780–783.

The ephemerides further specify the number of sidereal rotations (R) and number of synodic periods (A) in a number of years (Y) as follows.[53]

Jupiter: 83 (Y), 76 (A), 7 (R).
Mars: 79 (Y), 37 (A), 42 (R).
Saturn: 59 (Y), 57 (A), 2 (R).
Venus: 8 (Y), 5 (A).
Mercury: 33 (Y), 104 (A).[54]

The periodicity of a cycle is thus covered and will repeat itself almost identically (not withstanding axial precession, but adjustments could easily be made), which is why these ephemerides could be reused in later centuries, as indicated by the Japanese reign years marked above the tables (for instance, year 1 of Kantoku 寛德 = 1044). There are similarities here with numbers in book IX of Ptolemy's *Almagest*, which Ptolemy (fl. 150 CE) ascribed to Hipparchus (c.150–125 BCE), who is thought to have transmitted Babylonian astronomy into Greece.[55] These are well-known Babylonian 'goal-year' periods. Ptolemy gives the following parameters:

Saturn: 59 (Y), 57 (A), 2 (R).
Jupiter: 71 (Y), 65 (A), 6 (R).
Mars: 79 (Y), 37 (A), 42 (R).
Venus: 8 (Y), 5 (A).
Mercury: 46 (Y), 145 (A).[56]

The differences indicate this component of the *Qiyao rangzai jue* was not based on Ptolemy's work, but nevertheless it can be traced back to the same tradition upon which Ptolemy drew. The full range of Babylonian 'goal-years' provided by Hunger and Pingree are as follows.

Saturn: 59 (Y), 57 (A), 2 (R).

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[52] Yabuuchi, *Chūgoku no tenmon rekihō*, 182–183.

[53] A sidereal rotation is the orbit of a planet relative to the stars as seen from earth. A synodic period is the cycle in which a planet returns to an earlier position relative to another body, such as the Sun.

[54] Adapted from Yano, "The Chi'yao jang-tsai-chueh and its Ephemerides," 29. Yano points out that these numbers provide the mean lengths of Greek letter phenomena.

[55] Olaf Pedersen, *A Survey of the Almagest: With Annotation and New Commentary by Alexander Jones* (Springer Science & Business Media, 2011), 269–270.

[56] Adapted from Otto Neugebauer, *A History of Ancient Mathematical Astronomy* (Springer Science & Business Media, 2012), 604–605.

Jupiter: 71 (Y), 65 (A), 6 (R).
Jupiter: 83 (Y), 76 (A), 7 (R).
Mars: 79 (Y), 37 (A), 42 (R).
Mars: 47 (Y), 22 (A), 25 (R).
Venus: 8 (Y), 5 (A), 8 (R).
Mercury: 46 (Y), 145 (A), 46 (R).[57]

Thus, apart from Mercury in the *Qiyao rangzai jue*, the other listed numbers are 'goal-year' periods.[58] After Ptolemy, these periods also appear in various systems of astronomy around Eurasia, including India and Central Asia.[59] We can now state that they were also transmitted to China.

The second fascicle of the *Qiyao rangzai jue* includes ephemerides for Rāhu (93 years) and Ketu (62 years). Their epoch is year 1 of Yuanhe 元和, or Japanese year 1 of Daidō 大同 (806). As noted above (4.8), Song Lian stated that this was the epoch of Cao Shiwei's *Luoji er yinyao licheng li* 羅計二隱曜立成曆 (ephemerides for Rāhu and Ketu). It is further noted by a Japanese scribe in the *Qiyao rangzai jue* that this epoch is 147 years after the (original) epoch. This almost exactly indicates the year 660, which was the epoch of Cao Shiwei's *Futian li*.[60] Thus, these two ephemerides, and likely the others for the five planets in the first fascicle, are either based on or reproduced directly from Cao Shiwei's work. According to Wang Yinglin 王應麟 (1223–1296) in his *Kunxue jiwen* 困學紀聞 (*Account of Puzzling Studies*), the *Futian li* was "originally an Indian calendrical method 本天竺曆法."[61] Cao Shiwei had access to both Indian and Persian astronomers and texts, but in light of Song Lian's account of Cao Shiwei having studied under Li Miqian, Cao Shiwei most likely learnt of these numbers from an Iranian source.

We should note the astronomical significance of the year 806. This year is also the epoch of the Kālacakra Tantra.[62] As Edward Henning points out, "The relevant new Moon – on 24th March 806 CE – is at the end of an intercalary month. This combined with the fact that on the preceding full Moon there was a total lunar eclipse – an excellent

[57] Hunger and Pingree, *Astral Sciences in Mesopotamia*, 168.

[58] Note: 33 / 104 = 0.317 and 46 / 145 = 0.317. The 'goal-year' parameters for Mercury are found in a later Chinese work by Liu Dingzhi 劉定之 (1409–1469), which provides the following numbers: Jupiter: 83 (Y), 76 (A), 7 (R). Mars: 79 (Y), 37 (A), 42 (R). Saturn: 59 (Y), 57 (A), 2 (R). Venus: 8 (Y), 5 (A). Mercury: 46 (Y), 145 (A). See Ren Jiyu, ed, *Zhonghua chuanshi wenxuan Ming wen heng*, 557.

[59] Hunger and Pingree, *Astral Sciences in Mesopotamia*, 168. David Pingree, "Legacies in Astronomy and Celestial Omens," in *The Legacy of Mesopotamia*, ed. Stephanie Dalley (Oxford: Oxford University Press, 1998), 135–137.

[60] Yabuuchi points this out. See Yabuuchi Kiyoshi 薮内清, "Tō Sō Shii no *Futenreki* ni tsuite" 唐曹士蔿の符天暦について, *Biburia Tenri Toshokan hō* ビブリア 天理圖書館報 78 (1982): 5–6.

[61] Wang Yinglin 王應麟, *Kunxue jiwen* 困學紀聞, in SKQS 845: 332.

[62] The Kālacakra corpus dates to the early eleventh century from somewhere in northern India. See Francesco Sferra, "Kālacakra," in *Brill's Encyclopedia of Buddhism*, vol. I, ed. Jonathan A. Silk (Leiden: Brill, 2015), 341.

time for adjusting lunar-solar calculations – may well provide part of the reasoning why this date was chosen as an epoch. Also, on the day of the new Moon itself, there was a partial solar eclipse."[63] Although the *Qiyao rangzai jue* predates the Kālacakra by around two centuries, the significance of the year 806 was likely apparent to Chinese astronomers in the ninth century.

In the *Qiyao rangzai jue*, Rāhu and Ketu are respectively designated as the head and tail of an eclipse deity 蝕神. This appears to be an Iranian concept, since there exists a parallel in the ninth-century Pahlavi *Bundahišn*, which is primarily a cosmography based on Zoroastrian scriptures.[64] Rāhu and Ketu in earlier iconography are depicted in different forms (see fig. 4.20 & 4.21). The *Qiyao rangzai jue* explains that Rāhu is unseen, and that eclipses are predicted from its union with the Sun or Moon. This is attributed to an Indian *Popimobu 婆毘磨步 (the original name is uncertain), and its difference from Chinese theory is noted.[65] Rāhu's identity is that of the ascending node of the Moon, which is standard in Indian astronomy. However, as Yano discovered, Ketu in this text is the Moon's apogee (Skt. *ucca*),[66] instead of its otherwise standard function as the descending node of the Moon. As he notes, there would be no need for an ephemeris for Ketu as the descending node, since it would just follow the opposite movement of Rāhu.[67] The text states that Ketu makes 7 rotations in a 62-year period; thus, one cycle is 8.85 years (i.e., the lunar precession).

Ketu as the apogee is additionally indicated by its variant name as *yue boli* 月勃力 (Schuessler IPA reconstructs the latter as *buət ljək*). As discussed earlier (4.8), in later literature the apogee is designated with the single character *bei* 孛, and included among the 'eleven planets' that were originally introduced by Li Miqian (or Li Biqian). Whoever compiled the *Qiyao rangzai jue* was therefore aware of the variant term that eventually became the standard word for apogee in Chinese. The etymology of this term, however, is uncertain, but it is possibly a phonetically transliterated foreign loanword, similar to the transliteration of Rāhu and Ketu into Chinese. The character *bei* 孛 can mean comet or abruptness, but this seems inappropriate for an invisible point of space, although granted one earlier meaning of *ketu* in Sanskrit is comet. The aforementioned *boli* 勃力, however, seems otherwise meaningless. The latter *li* 力 could be a scribal error for a character such as *kan* 勘 or *jia* 加 (reconstructed as $k^{h}ậm^{c}$ and *ka* respectively in Schuessler IPA), in which case the term would phonetically approximate the Greek term

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[63] Edward Henning, *Kālacakra and the Tibetan Calendar* (New York: The American Institute of Buddhist Studies at Columbia University, 2007), 226.

[64] D. N. MacKenzie, "Zoroastrian Astrology in the Bundahišn," *Bulletin of the School of Oriental and African Studies* 27, no. 3 (1964): 515.

[65] T 1308, 21: 442b3-d2.

[66] The lunar apogee is the point on the Moon's ellipitical orbit that is farthest from the earth. The perigee is point closest to the earth.

[67] Yano, *Mikkyō senseijutsu*, 186. See also "The Chi'yao jang-tsai-chueh and its Ephemerides," 31–33.

apógeion (the initial *a-* is often dropped in Chinese), perhaps represented as a loanword in another language. The term as a binomial with no clear semantic meaning suggests it is a transliteration. Yano explains that in "Indian astronomy as well as in Greek astronomy, lunar anomaly was always counted from the apogee, while in Chinese astronomy the perigee was the initial point." Thus, the tabulation of the lunar apogee "represents a tributary of Western tradition of astronomy, though with the confusing misnomer."[68] The original statement in early sources that the concept (and presumably the term itself) was introduced from abroad is therefore reasonable in the absence of other evidence.

A major feature that demonstrates Iranian influences in the *Qiyao rangzai jue* is its system of twelve 'places' (Greek τόποι and Latin *loci*), a feature in Du Mu's passage cited earlier (5.1).

Table 5.1. Twelve Places in the *Qiyao rangzai jue*[69]

	Chinese	**Translation**	**Indian Equivalent**	**Iranian Equivalent**
I	命宮・命位	Life	*tanu*	*gyānān*
II	財宮・財物	Wealth	*dhana*	*kīsagān*
III	兄弟	Brothers	*sahaja*	*brādarān*
IV	田宅	Estate	*suḥrt*/*bandhava*	*pedištān*
V	男女	Children	*suta*	*frazandān*
VI	僮僕	Servants	*ripu*	*waštagān*
VII	妻妾・夫妻	Marriage	*jāyā*	*wayodagān*
VIII	疾病・病厄	Illness	*mṛtyu*	*margān*
IX	遷移	Travel	*dharma*	*kārdāgān*
X	官位・官祿	Rank	*karma*/*āspada*	*mayān ī asmān*
XI	福相・福德	Fortune	*āya*	*farroxān*
XII	困窮・禍害	Distress	*vyaya*	*dušfarragān*

This is a key component to early Hellenistic astrology. The twelve places are twelve static demarcations of the ecliptic through which the zodiac signs and planets move. In other words, the stars and planets move but the twelve places as spatial sections of the ecliptic remain static. The first place, the eastern ascendant, is positioned at the eastern horizon, and the subsequent place are counted counterclockwise. Predictions are made based on the zodiac signs and the planets occupying each place. The terms in the *Qiyao rangzai jue* (table 5.1) are significant because, as Itō points out, the Chinese

[68] Yano, "The Chi'yao jang-tsai-chueh and its Ephemerides," 31.

[69] Adapted from Yano, *Mikkyō senseijutsu*, 51.

renderings of the place names are semantically closer to the Iranian equivalents than the western or Latin names available to him.[70]

The twelve places originally emerged from an earlier system of eight places, which itself was based on an even earlier system, in which the ecliptic was divided into four quadrants. This included the ascendant, midheaven, the setting-point and the point exactly opposite the midheaven. As Tester points out, this earliest system possibly originated in the Egyptian division of the ecliptic. He states, "For the ancient Egyptians, the Sun and stars are strong and young in the east, rise to their greatest power in the midheaven, and decline into age and weakness in the west." The first quadrant was related to youth, the next to adulthood, and so forth.[71] Thus, this component of Hellenistic astrology, which was adopted and naturalized into Chinese astrology, originally had deep connections to Egyptian culture. The *Qiyao rangzai jue* also incorporates material from Chinese and earlier Indian sources, such as material drawn directly from the *Xiuyao jing*, which proves that the *Xiuyao jing* continued to be circulated and studied well into the ninth century. The Indian content includes diagrams of the *nakṣatra-puruṣa* or constellation-man.

Fig. 5.1. *nakṣatra-puruṣa*

The image on the left shows the precise parts of the body which correspond to twenty-eight *nakṣatra*–s in the same locations on the right. Such a chart is not visually represented in the *Xiuyao jing*. This concept is Indian and appears in Sanskrit literature.[72]

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[70] Itō Gikyō 伊藤義教, *Perushia bunka toraikō* ペルシア文化渡来考 (Tōkyō: Iwanami shoten, 1980), 224. Itō perhaps drew from the work of MacKenzie, "Zoroastrian Astrology in the Bundahišn," 526.

[71] Tester, *A History of Western Astrology*, 25.

[72] The arrangement of correspondences differs from that in *adhyāya* (chapter) 105 of the *Bṛhat-saṃhitā* of Varāhamihira. Panditahbhushana V. Subrahmanya Sastri and Vidwan M. Ramakrishna Bhat, *Varahamihira's Brihat Samhita with an English Translation and Notes* (Bangalore City: V. B. Soobbiah

Some of the *nakṣatra* lore is also derived from the *Xiuyao jing*. In addition, the *nakṣatra* assignments for the new 朔 and full 望 moons (Chinese lunar days 1 and 15 respectively) are from the calendar in fascicle 1 of the original *Xiuyao jing*, in which the text assigns the twenty-seven *nakṣatra*–s to Chinese lunar days, allowing for easy conversion between the Indian and Chinese calendars (see table 4.8). Other notable Indian features of the *Qiyao rangzai jue* include the associations between planets and tastes (Skt. *rasa*),[73] and a full range of mantras for the *navagraha* and other astrological purposes.[74]

Native Chinese astrology is also incorporated into the *Qiyao rangzai jue*. The system of 'field allocation astrology' (2.4) employed in the text includes a listing of the astro-terrestrial correspondences between the twenty-eight lunar stations and ancient Chinese countries.[75] As discussed earlier, the system was originally entirely sino-centric, but it changed over time. Yixing (4.1) took into account both of China's major river systems, which reflected the southern expansion of Chinese civilization since the Warring States period.[76] The *Qiyao rangzai jue* appears to take into consideration Yixing's reforms in light of the fact that it includes the southern region of Changsha 長沙,[77] indicating that the author used updated sources, rather than classical or even early Sui-Tang works.

To summarize, the astronomy of the *Qiyao rangzai jue* is almost entirely based on the Chinese system, but it still incorporates foreign elements such as goal-years, Rāhu as the ascending node of the Moon, Ketu as the lunar apogee, and an Iranian system of the twelve places. Based on the internal evidence, the calendar of the text was most likely directly adopted from Cao Shiwei's *Futian li*, a popular calendar which, while not endorsed by the state, nevertheless was employed by commoners. We can infer that this calendar was designed with astrology in mind, since Rāhu and Ketu had been incorporated. This integration of multiple systems indicates the extent to which foreign elements had become assimilated into Chinese astrology.

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and Sons, 1946), 794–795. In the *Bṛhat-saṃhitā*, the description runs from the feet to the head, whereas in the *Xiuyao jing* it is from the head to the feet. As noted by the *Bṛihat-saṃhitā* translator, the custom when describing divine beings is to commence from the feet, whereas with humans it is from the head.

[73] Mars: Hot flavor, spicy. Mercury: Sour (vinegar), bitter. Venus: Hot, astringent, sour (vinegar). Jupiter: Fragrant, sweet. Saturn: Salty, bitter, sour. T 1308, 21: 427c26-428a3. We know that these associations are not from China because the five flavors (五味) associated with the five elements (五行) differ from this model.

[74] T 1308, 21: 428b23-429a6. These mantras are also found Buddhist astral magic texts which include the *Xiuyao yigui* 宿曜儀軌 (T 1304), *Beidou qixing humo fa* 北斗七星護摩法 (T 1310) and *Fantian huoluo jiuyao* 梵天火羅九曜 (T 1311). These will be explored below. The Indian source of these mantras, if one existed, is uncertain.

[75] T 1308, 21: 448c5-d1.

[76] Pankenier, *Astrology and Cosmology in Early China Conforming Earth to Heaven*, 278–279.

[77] Changsha as a territory on the southern frontier was not part of the original system of 'field-allocation' astrology.

5.4. Buddhist and Daoist Astral Magic in the Late-Tang

The shift toward Iranian sources of astronomy and astrology in the late-Tang is additionally evident from the astrological iconography described in the *Qiyao rangzai jue*. It describes two sets of icons (in the first and second fascicles respectively), which are not of Chinese origin. I label these as the "zoomorphic" and "Iranian-Mesopotamian" respectively. Aside from the icons of the Sun and Moon in the second set, all of these are largely different from the "Indian" *navagraha* icons depicted in the *Taizō zuzō* (table 4.1). The icons of the *Qiyao rangzai jue*, in contrast, are of a Near Eastern origin. They were transmitted through an Iranian medium in light of the Sogdian loanwords that accompany them (see table 5.4).

The zoomorphic set of icons is described in the first fascicle (table 5.2). Although these are not depicted in the text, visual representations are found in the Japanese *Kuyō hiryaku* 九曜秘暦 (*Secret Calendar of the Nine Planets*).[78] These are the only known representations of the zoomorphic set of icons within the extant art record.

The lion-headed figure is especially noteworthy because such a figure representing a solar deity has no identifiable parallel in Chinese or Indian iconographies. In India, Sūrya is represented in a fully anthropomorphic form. In Vedic literature, the solar deity rides in a chariot drawn by seven horses.[79] A lion-headed deity associated with the Sun does, however, exist in Egyptian mythology: Sekhmet, known as the Eye of Ra (Ra the Sun god). The eye of the creator could be identified with the Sun disc.[80] Even if this is not Sekhmet specifically, there are many examples of lion-headed figures,

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[78] Included in TZ, vol. 7, 769–773. This work is comprised of text explaining the astrological features of each day of the seven-day week, while providing the accompanying mantras for each planet, and illustrations of the planetary deities. The material is drawn from Tang-era Buddhist texts. It is uncertain if the text was originally from China or compiled in Japan, though I favor a Chinese composition given the absence of any anomalous Chinese grammar or vocabulary that would indicate Japanese authorship. The manuscript copied by Sōkan 僧觀 in year 2 of Tenji 天治 (1125) was based on an earlier copy from year 3 of Tengyō 天慶 (940). See appendix 5. It was therefore composed sometime before 940 (see New York Metropolitan Museum of Art #1975.268.4). Later manuscripts, however, seem to indicate that the author was Kōzen 興然 (1120–1203). The anthropomorphic depictions wear Chinese attire; thus, the depictions are of an East Asian imagination, rather than being direct copies of anything from abroad. For relevant studies see Nakano Genzō 中野玄三, "Kanchiin shozō *Kuyō hireki* ni tsuite" 觀智院所藏九曜秘暦について, *Tōkyō Kokuritsu Hakubutsukan kenkyūshi* 東京國立博物館研究誌 218 (1969): 13–24. Manabe Shunshō 真鍋俊照, "Karazu no zuzō to seiritsu" 火羅圖の圖像と成立, *Indogaku Bukkyōgaku kenkyū* 印度學佛教學研究 30, no. 2 (1982): 324–329.

[79] Michael Witzel, "Vedic Gods (Indra, Agni, Rudra, Varuṇa, etc.)," *Brill's Encyclopedia of Hinduism*, eds. Knut A. Jacobsen, Helene Basu, Angelika Malinar and Vasudha Narayanan. Brill Online, 2016.

[80] Geraldine Pinch, *Handbook of Egyptian Mythology* (Santa Barbara, CA: ABC-CLIO Inc., 2002), 128–131.

including Ra the solar god, among the figures personifying stars, decans[81] and planets depicted on the ceiling of the Temple of Hathor at Dendera in Egypt of the Greco-Roman period (see fig. 5.9 and 5.10).

It was in this late period in Ancient Egyptian history that Hellenistic astrology emerged and rapidly developed into what would later spread across Eurasia. Alexandria was the birthplace of Hellenistic astrology. It is therefore plausible that a related icon like this could have been transmitted through texts dealing with astrology. Astrology was widely practiced in Sasanian Iran, and Sasanian rulers hosted Greek or Greco-Syrian and Indian scholars in their realm.[82] The Sogdian loanwords in Chinese (table 5.4) indicate that Iranian astrological lore was transmitted by Sogdians who practiced Iranian astrology. This was the likely medium through which iconography from the Near-East could have been transmitted eastward to China.

Table 5.2. Zoomorphic Icons of the *Qiyao rangzai jue* (fasc. 1)

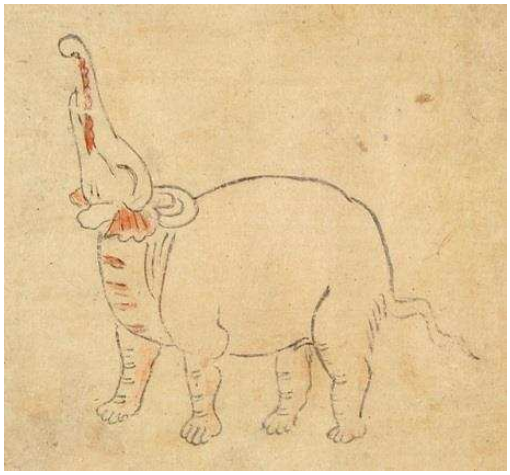
Descriptions[83]	*Kuyō hiryaku* Depictions[84]
形如人而似獅子頭人身，著天衣，手持寶瓶而黑色。 [Sun] A form like a man, but a head like a lion with a human body. Wearing a heavenly garment. The hand is holding a jeweled vase black in color.	 Fig. 5.2. Sun

[81] Decans were originally thirty-six Egyptian constellations that were eventually merged with the twelve zodiac signs. These appear in extant Japanese horoscopes (see 6.5).

[82] Pingree, *From Astral Omens to Astrology: From Babylon to Bīkāner*, 39.

[83] T 1308, 21: 426c6–427b5.

[84] All *Kuyō hiryaku* images courtesy of ARC Collection, Ritsumeikan University. Genpō 賢寶 (1333–1398) manuscript. Compare with icons by Sōkan (appendix 4).

形如天女，著青天衣，持寶劍。 [Moon] A form like a heavenly lady wearing a blue garment, holding a jeweled sword.	 Fig. 5.3. Moon
形如象黑色向天大呼。 [Mars] A form like an elephant, black in color, crying out to the sky.	 Fig. 5.4. Mars
形如黑蛇有四足而食蟹。 [Mercury] A form like a black snake, having four legs, and eating a crab.	 Fig. 5.5. Mercury

形如人，人身龍頭，著天衣，隨四季色。 [Jupiter] A form like a man. A man's body and dragon's head, wearing a heavenly garment. The color changes according to the four seasons.	 Fig. 5.6. Jupiter
形如天女，手持印，騎白鷄。 [Venus] A form like a heavenly lady, in her hand holding a seal, riding a white fowl.	 Fig. 5.7. Venus
形如婆羅門，騎黑沙牛。 [Saturn] A form like a Brahmin, riding a black ox.	 Fig. 5.8. Saturn

Fig. 5.9. Dendera ceiling.

Fig. 5.10. Dendera ceiling (Ra the Sun god second from left).[85]

The zoomorphic icons detailed above did not become the primary set of icons representing the planetary deities in East Asia. The second set of icons, i.e., the Iranian-Mesopotamian icons (table 5.3), which exclude the Sun and Moon, share many similarities with the astrological icons of Islamic art.[86] These icons are entirely different

[85] See plate 41 (figures S 19a–17) in Neugebauer and Parker, *Egyptian Astronomical Texts III. Decans, Planets, Constellations and Zodiacs* (Plates). The bottom image is not included in the plates. I must offer my thanks to Mick Palarczyk for pointing out Ra in the bottom image. Photos of Dendera courtesy of Paul Smit (© Paul Smit).

[86] In Islamic astrological art Mercury is a young male scribe writing on a scroll, Venus is a female musician, Mars is a warrior, Jupiter is a sage or judge and Saturn is a dark-skinned scantily clothed old man with a pickax. See Stefano Carboni, *Following the Stars: Images of the Zodiac in Islamic Art* (New York: The Metropolitan Museum of Art, 1997), 6. See fig. 1.2. “Planets of the 'Aja'ib al-makhluqat (Wonders of

from the Indian icons as their source was actually Iranian. The Iranian tradition itself was based on an earlier Mesopotamian model with Hellenistic influences. As will be discussed below, the colors of these deities, and the apotropaic rituals against the planets, all strongly suggest that the tradition associated with these figures, at least in part, goes further back to practices of Greco-Egyptian magic. This stands in contrast to the conclusion of Takeda Kazuaki, who argued that this set of icons was uniquely developed in China.[87] However, Takeda's conclusion must be reconsidered in light of evidence to the contrary. Lilla Russell-Smith is correct in suggesting that anthropomorphic representations of the planets "became popular only after the arrival of Buddhism."[88] The icons to which she refers were actually transmitted through an Iranian medium.

Table 5.3. Iranian-Mesopotamian Icons of the *Qiyao rangzai jue* (fasc. 2)

Descriptions[89]	***Kuyō hiryaku* Depictions**
金：其神是女人，著黃衣，頭戴鷄冠，手彈琵琶。 Venus: The deity is a lady wearing a yellow garment, with a fowl hat on her head, plucking a *pipa* [lute].	 Fig. 5.11. Venus

Creation)" above. It appears that the first scholar to identify these Chinese icons with Islam and Iran was Chen Wancheng 陳萬成 in 2010. See Wu Yanwu 吳燕武, "Wuxing ershiba xiu shenxing tu gongnengkao," 《五星二十八宿神形圖》功能考, *Xin meishu* 新美術 34, no. 12 (2013): 31. Yu Xin (2011) also points out the Hellenistic and Iranian precedents behind the icon of Mercury. Yu Xin, "Personal Fate and the Planets," 186.

[87] Takeda Kazuaki 武田和昭, *Hoshi mandara no kenkyū* 星曼荼羅の研究 (Kyōtō: Hōzōkan 法蔵館, 1995), 191.

[88] Lilla Russell-Smith, "Stars and Planets in Chinese and Central Asian Buddhist Art from the Ninth to the Fifteenth Centuries," in *The Worship of Stars in Japanese Religious Practice*, ed. Lucia Dolce (Bristol: Culture and Cosmos, 2007), 99.

[89] T 1308, 21: 449a3-b12.

木：其神如老人，著青衣，帶猪冠，容貌儼然。 Jupiter: The deity is like an elderly man, wearing a blue garment and a swine hat, with a dignified appearance.	 Fig. 5.12. Jupiter
水：其神女人，著青衣，帶獲冠，手執文卷。 Mercury: the deity is a lady wearing a blue garment and a monkey hat,[90] her hand grasping a scroll.	 Fig. 5.13. Mercury

[90] Reading *huo guan* 獲冠 as *yuan guan* 猿冠.

作銅牙赤色貌。帶嗔色驢冠。著豹皮裙。四臂：一手執弓，一手執箭，一手執刀。 [Mars] The deity is of a red mineral color, wearing a donkey hat of a furious [red] color, and a leopard skin skirt. Four arms: one hand holds a bow, one hand holds an arrow, and one hand holds a blade.	 Fig. 5.14. Mars
土：其神似婆羅門，色黑，頭帶牛冠，一手柱杖，一手指前，微似曲腰。 Saturn: The deity is like a Brahmin, black in color. On his head he wears an ox hat. One hand grasps a cane, while the other hand points forward. His back seems slightly bent.	 Fig. 5.15. Saturn

There is another set of Iranian-Mesopotamian icons that are described in the fragments of a lost work work entitled *Fantian qiyao jing* 梵天七曜經 (**Brahmadeva-saptagraha-sūtra*). These fragments are preserved in the Japanese *Gyōrin shō* 行林抄 (T 2409; *Summary of the Forest of Practices*), a compendium of Buddhist lore and rituals by the Hieizan 比叡山 monk Jōnen 靜然 (d.u.) in 1154. Nothing is known about this *Fantian qiyao jing* since it does not appear anywhere else. Although the title might suggest an Indian origin, the icons describe therein are similar to those provided above. They are therefore of an Iranian origin. Jōnen also quotes a certain *Huatu* 畫圖 or "painting" that appears to be text cited from a painting or an otherwise unidentified manual prescribing the forms to be drawn. These descriptions are as follows:

Mars:

**Brahmadeva-saptagraha-sūtra*:

> 老本云：形如少壯丈夫。面目嗔怒。著豹皮衣裝。右手抱刀，左手忿怒五指。鬚髮竪麗。其身赤色。首戴金兜印。火星之像也。
> The old[91] version states, "The figure is like that of a strong young man. His face is angry. He wears a leopard skin garment. His right hand holds a blade. His left hand [displays] wrathful five fingers [a *mudrā*?]. His hair and beard are kempt. His body is red in color. He wears atop his head a gold headpiece. The image of Mars."[92]

Huatu "Painting":

> 右一手持手，一手持箭二支。右一手持刀，一手持弓。虎皮裳，開足立。
> On the right, one hand is grasping (?), and one hand holds two arrows. On the right one hand holds a blade, and one hand holds a bow. With a tiger skin skirt, he stands legs apart.[93]

Mercury:

**Brahmadeva-saptagraha-sūtra*:

> 梵本云：形如學生兒童子，著青衣，乘青聰馬。天衣珠寶裝飾。水星之像也
> The Indian text states, "The form is like a student child wearing a blue garment, and riding a blue piebald horse.[94] He is adorned in heavenly garments and precious stones. The image of Mercury."[95]

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[91] *Lao* 老 ("old") here is likely a scribal error for *fan* 梵 ("Indic").

[92] T 2409, 76: 464c06-09.

[93] T 2409, 76: 464c13-14.

[94] Reading *cong ma* 聰馬 as *cong ma* 驄馬

[95] T 2409, 76: 464c17-18.

Huatu “Painting”:

右手執筆，左手執紙。開左右手立。

In the right hand holding a brush. In the left hand holding paper. Standing with both hands spread apart.[96]

Jupiter:

**Brahmadeva–saptagraha-sūtra*:

梵本云：形如長君子，著禮衣，帶冠冕，乘一黑猪。面目仁者，如令之判史，右之諸侯也。

The Indian text states, “His form is like that of a chief lord, wearing formal attire and cap, while riding a black pig. His face is noble like a state minister or the lord of the right.[97]

Huatu “Painting”:

胸間左右手相並，捧盛花一坏立。

Both hands parallel at the chest. Standing while holding a cup[98] full of flowers.[99]

Venus

**Brahmadeva-saptagraha-sūtra*:

梵本云：形如婦人，裝以綵衣，面目似笑。乘一白師子。金星之像也

The Indian text states, “A form like that of a lady wearing a variegated garment, with a slight smiling expression. She rides a white lion. The image of Venus.”[100]

Huatu “Painting”:

左手執琵琶頭，右手禪弦。

Left hand holding the head of a *pipa* and right hand plucking[101] strings.[102]

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[96] T 2409, 76: 464c21.

[97] T 2409, 76: 464c25-27.

[98] Reading *huai* 坏 as *bei* 杯.

[99] T 2409, 76: 465a02.

[100] T 2409, 76: 465a05-06. The lion mount is significant because the goddess Ištar, associated with Venus in Mesopotamia, is often pictured with a lion. See table 5.4 below. *Encyclopædia Britannica Online*, s. v. "Ishtar", accessed January 03, 2016, http://www.britannica.com/topic/Ishtar-Mesopotamian-goddess.

[101] Read *chan* 禪 as *tan* 彈.

[102] T 2409, 76: 465a10.

Saturn

**Brahmadeva-saptagraha-sūtra*:

> 梵本云：形如老波羅門師，手執錫杖，著黑袈裟，乘一黑牛。衣以金銀裝束。土星之像也
>
> The Indian text states, "A form like an old Brahmin master. In his hand he holds a monk's staff. He wears a black *kāṣāya,* and rides a black ox. His robe is decorated with gold and silver. The image of Saturn."[103]

Huatu "Painting":

> 右手執錫杖，左手立臂申，掌執乘牛。
>
> His right hand holding a staff, and his left hand extended outward. He drives and rides an ox.[104]

These Iranian-Mesopotamian icons stem from the greater pan-Eurasian tradition of assigning specific gods to each of the planets. The association between the planets and gods was originally a Mesopotamian custom, which was later adopted by the Greeks, Persians, Indians and finally the Chinese from the late-Tang period. See table 5.4.

Table 5.4. Planetary Deities – Correspondences[105]

Planet	Greek	Akkadian	Middle Persian	Sogdian[106]	Sogdian (Chinese)[107]
Mars	Ares	Nergal	Wahrām	*wnx'n* [Unxān]	雲漢
Mercury	Hermes	Nabû	Tīr	*ṭyr* [Tɪr̄]	喹
Jupiter	Zeus	Marduk	Ohrmazd	*wrmzṭ* [Urmazt]	溫沒斯
Venus	Aphrodites	Ištar	Anāhīd	*n'xyδ* [Nāxid]	那頡
Saturn	Kronos	Kajamānu	Kēwān	*kyw'n* [Kēwān]	鷄暖

[103] T 2409, 76: 465a13-15.

[104] T 2409, 76: 465a19-20.

[105] Table adapted from Antonio Panaino, "Cosmologies and Astrology," in *The Wiley Blackwell Companion to Zoroastrianism*, ed. Michael Strausberg and Yuhan Sohrab-Dinshaw Vevaina (John Wiley & Sons, 2015), 253. Yano, *Mikkyō senseijutsu*, 110.

[106] Nicholas Sims-Williams pointed out to me that the Sogdian terms are transcriptions of the planet names directly from Middle Persian, hence the italicization here. Private communication. July 25th, 2016.

[107] These transliterations are taken from the *Qiyao rangzai jue*.

It is therefore unsurprising that Mars in the Chinese tradition is depicted as a warrior (Nergal is a war god), and Mercury as a scribe (Nabû is the god of scribes). The planetary deities worshipped within the context of Chinese Buddhist astrology were in effect largely adapted from a Zoroastrian model. The Chinese never associated their native deities with the planets in the same way as cultures to the west did, but rather they adopted foreign iconography and loanwords for the new planetary deities.[108]

This specific practice of worshipping planetary deities can be traced back to the Hellenistic tradition of magic. There are similarities between the colors of the deities described above and the stones used to represent the planetary deities in the Greco-Egyptian tradition of astrology. As Evans' study explains, astrologers in Alexandria represented the planets using specific types of stone on a 'horoscope board'.[109] A Greek papyrus (PGM CX 1–12) text, translated by Betz, lists the prescribed stones as follows:

> Make the Sun gold, the Moon silver, Kronos [Saturn] of obsidian, Ares [Mars] of yellow-green onyx,[110] Aphrodite [Venus] of lapis-lazuli streaked with gold, Hermes [Mercury] of turquoise; make Zeus [Jupiter] of a [dark blue] stone, but underneath of crystal.[111]

The colors of the stones for Saturn, Mars, Mercury and possibly Zeus correspond to the prescribed colors of the icons above. Similar color assignments are also found in Indian literature, specifically the aforementioned *Yavanajātaka* (2.3), which Pingree notes were "fairly standard in Greek astrology: the Sun with coppery red, the Moon with silver, Mars with red, Mercury with green, Jupiter with yellow, Venus with white, and Saturn with black."[112]

In light of these parallels, it is unsurprising that the tradition of astral magic as seen in the late-Tang, which we will discuss shortly, also shares many parallels with that found in the medieval Arabic and European occult traditions that are based on the *Ghāyat al-Ḥakīm*, i.e., *The Aim of the Sage*, otherwise known by its Latin translation the *Picatrix*. Chinese astrologers, I argue, were hitherto unrecognized heirs to an effectively global practice of astral magic stretching from East Asia to Europe.

To put this into context, the *Ghāyat al-Ḥakīm* is a manual of astrology and magic, which Pingree identifies as having been written in Spain sometime in the mid-eleventh century. He notes that "the unknown compiler of the *Ghāyat* had available for his use in

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[108] Note that worship of astral deities was a major part of native Chinese court religion. There are several prominent astral deities in the Chinese pantheon, several of whom were worshipped at court. See 2.4 above.

[109] Evans, "The Astrologer's Apparatus," 1–44.

[110] Evans gives "reddish onyx" for Ares. See Evans, "The Astrologer's Apparatus," 4.

[111] Hans Dieter Betz, *The Greek Magical Papyri in Translation* (Chicago: The University of Chicago Press, 1986), 312.

[112] David Pingree, "Indian Planetary Images and the Tradition of Astral Magic," 3.

Spain in the middle of the eleventh century much of the Arabic literature on the esoteric sciences that had been produced in Syria and Mesopotamia, but nothing that had been written after the year 1000."[113] This text also relies to some extent on Iranian lore, even citing the names of the planets in Persian.[114] The *Ghāyat al-Ḥakīm* was translated into Spanish, albeit with some issues of mistranslation, between 1256 and 1258 at the court of Alfonso the Wise (1221–1284), and sometime shortly thereafter a Latin translation of the Spanish was produced.[115] In subsequent centuries, the "influence of *Picatrix* on the magical traditions of the Western world was immense. Much of the significant scholarly occultists of the late Middle Ages appear to have drawn on it, or on material borrowed from it by other authors."[116] There are parallels, such as the colors associated with the planets, in other ancient texts on astrology, including the *Anthologies* by Vettius Valens, a manual on horoscopic astrology, though these are not works on astral magic.

The impact of astral magic in Islamic cultures and medieval Europe is already recognized, but the significance of it in East Asia has scarcely been recognized. The reality is that both Buddhism and Daoism were influenced by this Near Eastern tradition of astral magic.[117] The foremost example of this is the apotropaic ritual against Saturn. The *Qiyao rangzai jue* prescribes the following ritual:

> 到宿命宮，宜鑄可長四寸，曲腰，三衣，瓶鉢。土直日平旦，以黑瓷瓶盛之，於臥處頭邊，以油麻油瀝於頂上。經三年止盡供養。持熾盛光一字王真言，涅槃經，般若經十卷或百卷。宜燒安悉香，著白上衣及帶雄黃朱砂及屠刀。打作環帶之，可重四兩。鷄緩日平旦以絹畫之，供養好食菓子。帶黑色者爲上。至心啟告：鷄緩國王，某甲君王如護弟子，伏願護命去災。所供養物宜自食之。
>
> [When Saturn] moves into [one's] *nakṣatra* and natal house, one should cast [an image of Saturn] about 4 inches tall: bent back, three robes, bottle and bowl. On Saturdays at dawn, take a black porcelain bottle and fill it. Place it at the head of

[113] Pingree, "Some of the Sources of the *Ghāyat al-hakīm*," 2.

[114] Panaino notes their names appear in corrupted Arabic spelling: Kēwān, Hurmuz, Bahrām, Mihr, Anāhīd, Tīr, Māh. In Latin they read as Kayhven, Harmiz, Baharam, Maher, Anyhyt, Tyr, Mehe. See Panaino, "Cosmologies and Astrology," 254.

[115] David Pingree, "Between the Ghāya and Picatrix I: The Spanish Version*," Journal of the Warburg and Courtauld Institutes* 44 (1981): 27–56. For the Latin edition see David Pingree ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm* (London: University of London, 1986).

[116] Greer, John Michael and Christopher Warnock, trans., *The Picatrix: Liber Rubeus Edition* (Adocentyn Press, 2010–2011), 11.

[117] The influence of Near Eastern traditions on Chinese religions has been discussed to some extent. Peter Yoshirō Saeki in 1937 already identified what appear to be Syriac Christian prayers in the form of transliterated incantations in a Tang Daoist text, the *Lüzu quanshu* 呂祖全書. See P.Y. Saeki, *The Nestorian Documents and Relics in China* (Tōkyō: Maruzen, 1937), 400–407. For a recent relevant study see Zeng Yangqing 曾陽晴, *Tangchao hanyu Jingjiao wenxian yanjiu* 唐朝漢語景教文獻研究 (Taipei: Huamulan Wenhua, 2005), 35–38.

where one sleeps and drip sesame oil atop its crown. After three years, the offering will be complete.[118] Recite the Tejaprabhā single-syllable king mantra,[119] the *Mahāparinirvāṇa-mahāsūtra* and the *Prajñāpāramitā-sūtra*, either in ten fascicles or one-hundred fascicles. One should burn Persian incense, wear a white outer garment, and on the belt carry realgar, cinnabar and a dagger. Make a loop and attach them. They can overlap several times. On days of Kēwān [Saturn] at dawn paint him [his image] on silk and make offerings of good foods and fruits. It is superior to wear the color black. Sincerely speak: "King Kēwān! May I [*stating one's name*] be guarded by you, Lord, like a disciple. I beseech you to guard my life and halt calamities!" One should personally eat the offerings that were given.[120]

The aforementioned *Kuyō hiryaku* contains a very similar ritual for Saturn, but does not prescribe any scriptures to be recited.[121] The Daoist *Chengxing lingtai biyao jing*, which we discussed earlier (4.7), provides a very similar apotropaic ritual for Saturn while citing a source text:

> 又九執經云：宜以犁具鏵鐵鑄，作一土星真形，長七寸，以黑磁甕盛之，置於臥床頭安之。每於雞緩直日平旦時，以黑油麻汁瀝頭上，經年乃去之。如畫之供養，亦得以隨年果子供養，帶黑色者，尤妙。咒曰：雞緩是我君主，某臣僕願加祐護，次以度災厄。然後，拜之供養訖，自己食之。好食酸苦等。宜看八陽經，帶雄朱，燒安息香，著皂衣，不入惡神廟，忌食牛肉，忌角器等。
>
> Furthermore, the **Navagraha Sūtra* states that one is to cast, using plow iron, one true image of Saturn, seven inches tall. Take a black porcelain jar and fill it. Place it [the image] at the head of one's bed. On every day of Kēwān [Saturday] at dawn, drip black oil and sesame broth on its head. After [three?] year[s] remove it. If painting [the image of the deity] and making offerings, one must also offer it fruits throughout the year. It is especially excellent to wear the color black. The incantation: "Kēwān is my lord; I [*stating your name*], your retainer, beg your protection and liberation from distress." Afterward, having paid respects and provided the offerings, personally consume them. [Offer] good foods, sour and bitter in flavor. One should read the *Eight Yang Sūtra*.[122] Carry realgar and

[118] Three years is roughly enough time to accommodate the transit of Saturn through a single zodiacal sign.

[119] It is unclear to which mantra or *dhāraṇī* this refers.

[120] T 1308, 21: 449b2–12.

[121] TZ, vol. 7, 772.

[122] Presumably one of the modified Daoist versions of the *Foshuo ba yang shenzhou jing* 佛說八陽神呪經 (T 428) or *Foshuo tiandi ba yang shenzhou jing* 佛說天地八陽神呪經 (T 2897): *Taishang Laojun shuo anzhai ba yang jing* 太上老君說安宅八陽經 (DZ 634) or *Taishang Laojun shuo buxie ba*

> cinnabar. Burn Persian incense. Wear black garments. Do not enter the temples of evil gods. It is taboo to eat beef. It is taboo [to use] vessels made of horn.[123]

Kēwān is the Middle Persian or Sogdian name of Saturn, which immediately indicates an Iranian source for this ritual. Saturn in non-Chinese astral magical literature is universally associated with black, or a very dark color such as "burned wool" (*lana combusta*), as in the *Picatrix*.[124] This associated color is also applied to associated stones, such as Obsidian, as noted above. This is different from Chinese lore, in which Saturn is associated with the color yellow.[125] The *Picatrix* similarly associates black clothing with Saturn (*omnes pannos nigros*).[126] Also, "plow iron" (犁具鏵鐵) above is likely connected to the association between the god Kronos and agriculture. The *Picatrix* states that Saturn rules over "those that work with the earth, plowing, digging, extracting minerals, …" and among metals he rules over "lead, iron and all metals that are black and smell bad."[127] The prescribed Persian incense (*anxi xiang* 安悉香)[128] is identified by Cullen and Lo as styrax benzoin.[129] Styrax is also the prescribed incense for Saturn given in a Greco-Egyptian papyrus (PGM XIII. 17–22): "the proper incense of Kronos is styrax, for it is heavy and fragrant."[130] This is also so in the *Picatrix*, which gives "strong cassia and storax" (*fortiter cassiam et storacem*).[131]

The description of Saturn in the *Qiyao rangzai jue* as a dark Brahmin carrying a staff corresponds to the depiction of Kronos on magic stones in the Greco-Egyptian tradition of astrology.[132] One engraving of Kronos (fig. 5.16) shows him as a man hunched over, reaping wheat with the sickle that he used to castrate his father Ouranos.

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yang jing 太上老君說補謝八陽經 (DZ 635). The latter two especially are apotropaic texts employed to resolve problems in a dwelling brought on by disturbed earth spirits. See Christine Mollier, *Buddhism and Taoism Face to Face: Scripture, Ritual, and Iconographic Exchange in Medieval China* (Honolulu: University of Hawaii Press, 2008), 14.

[123] DZ 289, Wenwu Chubanshe edn., vol. 5, 30c2-10.

[124] Greer and Warnock, trans., *The Picatrix*, 140. For Latin see Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 97.

[125] Saturn and earth are associated with the Yellow Emperor 黃帝. See also T 1308, 21: 427a15.

[126] Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 91.

[127] Greer and Warnock, trans., *The Picatrix*, 133. The Latin reads, "et ex magisteriis laborare terram, arare, fodere, extrahere mineras ... et ex metallis plumbum, ferrum et omnia nigra et fetida." Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 91.

[128] Also rendered as *anxi xiang* 安息香.

[129] See appendix 1 in Christopher Cullen and Vivienne Lo, *Medieval Chinese Medicine: The Dunhuang Medical Manuscripts* (Routledge, 2004).

[130] Betz, *The Greek Magical Papyri in Translation*, 172.

[131] Greer and Warnock, trans., *The Picatrix*, 134. For Latin see Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 91.

[132] The cult of Kronos flourished in Alexandria throughout antiquity, the heartland of astrology. See J.N. Bremmer, "Greek Fallen Angels: Kronos and the Titans," in *Greek Religion and Culture: the Bible and the Ancient Near East* (Leiden: Brill, 2008), 82–83.

As seen above (fig. 5.15), Saturn is described as having a bent back (*quyao* 曲腰). The cane or staff he holds appears to be the original sickle modified into the new item. One later portrayal of Saturn in India, stemming from Iranian sources, portrays him carrying a staff, being dark in color, and sometimes riding a bull, such as in the *Lagnacandrikā*, a Hindu astrological work composed by Kāśinātha in the first half of the sixteenth century in northern India (fig. 5.17). This is similar to the East Asian tradition, in which Saturn is either riding a bull or wears a "bull hat". As to the bull in the *Lagnacandrikā*, as Pingree notes, this is neither the white-humped bull Nandī, the mount or *vāhana* of Śiva, nor the buffalo of Yama.[133] Parker's study notes that throughout Egyptian history, Saturn was always known as 'Horus bull of the sky' or 'Horus the bull'.[134] In late-period texts he is often depicted as a bull-headed god.[135]

Fig. 5.16. Kronos Stone[136]

Fig. 5.17. *Lagnacandrikā* Saturn[137]

In light of the above connections to the Greco-Egyptian tradition, I would tentatively propose that Saturn's bull here is Horus the Bull as a representation of Saturn.

It should be noted here that in the Japanese *Genzu mandara* 現圖曼荼羅 version of the Garbhadhātu-maṇḍala, the depiction of Saturn is of the Iranian type (fig. 5.18), and

[133] Ibid., 13.

[134] R.A. Parker, "Ancient Egyptian Astronomy," Philosophical Transactions of the Royal Society of London. Series A, *Mathematical and Physical Sciences* 276, no. 1257 (1974): 60.

[135] Neugebauer and Parker, *Egyptian Astronomical Texts III*, 178–179.

[136] Kronos as reaper. Haematite. Département des Monnaies, Médailles et Antiques, Bibliothèque nationale de France, Paris. From Evans, "The Astrologer's Apparatus," 17. Photograph and right to reproduce courtesy of James Evans.

[137] See appended plate 5b in Pingree, "Indian Planetary Images and the Tradition of Astral Magic." In the *Niṣpannayogāvalī*, Saturn is "black, on a tortoise, bearing a staff." Ibid., 7.

not of the original Indian type (compare with fig. 4.19). This version of the *maṇḍala* is to likely be traced back to Huiguo 惠果 (746–806), who was Kūkai's teacher in Chang'an. In other words, this is not the original *maṇḍala* that Śubhakarasiṃha prescribed in the 720s.[138] During the course of its evolution, it clearly was influenced by the new Iranian sources, which possibly indicates that Buddhist teachers, such as Huiguo, were increasingly familiar with the newly imported astral magic.[139]

Fig. 5.18. Saturn 土曜.[140]

The *Qiyao rangzai jue* and Daoist *Chengxing lingtai biyao jing* both include practices against the other visible planets. As with the Saturn ritual, it is clear that these two texts draw upon the same foreign material. Comparing how the Buddhists and Daoists approached this material is instructive, especially in the following ritual against Mars in the Daoist text:

[138] See Nakano Gishō 中野義照, "Genzu Taizō mandara saigai-in no kōsō" 現圖胎藏マンダラ最外院の構想, *Mikkyō bunka* 密教文化 88 (1969): 6.

[139] Further evidence of the influence of foreign astrology in this form of the *maṇḍala* is suggested by the name "White Ram" (*baiyang gong* 白羊宮) for the zodiac sign Aries. It can be inferred that this term comes from the *Duli yusi jing* since it appears in the aforementioned *Xitian yusi jing*. See Wan Minying, *Xingxue dacheng* (SKQS 806: 436a16). In the *Taizō zuzō* and *Taizō kuzuyō* (TZ, vol. 2, 284 & 559), Aries is simply *yang gong* 羊宮 (the Ram). See also Somekawa, *Mandara zuten*, 183.

[140] TZ, vol, 1, 789. See also Somekawa, *Mandara zuten*, 211.

使赤油麻七粒，赤稻五粒，赤小豆三粒，赤驢尾七莖，赤銅屑少許，以緋袋子盛，緋線子繫在臂上，大吉。又若畫其形供養，吉。又轉度人經，及消災經，及帶緋頭鬚朱砂，即於雲漢日爲之。寶命經云：乘赤馬，著赤衣。在身須七處刺出血。又刺出赤驢血。當火見日爲災時，造八角壇，於四面四角頭，各著四方箭，箭上繫四方色。續時，己身上血並赤驢血，與檀末相調，瀝於壇上。上又以赤油麻油燈五方，五盞燈樹皆須赤。前來所用，袋用緋索子，繫在臂上，帶頭鬚吉。又九執經云：取隨年五果，木柴，隨年甘草兩數，并前功德焚之。在臂上帶赤銅釧。南壇下置水一甕。午上立竿懸赤旛。埋赤炭六斤。

It is greatly auspicious to fill a crimson bag with seven pellets of red sesame, five pellets of red rice, three pellets of red little beans, seven red donkey tails, and a small amount of red copper bits, and then attach it to one's arm with a crimson string. It is also auspicious to paint its [Mars'] image and make offerings. Also, on days of Unxān [Tuesdays], recite the *Liberating Men Scripture* and *Eliminating Calamaties Scripture*,[141] and wear crimson cinnabar [color] in one's hair and beard. The *Jeweled Fate Scripture*[142] states, "Ride a red horse, and wear red clothing. On the body one must pierce seven places and extract blood. Also, pierce and extract the blood from a red donkey. When there is a calamity on a day when Mars appears, build an octagonal altar. Attach arrows [pointing to] the four directions at the four corners on four sides. Atop the arrows attach the colors of the four directions. At 20:00,[143] blend together one's own blood and the blood of the red donkey with powdered sandalwood incense, and drip it atop the altar. Also, place oil lamps of red sesame oil at the five directions. The five lamp supports all must be red. As employed earlier, it is auspicious to [prepare] a bag, using crimson string to attach it to the arm while wearing [red cinnabar coloring] in one's hair and beard." Also, the *Navagraha Sūtra* states, "Together with the earlier practices, take throughout the year the five fruits [peaches, pears, apricots, chestnuts and jujubes],[144] firewood and two bundles of sweet grass,[145] and burn them. Attach to the arm a red copper bracelet. Under the southern altar place one

[141] This is perhaps referring to the *Taishang Laojunshuo xiaozai jing* 太上老君說消災經 (DZ 631), which is of unknown authorship. The text is said to halt calamities if recited. See Hu Fuchen 胡孚琛, ed., *Zhonghua Daojiao dacidian* 中華道教大辭典 (Beijing: Zhongguo Shehui Kexue Chubanshe, 1995), 286.

[142] The identity of this text is uncertain.

[143] Reading *xu shi* 續時 as *xu shi* 戌時 since the former is likely a scribal error. *Xu* corresponds to Aries, which is ruled by Mars.

[144] These fruits are all reddish in color.

[145] This likely refers to licorice plant.

jar of water. Raise a red banner in the southern direction. Bury six catties of red charcoal."[146]

Unxān 雲漢 is a Chinese transliteration of the Sogdian name for the planet Mars, which itself is a transcription of the Middle Persian name Wahrām (table 5.4).[147] As discussed above, Mars is associated with Tuesday in the seven-day week. The standard seven-day week is a Greco-Egyptian creation that became standard throughout medieval Eurasia and Africa. The association between Mars and the color red is present in both Chinese and foreign sources, which is likely due to its visible appearance in the sky. For example, in the *Wuxing dayi*, Mars is "the essence of fire; its place is the southern direction, presiding over summer; it is the son of the Red Emperor."[148] In the *Picatrix*, Mars is associated with red (*rubeum*) metals (i.e., red bronze or copper) and red sandalwood (*sandalum rubeum*).[149] Similar substances are found in the above passage. The *Qiyao rangzai jue*, likely drawing on the same foreign sources as the above Chinese, gives 'purple sandalwood incense' (紫檀香) for Mars.[150] Gideon Bohak notes that within Greco-Egyptian magic "the extensive use of donkey parts in aggressive magic (since the donkey was associated with Seth-Typhon) are all Egyptian in origin, and their pervasiveness in the Greek Magical Papyri certainly could be used as evidence for a strong Egyptian influence on their magical rituals."[151] This possibly indicates an association between Seth (a god of war) and the planet Mars here.

Although the *Qiyao rangzai jue* describes the icon of Mars, and prescribes flavors and types of incense for Tuesdays, it does not describe any of the blood magic that we find in the Daoist version of the ritual. Native Chinese religious practice, especially that of the state cult, included ritualized slaughtering of animals for sacrifice. Daoism, however, originally avoided blood sacrifice. As Terry F. Kleeman explains, "Taoists saw the performance of blood sacrifice as a crime punishable by the heavenly tribunal."[152]

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[146] DZ 289, Wenwu Chubanshe edn., vol. 5, 30b1-14.

[147] D.N. MacKenzie, *A Concise Pahlavi Dictionary* (London: Oxford University Press, 1971), 86. Panaino, "Cosmologies and Astrology," 253.

[148] "熒惑，火之精，其位南方，主夏，赤帝之子. The 'Red Emperor' here is one of the Five Heavenly Emperors 五天帝. Xiao Ji, *Wuxing dayi*, vol. 1060, 249.

[149] Greer and Warnock, trans., *The Picatrix*, 134–135. For Latin see Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 92–93.

[150] T 1308, 21: 449a29.

[151] See Gideon Bohak, "The Diffusion of the Greco-Egyptian Magical Tradition in Late Antiquity," in *Greco-Egyptian Interactions: Literature, Translation and Culture, 500 BCE – 300 CE*, ed. Ian Rutherford (Oxford: Oxford University Press, 2016), 365.

[152] Terry F. Kleeman, "Licentious Cults and Bloody Victuals: Sacrifice, Reciprocity, and Violence in Traditional China," *Asia Major*: 7, no. 1 (1994): 201.

The above ritual against Mars does not strictly call for sacrifice, but the use of blood very likely would have been regarded as unorthodox within institutionalized Daoism.[153]

The ritual against Jupiter (禳木法) in the *Chengxing lingtai biyao jing* indicates strong Iranian influences. The planet Jupiter in Hellenistic and Indian astrology is regarded as benefic and signaling good fortune, in which case it begs the question why there would need to be a means of counteracting the influences of Jupiter. This might initially appear to be due to certain astrological configurations involving Jupiter that are regarded as unfavorable, but, in reality, this negative status of Jupiter reflects the fact that all of the planets within the Iranian tradition, including even Jupiter, named after the chief Zoroastrian deity of Ahura Mazda (Ohrmazd), were demonized and called 'retrograde' (*abāxtar*), 'non-star' (*nē axtar*), and 'bandits' (*gēg*).[154] The ritual in the *Chengxing lingtai biyao jing* reads as follows:

> 取白豬毛七莖，以白袋盛，繫左臂上。忌食豬肉。不得殺生命。又以白銀一兩，鑄作真形，供養看經。不得入神廟及吊死問病。供養一切道人吉。
> Fill a white bag with seven bundles of hair from a white boar, and tie it to one's left arm. It is taboo to eat pork. One must not take life. Also, cast a true image with one tael of white silver. Make offerings and read scriptures. One must not enter temples, ritually mourn the dead, or visit the ill. It is auspicious to make offerings to all Daoists.[155]

In a Greek papyrus, the stone of Zeus (Jupiter) is to be made "of a [dark blue] stone, but underneath of crystal."[156] Vettius Valens gives "grey verging on white" for Jupiter.[157] In the *Picatrix*, Jupiter is associated with white clothes (*pannis albos*), emerald (*smaragdum*), white and yellow stones (*lapides albos et croceos*), and crystal (*cristallum*). The relevant passage in the *Qiyao rangzai jue* associates "fragrant and delicious fruits, and fresh ginger (香美菓子生薑)" with Jupiter. In the *Picatrix*, Jupiter is similarly associated with a sweet flavor (*et ex saporibus dulcia*).[158]

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[153] There are exceptions in Daoist literature, in which blood is used in magical rites. See Asano Haruji, "Offerings in Daoist Ritual," in *Daoist Identity: History, Lineage, and* Ritual, eds. Livia Kohn and Harold D. Roth (Honolulu: University of Hawai'I Press, 2002), 284–286.

[154] Panaino, "Cosmologies and Astrology," 253–255. There are examples in Indian literature of all the *navagraha* being associated with malicious beings, and regarded as harmful, such as the **Grahamāṭṛkā-dhāraṇī* 聖曜母陀羅尼經 (T 1303), in which a mantra is taught in order to please wicked astral deities, which seems to include even Jupiter and Venus. The context and prescribed offerings of this work, however, are different from the Iranian material at hand.

[155] DZ 289, Wenwu Chubanshe edn., vol. 5, 30c11-15.

[156] Betz, ed, *The Greek Magical Papyri*, 312.

[157] Vettius Valens, *Anthologies*, 1.

[158] Greer and Warnock, trans., *The Picatrix*, 134. Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 92. T 1308, 21: 449a16. Elsewhere in the text Jupiter is specifically associated with sweetness: 木愛香羔. Here *gao* 羔 is an error for *gan* 甘. T 1308, 21: 428a1.

As with the ritual for Saturn above, the prohibited activities are those associated with the deity. The taboo against pork is similarly a means of avoiding the animal associated with the planet. It seems that one is to avoid these activities as a means of warding off the undesirable influences of a planet, whereas carrying out the associated activities would attract the attention of the planetary deity.

In the *Picatrix*, the animals associated with Jupiter are "all animals that are beautiful and valued for their appearance, those which are sacrificed, and all inoffensive, clean, and precious animals."[159] It does not list pigs among these. From an Islamic perspective, any sort of swine would be considered unclean especially in a dietary context,[160] but in older cultures such as Zoroastrianism this was not the case.[161] In the Chinese above, it seems that the proscription against killing, which in this context likely refers to animal sacrifice, is the opposite of a normal activity associated with Jupiter. Jupiter is associated with Thursday, an auspicious day, so presumably sacrifices are best carried out under the influence of this planet. In other words, normally animal sacrifices were associated with Jupiter, but in this apotropaic ritual one is to avoid such things to ward off undesirable influences, just as with Saturn one is to avoid the temples of wicked gods and the consumption of beef, both of which are normally associated with Saturn. The Buddhist version repeats the injunction against killing and the consumption of pork.[162] This proscription would have been agreeable in a Chinese Buddhist context, but, in actuality, refraining from killing in this context was originally unrelated to compassion or vegetarianism.

Sogdian Nāxid 那頡 corresponds to Ištar, a Mesopotamian goddess of war, but also of procreation and sex, being helpful and spreading happiness and joy.[163] The *Picatrix* associates Venus with "playing instruments that are good to listen to (*et pulsare instrumenta boni auditus*)", "making stringed instruments (*cordas instrumentorum facere*)", as well the colors "sky blue and gold tending a little to green (*colorem celestinum et colorem auri declinantem aliquantulum ad viridem*)".[164] As a way of avoiding her influence, the *Qiyao rangzai jue* prescribes wearing "yellow clothing, and

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[159] Greer and Warnock, trans., *The Picatrix*, 134. The Latin reads, "et ex animalibus omnia animalia formosa et in eorum formis posita, ex quibus sacrificia fieri solebant, et omnia animalia non offendencia, limpida et nitida …" Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 92.

[160] Richard Foltz, *Animals in Islamic Tradition and Muslim Cultures* (Oxford: Oneworld Publications, 2006), 25, 131.

[161] Foltz states with respect to pigs in Zoroastrianism that "[t]he status of the pig is unclear; in the *Nērangestān* section of the Avesta, pigs are among the animals listed for sacrifice, while some later texts proscribe this, perhaps reflecting the encroaching influence of Semitic cultures." See Richard Foltz, "Zoroastrian Attitudes toward Animals," *Society and Animals* 18 (2010): 374.

[162] T 1308, 21: 449a14-15.

[163] Leick, *A Dictionary of Ancient Near Eastern Mythology*, 96–97.

[164] Greer and Warnock, trans., *The Picatrix*, 135–136. Pingree, ed., *Picatrix: The Latin Version of the Ghāyat al-Ḥakīm*, 93–94.

treasures such as gold and jade" while avoiding communication with ladyfolk for there the possibility of disasters arising from jealousy and speech.[165]

Sogdian Tīr 唑 corresponds to the Mesopotamian Nabû, the god of scribes and writing.[166] As Panaino notes, "The god of the planet Mercury, Tīriya in western Iran, a protector of the scribes, as in the parallel cases of Thoth-Mercury in Egypt and Nabû - Mercury in Babylon, probably was associated with Tištrya, but after the (later) demonization of the planets he became a demon."[167] The correspondence here with the Egyptian Thoth is highly significant and actually explains the "monkey hat". As my colleague, Joseph P. Elacqua, pointed out to me, one of the animals closely associated with Thoth is the baboon. Thoth was a god of scribes and "according to one hymn to Thoth, the eye of the baboon watched out for scribes who abused their skill by applying it to illicit self-gain."[168] It is clear that the Chinese icon is a union of Iranian, Egyptian and Hellenistic features, but its female gender is anomalous. This female representation is perhaps related to the fact that in astrology Mercury is regarded as both male and female.[169]

An alternative explanation to the associated animals might be found with the Chinese concept of the 'thirty-six beasts' 三十六禽, which divides each of the twelve earthly branches into three separate animal associations. The earthly branch *shen* 申, whose animals includes two types of apes and a monkey (狖, 猿, 猴), corresponds to the zodiac sign of Gemini, who in horoscopy is ruled by Mercury. Similarly, one of the animals of the earthly branch *si* 巳 is a snake 蛇. This earthly branch corresponds to Virgo, who is also ruled by Mercury. This is a tempting explanation for the animal associations discussed above, but the problem is that Mars is associated with a donkey (not one of the thirty-six beasts), and the icon of Saturn atop a bull (*chou* 丑, one whose animals is the bull 牛, corresponds to Capricorn, who is ruled by Saturn) is found in the late Indian text, the *Lagnacandrikā* (see fig. 5.17). Moreover, these animal associations are apparently derived from translated texts. Whatever similarities between the icons at hand and Chinese lore is therefore likely – albeit quite remarkably – coincidental.

The *Chengxing lingtai biyao jing* also includes a ritual against the hidden planets, which in this case refers to Rāhu and Ketu. This ritual is not included in the *Qiyao rangzai jue*, though in light of the foregoing discussion, Buddhist authors were likely aware of it. Although it does not specifically name Rāhu and Ketu, it can be inferred that the ritual is directed against them:

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[165] T 1308, 21: 449a7-8.

[166] Leick, *A Dictionary of Ancient Near Eastern Mythology*, 123–124. Yu Xin (2011) also points out the Hellenistic and Iranian precedents behind the icon of Mercury. Yu Xin, "Personal Fate and the Planets," 186.

[167] Antonio Panaino, "TIŠTRYA," *Encyclopædia Iranica*, online edition, 2005. Available at http://www.iranicaonline.org/articles/tistrya-2.

[168] George Hart, *The Routledge Dictionary of Egyptian Gods and Goddesses* (Routledge, 2005), 158.

[169] Erica Reiner, *Astral Magic in Babylonia* (American Philosophical Society, 1995), 6.

經云：以屠宰煞鐵打作釧，如蛇形以口銜尾，帶左臂上，著緋衣，忌夜食及黑處行。取高岡上土一斗，置床下，別取黃土一斗煮熟，送餵長生鵝鴨食之，大吉。

The scripture states, “Craft a bracelet from the iron of a butcher, like a snake with its mouth swallowing the tail. Wear it on the left arm. Wear crimson garments. It is taboo to eat at night, and travel to black places. It is greatly auspicious to take one peck of soil from a high ridge and place it beneath [one’s] bed, while separately taking one peck of yellow soil and boiling it before feeding it to long-lived waterfowl.”[170]

The image of a snake alludes to Rāhu and Ketu, conceived of as the head and tail of a serpent or dragon. This has a parallel in the ninth-century Middle Persian *Bundahišn*, which explains a cosmography based on Zoroastrian scriptures, in which the ascending and descending nodes of the Moon are described as the head and tail of a dragon.[171]

Fig. 5.19. Rāhu in the *Kuyō hiryaku*.

Fig. 5.20. Ketu in the *Kuyō hiryaku*.

In the Buddhist *Qiyao rangzai jue*, Rāhu and Ketu are called the head and tail of the eclipse deity (蝕神頭, 蝕神尾).[172] One name for Rāhu in two Chinese Buddhist

[170] DZ 289, Wenwu Chubanshe edn., vol. 5, 30c11-15.

[171] D. N. MacKenzie, “Zoroastrian Astrology in the Bundahišn,” 515.

[172] T 1308, 21: 442b3 & 446b1.

sources is 'yellow banner' 黃幡.[173] However, this is likely a mistake, as one earlier meaning of *ketu* is' banner'.[174] In the *Śivadharmaśāstra*, a text of Śaivism which Peter Bisschop dates to the 6th or 7th century, Rāhu is described as "like black collyrium" (*nīlāñjananibhaḥ*).[175] This of course indicates an ultimately Indian origin for anything related to Rāhu and Ketu, but in the case of this astral magic in Chinese, its source is Iranian. Iranian astrology brought together Greco-Egyptian and Indian elements, hence the amalgamation of both of these as seen in Chinese translations of Iranian material.

The icons of Rāhu and Ketu within Chinese Buddhism were also transformed under Iranian influences. In the *Kuyō hiryaku*, Ketu is clearly indicated by name and depicted seated atop a dragon. Rāhu in this document is depicted seated atop a bull (figs. 5.19 and 5.20), which corresponds to *gōzihr*, i.e., a Middle Persian "epithet of the moon, 'bearing the seed, having the origin of cattle' (or, 'the ox')."[176] This stands in contrast to the Indian icons (see chapter 4.3 above). In the *Fantian huoluo jiuyao*, Rāhu and Ketu are both depicted with serpents. These transitions in depicted forms reflect the shift from Indian to Iranian sources of astrology in the late-Tang.

It is uncertain who specifically was responsible for translating this astral magic into Chinese, though a figure such as Li Miqian discussed above (4.7), who was proficient in Hellenistic astrology, likely facilitated this transmission to some extent. He does not, however, appear to have been a translator. It seems probable that Nestorian, i.e., East-Syrian, Christians had a role to play in the transmission of such knowledge. Syriac Christianity had a significant presence across Central Asia, and thus served as the likely intermediary between the Near East and China for this sort of knowledge.[177] We know that a certain Nestorian clergyman named Adam 景淨 (d.u.), who composed the inscription of the Nestorian stele of 781,[178] interacted with Buddhists, and even translated Buddhist literature.[179] The following account from 800 by Yuanzhao records this:

> 請譯佛經。乃與大秦寺波斯僧景淨，依胡本六波羅蜜經譯成七卷。時爲般若不閑胡語，復未解唐言，景淨不識梵文，復未明釋教。雖稱傳譯未獲半珠。... 察其所譯理昧詞疎。且夫，釋氏伽藍，大秦僧寺，居止既別，行法全乖。景淨應傳彌尸訶教，沙門釋子弘闡佛經，欲使教法區分，人無濫涉。

[173] Taishō vol. 21, 1308: 442b3 & 1311: 459b27.

[174] Ketu is also defined as banner in the *Mahāvairocana-sūtra* commentary: "Ketu is properly translated as banner. The banner star refers to comets 計都正翻爲旗，旗星謂彗星也." Taishō vol. 39, 1796: 618a15-16.

[175] Peter Bisschop, trans., *Śivadharmaśāstra* (forthcoming).

[176] D. N. Mackenzie, "GŌZIHR", *Encyclopædia Iranica*, online edition, 2012. Available at http://www.iranicaonline.org/articles/gozihr.

[177] For a relevant survey see Erica Hunter, "Syriac Christianity in Central Asia," *Zeitschrift Für Religions- Und Geistesgeschichte* 44 (1992): 362–368.

[178] T 2144, 54: 1289a5.

[179] In modern academia, this was first noticed by Takakusu. See *Takakusu Junjirō* 高楠順次郎. "The Name of 'Messiah' Found in a Buddhist Book," *T'Oung Pao* 7 (1896): 589–591.

> They requested that he [Prajña] translate Buddhist scriptures. Together with the Persian monk Adam of Da Qin-si,[180] he translated the *[*Mahāyāna-naya-*]*ṣaṭ-pāramitā-sūtra* in seven fascicles based on a Hu[181] edition. At the time Prajña did not understand the Hu language or Chinese, while Adam understood neither Sanskrit nor Buddhism. Although they were said to have translated it, they had yet to obtain the half-pearls [i.e., convey the correct meaning]. ... Upon investigating what had been translated, the reasoning was found to be unclear and the vocabulary off. The Buddhist monastery and Da Qin monastery were to keep their residences separate, and their practices entirely apart. Adam should transmit the teachings of the Messiah, while Buddhists shall propagate Buddhist scriptures, so as to keep the doctrines separate, and the communities from excessive intermingling.[182]

In light of the period in which Adam was active, and his proficiency in the "Hu language" and Chinese, as well as his interest in esoteric non-Christian subjects, we might speculate that it was Adam himself who first translated this type of astral magic into Chinese. Adam in another Nestorian source is said to have translated thirty texts.[183] Even if the translator was not Adam, we know that Sogdian Christian clergymen were active in Luoyang. We can imagine that some of these men would have possessed the language skills to translate astral magic.[184] Knowledge of languages including Sogdian,

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[180] Da Qin 大秦 in this period refers to the Levant. The 781 stele reads, "The angel [Gabriel] proclaimed good news, and the Virgin [Mary] gave birth to the Sage [Jesus] in Da Qin. A luminous asterism indicated an auspicious sign. The Persian [wise men] observed its brilliance, and came to present gifts." 神天宣慶，室女誕聖於大秦；景宿告祥，波斯覩耀以来貢. T 2144, 54: 1289a19-20. Nestorian churches were originally called 'Persian temples' 波斯寺 due to the original missionaries in 635 having come from Persia, though in 745 an imperial edict had them renamed to Da Qin-si 大秦寺. Fasc. 49 of the *Tang huiyao* 唐會要, compiled in 961 by Wang Pu 王溥 (922–982), records an imperial edict from year 4 of reign era Tianbao 天寶 (745), which states that the scriptural teachings of Persia 波斯經教 had come from the country of Da Qin, and thus the churches in the two capitals, which had earlier been called 'Persian temples', would be renamed as 'Da Qin temples' (*Tang huiyao*, 1011–1012). All other provinces and counties where such temples existed were to follow suit, indicating that such churches existed across China. This decree is also recorded in fasc. 32 of the *Quan Tang wen*, compiled by Dong Hao 董誥 in 1814 (vol. 1, 357a6-9).

[181] It is uncertain to which language *Hu* 胡 refers. In this case it presumably refers to a Central Asian language, such as perhaps an Eastern Iranian language.

[182] T 2157, 55: 892a7-15.

[183] This remark about Adam is found in the colophon of the *Zunjing* 尊經, i.e., the *Diptychs* in one fascicle. This is an anonymous work from the early tenth century. It provides the names of saints such as David, Hosea, Peter, and Paul. It lists several presently non-extant texts including the Books of Moses 牟世法王經, Zechariah 刪河律經, Epistles of Saint Paul 寶路法王經 and Revelations 啟真經. The Nestorians in China had access to a number of texts from the Near East. See T 2143, 54: 1288c23-24. For details on the text see Toshikazu S. Foley, *Biblical Translation in Chinese and Greek: Verbal Aspect in Theory and Practice* (Brill, 2009), 7–8.

[184] A Christian stele was erected in 814 in Luoyang 洛陽. It was unearthed in 2006. This stele demonstrates that in the early ninth century a Nestorian church was present in Luoyang and that Sogdian

Middle Persian and Syriac would have been necessary in translating Christian texts, and the only capable institution in China in this respect was the Nestorian church. As noted above, Pingree identifies Syrian sources in the *Ghāyat al-Ḥakīm*; thus, it is conceivable that similar Syrian sources were transmitted to China via Christians from the Levant, much in the same way as the *Duli yusi jing*.[185] We might speculate that Zoroastrians in China might also have had a role to play, but they did not translate their literature into Chinese, and their hand in the translation of astral magic seems unlikely.[186]

The foregoing discussion brings with it some implications that must be addressed, especially with respect to astrological iconography in China. One key specimen in this respect is the "Painting of the Deities Forms of the Five Planets and Twenty-Eight Lunar Stations" 五星二十八宿神形圖, presently in the possession of the Osaka City Museum of Fine Arts 大阪市立美術館. This painting, extant only as a single fascicle, includes the five planets, but only twelve *nakṣatra* icons, with the other icons having been included in another fascicle. The medieval Japanese *Nijū-hachi suku zuzō* 二十八宿圖像 (TZ vol. 7, 776–800) includes fourteen of the twenty-eight *nakṣatra* icons, but no inscriptions.[187]

In the painting at hand, we see Jupiter as an animal-faced man in a white robe riding a boar, Mars as a six-armed donkey-faced man riding a red donkey with multiple weapons in his hands, Saturn as a bearded Indian man of a dark complexion riding a black bull, Venus as a female figure in a yellow robe riding a phoenix with a phoenix cap, and Mercury as a scribe in a bluish-green robe wearing a monkey hat. These icons are clearly of the Iranian-Mesopotamian type.

The text running alongside the icons also explains apotropaic rituals against the planets in the same manner as we saw in our earlier discussion. In the sacrifice to Mars, for instance, one will use bloody meat, alcohol, a copper vessel, red silks, weapons and drums when sacrificing the victim.[188] The offerings to the other planets also follow the Iranian model.

One problem, however, is that this painting, which was originally owned by the Song court, is attributed to Liang Lingzan. We will recall from earlier (4.1) that he

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clergymen served there. See Moribe Yutaka 森部豊. "An Introduction to the Luoyang Nestorian Stone Pillar and Their Value as Historical Resources" 中國洛陽新出景教經幢の紹介と史料的價值. *Higashi-Ajia bunka kōshō kenkyū* 東アジア文化交涉研究 5 (2012): 351–357.

[185] Mak concludes that "the Greek astral science exemplified by the *Yusi jing*" was imported into China by the East-Syrian Christians. Mak, "*Yusi Jing*," 130.

[186] For a recent survey of Zoroastrians in East Asia see Aoki Takeshi, "Zoroastrianism in the Far East," in *The Wiley Blackwell Companion to Zoroastrianism*, ed. Michael et al (John Wiley & Sons, 2015), 147–156.

[187] The inscriptions for the apparently lost icons are preserved in the Qing-era *Midian zhulin* 秘殿珠林 (SKQS 823: 677–681).

[188] 熒惑星神食火。祭用血肉酒，器用赤銅，幣用赤，殺牲吸血祭，具戰器鼓舞，然後祭之。忌哭泣，善事熒惑。嬌暴公子。熒惑廟可致軍門. See Jin Weinuo 金維諾, *Zhongguo meishu quanji huihua-bian 2: Sui-Tang Wudai huihua* 中國美術全集繪畫編 2: 隋唐五代繪畫 (Beijing: Renmin Meishu Chubanshe, 1984), 50.

worked together with Yixing on rebuilding the court's armillary sphere in the 720s. Later this painting was attributed to the earlier painter Zhang Sengyou 張僧繇 (fl. 502–519).[189] Modern scholars continue to debate over the identity of its original creator.[190] I argue that neither of these men were its creator. If either of these men were the actual artist behind this piece, we would have evidence of Iranian icons in China in the sixth or early eighth century, but this is highly problematic.

First, there is no corresponding literary evidence within Buddhist or Daoist literature to support the thesis that these icons were known in China during these periods. This piece is only mentioned from the Song dynasty. Liang Lingzan, even if he had been familiar with foreign astrological icons, most certainly would have known the Indian icons introduced by Śubhakarasiṃha, under whom Yixing worked (see 4.3 above).

Also, we must bear in mind that there was a trend in the late-Tang of attributing astrological works to Yixing. In fact, as we will discuss shortly, a number of texts dealing with astral magic from the ninth century are attributed to Yixing. In the case of the painting in question, it seems that it was convenient to attribute its production to Yixing's close colleague.

With respect to the depictions of the twenty-eight lunar stations, we can compare them with the Japanese *Nijū-hachi suku zuzō*. As an example, the icons of Nü 女星神, corresponding to the *nakṣatra* Śravaṇa (see figs. 5.26 & 5.27). What is the original motif behind this goat-headed figure? These icons appear to be derived, at least in part, from zodiacal lore. This can be inferred based on the fact that the lunar station Nü in Chinese astronomy is subsumed under the zodiac sign Capricorn (see table 4.9). Similarly, the icon of Niu 牛 (Abhijit) also bears horns (fig. 5.28), and this lunar station is also under Capricorn. This points to a Hellenistic, rather than Indian, motif, since Capricorn in India was understood as a *makara*, depicted as a fish-like creature (fig. 4.10 above). Similarly, Wei 尾 (Mūla), depicted as an archer (fig. 5.29), and Qi 箕 (Pūrvāṣāḍhā), depicted as a man mounted on a horse (fig. 5.30), are subsumed under Sagitarrius. Another obvious example is Shi 室 (Pūrvabhādrapadā), depicted as a man atop two fish (fig. 5.31), which is subsumed under Pisces. The icon of Liu 柳 (Aślesā), however, is a man atop a dragon (fig. 5.32), which reflects the Indian association of Aślesā with Nāgas,[191] but incorporation of Indian elements would be normal within an Iranian context. It is therefore clear that the two documents at hand stem from an Iranian tradition, most likely having been introduced into East Asia during the ninth century.

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[189] Jin Weinuo, *Zhongguo meishu quanji*, 12–13.

[190] See Mao Xiangyu 毛翔宇, "Zaoqi Zhongguo huihuashi gainian de hefaxing yi Zhang Sengyou wei zhongxin de jianyao" 早期中國繪畫史概念的合法性--以"張僧繇"為中心的檢討, *Rongbao zhai* 榮寶齋 (2010-10): 117–118. Yu Xin accepts the traditional attribution: "Personal Fate and the Planets," 184–185.

[191] The *Xiuyao jing*, for example, gives the snake deity Śeṣa for Aślesā. See *Sukuyō-kyō shukusatsu*, vol. 1, 19, and Yano, "*Mikkyō senseijutsu*," 91.

“Painting of the Deities Forms of the Five Planets and Twenty-Eight Lunar Stations”
五星二十八宿神形圖.

Fig. 5.21. Saturn.

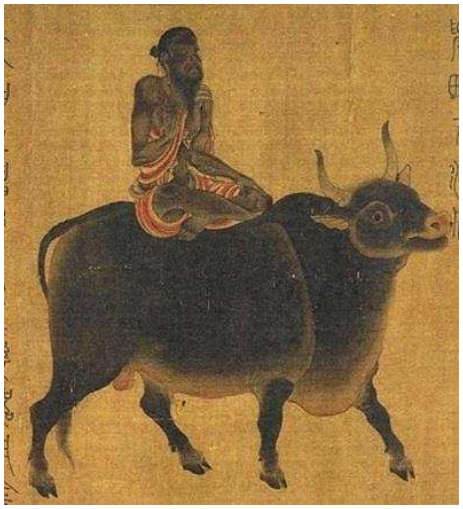

Fig. 5.22. Jupiter.

Fig. 5.23. Venus.

Fig. 5.24. Mercury.

Fig. 5.25. Mars.

Fig. 5.26. Nü / Śravaṇa (Osaka)

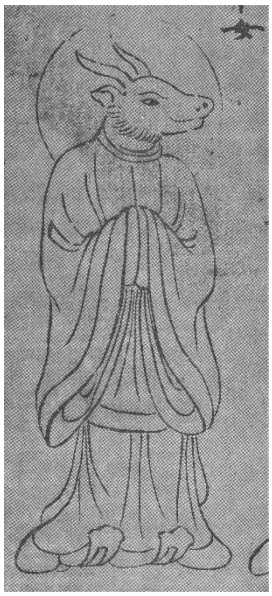

Fig. 5.27. Nü / Śravaṇa

Fig. 5.28. Niu / Abhijit

Fig. 5.29. Wei / Mūla

Fig. 5.30. Qi / Pūrvāṣāḍhā

Fig. 5.31. Shi / Pūrvabhādrapadā

Fig. 5.32. Liu / Aślesā

5.5. The Legendary Yixing

There are several *sādhana*–s (sets of tantric instructions) in the Taishō canon incorporating both Buddhist and Daoist astrological components, attributed to either Yixing or Vajrabodhi. The works attributed to Yixing include the *Xiuyao yigui* 宿曜儀軌

(T 1304; *Ritual for the Asterisms*),[192] *Qiyao xingchen bie xingfa* 七曜星辰別行法 (T 1309; *Special Practices for the Seven Planets and Stars*), *Beidou qixing humo fa* 北斗七星護摩法 (T 1310; *Homa Ritual for the Seven Stars of the Big Dipper*) and the *Fantian huoluo jiuyao* 梵天火羅九曜 (T 1311; **Brahmadeva-hora-navagraha*). None of these, however, were actually written by Yixing. The attributions of T 1309 and T 1311 to Yixing were already called into question by Chavannes and Pelliot in 1913.[193] As we will explore below, these works are from the ninth century, composed by unknown authors, who attempted to legitimize the texts by attributing them to a plausible authority of the past.

The attribution of these works to Yixing has been doubted by other scholars including Osabe (1963)[194] and Lü Jianfu (2009),[195] but Xiao (1991),[196] Mollier (2008),[197] Sørensen (2011)[198] and Keyworth (2011)[199] have all regarded them as actually his works. In addition to objections by Osabe that Yixing probably would not have written such works given his background in astronomy and orthodox Mantrayāna, there is sufficient internal evidence within these texts to demonstrate that they could not have been compiled in their present forms by Yixing, who died in 727. Such evidence includes anachronistic citations of texts postdating his death. In light of the growing interest in foreign astrology in the early ninth century, and the hybridization of Mantrayāna and Daoist practices throughout the last century of the Tang dynasty, along with the first datable references to these works in Japanese sources, it can be securely established that these works were all produced sometime during the ninth century.

The dating of these works helps to establish an accurate chronology explaining the development of Buddhist astrology in the Tang. This also disproves the position, held by Xiao and Mollier, that there were significant Daoist influences evident within Mantrayāna during the 720s. It does, however, reveal how some Buddhist authors in the ninth century were free to combine Buddhist and Daoist elements in their practices that increasingly incorporated invocations and worship of astral deities, with close attention

[192] This text does not appear to be directly related to the *Xiuyao jing* (4.5).

[193] Chavannes and Pelliot, "Un traité manichéen retrouvé en Chine," 167.

[194] Osabe Kazuo, *Ichigyō zenji no kenkyū*, 256–261.

[195] Lü Jianfu 呂建福, *Mijiao lunkao* 密教論考 (Taipei: Kongting Shuyuan, 2009), 347–349.

[196] Xiao Dengfu, "Cong Dazheng zang suoshou Fojing zhong kan Daojiao xingdou chongbai dui Fojiao zhi yingxiang" 從《大正藏》所收佛經中看道教星斗崇拜對佛教之影響, *Taizhong shangzhuan xuebao* 台中商專學報 23 (1991): 105–123.

[197] Mollier, *Buddhism and Taoism Face to Face*, 141–146.

[198] 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.

[199] George A. Keyworth, "Yixing", in *Esoteric Buddhism and the Tantras in East Asia*, ed. Charles D. Orzech et al. (Leiden: Brill, 2011), 344.

paid to astrological timing. As Osabe suggests, these works are, in fact, a valuable resource for understanding popular Mantrayāna in the late-Tang.[200]

Before discussing each of these texts, we should first clarify why Yixing was the most suitable figure to whom these works could have been attributed. As explained earlier (4.1), the historical Yixing was an eminent Buddhist monk and court astronomer who assisted in translating some major Mantrayāna works, while also drafting the new state calendar. He furthermore had a hand in updating the system of state astrology. There is no credible evidence to suggest that he was engaged in astral magic of the type we see in the texts attributed to him. By the ninth century, however, a number of fantastical tales had been composed, and from these there emerged a legendary image of Yixing (a "pseudo-Yixing"). For instance, the early aforementioned Japanese biographies of Yixing by Kūkai and Saichō 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.[201] We therefore know that such fantastic stories were already being told around the turn of the ninth century.

Tales of Yixing as an extraordinary monk are also found in non-Buddhist literature from the late-Tang. The *Kaitian chuanxin ji* 開天傳信記 (*Kaitian Record of Accounts*), written by Zheng Qi (鄭綮; d.899), includes a story about the ghost of Yixing visiting his master Puji.[202] Yixing is referred to with the title of "Celestial Master" (*tianshi* 天師), a title often used for Daoist adepts. This story also appears in the *Minghuang zalu buyi* 明皇雜録補遺 (*Supplement to the Assorted Records of Minghuang [Xuanzong]*), compiled in 855 by Zheng Chuhui 鄭處晦 (d.u.),[203] and the *Youyang zazu* 酉陽雜俎 (*Miscellaneous Morsels from Youyang*), compiled by Duan Chengshi 段成式 (d. 863) in 860.[204] It seems that Yixing's legendary image also became appropriated within the Daoist community, in light of the Tang history reporting that Yixing met with an erudite Daoist adept named Yin Chong 尹崇 (d.u.). Yixing, we are told, borrowed from him the *Taixuan jing* 太玄經 (*Scripture of the Great Mystery*) by Yang Xiong 揚雄 (53 BCE - 18 CE), an ancient divination manual. He returned home with the book, and after several days revisited Yin Chong. Yin Chong admitted that the work was profound and that after many years of investigation he still was unable to entirely understand it. Yixing stated that he had mastered its teachings and subsequently produced two works, the *Dayan xuantu* 大衍玄圖 (*Profound Diagram of the Dayan*), and what appears to be its key, the *Yijue* 義決 (*Key to the Meaning*), to show to an astonished Yin Chong. Yixing was declared to be a "later born Yanzi 顏子" (i.e., Yan Hui 顏回, the foremost disciple of Confucius, known for his intelligence). Yixing apparently acquired fame for himself as a

[200] Osabe, *Ichigyō Zenji no kenkyū*, 256–257.
[201] *Shingon fuhō den,* 63, and *Naishō buppō sōshō kechimyaku fu*, 239.
[202] Zheng Qi 鄭綮, *Kaitian chuanxin ji* 開天傳信記, in SKQS 1042: 845–846.
[203] Zheng Chuhui 鄭處晦, *Minghuang zalu buyi* 明皇雜録補遺, in SKQS 1035: 523.
[204] Duan Chengshi 段成式, *Youyang zazu* 酉陽雜俎, in SKQS 1047: 677.

result of this, but the veracity of such a laudatory story is doubtful, and it is likely a fictional account designed to elevate the status of Yixing's purported works on the *Yijing* within a Daoist context, or as a way of simply attributing works to Yixing.[205]

Another tale relating Yixing's intellectual prowess is told in the *Jiu Tang shu*, explaining that Yixing ended up at Guoqing-si 國清寺 on Mt. Tiantai 天臺山 after a long search for instruction in the number theory of the *Yijing* (*dayan* 大衍).[206] Yixing stood outside the gate, hearing from inside mathematical calculations being performed (presumably with counting rods). A monk inside told his disciple, "Today there should be a disciple coming from afar in search of my arithmetic. I reckon that he has arrived at the gate. Surely, isn't there someone to let him in?" He then got out an abacus, and again said to his attendant, "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 relevant techniques. The water outside the gate then, sure enough, turned back and flowed westward.[207] This account appears to stem from Yixing's work with the *Yijing*, rather than having any actual relation to his Buddhist activities. This same story with minor variations is also told in the *Song gaoseng zhuan*, though it states that Yixing was in search of arithmetic (*suanshu* 算術), rather than the number theory of the *Yijing* specifically.[208]

In light of these fictional accounts, it is easy to imagine why Yixing would have been the likely candidate to which such works could have been attributed in an attempt to legitimize or elevate them.

We will now discuss the features of each such text, and attempt to approximately date them, while explaining their significance with respect to the development of Buddhist astral magic in the ninth century.

5.6. *Xiuyao yigui* 宿曜儀軌 (T 1304)

This text is a compilation of mantras, *mudrā*–s 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; *Siddhaṃ Essentials*), written sometime after 1101 by the Tendai monk Myōkaku 明覺 (1056–c.1122),[209] but otherwise it is not directly cited anywhere else in the Taishō, although the *navagraha* mantras in both transliterated

[205] *Jiu Tang shu*, Zhonghua Shuju edn., vol. 16, 5112. Note that none of the works on the *Yijing* attributed to Yixing are extant.

[206] This number theory is based on the number 50.

[207] Ibid., 5113.

[208] T 2061, 50: 732c26-a4.

[209] T 2706, 84: 547b17.

Chinese and Siddhaṃ script are provided in the *Betsugyō-shō* 別行鈔 (T 2476; *Summary of Special Practices*) by the monk Kanjo 寬助 (1052–1125).[210]

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.[211] 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 after Yixing's death.[212] 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 celestial bodies are Mars, Saturn, Rāhu and Ketu. They are severest. Beings at this time [when these bodies infringe upon certain *nakṣatra*–s, should] cultivate various meritorious karmas, make extensive offerings, and show benevolence and compassion; or they rely on the Eight Syllable Mantra of Mañjuśrī; or they rely on Tejaprabhā Buddha; or they rely on Parṇaśabarī Avalokitēśvara; or they rely on the Single Syllable King Buddha-Uṣṇīṣa. Establish a great *homa* altar for eliminating disasters. Carry out recitations and make offerings according to each respective method. All calamities will naturally dissipate.[213]

As discussed above, the practices related to Tejaprabhā Buddha, so far as present evidence suggests, were first introduced in 796. The catalog of Yuanzhao assigns the **Parṇaśabarī-avalokitēśvara-bodhisattva-dhāraṇī-sūtra* 葉衣觀自在菩薩陀羅尼經 (T 1100) to Amoghavajra.[214] The sūtra's colophon states that Amoghavajra was at Da Xinshan-si 大興善寺 when he translated it.[215] He resided there from 756 for the duration of the An Lushan rebellion (755–763).[216] These elements 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 works attributed to him. There is no evidence that Chinese Mantrayāna during Yixing's lifetime actually made use of 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

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[210] T 2476, 78: 183a03-184a24.

[211] Lü Jianfu, *Mijiao lunkao*, 348. The mantra reads: oṃ āḥ vī ra hūṃ kha ca raḥ 唵 阿 味 羅 吽 佉 左 洛.

[212] T 1184, 20: 784b17-18.

[213] T 1304, 21: 423b23-27.

[214] T 2157, 55: 936b24-25.

[215] T 1100, 20: 447a7-8.

[216] Martin Lehnert, "Amoghavajra," 352.

combining Buddhist and Daoist practices in such an environment, such as what we see in the following passage:

> 先奉供虛空藏，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],[217] Indra and Vaiśravaṇa. Then invoke the *navagraha*, the devas of the twenty-eight *nakṣatra*–s, the star associated with one's birth in the Big Dipper,[218] 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.[219]

Similar hybridization with Daoist ideas is found in another astral *sādhana*, 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.[220] 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*).[221] The *Beidou qixing humo miyao yigui* states that this deity frequently reports the misdeeds of people to the Celestial Emperor 天帝. We are then told this is why the Tathāgata 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 削死籍還付生籍."[222]

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 like this. Daoist literature also borrowed from

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[217] *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 1067, 20: 132b25-c13.

[218] 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. See 5.10 below.

[219] T 1304, 21: 423a25-28.

[220] 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.

[221] 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 fasciles, compiled by Liu Xiaogong 劉孝恭 (d.u.). See *Jiu Tang shu*, Zhonghua Shuju edn., vol. 6, 2044. It is not extant.

[222] T 1306, 21: 425a3-16.

Buddhism as discussed earlier. This furthermore affirms the previously cited remarks of 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. In these works, orthodox concepts such as karma were overlooked in favor of a form of divine or astrological determinism.

5.7. *Qiyao xingchen bie xingfa* 七曜星辰別行法 (T 1309)

This work is an illustrated demonology manual that addresses the symptoms of spirit possessions according to the *nakṣatra* or star with which the day is associated. This particular system of identifying asterisms with the days is not found elsewhere. It is not the system devised by Amoghavajra in the *Xiuyao jing*.

This work is attributed to Yixing, though the first reference to it is in the catalog of texts brought back to Japan in 847 by Eun 惠運 (798–869).[223] Whoever wrote this work attempted to legitimize it by providing a story describing the source of its information. It tells us that early in the Kaiyuan era (713–741), Emperor Xuanzong 玄宗 went on an expedition. He brought along Yixing, who suddenly summoned down the spirits of the stars. The deities of the twenty-eight *nakṣatra* assembled, and Yixing learned of the illnesses caused by spirits on specific days (thirty spirits are mentioned, so this is not referring to the Indian *nakṣatra* calendar). 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.[224] Needless to say, all of this is fictional. It does, however, suggest that whoever wrote this story wanted to address doubts about the authenticity of the magic of the text.

This text has features in common with Daoist works that visually represent undesirable entities that reside in the body.[225] Non-Buddhist practices such as burning money and offering meat and wine as sacrifices are described in detail. As an example, we might cite the following:

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

[224] T 1309, 21: 452c5-13.

[225] For a study of this see Shih-Shan Susan Huang, "Daoist Imagery of Body and Cosmos," *Journal of Daoist Studies* 3 (2010): 57–90.

Fig. 5.33. Star Spirit

星宿直日，鬼名萬松石。此日是此鬼行病，令人行不得，或寒熱不定。是此鬼所爲。屬此星宿。以紙錢一百貫清酒，祭日行酒滿七遍止。不得令白衣人來，縱來不須遣坐，亦不得令此人知祭法。所來者，鬼替患人代命之人也。切須知之。

Convergence with the *nakṣatra* of *Maghā:[226] The spirit is called Wan Song Shi. On this day, this spirit causes disease, making people unable to walk; or it causes them to have an unstable temperature. This is the work of this spirit. It belongs to this *Maghā *nakṣatra*. Use a hundred strings of paper money, and pure alcohol. On the sacrifice day, offer the wine seven times. One must not let a white robed person come. Even if they do come, they must not be given a seat. One must also not let this person know of the method of sacrifice. The spirit will take the life of those who come in place of the victim. This must be understood.[227]

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* 密日 (otherwise *mi ri* 蜜日), which is the popular term for Sunday derived from the Sogdian *myr*. While the custom of a seven-day week is mentioned in the seventh century in Chinese Nestorian literature, as discussed earlier, the seven-day week was still not commonly 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

[226] In light of the foreign origin of this material (see below), this likely does not refer to Chinese lunar stations.

[227] T 1309, 21: 453c13-18.

context based on available materials can be traced to the *Xiuyao jing*.[228] It is highly unlikely that Yixing would have had knowledge of, or use for, Sogdian loanwords.[229]

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.[230] There are altogether thirty spirits listed in the text at hand, though not all of these are *nakṣatra*–s, which likely indicates a non-Indian source, since the Indian model is strictly either a system of twenty-seven or twenty-eight *nakṣatra*–s. 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 transliterations of Sanskrit. The name of the spirit for what appears to be Polaris (辰星) in reconstructed Middle-Chinese is *pɐk pʰuâᶜ* 百破 (Schuessler IPA), which possibly corresponds to the Middle Persian *mēx ī gāh* for Polaris.[231] The icons are drawn in a Chinese fashion. These are entirely different from the way *nakṣatra*–s in anthropomorphic forms are depicted in Indian sources (see fig. 4.23 above). These icons are likely from an Iranian source, since icons of the twenty-eight *nakṣatra*–s, including some similar to those depicted in the Chinese text at hand, are also described in the *Picatrix*, though their names and descriptions are different.[232] Zoroastrianism had a magical practice of *nērang*–s (incantations or charms) that were connected to the invocation of stars and planets. [233] 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.[234] In light of the above features, this practice of drawing images of deities as a means of warding off evil, found in the Chinese text in question, likely stems from an Iranian source.

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 (fig.

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[228] T 1299, 21: 398a28-b6.

[229] 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. "Un traité manichéen retrouvé en Chine," 152–153. There is no evidence, however, that this individual influenced Chinese astronomy or astrology, or interacted with Yixing for that matter. Sending an astronomer was likely a result of court interest in foreign astronomy, as demonstrated by the Indian families (see 4.6 above).

[230] See Antonio Panaino, "Lunar and Snake Omens Among the Zoroastrians," in *Officina Magica: Essays on the Practice of Magic in Antiquity*, ed. Shaul Shaked (Leiden: Brill, 2005), 73–89.

[231] T 1309, 21: 456c9. MacKenzie, *A Concise Pahlavi Dictionary*, 56.

[232] See Greer and Warnock, trans., *The Picatrix*, 286–293.

[233] See Antonio Panaino, "Two Zoroastrian Nērangs and the Invocation of the Stars and the Planets," in *The Spirit of Wisdom: Essays in Memory of Ahmad Tafazzoli*, eds. Touraj Daryaee and Mahmoud Omidsalar (Costa Mesa, CA: Mazda Publishers, 2004), 196–218.

[234] Al-Bīrūnī, *The Book of Instruction in the Elements of the Art of Astrology*, trans. R. Ramsay Wright (London: Luzac & Co., 1934), 182. It does not appear that the Persians received this custom from China.

5.34).[235] In this document, five spirits or demons are listed according to days of the ten stems (十干), which form part of the Chinese sexagenary cycle. The ten stems are combined with the ten branches (十二支), 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 *Qiyao xingchen bie xingfa*, which indicates that various systems were employed in the late-Tang. There is no evidence to indicate any such system was in use in Yixing's time.

Fig. 5.34. Or.8210 / P6

5.8. *Beidou qixing humo fa* 北斗七星護摩法 (T 1310)

This *sādhana* of one fascicle attributed to Yixing includes the aforementioned astral mantras, in addition to their accompanying *mudrā*–s. Additionally, a short Tejaprabhā ritual is appended to the main body. This text in its present form therefore 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*),[236] and Ejū 惠什 (12th cent.) in the *Shōgo shū* 勝語集 (T 2479; *Compilation of Superior Words*).[237] A similar text entitled *Beidou qixing humo yigui* 北斗七星護摩儀軌 (*Home 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. Annen's catalog was compiled in year 9 of Gangyō 元慶 (885).[238]

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[235] See plate 1 in Roderick Whitfield, "Four unpublished paintings from Dunhuang in the Oriental collections of the British Library," *The British Library Journal* 24, no. 1 (1998).

[236] T 2484, 78: 313c14.

[237] T 2479, 78: 216a27.

[238] See note at T 2176, 55: 1129a22.

It does not specify the author, though at the very least it confirms the existence of such *homa* rites for the Big Dipper available to 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，六星爲伴，即胡跪合掌，向爐啟曰:「至心奉啟，北極七星，貪狼巨門，祿存文曲，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[239] 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[240] the register of death and distress, and inscribe long life. I throw down flowers for your seats."[241]

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*).[242]

One feature that aids in chronologically placing the work in our timeline is the *mudrā* and accompanying *dhāraṇī* for "praising" (讚嘆). This *dhāraṇī* is transliterated into Chinese without any accompanying *siddhaṃ*, though 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 riual for Mahākāla of an unknown composition date.[243] Fortunately, Jōnen in his *Gyōrin shō* provides a critical evaluation of differing manuscripts available to him, and proposed solutions to deciphering this *dhāraṇī*.[244] Based on his notes, I tentatively reconstruct it as follows (note that this is *not* orthodox Sanskrit).[245]

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[239] This is determined based on a Chinese reckoning. See 5.10 below.

[240] Read *xing* 刑 as *kan* 刊.

[241] T 1310, 21: 458b9-16.

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

[243] T 1287, 21: 357b20-c4.

[244] T 2409, 76: 409c13-410a33.

[245] The original Sanskrit verse might not have been composed by a native Sanskrit speaker. It is possible that it was produced simply by bringing together vocabulary.

阿演都 泥嚩 左誐 素囉 緊那囉那囉 乞鑠迦囉那 野鉢囉 嚩囉 達麼 蘖哩多地伽囉 尾達麼左 鉢囉捨麼 操企也 儞銘多 部多 銘多 鉢羅迦捨夜 怛儞賀 室囉麼拏也 馱斡

ayantu deva bhujaga asura kiṃnarendra śakradayā pravara dharma kṛtādhikārā buddhaṃ vacaḥ praśama saukhya nimitta bhūta mita prakāśya tadiha śravaṇyai dharmaṃ[246]

Jōnen also provides the different names of this *dhāraṇī*, which includes "Sanskrit Letter Praise to the Eight Groups of Devas and Nāgas" 梵字天龍八部讃 and "Sanskrit-Chinese Praise to the Eight Groups of Devas and Nāgas" 梵唐兩字天龍八部讃.[247] The former appears in the catalog of texts brought to Japan by Kūkai in 806.[248] The latter was brought by Ennin in 847, which is indicated by Annen's aforementioned catalog.[249] This indicates that the *dhāraṇī* 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 *dhāraṇī* 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 Bhaiṣajyaguru*),[250] 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 xingfa cidi* 焰羅王供行法次第 (T 1290; *Procedures for the Yamarāja Pūjā*),[251] which is attributed to a Tripiṭaka master Amoga 阿謨伽三藏 (*Amoghavajra?).[252] There are many texts attributed Amoghavajra, but the lack of supporting details or catalog references to it suggests that it postdates Amoghavajra. There is therefore 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. The attribution of this text to Yixing is problematic. Nevertheless, 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.

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[246] T 1310, 21: 458b4-8.

[247] T 2409, 76: 409c13-14.

[248] T 2161, 55: 1063c18.

[249] T 2176, 55: 1130b22.

[250] T 924c, 19: 32c18-22.

[251] T 1290, 21: 376a17-21.

[252] Kiyota notes the possibility of the *Yaoshi yigui yiju* being a Japanese composition. His reconstruction of the *dhāraṇī* differs considerably from my own. See Kiyota Jakuun 清田寂雲, "Shaka-zan (ōshin-zan) to shoten bongo zan: tenryū hachi-bu zan no yakkai nit suite" 釋迦讃(應身讃)と諸天梵語讃: 天龍八部讃の譯解について. *Tendai gakuhō* 天臺學報 24 (1982): 24–28. I must thank Joseph P. Elacqua for providing me with Kiyota's article.

5.9. *Fantian huoluo jiuyao* 梵天火羅九曜 (T 1311)

This work, the **Brahmadeva Hora Navagraha*, is another 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. Angela Howard in her study of a scroll[253] containing text from the *Fantian huoluo jiuyao* states that "the text of the Horā Diagram truly reflects the merging of traditional Chinese ideas with the newly imported foreign astrological notions."[254] The first reference to the text in Japan is from between 890–953.[255] Its preface indicates that the content of the text is based on lectures by Yixing (*xiushu* 修述), but this would mean attribution, not authorship. This is contrary to Mollier's statement that this is "his outstanding astrological treatise."[256] Already in 1912, however, Édouard Chavannes and Paul Pelliot dated the text to around 874.[257] This dating can be 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。
> 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.[258]

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.[259]

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[253] The *Karazu* 火羅圖 of Tō-ji 東寺 in Kyōto. See TZ, vol. 7, 693–704.

[254] Angela Howard, "Planet Worship: Some Evidence, Mainly Textual, in Chinese Esoteric Buddhism," *Asiatische Studien* 37, no. 2 (1983): 119. Birnbaum suggests that the diagram "may have been used as a teaching device; I suspect that it also was employed as a sort of charm to aid in maintaining harmony in times of astrological stress." For a relevant discussion see Birnbaum, "Introduction to the Study of T'ang Buddhist Astrology," 12–16.

[255] Takeda Kazuaki 武田和昭, "Tō-ji hōbodai-in kyūzō hoshi mandara to zanketsu ni tsuite" 東寺寶菩提院舊藏星曼荼羅圖殘闕について, *Mikkyō bunka* 183 (1993): 12.

[256] Mollier, *Buddhism and Taoism Face to Face*, 141.

[257] Cited in Howard, "Planet Worship: Some evidence, Mainly Textual, in Chinese Esoteric Buddhism," 107. Chavannes and Pelliot, "Un traité manichéen retrouvé en Chine," 167.

[258] T 1311, 21: 459b6-7.

[259] See T 1311, 21: 459, note 5.

This appears to be an attempt to legitimize the attribution of the text to Yixing, but internal evidence demonstrates that any attribution to Yixing remains problematic.

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.[260] Such beliefs are never evident in Yixing's time. Moreover, as Lü points out, the system of 'field allocation astrology' (*fenye* 分野) in this text is contrary to that which was devised by Yixing.[261] 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 Buddhist Tantra under Śubhakarasiṃha, and simultaneously enjoying a career as a professional astronomer, would not have drafted such 'unorthodox works'. Additionally, the text uses Sogdian vocabulary (for instance, Venus: *na xie* 那頡 = *n'xyδ*), casting additional doubts that Yixing could have had any role in the composition of the work.[262]

The icons of the five planets are also of the Iranian type (similar to those in table 5.3), while the Sun, Moon, Rāhu and Ketu are of the Indian type. The original Indian depictions of the *navagraha* as found in the *Taizō zuzō* (table 4.1) differ from these icons. Yixing would have been familiar with the icons as depicted in the *Taizō zuzō*, but not these Iranian icons that were introduced into China long after he had died. Another feature that immediately identifies this as postdating Yixing is an anachronistic citation of the *Duli Yusi jing*, which we will recall was translated between 785–805 (see 4.7 above):

> 聿斯經云: 凡人只知有七曜，不晴虛星號曰羅睺計都，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.[263]

The definition of Ketu in this text also differs from that provided in Yixing's commentary cited earlier (4.2). 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 Indian meaning.[264]

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[260] "Disasters and losses are all a result of not venerating the stellar icons, and being unaware of having transgressed the stars 災害殃咎迷塞溢，皆由不敬星像，不知有犯星辰." T 1311, 21: 462a15-16.

[261] Lü, *Mijiao lunkao*, 348.

[262] Osabe Kazuo, *Ichigyō Zenji no kenkyū*, 256–261.

[263] T 1311, 21: 461c28-462a2. If the *Duli yusi jing* was a work of Dorotheus, then the inclusion of the Indian concepts of Rāhu and Ketu would be problematic, though the tradition of 'eleven planets' as introduced from abroad by Li Miqian (Li Biqian) clearly incorporated these two planets.

[264] "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.

In light of the aforementioned evidence within the *Fantian huoluo jiuyao*, a composition date of around the mid-ninth century before 874 is most likely. Nothing from this work can be credibly attributed to Yixing. This text is another specimen of popular esoteric Buddhism from the ninth century. It highlights 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 surveyed works, simply an attempt to legitimize these materials.

5.10. Worship of the Big Dipper

One prominent feature of the astral *sādhana*–s discussed above is the inclusion of rituals directed at the stars of the Big Dipper (*beidou* 北斗).[265] Buddhist astrologers in China readily absorbed the native belief that the Big Dipper governs longevity. The *Beidou qixing yanming jing* 北斗七星延命經 (T 1307; *Sūtra of Life Extension by the Seven Stars of the Big Dipper*)[266] reveals the extent to which such a belief was incorporated within the Buddhist framework, for the Buddha himself is quoted as follows:

> 若有比丘僧，比丘[尼]，宰官，居士，善男子，善女人，若貴若賤，大小生命，皆屬北斗七星所管。... 若善男子善女人，須知北斗七星管人生命。
> Whether bhikṣu sangha, bhikṣu[ṇī sangha], officials, laymen, good men, good women; whether rich or poor; longevity is under the control of the seven stars of the Big Dipper. … Whether a good man or a good woman, one must understand that the seven stars of the Big Dipper govern the lives of people.[267]

Although the colophon in the Taishō text states that it was brought to the Tang court by a 'Brahmin monk' 婆羅門僧, it is accompanied by a depiction of the Big Dipper and the deities with associated talismans in the Chinese fashion (fig. 5.35).

Each star is assigned one or two of the twelve earthly branches. One is to write and carry the talisman associated with the corresponding earthly branch under which one was born. Despite the presence of such Daoist elements, this text remains a Buddhist scripture, as the Buddha is the narrator, addressing this teaching to Mañjuśrī. Each of the

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[265] In India the Big Dipper is comprised of the *saptarṣi*, 'Seven Sages', though this is unrelated to the Chinese Buddhist conception in the present discussion.

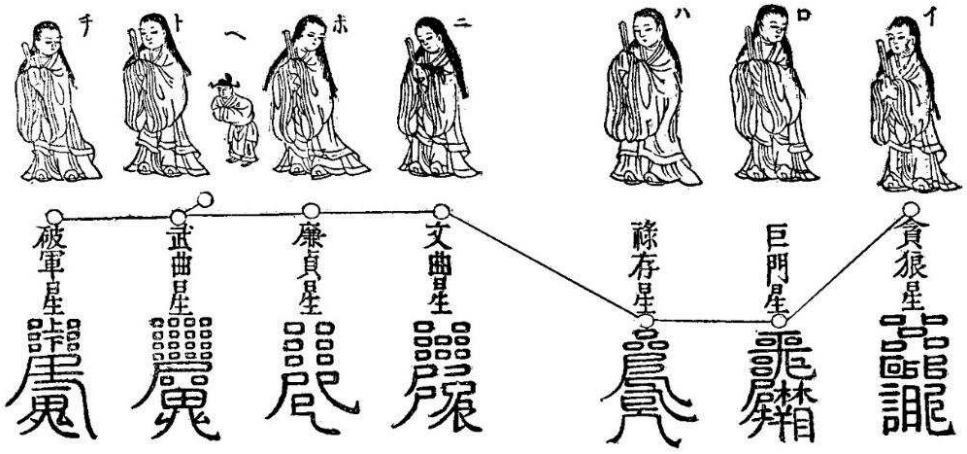
[266] For a translation and brief remarks see Charles D. Orzech and James H. Sanford, "Worship of the Ladies of the Dipper," in *Tantra in Practice*, ed. David Gordon White (Princeton: Princeton University Press, 2000), 389–392. For a discussion of a related Mongolian text see Johan Elverskog, "The Mongolian Big Dipper Sūtra," *Journal of the International Association of Buddhist Studies* 29, no. 1 (2006): 87–123.

[267] T 1307, 21: 426a18-b10.

seven stars are additionally associated with one of the seven forms of Bhāiṣajyaguru.[268] This raises the question of how buddhas would be responsible for one's longevity (normally karma would be the determining factor), but there is no attempt to reconcile earlier Mahāyāna conceptions of buddhas with these new beliefs.

Here a development away from proper astrology can be discerned. The belief of this work is that it is not astrological determinism that governs human fate, but rather astral deities of Chinese origin are believed to control life and fortune. This reveals the extent of the sinicization of popularized esoteric Buddhism in the late-Tang, in addition to the ongoing popular interest in astral magic.

Fig. 5.35. Goddesses of the Big Dipper



There has been some debate concerning the time when this text appeared. Needham suggested that Yixing might have written it,[269] but, in reality, no source ever attributes it to him, and there is no evidence to support such speculation. Herbert Franke pointed out the existence of Yuan-era (1271–1368) translations of the text in Tibetan, Uighur and Mongolian, while suggesting a composition date of a Chinese prototype between 1281–1313. He states, "The version in the Tōkyō, Kyōto, and Taishō canons is very late because it is a reprint of a Japanese edition printed in the summer of 1802 by the monk Kaidō (1751–1810). In other words, a Chinese prototype of the *Pei-tou ching* appeared seemingly out of nowhere about 1300."[270] Sørensen in his discussion of Big Dipper worship in Korean Buddhism refuted this position by pointing out the existence of citations of the sūtra in Shingon manuals, such as the *Kakuzen shō* 覺禪鈔 (*Summary by*

[268] These appear to be drawn from the *Yaoshi liuliguang qifo benyuan gongde jing* 藥師琉璃光七佛本願功德經 (T 451), translated by Yijing 義淨 (635–713). See Liao, "Chishengguang Fo zaikao," 350.

[269] Needham, *Science and Civilisation in China*, vol. III: *Mathematics and the Sciences of the Heavens and the Earth*, 283.

[270] Herbert Franke, "The Taoist Elements in the Buddhist *Great Bear Sūtra* (*Pei-tou ching*)," *Asia Major* 3, no. 1 (1990): 91–92.

Kakuzen), which dates from the early thirteenth century. Sørensen cites the aforementioned texts attributed to Vajrabodhi and Yixing, stating that "the presence of Northern Dipper worship within an esoteric Buddhist context shows that it had become an integrated element in its rituals by the early 8th century." He suggests that the *Beidou jin*g "could have been in circulation around the middle of the 8th century, or perhaps slightly later."[271] Mollier accepts this conclusion,[272] but in light of the earlier discussion with respect to texts attributed to Yixing and the progressive development of Buddhist astral magic, I disagree with Sørensen and Mollier. I would suggest that this work was likely composed in the early ninth century at the earliest.

There are examples of similar material found in Daoist works. The *Taishang xuanling beidou benming yansheng zhenjing* 太上玄靈北斗本命延生真經 (DZ 622) provides some of the same lore as the Buddhist text in question, such as the associations between earthly branches and specific stars of the Big Dipper.[273] Sørensen notes that "from a brief comparison it can readily be established that the Buddhists borrowed some passages as well as the central ideas from it."[274]

In light of the content of the *Beidou jing* and the astral *sādhana*–s surveyed above, it is indeed clear that Buddhist incorporation of the Big Dipper cult into their magical system was to a large degree a result of their interactions with Daoism in the ninth century, but one factor overlooked by past scholars is the widespread popularity of astrology in the late-Tang in all religious circles. Buddhist interest in Indian and Chinese astral deities, I argue, was also in part tied in with their practice of astrology and desire to change an undesirable prognosticated destiny. This meant appeasing astral deities of various types who were believed to govern human fates. It was only natural for Chinese Buddhists to incorporate the Big Dipper cult into their religious practice.

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[271] Henrik H. Sørensen, "The Worship of the Great Dipper in Korean Buddhism," in *Religions in Traditional Korea*, ed. Henrik H. Sørensen (Copenhagen: Seminar for Buddhist Studies, 1995), 72–79. Elsewhere Sørensen states, "Great Dipper worship in the Buddhist context would appear to date from the early Tang dynasty, and the practices, as seen in the earliest related texts, bear witness to considerable influence from Daoism." Sørensen, "Astrology and the Worship of Planets in Esoteric Buddhism of the Tang," 237. I disagree with this conclusion that Buddhists were engaged in any type of significant star worship in the early Tang. There is no credible evidence to substantiate this claim.

[272] Mollier, *Buddhism and Taoism Face to Face*, 138.

[273] As Franke points out, the *Wuxing dayi* by Xiao Ji in the Sui cites a *Huangdi doutu* 黃帝斗圖 (*Dipper Diagram of the Yellow Emperor*), in which the seven stars are associated with the earthly branches. These associations therefore existed before the Tang dynasty. Ibid., 103–104. These are also found in the *Qiyao rangzai jue* (brought to Japan in 865) discussed above (5.3). T 1308, 21: 452a25-26.

[274] Sørensen, "The Worship of the Great Dipper in Korean Buddhism," 74.

5.11. Conclusion

There were several developments that characterize Buddhist astrology in the last century of the Tang in contrast to that practiced in the eighth century.

First, the transition to Iranian sources of astrological methods and lore was a result of translation work carried out by ethnically Iranian figures active at court, and unidentified Sogdian astrologers. These men introduced new lore, iconography and techniques. Much of these materials, as demonstrated above, can be traced back to the Hellenistic tradition of astrology. Many elements of the connected system of astral magic that became popular in the ninth century originated in the Near East. This type of astral magic is similarly found in medieval Arabic and European sources, most notably the *Picatrix*. Chinese Buddhists were therefore, in effect, part of a global interest in astrology and astral magic.

Buddhists followed a popular trend in Chinese society, in which various communities, including literati, Daoists and Buddhists, took a deep interest in astrology, in particular horoscopy, which toward the end of the ninth century was increasingly based on the Hellenistic type with rich Iranian influences. This was enabled through the use of popular calendars, most notably the *Futian li*, which either in full or in part was directly incorporated into the Buddhist *Qiyao rangzai jue*. Regardless of the vinaya proscriptions to which Chinese monks were nominally subject, many of them evidently practiced astrology. Japanese monks such as Shūei also felt it important to import such astrology to Japan, which appears to reflect the contemporary Chinese Buddhist interest in the art.

Another major development in this century was the emergence of cults centered on astral deities, such as Tejaprabhā, Sudṛṣṭi, the *navagraha*, and the seven stars of the Big Dipper. Although there was a precedent for the *navagraha* deities to be presented in anthropomorphic forms as early as the 720s in the Garbhadhātu-maṇḍala, they were minor figures and functioned more as symbols.[275] In the ninth century, the planets were regarded as sentient entities who could be appeased, or even deceived; one might also employ a variety of mantras to alleviate undesirable influences attributed to them.

It was easy within such a context for Chinese authors to incorporate Daoist worship of the Big Dipper, given that the stars of the constellation, much like the planets in occidental astrology, were believed to have a direct effect on human fate. The depth of the sinicization of foreign astrology and astral magic is demonstrated by the development of *homa* rites for the stars of the Big Dipper alongside the incorporation of Daoist concepts.

[275] The commentary to the *Mahāvairocana-sūtra* has the following: "Among the *navagraha*, the Sun represents originally pure bodhicitta, which is the body of Vairocana. The Moon represents the practices of bodhi 就九執中，曰喻本淨菩提心，即是毘盧遮那自體，月喻菩提之行." The five planets are said to grasp or hold various parts of the mandala. T 1796, 39: 618c18-20.

Four of the extant *sādhana*–s surveyed above are attributed to Yixing. In contrast to the opinions of some modern scholars, it has been shown in detail that these cannot be from his time and instead, as Osabe originally pointed out, they are specimens from late-Tang popular esoteric Buddhism.[276] Yixing was the logical figure to whom these texts could be attributed in light of his career as an astronomer, his work reforming the native Chinese system of 'field allocation' astrology, and his contribution to the introduction of Mantrayāna in China.

To summarize, Buddhist astrology in Tang China evolved from basic hemerology and natal predictions rooted in Indian astrology to a complex system incorporating additional Iranian and Chinese elements that was increasingly concerned with addressing harmful influences brought on by sentient astral deities, the development of which prompted the emergence of cults centered on the benevolent Buddhist astral deities Tejaprabhā and Sudṛṣṭi. There existed a parallel Daoist interest in astrology and astral magic that influenced Buddhist practices. The impact in subsequent centuries in China and elsewhere in East Asia was immense. The following and final chapter examines this lasting legacy of Buddhist astrology.

[276] Mollier's study in particular uncritically accepts the attributions to Yixing. Her study also accepts the questionable account in the *Jiu Tang shu* that he studied under a Daoist adept. 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. ... 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." See Mollier, *Buddhism and Taoism Face to Face*, 144–145. Such speculation is rooted in incorrect assumptions, and completely misunderstands the origins of the relevant texts. These texts tell us nothing about the historical Yixing, but they do, as Osabe Kazuo noted, illustrate the popular image of Yixing in the late-Tang.

Chapter 6
Astrology in Post-Tang East Asia

6.1. Dunhuang and Bezeklik

There are a number of specimens of art related to astral deities from among the Dunhuang manuscripts, demonstrating a continued interest in such figures well into the tenth century. Relevant examples of art are also seen in the caves of Bezeklik.

One of the prominent pieces of art related to astral deities from Dunhuang is the aforementioned painting entitled "Tejaprabhā Buddha and the Five Planets" from 897 (fig. 1.1). Another relevant specimen, mistakenly labeled in the British Museum catalog as "Talisman of the Pole Star", is dated to 926–975. Here Mercury, *not* the Pole Star, and Ketu are depicted with accompanying Chinese talismanic symbols (fig. 6.1). The female figure is depicted holding a brush and paper in the same form seen earlier during the Tang (fig. 5.13), and labeled as "Northern Deity Star" 北方神星. This label led to the erroneous modern understanding that this is the "spirit of the Pole Star".[1] In actuality, Mercury in Chinese lore is associated with the north, which is also expressly stated in the *Qiyao rangzai jue*.[2]

The function of this talisman is to bring about fortune and protection to whomever carries it. It promises that buddhas will appear before one's eyes, although the talismanic symbols are a Daoist concept. This document attests to the continued interaction between Buddhist and Daoist astral cults into the tenth century. The protective nature of this talisman furthermore points to the Sinicization of the planetary deities in that they transitioned from being demonic beings to becoming guardians.

Tejaprabhā also appears in Uygur artwork, in particular cave 18 at Bezeklik, in which he is depicted on a mural alongside the zodiac signs and planets. Russell-Smith states, "This Tejaprabhā composition is an important example of the links between the Uyghurs, Dunhuang, the Tanguts and central China. The compositional arrangement, and many of the ornamental details link this piece to tenth-twelfth century Dunhuang art, but it is recognizably the work of an Uygur artist."[3] This points to the continued interest in

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[1] Russell-Smith makes the same mistake in labelling this "Talisman of the Pole-Star". See Russell-Smith, "Stars and Planets in Chinese and Central Asian Buddhist Art from the Ninth to the Fifteenth Centuries," 117. Yu Xin points out this is Mercury: "Personal Fate and the Planets," 175–176.

[2] "Mercury is the child of the Black Emperor in the Northern Direction 辰星者北方黑帝之子." T 1308, 21: 427b7.

[3] She further notes that it is "very likely that the Bezeklik wall painting is the first known large-scale composition to depict Tejaprabhā with two seated attendant bodhisattvas in addition to a large retinue." As to the date of the painting, she suggests "it is unlikely to be later than the mid-thirteenth century as by that time the Haydu-Duwa rebellion had broken out, which eventually destroyed the Xizhou

Tejaprabhā outside Esoteric Buddhism after the Tang dynasty, even among non-Han Chinese cultures. Although these specimens of art reveal that Buddhist cults of astral deities continued after the Tang, written documents reveal that the actual astrology being practiced was, in fact, no longer Buddhist in character.[4] Astrological texts and horoscopes from Dunhuang continue to display the earlier Iranian influences. Several documents deal specifically with the astrology of the seven-day week, and employ the Sogdian names of the planets, while also integrating various Chinese elements.[5]

One of the most important documents related to astrology is Pelliot chinois 4071, which is an interpretation of a horoscope dated to 975, compiled by Kang Zun 康遵, who was likely a Sogdian in light of the surname Kang. This document provides an extensive interpretation of a birth chart, though the actual chart itself is not included among the extant folios.[6] This document illustrates the multicultural quality of Chinese astrology in this region and period. Isahaya and Lin in their survey of this document state that "this astral text consists of various astral traditions in terms both of region and religion. This fact confirms that Central Eurasia, where the text was recorded, encompassed various kinds of cultural elements."[7] Jao Tsung-i examined the document and identified some citations of the *Duli yusi jing*.[8] The horoscopy of the *Duli yusi jing* was therefore still studied even in a remote area such as Dunhuang, indicating that this text had become a standard work used by Chinese astrologers, a fact to which we shall shortly return. The astrological system of the horoscope employs the eleven planets introduced by Li Miqian, as well as Cao Shiwei's *Futian li*. It does not appear to cite any Buddhist texts. In light of the system employed and the texts cited in the horoscope, it has more in common with Daoist astrology than with the Buddhist astrology represented by the *Qiyao rangzai jue* (5.3). This Buddhist system is, to my knowledge, not present in any extant documents from Dunhuang. It therefore appears that while the cult of Tejaprabhā flourished, astrologers worked with non-Buddhist texts. One comes to the same conclusion when examining relevant Buddhist texts from central China during the Song period.

Uygur Kingdom." Lilla Russell-Smith, *Uygur Patronage in Dunhuang Regional Art Centres on the Northern Silk Road in the Tenth and Eleventh Centuries* (Leiden: Brill, 2005), 106, 108.

[4] The primary documents related to astrology include Pelliot chinois 2693, 3081, 3403, 3247, 3247, 4071 and S. 95.

[5] For a survey see Yu Xin 余欣, *Shendao renxin: Tangsong zhi Dunhuang minsheng zongjiao shehuishi yanjiu* 神道人心: 唐宋之敦煌民生宗教社会史研究 (Beijing: Zhonghua Shuju, 2006), 270–275. Pelliot chinois 3779 (*Tui jiuyao xingnian ronge fa* 推九曜行年容厄法), an astrological manual for the *navagraha*, refers to the planets as deities using their transliterated names from Sogdian. Gao identifies these as coming from Sogdian, but does not identify them as Iranian deities. Gao Guofan 高國藩, "Lun Dunhuang tangren jiuyao suanmingshu" 論敦煌唐人九曜算命術, in *Di-er jie guoji tangdai xueshuhui yilun wenji* 第二届國際唐代學術會議論文集 (Taipei: Wensi Chubanshe, 1993), 787.

[6] For a detailed survey of the text's contents see Niu Weixing, "On the Dunhuang Manuscript P.4071," 527–558.

[7] Isahaya and Lin, "Entangled Representation of Heaven," 170.

[8] Jao Tsung-i, "Lun qiyao yu shiyi yao," 771–793.

Fig. 6.1. Mercury and Ketu[9]

[9] Stein no. Ch.lvi.0033, British Museum 1919,0101,0.170. © Trustees of the British Museum. For discussion of this specimen see James Robinson, "Signs of Power: Talismanic Writing in Chinese Buddhism," *History of Religions* 48, no. 2 (2008): 154–158.

6.2. Astrology and Astral Deities: Song to Ming Dynasties

The popular practice of astrology continued into the Song and Ming periods. During the Song dynasty, eminent officials such as Liu Xigu 劉熙古 (903–976) and Chu Yan 楚衍 (d.u.) are noted in the dynastic history of the Song as being proficient with the *Duli yusi jing*, which demonstrates its continued popularity among elites after the Tang dynasty.[10]

In the early Song period, Faxian 法賢 (d. 1000) translated the *Nannijishipoluotian shuo zhilun jing* 難儞計濕嚩囉天說支輪經 (T 1312; ***Nandikeśvara-deva Teaches the Zodiac Sūtra*).[11] This short astrology manual describes natal and death predictions based primarily on the twelve zodiac signs and the specific *nakṣatra*–s (a twenty-seven system) subsumed under each zodiac sign, plus the domiciles.[12] The arrangement of *nakṣatra*–s under the zodiac signs is similar to that of the *Xiuyao jing*, but the allotment of spaces to each *nakṣatra* differs. A curious feature is that Dhaniṣṭhā 虛 is omitted, rather than Abhijit 牛, which is otherwise uninstanced in any extant Indian source. Each group of *nakṣatra*–s is "destined" towards devas 天趣, *rākṣasa*–s 羅剎趣 or humans 人趣 (*gati*). It appears that one's zodiac sign is determined by one's natal *nakṣatra*. This is a unique specimen of Indian astrological literature, but it appears it was not widely studied by Buddhists in China.

As to Buddhist practice of astrology in the Song, there is some indirect evidence that suggests this. An account reproduced in several Chan records reads as follows:

> 僧問: 若有一人，發真歸源，十方虛空，悉皆消殞，未審此理如何。師乃點指云: 子丑寅卯辰巳午未，一羅，二土，三水，四金，五太陰，六太陽，七計都。今日計都星，入巨蟹宮。寶峰不打這鼓笛。
>
> A monk asked, "I do not understand how an individual discovers the truth and returns to the origin; the ten directions empty with all vanishing." The master instructed, "*Zi*, *chou*, *yin*, *mao*, *chen*, *si*, *wu*, *wei*.[13] One: Rāhu. Two: Saturn.

[10] See *Song shi* 宋史, Zhonghua Shuju edn., vol. 26, 9101 & vol. 39, 13518.

[11] Nandikeśvara is understood as another name for Vināyaka / Gaṇapati 歡喜天 (Gaṇeśa) in modern East Asian scholarship, though no details about the deity are given in this text specifically. Nandikeśvara, who is never Gaṇeśa in Hindu literature, is one of Śiva's retinue. The original text from which this Chinese translation was produced was likely Śaivaite. The term *zhilun* 支輪 in the title means zodiac, given that corresponding terms in Sanskrit often include *cakra* or *maṇḍala* (*bhacakra*, *tārāmaṇḍala*, *jyotiścakra*, etc.). The first character appears to be used phonetically.

[12] Domiciles are a system in which one of the seven planets presides over each zodiac. This was an originally Hellenistic concept. It first appears in the *Xiuyao jing* (see table 4.6 above).

[13] The first six earthly branches.

> Three: Mercury. Four: Venus. Five: Moon. Six: Sun. Seven: Ketu. Today, Ketu enters Cancer. The jewel peak does not hit these drums and flutes.[14]

Although the significance of this passage within the Chan context is ambigious, it does, nevertheless, allude to horoscopy, and furthermore illustrates a familiarity with astrology. It does not necessarily mean that Chan monks were actively practicing astrology, but it does indicate a passive familiarity with the art.

Fatian 法天 (d. 1001) translated the **Grahamāṭrkā-dhāraṇī* 聖曜母陀羅尼經 (T 1303).[15] This sūtra sees the Buddha in the great city of Alakavatī surrounded by the planets and *nakṣatra*–s, among other beings. Vajrapāṇi states that the *nakṣatra*–s and planets are of coarse appearances, wrathful and harming beings, killing them and stealing their wealth, or hastening their physical decay, and therefore requests a secret protective method from the Buddha. The Buddha states that the wicked *nakṣatra*–s and planets, along with asuras and other such beings should be offered the finest *arghya* (scented water) and music in order to please them and eliminate the evils they bring about. The Buddha then teaches a *dhāraṇī* for making offerings to the *nakṣatra*–s and planets, followed by the *grahamāṭrkā-dhāraṇī*. This sūtra reveals a deep belief within contemporary Indian Buddhism in the power of astral deities, though it appears that this sūtra was also of little significance in East Asia.

We should also note that Buddhism in the Northern Song period incorporated the full set of eleven planets (the *navagraha* plus Yuebei and Ziqi; see 4.8 above) into representations of Tejaprabhā.[16] These deities become part of the Chinese Buddhist pantheon around the eleventh century. Yuebei in the *Kuyōtō zuzō* 九曜等圖像 (*Navagraha Images*),[17] and in specimens from Tangut Khara Khoto,[18] is depicted as either a man or woman carrying a sword and/or a severed head (in the *Kuyōtō zuzō* representation, the head is placed within a pan). This mostly corresponds to the

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[14] See *Xukan guzun suyu yao* 續刊古尊宿語要. X 1318, 68: 366b7-10. This story is found in the account of the master Zhan Tangzhun 湛堂準 (1061–1115).

[15] The text exists in Tibetan translation. See To. 660/997, 661/998, P.339/622, 340/623. It is the seventh text of the *Saptavāra* corpus (*Vasudhārā*, *Vajravidāraṇā*, *Gaṇapatihṛdayā*, *Uṣṇīṣavijayā*, *Parṇaśabarī/Prajñāpāramitā*, *Mārīcī*, and *Grahamāṭrkā*). For Sanskrit manuscript see Cambridge University Library (MS Or.1814.5). An earlier translation in Chinese was found at Dunhuang: *Zhuxingmu tuoluoni jing* 諸星母陀羅尼經 (T 1302). See Digital Dictionary of Buddhism (ed. Charles Muller): 聖曜母陀羅尼經.

[16] See Liao Yang 廖暘, "Chishengguang Fo goutu zhong xingyao de yanbian" 熾盛光佛構圖中星曜的演變, *Dunhuang yanjiu* 敦煌研究 86 (2004-04): 72–74. Versions of the Tejaprabhā *dhāraṇī* were also printed until at least the Ming dynasty in China. See Liao Yang, "Daweide Chishengguang Rulai jixiang tuoluoni jing benwen yanjiu" 《大威德熾盛光如來吉祥陀羅尼經》本文研究, *Dunhuang yanjiu* 敦煌研究 152, no. 4 (2015): 64–72.

[17] TZ vol. 7, 739–748. A collection of line drawings of astral deities kept at Tō-ji 東寺 in Kyōto. Produced in year 2 of Japanese reign era Chōkan 長寬 (1164).

[18] The State Hermitage Museum of St. Petersburg. Item# XX-2424, XX-2450 & XX-2454.

description of Yuebei found in the *Yuanhuang Yuebei* 元皇月孛祕法 (*Secret Practice of the Primordial Lord Yuebei*), which is included in the *Daofa huiyuan* 道法會元 collection (DZ 1220; fasc. 215):[19]

> 姓朱，諱光，天人相，披髮裸體，黑雲掩臍，紅履鞋，左手提旱魃頭，右手杖劍，騎玉龍，變相青面獠牙，緋衣，杖劍，駕熊。
>
> Surnamed Zhu [Vermillion] with the honorific title of Guang [Luminous]. In the form of a celestial human, their hair is let down over their naked body. Their mass of black hair covers the navel. Red sandals. Their left hand holds the head of a drought demon. Their right hand holds a blade. They ride a jade dragon. In their modified form, [they display] a blue face with long fangs, a crimson garment and blade, while driving a bear.[20]

Such nude imagery is more likely to stem from an Indian or Near Eastern tradition than a native Chinese imagination, especially when we consider that this "planet" was said to have been introduced into China by a foreigner. Other descriptions of Yuebei, however, associate this deity with the native Chinese astral deity of Taiyi 太一, and moreover describe the icon in an entirely Chinese fashion.[21] This points to the sinicization of this figure, which suggests that the icon of Yuebei as a naked wielder of a sword is the earlier icon. In the Ming period novel *Yang Jiajiang yanyi* 楊家將演義 (*Drama of Yang Jiajiang*) by Xiong Damu 熊大木 (c.1506–1578), Yuebei, curiously identified with Xixia 西夏國 (the Tangut kingdom) is described as having a "naked red body" (赤身裸體) and "holding in her hand a skeleton" (手執骷髏骨).[22] In the Chinese imagination, this icon was perhaps associated with Xixia. At least one specimen from Khara-Khoto, a major Xixia city, depicts Yuebei in a form close to this.[23]

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[19] Unknown compiler. Dates approximately to the late Yuan, early Ming (14th century). See Hu Fuchen, ed., *Zhonghua Daojiao dacidian*, 416–417.

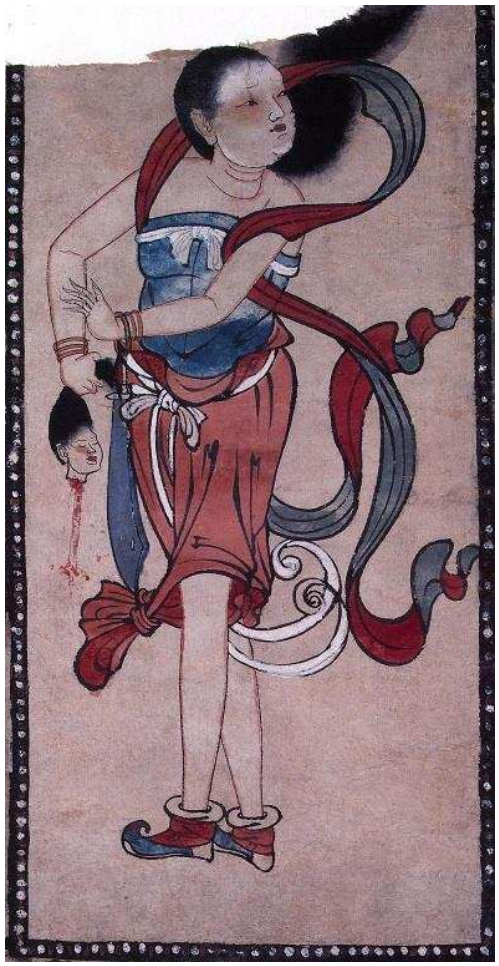
[20] The gender of the figure is not specified. DZ 1220, Wenwu Chuban edn., vol. 30, 335c.

[21] See *Dongyuan ji* 洞淵集 (DZ 1063) by Zhang Quanzi 長筌子 (fl. early 13th cent.). DZ 1063, Wenwu Chuban edn., vol. 23, 849b. As Liao Yang points out, the eleven planetary deities here are largely identical in description apart from the colors of their hats. Liao Yang "Chishengguang Fo goutu zhong xingyao de yanbian," 76.

[22] Xiong Damu 熊大木, *Yang Jiajiang yanyi* 楊家將演義 (Beijing: Baowentang Shudian, 1980), 174.

[23] Item #XX-2424 at the State Hermitage Museum shows Yuebei with a normal skin tone (see appendix 3 below). Her red garment is beneath exposed breasts. Her long hair is draped down the back. She appears to be holding a sword.

Fig. 6.2. Yuebei in the *Kuyōtō zuzō*. Fig. 6.3. Khara-Khoto Yuebei.[24]



A strong case can be made that this is a form of the Iranian Āl or Semitic Lilith, a demon common throughout the Near East, associated with illness, and the deaths of mothers and infants. The name Āl "apparently derives from Iranian *āl* 'red'." A related figure in the Jewish tradition is Lilith, a demon thought to kill children.[25] Panaino notes that "in Iranian folklore 'red ornaments' can be used also as an apotropaic means against the demoness Āl (Albasti), who, in her turn, is the 'red one' *par excellence*."[26] As James A. Montgomery explains, "The genus appears in the Babylonian incantations, as masculine and feminine, *lilu* and *lilit*, along with an *ardat lili*." With respect to the

[24] Item #XX-2450. 13th – 14th century. State Hermitage Museum.

[25] A. Šāmlū, "ĀL," *Encyclopædia Iranica*, online edition, 2011, available at http://www.iranicaonline.org/articles/al-folkloric-being-that-personifies-puerperal-fever.

[26] Antonio Panaino, "A Sogdian Wind between Paris and London," in *Commentationes Iranicae. Sbornik statei k 90-letiiu Vladimira Aronovicha Livshitsa*, eds. P. B. Lur'e and S. R. Tokhtas'ev (St. Petersburg, 2013), 299.

depiction of the deity he notes, "Nakedness and disheveled hair are standing descriptions of the Lilith, witch, etc."[27] The nudity of Yuebei seems to be associated with sexuality, since, according to the aforementioned Xing Yunlu (fl. 1580), Chinese astrologers "call this [Yuebei] the place [in the horoscope] where sexual energy manifests."[28] In medieval Jewish mysticism, Lilith's mount is the Tanin'iver, the "blind serpent".[29] In the Zohar (1:19b), the medieval classic of the Kabbalah, Lilith is said to seek out infants and kill them "when the moon is on the wane, as the light diminishes."[30] Although the Chinese Daoist text in question does not mention children, one of the magical practices described therein requires an ill person to cough on an inscribed letter.[31] It would therefore seem that Yuebei is associated with both the Moon and disease. These points all indicate that this icon can be traced back to a figure very close to the Iranian Āl or Semitic Lilith. If this Yuebei is indeed Lilith or a closely related deity, then it also very likely means that the astrological lore associated with the lunar apogee in Chinese translation is also of a foreign origin.[32]

Ziqi is depicted as male in courtly Chinese attire. I have not found any descriptions of his icon that would be suggestive of foreign influences. The *Shangqing shiyi dayao dengyi* 上清十一大曜燈儀 (DZ 198; *High and Pure Lamp Ceremony of the Eleven Great Planets*), which dates to the Yuan or early Ming period,[33] simply describes Ziqi in courtly Chinese attire with a solemn expression.[34] However, based on the fact that many of the icons surveyed above are Iranian in origin, and that the historical record states Ziqi was introduced from abroad, we can assume that Ziqi also likely included an icon when it was introduced.

Turning to the general Chinese history of astrology, the popularity of horoscopy continued until the Ming dynasty, but it seems that Buddhism had no role to play by this period. We should recall here the remarks of Song Lian (1310–1381) from the

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[27] James A. Montgomery, *Aramaic Incantation Texts From Nippur* (Philadelphia: Philadeplhia University Museum, 1913), 74, 158.

[28] 星家謂之淫氣孛之所在. See Xing Yunlu, *Gujin lü likao*, vol. 787, 682a11-12.

[29] Geoffrey W. Dennis, *The Encyclopedia of Jewish Myth, Magic and Mysticism* (Woodbury: Llewellyn Publications, 2007), 154. See also Joseph Dan, *The Early Kabbalah* (Mahwah: Paulist Press, 1986), 180.

[30] Isaiah Tishyby, ed., *The Wisdom of the Zohar: An Anthology of Texts*, vol. 2 (Oxford: Oxford University Press, 1989), 540–541. See also Daniel C. Matt, trans., *The Zohar*, vol. 1 (Stanford: Stanford University Press, 2004), 148–149.

[31] DZ 1220, Wenwu Chuban edn., vol. 30, 336a.

[32] In modern Western astrology, the lunar apogee is also called Lilith. It appears that Sepharial (1864–1929), an English astrologer, was the first to introduce Lilith into European astrology, although this initially was connected to a purported second satellite of the Earth. It appears that Sepharial (1864–1929), an English astrologer, was the first to introduce Lilith into European astrology, although this initially was connected to a purported second satellite of the Earth. See Sepharial, *The Science of Foreknowledge* (Cosimo, Inc., 2006), 40. The later 20th century connection between the apogee and Lilith appears to be unconnected with any ancient or medieval sources.

[33] Hu Fuchen, ed., *Zhonghua Daojiao dacidian*, 309.

[34] DZ 198, Wenwu Chuban edn, vol. 3, 564b.

introduction of this study. He traced the origin of astrological prognostication of fate, in contrast to state astrology, to the translation of the *Duli yusi jing* based on what he had heard from his teachers.[35] He was intent on demonstrating the foreign origin of such astrology. This was meant to discredit its legitimacy in China. He ends his discourse by remarking that "in recent times great scholars all relish speaking to fortune tellers, but I absolutely refuse to do so. Is there also a basis for this? I say there is: 'The Master seldom spoke of fate.'"[36] Fortune telling was evidently still very much widely appreciated in the early years of the Ming dynasty.

In the Ming period, a number of major works on astrology were produced, some of which were preserved in the Daoist canon. The *al-Madkhal* by Kūšyār ibn Labbān (late 10th cent.), an introduction to astrology heavily dependent on Ptolemy's *Tetrabiblos*, was translated into Chinese in 1384 by foreign-born officials working at the Ming national observatory.[37] Another large work on horoscopy is the aforementioned *Xingxue dacheng* (*Great Compendium of Star Studies*) in thirty fascicles by Wan Minying. In the Daoist canon, the *Rumen chong lizhe zhong kanyu wanxiao lu* 儒門崇理折衷堪輿完孝錄 (DZ 1471; *Scholars' Record Perfecting Filial Piety Which Esteems Persuasion and Accords with Geomancy*), a manual of geomancy (*kanyu* 堪輿, i.e., *fengshui* 風水) of unknown authorship from the mid-Ming period,[38] includes a significant amount of material concerning horoscopy, some of which stems from the earlier Hellenistic system introduced during the Tang period. For example, the twelve earthly branches are equated to the twelve Jupiter stations, which in turn are identified by name as the twelve zodiac signs (Aquarius 寶瓶, Pisces 雙魚, etc).[39] As with the *Lingtai jing*, the *life sign* 命宮 and *body sign* 身宮 are respectively identified as the signs in which the Sun and Moon are present. The four *triplicities* are also defined. The twelve places are defined, but with the curious instruction that if the chart is nocturnal one is to count these from the sign in which the Moon is present (normally these are counted from the ascendant): I. Life 命宮, II. Wealth 財帛, III. Brothers 兄弟, IV. Estate 田宅, V. Children 男女, VI. Slaves 奴僕, VII. Wives 妻妾, VIII. Illness-calamity 疾厄, IX. Travel 遷移, X. Office–salary 官祿,

[35] Ren Jiyu, ed, *Zhonghua chuanshi wenxuan Ming wen heng*, 150–152.

[36] Ibid., 152. "近世大儒，於祿命家無不嗜談而樂道之者，而子一切摒絕之，其亦有所本乎？曰：有。子罕言命." The last remark is in reference to Confucius. See in the Zihan 子罕 in the *Analects* 論語 (9.1).

[37] Yano Michio, *Kūšyār ibn Labbā's Introduction to Astrology* (Tōkyō: Institute for the Study of Languages and Cultures of Asia and Africa, 1997) , xviii. The original Arabic and Chinese are reproduced in this volume, along with an English translation of the Arabic.

[38] Hu Fuchen, ed., *Zhonghua Daojiao dacidian*, 398.

[39] As discussed above, equating the zodiac signs to sidereal lunar stations and Jupiter stations renders the zodiac system in question a sidereal zodiac, since the tropical zodiac must be strictly aligned with the equinoxes. This indicates that the tropical zodiac, while employed in late-Tang astrology, was likely forgotten by most Chinese astrologers in later centuries.

XI. Fortune 福德, XII. Appearance 十二相貌.[40] There was therefore a continuity of the horoscopic astrology that had been introduced during the Tang. What in the present day we would identify as Hellenistic elements were sufficiently naturalized in Chinese astrology so as to seem native and ancient to people in the fourteenth century, so much so that Song Lian had to argue that horoscopy was originally not from China.

In addition to works on astrology, the planets and asterisms appear as deities in the Daoist canon. As an example, in the *Zhongtian ziweixing zhenbao chan* 中天紫微星真寶懺 (DZ 1450), the *True and Precious Repentance of the Middle Heaven Faint Purple Star*, which was likely produced in the Ming dynasty,[41] we see the "Stellar Lord of Cancer" 巨蟹宮辰星君 invoked alongside the other eleven zodiac signs.[42] The zodiac signs are of Mesopotamian origin, but this belief in the zodiac signs as deities was originally of Indian origin. As to the appearance of zodiac deities in China, this belief dates back to the eighth century when it was introduced via the *Mahāvairocana-sūtra*.[43]

6.3. Astrology in Korea, the Liao and Tangut Xixia

The impact of Buddhist astrology and astral magic was immense in the greater area of East Asia after the Tang dynasty. The kingdom of Koryŏ 高麗 (918–1392) on the Korean penninsula inherited and developed astrology from the Tang. As Sørensen notes, "When looking at the defining practices and beliefs of Esoteric Buddhism under the Koryŏ, one is immediately struck by the consistent and frequent references to astrology including the worship of the heavenly bodies."[44] Koryŏ Buddhists believed strongly in the destructive powers of planetary movements, and the ability of Buddhist deities such as Tejaprabhā to counteract them.

According to one account, in the year 984, a Khitan diplomat named Ye Lüchun 耶律純 (d.u.) was sent to Koryŏ where he heard of an unnamed 'national teacher' 國師, who was a specialist in astronomy. Despite offering precious gifts, and making repeated requests, the teacher did not meet with him until the king of Koryŏ ordered a meeting.

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[40] DZ 1471, Wenwu Chuban edn., vol. 35, 615a9-15, 613a7-18, 614b16-18 & 625a3-8. The name of the twelfth place here is curious. It also occurs in the *Ziweidou shu* 紫微斗數 (DZ 1485). Wenwu Chuban edn., vol. 36, 500b10. Valens states that the twelfth place signifies foreign lands, hostility, slaves, injuries, dangers, tribunals, disease, death and sickness. Vettius Valens, *Anthologies*, trans. Mark T. Riley, 80.

[41] Hu Fuchen, ed., *Zhonghua Daojiao dacidian*, 312.

[42] DZ 1450, Wenwu Chuban edn., vol. 34, 754b9-15.

[43] See TZ, vol. 2., 284–286. The Japanese Mikkyō traditions preserve the mantras and *mudrā*-s for each sign. See Somekawa (2013). The *Mahāvairocana-sūtra* commentary also mentions "deities of the twelve zodiac signs 十二宮神" (Taishō 1796, vol. 39: 634c13). As discussed in earlier chapters, India had a belief in the deities of the twenty-eight (or twenty-seven) *nakṣatra*-s. The deification of the zodiac signs occurred in India since there is no evidence that the zodiac signs were deified in the Hellenistic world.

[44] Henrik H. Sørensen, "Esoteric Buddhism under the Koryŏ in Light of the Greater East Asian Tradition," *International Journal of Buddhist Thought & Culture* 7 (2006): 71.

The teacher taught Ye Lüchun an unconventional method of identifying associations between the seven planets, twelve earthly branches (in this case acting as functional equivalents for the twelve zodiac signs), and the twenty-eight lunar stations. The teacher states he was taught this method from a "strange man at sea" (海上異人).[45] Sørensen believes that this account "reveals that the Koreans were considered as being in possession of a superior form of astrology."[46] This conclusion, however, is problematic when we consider the absence of a name for the 'national teacher' in question, and the fantastical quality of the background story, all of which strongly indicate that this is not a historical account of a real meeting, but rather a fictional story used to justify a new astrological system at odds with contemporary systems. This account does, however, tell us about developments in the Liao 遼 (907–1125). It indicates an ongoing development of astrology well after the Tang period in the Liao state, rather than in Korea. The new system of astrology discussed in the dialog, purportedly obtained from a mysterious figure at sea who passed it onto an elusive master in a foreign country, alludes to a pressing concern of how to connect the twenty-eight lunar stations with the twelve zodiac signs, and that varying interpretations existed at the time. In other words, astrologers were developing the traditions they had inherited from the Tang period.

Although the story above is fictional, it is notable that a diplomat from the Khitan state is said to have inquired about astrology, since evidence reveals sufficient widespread interest in astrology in the Liao to inspire the painting of zodiac signs and lunar stations on tomb murals. Tomb paintings from the twelfth century displaying such astrological icons are found in Xuanhua 宣化 in modern Hebei. Sen argues that "Buddhist horoscopic astrology and esoteric *maṇḍalas*, popular in East Asia between the tenth and thirteenth centuries, inspired the drawings on Xuanhua tomb ceilings."[47]

Given the rich influence of Buddhist astrology in Korea and the Liao, it is unsurprising to also observe a similar development in the contemporary Tangut state of Xixia 西夏 (1038–1227). As noted earlier, among the art specimens from the Tangut city of Khara Khoto, there are several depicting figures such as Tejaprabhā and the eleven planets.[48] The presence of eleven planets likely indicates that the Daoist type of astrology was practiced, rather than the Buddhist system of nine planets, though the worship of astral deities within a Buddhist context was evidently a prominent practice. Kira Samosyuk states that the "Tangut attached great importance to both astronomy and astrology. The state administration of Xi Xia included a Department of Astrology based

[45] Chen Shu 陳述, ed., *Quan Liao wen* 全遼文 (Beijing: Zhonghua Shuju, 1982), 92–93.

[46] Sørensen, "Esoteric Buddhism under the Koryŏ," 72–73.

[47] Tansen Sen, "Astronomical Tomb Paintings from Xuanhua: Maṇḍalas?" *Ars Orientalis* 29 (1999): 31.

[48] These are held in the Khara Khoto collection of the State Hermitage Museum, St. Petersburg, Russia. Available online: http://www.hermitagemuseum.org. See items X-2424, X-2426, X-2428, X-2430, X-2431ab, X-2450, X-2451, X-2452, X-2453, X-2454, X-2455, X-2481, X-2482, T.F/1052.

on the Chinese model." The Tangut culture built temples to heavenly bodies, and their Buddhist canon also included several works related to Tejaprabhā and the planets.[49] A version of the Tejaprabhā *dhāraṇī* closely related to the extant texts (see 5.2 above), for example, was translated from Chinese into Tangut.[50] Many of these features of Tangut culture can be traced back to the Tang dynasty, revealing the significant impact of Buddhist astrology and astral magic within the Tangut society.

6.4. Astrology and Astral Magic in Japan

There is abundant documentation concerning Buddhist astrology and astral magic in Japan. Japan took a deep interest in astrology, which includes both the Buddhist and native Chinese systems. The latter was incorporated into the Onmyōdō 陰陽道 tradition.[51] Japanese Buddhist astrology, which was rooted almost entirely in the Tang tradition, influenced religion, art, popular literature and even politics throughout the Heian and Kamakura periods (tenth to fourteenth centuries). However, various misunderstandings persist in modern scholarship.[52]

Buddhist astrology existed in two ways in Japan. First, Shingon and Tendai both used the *Xiuyao jing* as a means of determining auspicious days for the execution of rituals. This practice was part of both traditions from the beginning of Mikkyō in Japan in the early ninth century. We might call this "Mikkyō Astrology". Second, there emerged a separate lineage of Buddhist astrologer monks called Sukuyōshi 宿曜師, known collectively as the Sukuyōdō 宿曜道, who were specialists in horoscopy and astral magic throughout the Heian and Kamakura periods (tenth to fourteenth centuries). The *Sukuyōshi* were not strictly speaking practitioners of Mikkyō, and their practices must be understood as separate from Shingon and Tendai, since they operated as a separate community.

Prior to the introduction of Buddhist astrology to Japan, the country had already received texts explaining native Chinese astrology via the Korean peninsula. The *Nihon shoki* 日本書紀 (vol. 2, 179) reports that in year 10 (602) of the reign of Suiko Tennō 推

[49] Kira Samosyuk, "The Planet Cult in the Tangut State of Xi Xia The Khara Khoto Collection, State Hermitage Museum, St. Petersburg," *Silk Road Art and Archaeology* 5 (1997/98): 354.

[50] An Ya 安娅, "Xixia wenyiben Chishengguang Rulai tuoluoni jing kaoshi" 西夏文譯本《熾盛光如來陀羅尼經》考釋, *Ningxia shehui kexue* 宁夏社会科学 182, no. 1 (2014): 108–114.

[51] The Onmyō-dō (also rendered On'yō-dō) was a lineage of occult specialists who practiced various forms of divination, magic, healing and geomancy, much of it rooted in earlier Chinese systems. They existed alongside and even competed with Buddhist astrologers in the Heian period. For a recent study see Yamashita Katsuaki 山下克明, *Onyōdō no hakken* 陰陽道の発見 (Tōkyō: Nihon Hōsō Shuppan Kyōkai, 2010).

[52] Athanasios Drakakis, for example, completely misunderstands the history and features of Buddhist astrology in Japan. Athanasios Drakakis, "Onmyōdō and Esoteric Buddhism," in *Esoteric Buddhism and the Tantras of East Asia*, eds. Charles D. Orzech et al (Leiden: Brill, 2011), 683–690.

古天皇 (r. 592–628), Gwalleuk (Jp. Kanroku 觀勒), a monk from Baekje (Jp. Kudara 百濟), presented to the court "a calendar, as well as books on astronomy and geomancy, together with books on ancient Chinese astrology and divination 百濟僧觀勒來之, 仍貢曆本及天文地理書, 并遁甲方術之書也." These materials were studied by some students at the time.[53] In the following century, the worship of the aforementioned bodhisattva Myōken 妙見菩薩 (Sudṛṣṭi), the personification of Polaris (Jp. *hokushin* 北辰), flourished. The *Nihon ryōi ki* 日本靈異記, an account of Buddhist stories compiled by Kyōkai 景戒 (d.u.) around the year 822, reports that Shidehara Yamadera 信天原山寺 in Kawachi no Kuni 河内國 lit lamps as offerings to Myōken. The people of the Kinai 畿内 region annually made lamp offerings. During the era of Empress Abe 帝姫安部 (i.e., Kōken Tennō 孝謙天皇, r. 749–758), the local devotees made offerings of lamps, as well as money and valuables, to the custodian of the temple.[54] The belief in astral deities was therefore strong even before the later developments of the Heian period.

As mentioned earlier (4.5), Kūkai returned home in 806 with a copy of the *Xiuyao jing*, which is listed in his catalog of texts.[55] We will recall that Kūkai's biography, the *Kōya Daishi go kōden* by Shōken, states that calendar specialists in Japan were unaware of the concept of Sunday when Kūkai returned. Kūkai is therefore to be credited with first introducing the seven-day week to Japan. His expertise with the *Xiuyao jing* is also demonstrated by his remarks recorded in the *Hino'o kuketsu*. It is clear that Shingon was formally interested in astrology from its beginning. This was also the case with Taimitsu. Although Saichō does not appear to have taken an interest in astrology, the following generation of Tendai monks did. According to the Tendai monk Annen, copies of the *Xiuyao jing* were also brought to Japan by the Tendai monks Ennin in 847 and Enchin in 858. Ennin's biography, the *Jikaku Daishi den* 慈覺大師傳, produced by Minamoto no Fusaakira 源英明 (d. 939),[56] relates that in the spring of 849, Ennin requested permission

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[53] *Dunjia* (Jp. *tonkō*; also rendered as 遯甲) is mentioned in the *fangshu lizhuan* 方術列傳 (fasc. 82) of the *Hou Han shu* 後漢書 (vol. 10, 2703). Dozens of works concerning *Dunjia* are cited in the *Sui shu* 隋書 (vol. 4, 1029–1032), the history of the Sui dynasty (581–617). These and the references to this art by Xiao Ji in the *Wuxing dayi* (172–175, 232) demonstrate that *Dunjia* was a widely-practiced system of Chinese astrology during this period. The *Wuxing dayi* itself also contains a great deal of Chinese astrological lore. The first mention of this work in Japan is in the *Shoku Nihon gi* 續日本紀, in which it is listed among compulsory works to be studied by state students in the year 757. It is also listed in the *Nihonkoku genzai sho mokuroku* 日本國見在書目錄, a catalog of books available in Japan, which was compiled by Fujiwara Sukeyo 藤原佐世 (847–898) in 891. See Nakamura Shōhachi 中村璋八, "Wa ga kuni ni okeru Gogyōtaigi no juyō ni tsuite" 我が國に於ける五行大義の受容について, *Komazawa Daigaku bungaku bu kenkyū kiyō* 駒澤大學文學部研究紀要 28 (1970): 11–12.

[54] G 17: 90–91. As Yamashita points out, this indicates that worship of Myōken flourished during the Nara period. His cult was prominent in Japan, but never achieved the same prominence on the mainland. See Yamashita Katsuaki 山下克明, *Heian jidai no shūkyō bunka to onyō-dō* 平安時代の宗教文化と陰陽道 (Iwata Shoin 岩田書院, 1996), 292.

[55] See *Go shōrai mokuroku* 御請來目錄 (T 2161, 55: 1062a23-24).

[56] There are three separate versions of this biography and differing scholarly opinions on their chronology. See Saitō Enshin, *Jikaku Daishi Den = The Biography of Jikaku Daishi Den* (Tōkyō: Sankibō

to commence production of a Vajra-dhātu-maṇḍala 金剛界曼荼羅. Ennin accordingly identified day eight of the fifth lunar month as a *kanro nichi* 甘露日 or "Day of Amṛta".[57] This "Day of Amṛta" derives from the *Xiuyao jing*, in which it is defined as a Sunday when the assigned *nakṣatra* of that day is Hasta 軫. On such days, it is auspicious to carry out sacred acts, such as receiving initiations (*kanjō* 灌頂), building temples, receiving precepts, studying scriptures, ordaining as a monk and practicing the path (see table 4.5 above). It is clear that the *Xiuyao jing* was a common text for Shingon and Taimitsu from their respective beginnings.

The Shingon monk Shūei, whom we mentioned above (4.7), was responsible for bringing the first manuals on horoscopy to Japan, namely the *Duli yusi jing* and *Qiyao rangzai jue*, when he returned in 865. Shūei lists them in his catalog as miscellaneous books (*zōjo* 雜書), while remarking that "the assorted works above might not be gates of Dharma [i.e., Buddhist works], but they are held as important in the world."[58] Although this indicates that horoscopy was, in fact, widely practiced in China at the time, there is nothing to suggest that Shūei himself practiced it. There is moreover no evidence indicating that any Japanese monk in the ninth century practiced horoscopy. The first accounts of it being practiced appear in the following century, which we will discuss below. Here, the point to bear in mind is that Mikkyō astrology, based primarily on the *Xiuyao jing*, was satisfactory for determining the most auspicious days to carry out rituals (i.e., hemerology). Neither Shingon nor Tendai appear to have formally incorporated horoscopy into their respective systems of practice.

Astrology was an essential component to Mikkyō from its beginning, but their belief in astrology was not necessarily fatalistic, since magical means were available to avert prognosticated disasters. The background behind this was the earlier connection in China between Buddhist astrology and the worship of astral deities, such as Tejaprabhā. With respect to the introduction of Tejaprabhā to Japan, Ennin's catalog of items brought back from China includes a "Tejaprabhā altar diagram" (Chn. *Chisheng tan yang* 熾盛壇樣) as one fascicle (T 2167, 55: 1084c8). The *Asaba shō*, a thirteenth century Tendai compendium of Mikkyō practice and lore mentioned earlier (5.2), records that in 849 (year 2 of Kashō 嘉祥), Ennin established a Tejaprabhā practice at Sōji-in 總持院 (TZ vol. 9, 42a6–9). It furthermore states that this ritual, described at length in the *Asaba shō*,[59] is a secret of the school (Tendai), being precious to the nation, and not practiced at Tō-ji 東寺 (TZ vol. 9, 24c3–5). It appears that the long-form Tejaprabhā ritual was

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Busshorin, 1992), 17–19. For a comprehensive study, see Saeki Arikiyo 佐伯有清, *Jikaku Daishi Den no kenkyū* 慈覚大師伝の研究 (Tōkyō: Yoshikawa Kobunkan, 1986).

[57] Z 8-2: 691b5-8. In the modern calendar this corresponds to June 6th, 849. For English translation, see Saitō, *Jikaku Daishi Den*, 56. Saitō, however, does not translate *kanro nichi*.

[58] T 2174A, 55: 111b20–c1.

[59] This long-form ritual is loosely connected to T 966. It incorporates material from a variety of sources. Fascicles 58–59 of the *Asaba shō* specifically discuss the procedure for worshipping Tejaprabhā and its early history in Japan.

primarily practiced within Tendai. The transmission of Tejaprabhā and texts concerning astrology and astral magic also introduced to Japan worship of planetary deities in their Iranian-Mesopotamian forms, a strong feature of the Chinese Tejaprabhā cult. These deities are most well-known in Japan through the *Bonten kara zu* 梵天火羅圖 (TZ vol.7, 695).

There appears to have been some innovation in Japan, in light of the *Kuyōtō zuzō* (TZ vol. 7, 738), produced in 1164, which includes a line drawing of Tejaprabhā as a Tathāgata aflame, standing atop two lotuses, and holding a bowl and monk's staff,[60] as well as drawings of the planetary icons. This standing representation is unknown among Chinese sources, but appears to be based on depictions of Yakushi Nyorai 藥師如來, i.e., Bhaiṣajyaguru.[61]

Innovation on the part of Japanese Buddhists with respect to the interpretation of the planetary icons is evident. The Iranian-Mesopotamian, as well as the zoomorphic icons, were authenticated through creative interpetations of their features. The *Byakuhō kushō* 白寶口抄, by Ryōson 亮尊 (taught by Ryōzen 亮禪; 1258–1341), for instance, provides the following interpretation of the Iranian-Mesopotamian icon of Mercury:

> 水曜者，北方作業，即水精也。彼體總顯然煩惱。煩惱如水，是顯示貪愛，行相誠似水，故云: 神形如黑蛇也。蛇水精也。北方前五識作業，故表彼戴猿冠，猿散亂物故也。持紙筆，記煩惱異熟，記功德之佛果義也。
> Mercury is active in the northern direction. It is the essence of water. Its body completely manifests afflictions. Afflictions are like water. This manifests craving. Its form truly resembles water. Therefore, it is said that the deity's form is like that of a black snake. A snake is the essence of water. In the northern direction, the prior five consciousnesses[62] are active, which thus expresses [the icon's] wearing of a monkey hat, since the monkey is a distracted animal. Holding paper and brush has the meaning of recording the maturation of afflictions, and the fruit of buddhahood from merit.[63]

With respect to this unique interpretation of the icons of Mercury in the *Byakuhō kushō*, the grammar and vocabulary usage of the cited passage are highly suggestive of a Japanese composition. For example, using *xianran* 顯然 as a transitive verb is unusual in Chinese. Also, *xingxiang* 行相, *qian wu shi* 前五識, and *yishu* 異熟 are terms derived from Yogācāra (Hossō-shū 法相宗) texts in Chinese translation. Neither the *Qiyao rangzai jue*, nor any other Chinese astrological work of the ninth century, display such

[60] For a later replica of this see TZ vol. 7, 750.

[61] Su Jiaying 蘇佳瑩. "Nihon ni okeru Shijōkō Butsu zuzō no kōsatsu" 日本における熾盛光佛圖像の考察, *Bijutsushi ronshū* (2011) 11: 114–117.

[62] The five sense consciousnesses, which come prior to the last three of the eight consciousness in Yogācāra.

[63] TZ vol. 7, 307a23-27.

influences from the Yogācāra lexicon, indicating that this interpretation of the icon is very likely Japanese in origin. This points to further Japanese development of the astral magic received from China.

The various astral deities are also discussed in various medieval Mikkyō compendiums. For instance, as discussed earlier (5.4), the *Gyōrin shō* cites works that describe the planetary deities. The mantras of the *Qiyao rangzai jue* are also cited in the *Gyōrin shō* (T 2409, 76: 226a09–11). The *Dainichi kyō sho en'ō shō* 大日經疏演奧鈔 – notes on the commentary of the *Mahāvairocana-sūtra* by Gōbō 杲寶 (1306–1362) – also cites the *Qiyao rangzai jue*, along with the *Kuyō hiyraku* and *Xiuyao jing*, in a discussion of the qualities of the planets, and the astrological significances of their movements throughout the twelve zodiac signs (T 2216, 59: 59a10–16). These discussions demonstrate the continued firm belief in astrology among Mikkyō specialists well into the medieval period, in addition to the widespread interest in appeasing astral deities.

Buddhist astral magic also incorporated elements derived from Daoist texts, which to some extent was a result of interactions with Onmyōdō.[64] A primary characteristic of the Daoist material is its main focus on the seven stars of the Big Dipper, which are believed to govern human longevity. The incorporation of such beliefs into Buddhist practice occurred already in the late-Tang (see 5.10 above). In this system, the seven stars are associated with the twelve earthly branches (Ch. *di zhi* 地支). The star presiding over an individual's life is determined by the earthly branch of the sexagenary cycle for the year when they were born. The *Ono rokuchō* 小野六帖, by the Shingon monk Ningai 仁海 (951–1046), prescribes this same model in its explanation of a "Ritual for Offering to the Primordial Star" (*Ganjinku sahō* 元辰供作法) under the section detailing rituals for asterisms, titled "Private Remarks on Sukuyō" (*sukuyō shiki* 宿曜私記).[65] Ningai also cites the *Kara zu* and *Qiyao rangzai jue*. The magic with which he was familiar therefore clearly consisted of Chinese, Indian and Iranian elements, which by his time had become fully digested within the framework of Mikkyō practice. The mature system of Mikkyō astral magic became called *Hokuto hō* 北斗法 ("Ritual of the Northern Dipper"), which, despite the name, also incorporates the planetary, zodiacal and *nakṣatra* deities. Hayami suggests that features of astral magic identifiable with Onmyōdō are apparent in the tenth century, but that during the eleventh century the *Hokuto hō* was systematized as a specifically Mikkyō practice.[66]

In light of the widespread belief in astral deities and astrology in Japan during the Nara and early Heian periods, it is unsurprising that such interests would lead to the formation of a community of professional astrologers capable of practicing horoscopy, arguably the most complex system of astrology, to which we now turn.

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[64] Yamashita, *Heian jidai no shūkyō bunka to onyō-dō*, 298.

[65] T 2473, 78: 98a2–3

[66] Hayami Tasuku 速水侑, *Heian kizoku shakai to bukkyō* 平安貴族社會と佛教 (Tōkyō: Yoshikawa Kōbunkan, 1976), 97.

6.5. Sukuyōdō Horoscopy

Although by the end of the ninth century, Japan possessed the necessary texts to cast horoscopes, including even Cao Shiwei's *Futian li*, it appears that the country still lacked professional astrologers. Horoscopy requires not only basic astronomical knowledge in order to produce a horoscope, but also familiarity with astrological doctrines in order to interpret it and make predictions. The role of Buddhism in the transmission of such knowledge foreshadowed the emergence of later astrologer-monks, the Sukuyōshi. The "Mikkyō astrology" discussed above ought to be considered separate from the horoscopy practiced by the Sukuyōshi, since horoscopy was the exclusive art of the Sukuyōshi.

The first documented calendrical specialist with the *Futian li* in Japan was the Tendai monk Nichi'en 日延 (d.u.). Nichi'en was a disciple of the Tendai monk Ninkan 仁觀 (d. 934), who also had a background in calendrical science.[67] Sometime around the mid-tenth century, the Onmyōji Kamo no Yasunori 賀茂保憲 (917–977) voiced his concerns that the *Senmyō reki* 宣明暦 state calendar (brought to Japan in 859, and adopted from 862) had been in use for well over a century, and that a new calendar had probably been adopted on the mainland. He recommended that Nichi'en be sent to acquire and study a new calendar. Nichi'en departed in 953. He arrived in the state of Wuyue 吳越, where he studied and retrieved a version of the *Futian li* and ephemerides (Ch. *licheng* 立成), which he brought back in 957. Nichi'en's trip to China is detailed in a document entitled *Daizaifu jinja bunsho* 大宰府神社文書, dated to around 1053. It was rediscovered by Takeuchi Rizō 竹内理三 (1907–1997) in 1954 at Daizaifu Jinja 大宰府神社 in Kyūshū. Nichi'en also carried with him works of the Tiantai school, which had been lost in China.[68] The *Senmyō reki* was not abandoned, and continued to be used until the Edo-period, but the *Futian li* was used by the Sukuyōshi throughout the Heian and Kamakura periods.[69]

Although Nichi'en played such a crucial role in transmitting the necessary knowledge to practice horoscopy, according to the encyclopedic early Kamakura-era

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[67] Yamashita Katsuaki 山下克明, "Sukuyō-dō no keisei to tenkai" 宿曜道の形成と展開, in *Kōki sekkan jidaishi no kenkyū* 後期攝關時代史の研究 (Tōkyō: Yoshikawa Kōbunkan, 1990), 488–489.

[68] See Takeuchi Rizō 竹内理三, "Nyū Goetsu sō Nichi'en den" 入吳越僧日延傳, *Nihon rekishi* 日本歷史 82 (1955): 58–63. Momo Hiroyuki 桃裕行, "Nichi'en no *Futenreki* seirai" 日延の符天暦齎來, in *Ritsuryō kokka to kizoku shakai* 律令國家と貴族社會, ed. Takeuchi Rizō 竹内理三 (Tōkyō: Yoshikawa Kōbunkan, 1969), 395–420. For details on the Tiantai texts carried by Nichi'en see Momo Hiroyuki, "Nichi'en no Tendai kyōseki no sōchi" 日延の天台教籍の送致, in *Taigai kankei to shakai keizai: Mori Katsumi hakushi kanreki kinen ronbun shū* 對外關係と社會經濟 : 森克己博士還暦記念論文集 (Tōkyō: Hanawa Shobō, 1968), 101–113.

[69] Momo, "Nichi'en no *Futenreki* seirai," 400–408.

Nichū reki 二中歷 (unknown author), Nichi'en is listed as a Rokumeishi 禄命師 (master of fortune telling), rather than as a Sukuyōshi (under the *ichi nōreki* 一能歷 heading; fasc. 13, 56).[70] The first Sukuyōshi listed in the *Nichū reki* is Hōzō 法藏 (905–969).[71] In the year 961, Hōzō engaged in a debate with the Onmyōji Kamo no Yasunori over the asterism believed to constitute the natal asterism (*honmyō suku* 本命宿) of Murakami Tennō 村上天皇 (926–967; r. 946–967). This debate also dealt with the day when the appropriate ritual was to be executed (*honmyō jitsu* 本命日). As Yamashita points out, the *Ono ruihi shō* 小野類秘鈔 by Kanshin 寬信 (1084–1153), and the *Byakuhō kushō*, cite the written reports by Hōzō and Kamo no Yasunori, from which we can gain a clear understanding of their respective positions as follows.[72]

Murakami Tennō was born on the second day (*tei gai* 丁亥) of the sixth lunar month in year four of the reign era Enchō 延長 (926). In the sexagenary cycle, this year landed on *hei jutsu* 丙戌. Kamo no Yasunori proposed that *hei jutsu* be regarded as the day when the ritual was to be executed. As to the natal asterism, he referred to the table of the *Xiuyao jing* (table 4.8), in which the twenty-seven *nakṣatras* are assigned to each day of the lunar calendar. In this case, 6/2 corresponds to Aślesā 柳.[73] Hōzō, however, disagreed with both points. He proposed that the ritual was to be executed on the actual day of birth according to the sexagenary cycle (*tei gai*), and that the natal asterism be determined based upon the *nakṣatra* in which the Moon was actually lodged at the time of birth. In the end, a third party, Yoshino Nichizō 吉野日藏 (d.u.),[74] presented a judgment on the matter in three fascicles, in which the natal asterism would be determined by Hōzō's explanation, while the day of the ritual would be determined by Kamo no Yasunori's explanation. This is recorded in the *Asaba shō* and *Gyōrin shō*.[75]

There are two important things to note about this debate. First, in this case, Hōzō is referring to Chinese lunar stations in practice, but the astrological lore involved is based upon that of the Indian *nakṣatras*. Second, Hōzō is disregarding the table in the revised version of the *Xiuyao jing* (see table 4.8 above), and instead relying on more accurate methods of calculating the true position of the Moon. Amoghavajra's team produced said table likely as a means of facilitating Chinese use of the Indian calendar

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[70] Rokumei (Ch. *Luming* 禄命) could be understood as astrology in Chinese and Japanese contexts. Even if Nichi'en did practice astrology, he was not regarded as a Sukuyōshi. For details, see Momo, "Nichi'en no *Futenreki* seirai," 410.

[71] After Hōzō, the following men are listed as Sukuyōshi: Rigen 利源(原), Ninsō 仁宗, Ninso 仁祚, Nintō 仁統, Fusen 扶宣, Chūin 忠允, Ryōtan 良湛, Zōmyō 增命, Shōshō 證昭, Genso 彦祚, Nōsan 能算, Shōshō (靜)清昭, Gōshun (桓)恒舜, Kokkū 國空, Songen 尊源, Kensen 賢暹, Kyōzō 慶增, Ryōyū 良祐, Myōsan 明算, Shinsan 深算, Nichikaku 日覺.

[72] SZ 36: 85–86. TZ vol. 7, 297b1–c4 & 334b8–335a26. Yamashita, "Sukuyō-dō no keisei to tenkai," 492.

[73] *Sukuyō-kyō shukusatsu*, vol. 1, 13.

[74] The identity of this figure is uncertain. There was another Nichizō in the tenth century who lived 905–967, but it is unclear if this is the same man.

[75] TZ vol. 9, 457b15–19 & T 76, no. 2409, 458c8–11.

without having to employ calculations or redesigning Chinese observational astronomy to accommodate the *nakṣatra* parameters, but with the result that the Moon only nominally "lodges" in the assigned *nakṣatras*. Experts in calendrical science and astronomy, however, would have noticed the discrepancies between observed positions and the table. Hōzō did not necessarily face any serious objections to his decision to employ a scientific approach, since the first version of the *Xiuyao jing* from 759 states that "the *nakṣatra* in which the Moon is present constitutes the corresponding *nakṣatra* convergence 夫取宿直者, 皆月臨宿處, 則是彼宿當直."[76] This early preference in the Sukuyōdō tradition for accurate calculations is still apparent in a later horoscope (see below).

We should note that Kanshin states, "I am unaware of the basis [of Hōzō's conclusion]. This was not received from a teacher's instruction, being something he reached via his unique views 未知所據, 是則不受師說, 獨見所致."[77] This points to the early innovation of Sukuyōdō, and its divergence from mainstream Mikkyō. The latter it seems regarded the *Xiuyao jing* as not only a canonical text, but also one that was originally taught by Mahāvairocana.[78]

Hōzō being traditionally identified as the first Sukuyōshi is reasonable, given that one of the first references to Sukuyōdō itself is found in Hōzō's report quoted in the *Ono ruihi shō*.[79] The appended suffix of *-dō* 道 is likely in emulation of the then long-established Onmyōdō. At this point, Sukuyōdō as an identifiable lineage or community does not appear to exist yet, but shortly after Hōzō's time, we see, as pointed out earlier, reference to "Sukuyō" in Murasaki Shikibu's *Genji monogatari*, which suggests that Sukuyōdō as an identifiable and moreover significant community emerged between 969, when Hōzō died, and the first or second decade of the following century. The first references to Sukuyōdō and Sukuyōshi within the journals of aristocrats date to the early to mid-eleventh century.[80] Yamashita also points out that Sukuyōshi, primarily hailing from Kōfuku-ji 興福寺, became especially active among the aristocracy starting in the late tenth century. Sukuyōshi also officially participated in state management of the calendar between 995–1038. After 1038, they continued to debate with calendrical experts at court, in particular with respect to predicting eclipses.[81]

The Insei (1086–1185) and Kamakura periods (1185–1333) were a time of great activity for Sukuyōdō. Toda notes that during the later years of the Insei period,

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[76] *Sukuyō-kyō shukusatsu*, vol. 2, 7. Yamashita, "Sukuyō-dō no keisei to tenkai," 494.

[77] SZ 36: 85b6-7. Same remarks quoted by Ryōzen (TZ vol. 7, 335b11–13).

[78] The *Xiuyao jing* was originally attributed to Mañjuśrī when it was compiled by Amoghavajra, but Kanshin (SZ 36: 85b15-86a2) states that it was originally taught by Mahāvairocana. He states that it was then transmitted to Śākyamuni, Mañjuśrī, Brahmā, the *ṛṣi* of Gandhamādana ("sages of the fragrant mountain"; Jp. *kōzan sennin* 香山仙人), the *denbō sanzō* 傳法三藏 (Amoghavajra and Huiguo 惠果) and finally to Kōbō Daishi 弘法大師 (Kūkai).

[79] SZ 36: 86a17.

[80] Toda Yusuke 戸田雄介, "Kamakura bakufu no Sukuyōshi: toku ni Chinyo ni tsuite" 鎌倉幕府の宿曜師：特に珍誉について, *Bukkyō Daigaku daigakuin kiyō* 佛教大學大學院紀要 35 (2007): 46.

[81] Yamashita, "Sukuyō-dō no keisei to tenkai," 508–511.

Sukuyōdō started placing particular emphasis on apotropaic rituals as a means of countering astrologically prognosticated calamities, in addition to paying more attention to predictions concerning death specifically.[82] Two primary lineages of Sukuyōdō emerged and remained active through to the Kamakura period: the Chin-ryū 珍流 (variant: 弥) and San-ryū 算流.[83] These lineages stem from two prominent Sukuyōshi who were active during the Insei period: Chinga 珍賀 (b. 1129) and Kyōsan 慶算. Chinga was the son of Chinya 珍也 (b. 1083), a Sukuyōshi of Hōryū-ji 法隆寺.[84] Chinga, however, was based out of Kyōto, where, sometime before the year 1165, he built the Hokutokōrin-in 北斗降臨院 at Kiyomizudera 清水寺.[85] Kyōsan was of Onjō-ji 園城寺, and was an innovator of Sukuyō rituals. The two men knew each other. Chinga produced an astrology report for Gotoba Tennō 後鳥羽天皇 (r. 1183–1198), but his errors were later corrected by Kyōsan.[86] The presence of these astrologers at the highest level of Japanese society indicates the appeal of horoscopy at the time.

An important specimen related to Sukuyodo preserved in the depository of Kōzan-ji 高山寺 in Kyōto from the Insei Period is the *Sukuyō senmon shō* 宿曜占文抄. This twenty-seven page document in its extant form is a collection of notes recopied in year 4 of the Bunji 文治 (1188) by the Sukuyōshi Shinsan 深算, who was active in the early twelfth century.[87] This document contains astrological lore drawing upon Buddhist scriptures, in addition to often baffling commentary regarding how to reconcile the various lunar and solar calendrical systems prescribed in various Buddhist and non-Buddhist texts (the latter includes the *Duli yusi jing*). This text illustrates that Sukuyōdō in this period had not attempted to produce any systemized doxography or orthodox canon of texts, which stands in contrast to established Buddhist schools.

During the Kamakura period, some Sukuyōshi were active in Kamakura. One of better documented Sukuyōshi of this period was Chinyo 珍譽 (b. 1167), who was also a Waka 和歌 poet. Some of his Waka poems are included in the *Chinyo Hōin waka* 珍譽法印和歌 (Z 16-1: 348–350),[88] appended to which is Chinyo's lineage line. Chinyo's

[82] Toda Yusuke 戸田雄介, "Sukuyōdō no inseiki: Chinga to Kyōsan wo chūshin ni" 宿曜道の院政期 : 珍賀と慶算を中心に, *Bukkyō Daigaku daigakuin kiyō* 佛教大學大學院紀要 34 (2006): 29–32.

[83] Yamashita, "Sukuyō-dō no keisei to tenkai," 502–503.

[84] According to an inscription (*okugaki* 奥書) on the *Qiyao rangzai jue* in the collection of Sakai Ukichi 酒井宇吉, Chinya was the 119th Sukuyōshi of Japan. In 1116, he formally transmitted said text. See Kanechiku Nobuyuki 兼築信行, "Chinyo to sono seikei" 珍譽とその世系, *Kokubungaku kenkyū* 國文學研究 (1999) 129: 36. It is clear that by the early twelfth century there had already been several generations of astrologers in Japan. See also Yano, *Mikkyō senseijutsu*, 166.

[85] Kanechiku, "Chinyo to sono seikei," 37.

[86] Toda, "Sukuyōdō no inseiki," 32–33, 36–37.

[87] Ujiro Takafumi 宇代貴文, "Enkeishiki hokuto mandara kō: Kōzan-ji zō *Sukuyōsenmonshō* wo megutte" 圓形式北斗曼荼羅考 : 高山寺藏『宿曜占文抄』をめぐって, *Bijutsushi ronshū* 美術史論集 (2012) 12: 96.

[88] The last Waka in this collection mentions Sukuyō specifically (Z 16-1: 349b7).

predecessors here include his father Chinyō 珍耀 (1148–1184)[89] and his grandfather Chinga, the latter specified as having descended from Chinya. Chinyo served the Kamakura Bakufu as a Sukuyōshi following the Jōkyū War in 1221, in particular between the years 1223–1246, when he was called upon to perform rituals directed at the seven planets.[90] Toda points out that accounts in the *Azuma kagami* concerning rituals related to astral anomalies increase following the Jōkyū War.[91] Chinyo's service as a ritualist specialized in astral magic during these two decades demonstrates that the belief stemming from earlier centuries in the power of astral deities remained consistent and strong among Japanese elites.

Turning to the horoscopy practiced by the Sukuyōshi, we can see that it is a direct heir to the horoscopy practiced in late-Tang China, and therefore offers a picture of what was earlier practiced in China. As a key specimen of the horoscopy of Sukuyōdō, we might examine the *Sukuyō unmei kanroku* 宿曜運命勘錄.[92] This document is a horoscope and accompanying interpretation for a man born on the 21st of January in the year 1113 at around 1:20AM.[93] At the time it was produced, he was forty-one years old, so the document at hand can be dated to around the year 1152. Its astrological doctrines can be compared with those of another Japanese horoscope, the *Sukuyō go-unroku* 宿曜御運錄, which was produced around the year 1312 for an individual born in 1268, who at the time was forty-four or forty-five years old.

The horoscope of 1113 states that 165,428 days have elapsed since the epoch of the calendar that was used in the calculations, which indicates a start date of around the year 660. 660 is the epoch of the *Futian li*.[94] Similarly, the *Sukuyō go-unroku* for the year 1268 states that 222,245 days have elapsed (equaling 608.89 modern years of 365 days), giving us the starting year of 660. The planetary positions of the *Sukuyō unmei kanroku* are listed by the degrees of Chinese lunar stations, and displayed on a circular table,

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[89] Murayama assumes that Chinyō 珍耀 is also Chinzen 珍善, but as Kanechiku points out, the basis for this claim is unclear, and moreover untenable. See Murayama Shūichi 村山修一, *Nihon Onmyōdō shi sōsetsu* 日本陰陽道史総説 (Tōkyō: Hanawa Shobō, 1981), 309. Kanechiku, "Chinyo to sono seikei," 37.

[90] Ibid., 38–39. Kanechiku draws on accounts of the *Azuma kagami* 吾妻鏡, which records historical events between 1180-1266.

[91] Toda, "Kamakura bakufu no Sukuyōshi," 50–51.

[92] Briefly discussed by Toda, "Sukuyōdō no inseiki," 30–31. It appears the Toda was unaware of the rich Iranian and Hellenistic elements in this document. Also see Yano, *Mikkyō senseijutsu*, 188–197.

[93] The 25th day (戊申) of lunar month 12 in year 3 of Ten'ei (壬辰) corresponds to the 21st of January of the year 1113 CE, based on the calculations of the site http://moon.confusionindex.com/pc/calendar/27/. Yano, however, states that the horoscope is for the 15th of January, 1113. See Yano, *Mikkyō senseijutsu*, 192. The 21st of January seems more accurate based on the specified planetary positions of the chart compared to a modern simulation (Astrolog 6.10), although there is a significant discrepancy with the Moon's position. The scientific accuracy of this horoscope is unimportant to the present discussion, since we are primarily concerned with the doctrines employed in its interpretation.

[94] Momo, "Nichi'en no *Futenreki* seirai," 404–406.

which I have converted into a more easily readable format using modern astrological symbols (fig. 6.4).

The inner circle shows the twelve earthly branches. In this case, they represent the twelve Jupiter stations, which are used as functional equivalents for the twelve zodiac signs, a convention that can be traced back to Yixing's commentary on the *Mahāvairocana-sūtra* from the 720s (see 4.2 above). The next circle shows the twelve zodiac signs, together with their respective planetary rulers. The next circle shows the positions of the nine planets, which are placed relative to the lunar stations, presented in the next circle, in which they are positioned. East Asian astronomy is based on Chinese lunar stations, which is why the twelve zodiac signs became twelve divisions of lunar stations (the exact parameters are shown in table 4.9 above). The outermost circle shows the twelve places, and whether they are considered auspicious, as well as the twelve earthly branches as directional markers (*bō* 卯 indicates east). The twelve places, discussed earlier (table 5.1 above), are also indicated. In the translated table below, for ease of reference I have indicated the places with Roman numerals, but it should be noted that the Chinese names of these places are also significant. This circular table is similar to that found in the *Qiyao rangzai jue*, but the zodiac signs as they align with the lunar stations differ, as do the names of the zodiac signs and twelve places. In light of the Iranian origin of horoscopy in East Asia, it is likely that the terms of the 1113 horoscope at hand also derive from an Iranian source: I. "Lifespan" 壽命位, II. "Wealth" 財庫位, III. "Brothers" 兄弟位, IV. "Estate" 田宅位, V. "Children" 男女位, VI. "Slaves" 奴僕位, VII. "Marriage" 夫妻位, VIII. "Illness" 疾病位, IX. "Travel" 遷移位, X. "Prosperity" (or "Career") 官祿位, XI. "Fortune" 福德位. XII. "Disaster" 禍害位.

The exact numerical values of planetary positions are not indicated in the chart itself. These are listed separately. They use fractions, and are therefore more precise than the ephemerides provided in the *Qiyao rangzai jue*, which indicates that Sukuyōshi employed more precise calculation methods, rather than merely relying on ephemerides. The position of the Moon is furthermore not derived from the aforementioned table of the *Xiuyao jing*. This brings to mind Hōzō, who insisted on a more precise method of calculating the position of the Moon, a convention that evidently became standard in Sukuyōdō.

The scientific value of this horoscope has been pointed out in the past.[95] What interests us at present is that it is was produced with astral magic in mind. Following the planetary positions, the significant points on the chart are listed, to which "prayers and offerings should be constantly made 常可令祈供" (Z 31-1: 430b5).

[95] Nakayama Shigeru, *A History of Japanese Astronomy: Chinese Background and Western Impact* (Cambridge, MA: Harvard University Press, 1969), 60.

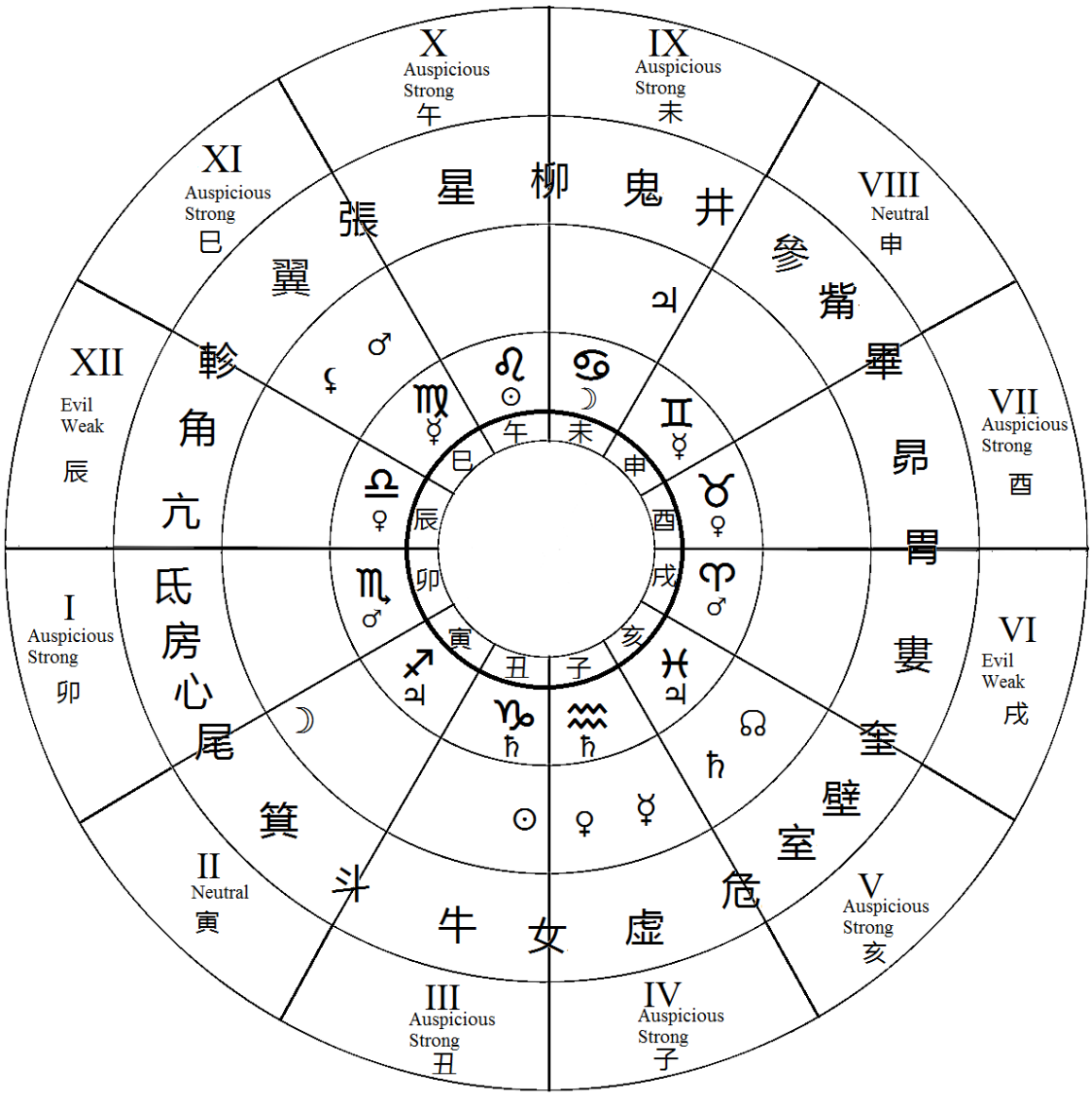

Fig. 6.4: *Sukuyō unmei kanroku* horoscope. **Planets**: ☉ Sun, ☽ Moon, ♂ Mars, ☿ Mercury, ♃ Jupiter, ♀ Venus, ♄ Saturn, ☊ Rahu, ☾ Lilith (Ketu).[96] **Zodiacs**: ♈ Aries, ♉ Taurus, ♊ Gemini, ♋ Cancer, ♌ Leo, ♍ Virgo, ♎ Libra, ♏ Scorpio, ♐ Sagittarius, ♑ Capricorn, ♒ Aquarius, ♓ Pisces. **Earthly branches**: 子 *shi*, 亥 *gai*, 戌 *jutsu*, 酉 *yū*, 申 *shin*, 未 *bi*, 午 *go*, 巳 *shi*, 辰 *shin*, 卯 *bō*, 寅 *in*, 丑 *chū*.

[96] Lilith in astrology is the lunar apogee. In East Asian Buddhist astrology, Ketu was redefined as the lunar apogee (see 5.3 above).

- “本命星廉貞星. Natal star: Alioth.” The man was born in a *shin* or *tatsu* 辰 year, which is associated with the star *Renshin* (Ch. *Lianzhen* 廉貞) in the Big Dipper constellation (i.e., Alioth). This is the Daoist convention discussed earlier, which is outlined in the *Ono rokuchō* by Ningai (T 2473,78: 2473b4-13).
- “本命辰壬辰神. Natal sexagenary [deity]: deity of *Jinshin*.” The deity presiding over the sexagenary year of birth. In this case, that of *Jinshin* 壬辰 (29th of 60 in the cycle).
- “本命宿尾宿. Natal *nakṣatra*: Mūla *nakṣatra*.” The position of the Moon at birth was 4.93 degrees of the lunar station Wei 尾, but for astrological purposes, this refers in practice lore-wise to the *nakṣatra* of Mūla.
- “本命宮蝎虫. Natal zodiac sign: Scorpio.” The zodiac sign rising at the eastern horizon at birth (i.e., the ascendant), and occupying the first place. The 1268 horoscope, however, defines the “natal zodiac sign” based on the sign in which the Moon was present, which perhaps indicates that such definitions were variable.
- “本主宮人馬宮. Natal presiding zodiac sign: Sagittarius.” The zodiac sign in which the Moon was present at birth.[97] This is not listed in the 1268 horoscope. Presumably if the individual was born during the daytime, the Sun would determine this, since the Moon determines the triplicity rulers (*sanbō shu* 三方主) in a nocturnal horoscope (i.e., for someone born at night), and the Sun determines them in a diurnal chart.[98]

Triplicity, we will recall (4.7), is an early astrological convention, in which the twelve zodiac signs are divided into four even sets of three signs each. In the present case, the triplicity rulers of three of the twelve places are identified:

- “本命位三方主: 火金月. Triplicity rulers of the natal place: Mars, Venus, Moon.”
- “榮祿位三方主: 木日土. Triplicity rulers of the place of prosperity: Jupiter, Sun, Saturn.”
- “福德位三方主: 月金火. Triplicity rulers of the place of fortune: Moon, Venus, Mars.”

The first refers to the rulers of the ascendant. The second is derived from the zodiac sign occupying the tenth place, which concerns prosperity (in thise case, Leo). The third is derived from the zodiac sign occupying the eleventh place, which concerns fortune (in this case, Virgo). The underlying motive behind listing these planets is

[97] One complicating factor is that the Moon is located in 4th degree of Wei 尾, which is within the parameters of Scorpio (see table 4.9). Sagitarrius starts in the 6th degree of Wei. The diagram (fig. 6.4), however, places the Moon on the other side of the dividing line, making it look as if it is in Sagittarius. In light of the reality of axial precession, the parameters for the zodiac signs relative to the solar terms would have been updated by a few degrees by the twelfth century.

[98] See Chris Brennan, *Hellenistic Astrology: the Study of Fate and Fortune* (Denver: Amor Fati Publications, 2017), 496. This definition is also given in the appended notes in the *Qiyao rangzai jue* (T 1308, 21: 452b5-6). Also, the *Lingtai jing* states, “For any diurnal birth, look to the zodiac sign in which the Sun is present to determine this. For a nocturnal birth, look to the zodiac sign in which the Moon is present to determine this. It is then regarded as the ruler. 凡晝生, 看日所在之宮, 以定之. 夜生, 看月所在之宮, 以定之, 而為主也.” DZ 5, no. 288, 22c10–11.

evidently to identify those governing fortune and longevity, so as to properly direct one's prayers. This suggests a source – perhaps a text of astral magic – other than material derived from Dorotheus, whose extant work does not touch on magic.

The document then provides some quite instructive prose regarding the perception of astrology within a Buddhist framework. The astrologer who composed this was evidently concerned with reconciling the idea of karma with astrological determinism, i.e., the view that the stars above signal or cause events in the world:

> 人倫受生，尊卑貧富寔，雖業因之所，災禍[99]福榮曩襄，猶是宿曜之所掌也。生同行年，誰無好惡，生好宮好曜者，自有福佐，屬惡宮惡曜者，自招禍殃。然而凡人無識。
>
> When people receive life, although social status and fortune are within the scope of karmic causes, the changes of misfortune and prosperity are also within the grasp of the *nakṣatra*–s and planets. Who of those born in the same year are without agreeable and disagreeable [experiences]? Those born with a favorable zodiac sign and planets have their support for fortune, while those under an unfavorable zodiac sign and planets bring about their own catastrophes. However, ordinary people are unaware [of this].[100]

The astrologer who composed this recognizes that favorable and unfavorable experiences in life should be attributed to past karma, but at the same time suggests that the astrological circumstances of one's birth also ought to be considered. The language of this prose indicates that astrological factors are not deterministic, since the individual is "supported" for fortune under favorable stars, or otherwise bring about their own calamities owing to having been born under unfavorable stars. The author here is carefully avoiding any conclusion that would suggest strict fatalism, which would violate the conventions of karma.

The rest of the document is a commentary on the horoscope at hand, which is divided into five sections to be discussed separately.

Section 1 (*ten shō* 天性) of the horoscopic commentary deals with predictions concerning the inherent personality and fortune of the client in question. This section directly cites, by name, Dorotheus (*Yusi jing* 聿斯經) – a fact that was first pointed out by Ishida (1950) – as well as the *Xiuyao jing*. Although direct correspondences between the citations of the *Yusi jing* and Dorotheus are difficult to identify, some of the basic ideas are found to be common. For instance, the conjunction of Venus and Mercury:

[99] Read [畐+利] as 災.

[100] Z 31-1: 430b7-10.

聿斯經云:「金水同宮，即令能仁，兼有學藝，作文章」。

The *Yusi jing* states, "Venus and Mercury in the same zodiac sign makes one benevolent, together possessing learning and craftsmanship, producing writings."[101]

Dorotheus explains that Venus with Mercury makes a man "adorned with culture and words, loquacious in poetry because he will compose pleasing [and] beautiful words."[102]

Section 2 (*yō fuku* 榮福) of the horoscopic commentary deals primarily with predictions related to the economic prosperity of the client in life. This perhaps points to one of the underlying motivations behind the emergence of astrologer-monks in Japan: forecasting financial and material success in a person's life, which is to say, offering counsel on mundane, rather than strictly religious, matters.

This section cites the *Xiuyao jing* (*Sukuyō-kyō shukusatsu*, vol. 1, 6–7) and *Sūryagarbha-parivarta* 日藏分 of the *Mahāsaṃnipata-sūtra* (T 397, 13: 278c13–14), although it seems these are abridged notes, rather than full citations, which perhaps indicates that the astrologer wrote his interpretation using notes, rather than the original texts in full. This section also cites the *Duli yusi jing* when referring to the aspects of the planets. Aspect, we will recall (4.7) is defined as a geometrical relationship between two planets on a horoscopic chart that is thought to signify something. The Japanese horoscope at hand appears to employ 'sign-based' system of configurations,[103] rather than precise distances measured by degrees. In the horoscope at hand, *trine*, for instance, would be identified when three zodiac signs of space separate two planets. As an example of aspect in the present horoscope, the configuration between Jupiter and Saturn is explained as follows:

又云:「土與木三合，在強位，足財物，有田宅產業。…」
Also, [the *Yusi jing*] states, "When Saturn and Jupiter are in *trine*, and [Jupiter] is in a strong position, he will have much wealth, possessing fields, buildings and productive enterprises. …"[104]

This appears to have a direct parallel in Dorotheus: "If Saturn aspects Jupiter from *trine* while Jupiter is in a good place, then it indicates an abundance of property and land and

[101] Z 31-1: 431a13–14.
[102] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 223.
[103] Brennan notes, "Sign-based configurations occur when planets are located in signs that are configured according to one of the recognized configurations." See Brennan, *Hellenistic Astrology*, 296–298.
[104] Z 31-1: 432a1-2.

trees and buildings and mosques."[105] The integrity of technical horoscopic lore was clearly kept relatively intact in its transmission eastward across Asia.

As in the Hellenistic tradition, here emphasis is placed on triplicity. Dorotheus states, "I tell you that everything which is decided or indicated is from the lords of the triplicities."[106] In a similar fashion, the astrologer at hand offers the following commentary:

> 諸運，皆以三方主定初中後年運。榮祿位三方主者，木同[107]土也。□木星在先[108]位 ... 少之時，依大人愛寵，吉榮盛也。第二主目[109]天子，雖在无力位，與木星對望，是雖非過分，榮盛年目[110]如御運也。第二[111]主土星，在吉位中，日以後，榮祿繁昌歟。但件土星與羅睺星同宮，與計都星對望。臨期可妨也。...
>
> As to fortunes, the fortunes of early, middle and later years are all determined via the triplicity rulers. The triplicity rulers of the place of prosperity are Jupiter, the Sun and Saturn. [The first ruler] Jupiter is in an auspicious position. … When young, you will have been favored by a great man. It was auspicious and bountiful. Although the second ruler, the Solar Deity, is in a powerless position,[112] it is opposite Jupiter. Although not overly much, your fortune is one of flourishing years and ease. The third ruler, Saturn, is in an auspicious position and behind the Sun, perhaps indicating prosperity and thriving? However, Saturn is in the same zodiac sign as Rāhu, and opposite to Ketu. When the time comes, there could be hindrances.[113]

Here the astrologer interprets the general level of prosperity that the client might expect throughout life based on the planetary rulers associated with Leo, which in the chart occupies the tenth place (the place of rank and prosperity). In general, the positions of the three associated planets are favorable, though it is pointed out that Saturn is within the same zodiac sign as Rāhu and opposite to Ketu, two malefic planets. Rāhu and Ketu, of course, were not part of Hellenistic astrology, since they are originally Indian, but later they were adopted in Iran. This point stands to highlight that the horoscopy of Sukuyōdō was not so much Hellenistic as it was Iranian in practice. The astrologer here identifies

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[105] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 212.

[106] Ibid., 162.

[107] Read *dō* 同 as *nichi* 日.

[108] Read *sen* 先 as *kichi* 吉.

[109] Read *moku* 目 as *nichi* 日.

[110] Read *moku* 目 as *ji* 自.

[111] Read *ni* 二 as *san* 三.

[112] Based on the horoscopic table, the Sun is actually in an auspicious position, but the Moon is in a "powerless" or "neutral" position in the adjacent zodiac sign. It seems the astrologer might have been mistakenly looking at the position of the Moon.

[113] Z 31-1: 432a15–b5.

further possible issues in the horoscope, but offers a practical solution to deal with the unfavorable prognostication:

> 但福德位，在火星與計都星同宮，土羅二星對宮，仍福佐成妨。件惡星旁常令祈供者，尤可宜也。
> However, in the place of fortune, there are Mars and Ketu within the same zodiac sign, and Saturn and Rāhu in an opposite zodiac sign, subsequently becoming hindrances to the support of fortune. It would be especially advisable to make constant prayers and offerings to said evil stars.[114]

The client is advised to carry out rituals aimed at the malefic planets that are understood to indicate misfortune or obstacles in life. Again, this is another example highlighting that Sukuyōshi did not believe in any strict fatalism.

Section 3 of the horoscopic commentary discusses the forecast lifespan of the client. Ten methods for predicting lifespan are cited, but the astrologer settles on suggesting that "rulers of the vital signs" (*myōkū shu* 命宮主)[115] are Venus and Mercury. This seems to refer to Gemini (ruled by Mercury) occupying the eighth place (the "place of illness"), Libra (ruled by Venus) occupying the twelfth place (the "place of disaster"). These are said to both be in auspicious and strong positions, hence a long lifespan is signaled, but this is complicated by the position of Rāhu, which is in *trine* to the first place (the "place of lifespan"). It also aspects the "Moon zodiac" (*getsu kū* 月宮). The significance of the zodiac sign that houses the Moon is presumably related to the concept, as defined in the *Lingtai jing*, that the "the sign in which the Moon is present is the bodily sign (Ch. *shen gong* 身宮)" (DZ vol. 5, no. 288, 23b8–9). As noted above (4.7), in Hellenistic astrology, the Sun is associated with the mind, and the Moon with the body. Thus, the integrity of the ancient doctrines is well-preserved even in medieval Japan.

Finally, there is reference again to magic: the astrologer advises that prayers and offerings ought to be directed to Rāhu and Ketu, so as to ensure that the client reaches his "original lifespan" (*hon ju* 本壽), which the astrologer predicts to be sixty-four years. The document does not explain how this number is determined.

Section 4 of the horoscopic commentary deals with "various fortunes" (*sho un* 諸運), which is subdivided into three sub-sections: disciples, slaves and friends. The subsection on disciples indirectly reveals that the client is a monk. It explains that the ruler of the fifth place is an auspicious planet in a good position, therefore the client will

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[114] Z 31-1: 432b10-12. The character *katagata* 旁 here is an honorary suffix indicating that the preceding noun is plural.

[115] The definition of *minggong* 命宮 in the *Lingtai jing* differs: "The vital sign is the zodiac sign-*nakṣatra* in which the Sun [is present] at birth 以太陽所生之宮宿爲命宮." DZ vol. 5, no. 288, 23c6. In the Japanese horoscope, this would only refer to Capricorn, which is ruled by Saturn. Moreover, the ascendant (the "place of lifespan") is Scorpio, which is ruled by Mars. Venus and Mercury, however, rule over the eighth and twelfth places, both of which relate to death and injury.

have many disciples. Normally, the fifth place signifies matters related to children (*danjo* 男女), but as the astrologer notes, in "Dharma households" (*hōke* 法家), disciples are seen as sons. In the present horoscope, the fifth place is occupied by Pisces, which is ruled by Jupiter, a benefic planet, in an auspicious position, although the astrologer also warns that Saturn and Rāhu in the fifth place might indicate issues with some disciples.[116]

Section 5 of the horoscopic commentary deals with developments in the life of the client from the ages of forty-one to fifty-seven. The present year is noted as *jin-shin* 壬申 (1152), when the client is forty-one years of age, but he would have been turning forty in Western reckoning.[117] The "great annual zodiac ruler" (大行年宮主) is identified as Saturn. The ruler for age forty-two is Jupiter, forty-seven is the Sun and forty-nine is Venus. It is from this sequence that we can infer the astrologer is using the originally Hellenistic system of "time lords", most likely derived from Dorotheus: "When a native is born, the lord of the year is the lord of the house [ascendent] in which the native was born. Thus count from the ascendent a year for each sign until you teach the year which you desire; the lord of that house is the lord of the year."[118] When the client was born, the ascendant was Scorpio, which counts as year one, and so counting forty zodiac signs counter-clockwise, we arrive at Aquarius, which is governed by Saturn, followed by Pisces, which is governed by Jupiter; forty-six is Leo, ruled by the Sun; and forty-eight is Libra, ruled by Venus. It is noteworthy here that integrity of this concept endured within Sukuyōdō, which itself demonstrates that this tradition retained the doctrines of the *Duli yusi jing*. There was, however, an alternative way of reckoning annual rulers, which is defined in the appended notes of the document.[119] The *Sukuyō go-unroku*, in contrast, uses this alternative way of determining the planet ruling over the year of the individual in question: the client's forty-fifth year is associated with Jupiter, and his forty-sixth with Rāhu.[120] The difference in technique for determining the annual planetary ruler may reflect the lineages or even the personal preferences of the astrologers.

As to the significance of the annual ruler in the 1113 horoscope, in the case of Saturn, the astrologer warns that in the present year could see illness and calamity given the malefic nature of Saturn. He also discusses the transits of planets over the coming years, and their significance to the client's horoscope. For example, in the year of *hei-shi* 丙子 (1156), Jupiter is forecast to be in Pisces (i.e., its own zodiac sign), which promises

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[116] Z 31-1: 433a17–b8.

[117] The discrepancy of one year here is a result of calculating from the Chinese reckoning.

[118] Pingree, *Dorothei Sidonii Carmen Astrologicum*, 245.

[119] Z 31-1: 437a7–10. Here the planet presiding over the year employs the *navagraha*. Rāhu: ages 1 and 10. Saturn: ages 2 and 11. Mercury: ages 3 and 12. Venus: ages 4 and 13. Sun: ages 5 and 14. Mars: ages 6 and 15. Ketu: ages 7 and 16. Moon: ages 8 and 17. Jupiter: ages 9 and 18. This same system is explained in further detail in the *Byakuhō kushō* (TZ vol. 7, 314b25-315a1).

[120] Horoscope text reproduced in Momo, "Sukuyō kanmon shū" 宿曜勘文集, 148–149. See also the details of the *Byakuhō kushō* (TZ vol. 7, 314c), in which the age of forty-one is associated with the Sun, and not Saturn.

to be an auspicious year, but Rāhu will infringe upon the natal *nakṣatra* of the client, requiring that he be quite cautious, especially in the sixth and seventh lunar months.

One last noteworthy feature of the 1113 horoscope is its reference to the decans. Decans are "simply the thirds of the zodiacal signs, i.e., sections of the ecliptic of 10° lengths. Historically the decans go back to Egyptian lists of 36 constellations which were drawn up many centuries before the introduction of the zodiac."[121] One system of the decans assigns planets to each decan – the ordering of which is Chaldean, i.e., Babylonian[122] – is explained by Firmicus Maternus, an astrologer who lived in the mid-4th century CE, and wrote a Latin work on astrology titled *Mathesis* (the decans are defined in II.IV, "De Decanis").[123] This "Chaldean" ordering of the planets follows the assumed distances of the planets relative to the Earth from a Geocentric perspective: Saturn, Jupiter, Mars, the Sun, Venus, Mercury, the Moon. In Chinese, decans are indicated by the character *du* 度 ("degrees"). We know that the horoscope at hand is referring to the decans based on the parallels with Firmicus. For example, "Venus is positioned in its original degrees 金在本度 (Z 31-1: 431a15)." If we look at the horoscopic chart, Venus is located in the first third of Aquarius. Firmicus states, "Aquarii primus decanus Veneris est, secundus Mercurii, tertius Lunae (*Mathesis* vol. 1, 45)." The first decan of Aquarius is ruled by Venus. Similarly, "Saturn is positioned in the degrees of Jupiter 土在木度 (Z 31-1: 432a7)." Saturn in the horoscope at hand is positioned within Pisces. Firmicus states, "In Piscibus primus decanus Saturni, secundus Iovis, tertius Martis." The second decan is Jupiter. Finally, "Jupiter is positioned in the degrees of Mercury 木在水度 (Z 31-1: 433b5). Jupiter is positioned in Cancer. Firmicus states, "Cancri primus decanus Veneris est, secundus Mercurii, tertius Lunae." The second decan is Mercury.

The *Sukuyō go-unroku* uses the same vocabulary as the *Sukuyō unmei kanroku*, but it does not actually refer to the standard decans. For example, it states that "Mercury is in its original degrees 水在本度," but Mercury is in Leo, and the decans of Leo are Saturn, Jupiter and Mars. Similarly, twice it states that "Venus is in the degrees of Jupiter 金在木度 (146–147)," but Venus is in Virgo, and the decans of Virgo are the Sun, Venus and Mercury. We might speculate that the astrologer might simply have erred here, rather than using a different system.

What can we learn from Sukuyōdō horoscopy? It is a blend of Buddhist, Daoist, Iranian and Hellenistic concepts, representing a thoroughly developed system of astrology inherited from late-Tang China. It is clear that the astrologer who produced the 1113 horoscope felt a need to defer to traditional texts, rather than relying on personal interpretation. It is of course noteworthy that he relied most often on the non-Buddhist

[121] Neugebauer and Hoesen, *Greek Horoscopes*, 5.

[122] Greenbaum, *The Daimon in Hellenistic Astrology*, 228.

[123] This is not to say that Firmicus Maternus was ever translated into Chinese. His definitions, which are standard in Hellenistic astrology, are simply referred to here since they are clearly presented in Latin.

Duli yusi jing, only occasionally citing canonical Buddhist texts. This brings to mind the remarks of Momo,[124] who stated that Sukuyōdō actually relied primarily on *Duli yusi jing*, rather than the *Xiuyao jing*, despite the common misunderstanding of modern scholars who assume "Sukuyō" must be derived from *Xiuyao jing* (*Sukuyō kyō* in Japanese), and therefore primarily based on this text.

One important feature of horoscopy that is not found in this horoscope, however, is the concept of *lots* (Greek: κλῆροι), which are defined in the *Lingtai jing* (see 4.7 above). The absence of the lots from the Japanese horoscopes at hand is curious, but perhaps is merely due to preferences.

The client whose horoscope was cast was a monk – presumably from Kōyasan[125] – who recently turned forty. It seems that he was concerned with worldly matters, such as his long-term financial security, projected lifespan, and disciples (regarded as the equivalent of sons). There is nothing in the horoscopic commentary that points to an interest in forecasting spiritual attainments or religious learning. The apotropaic magic prescribed in this document is also meant to halt worldly misfortunes, not remove obstacles to religious practice and attainments.

This discussion above has demonstrated the importance of horoscopy in Japanese society and Buddhism during the Heian and Kamakura periods. Unlike elsewhere in the world, horoscopy was the exclusive domain of Buddhist monks in medieval Japan. After examining the various technical features of the two extant horoscopes, it is clear that the tradition stemming from Dorotheus was very strong even in Japanese astrology, at least until the fourteenth century.

6.6. Conclusion

The lasting impact of Buddhist astrology in East Asia was clearly immense after the tenth century, which is evident from the religious, art and literary records of Song and Liao China, the Tangut state of Xixia, Korea and Japan. The legacy of Buddhist astrology, however, was to a large extent ultimately forgotten. We might recall here Song Lian's account cited in the introduction of this study, in which he traced astrology, specifically the practice of divining the fates of individuals, back to the translation of the *Duli yusi jing* in the Zhenyuan era (785–805). He only identified it as the "art of Brahmins", and inferred that it was from the "Western Regions" based on the presence of the transliterated terms Rāhu and Ketu. This is highly instructive because it demonstrates that in Song Lian's time in the fourteenth century, the role of Buddhism in the transmission of astrology into China had been forgotten. Horoscopic astrology was

[124] Momo Hiroyuki 桃裕行, "Sukuyōdō to sukuyō kanmon" 宿曜道と宿曜勘文, *Risshō shigaku* 立正史學 39 (1975): 1, 17.

[125] An inscription at the end of the document (Z 31-1: 438a6–7) states the document was copied in year 2 of the reign-era Hogen 保元 (1157) by the Bettō 別當 (steward) of Kōya Ōjō-in 高野往生院.

known to Song Lian, but the rich Indian *nakṣatra* lore found in Buddhist texts was perhaps mostly unknown to the elite literati of his time.

It is worth noting that horoscopy based on the Hellenistic *Duli yusi jing* was studied in China for a period of time longer than Indian *nakṣatra* astrology. In Japan, however, it was the reverse: horoscopy was practiced between the tenth to late fourteenth centuries, whereas the *Xiuyao jing*, a manual primarily comprised of *nakṣatra* astrology, has been in constant use from Kūkai's time in the early ninth century until the present day. It is still studied in Japan as a popular system of astrology. The key element in this regard is Esoteric Buddhism. In Japan, Mikkyō employed the *Xiuyao jing* as an indispensable canonical text, whereas Chinese Buddhists had less and less need to formally observe astrology after the Tang, which is best explained by the rise of Chan and Pure Land traditions, in which astrology was unnecessary. Here we might recall the conclusion drawn from our earlier discussion in chapter three of Buddhist astrology in China from the fourth to seventh centuries. Although Chinese Buddhists had access to Indian astrology in these centuries, they had no pressing need to observe it until the introduction of Mantrayāna in the eighth century. It seems that Mantrayāna was the key factor in motivating Chinese Buddhists to practice astrology. After the Tang dynasty and the demise of Mantrayāna lineages in China, there was less need to observe astrology, and thus texts like the *Xiuyao jing* fell into obscurity. Worship of astral deities such as Tejaprabhā, however, which had originally been prompted by Buddhist fears of negative astrological influences or malefic planets conceived of as sentient entities, continued throughout China, as is evident from the art record.

Conclusion

This study has demonstrated that various types of foreign astrology, originating in India, Iran and even as far away as the Hellenistic world, were introduced into China, where they played a significant role in shaping religious, literary and artistic traditions.

It was initially through Buddhism that Indian astrological lore was introduced into China from the fourth to eighth centuries. The primary text during these centuries that explained *nakṣatra* astrology in detail was the *Śārdūlakarṇāvadāna*. In addition, various sūtra and vinaya works explained elements of the Indian calendar, in particular the *pakṣa* cycle, which governs the schedule of *poṣadha*. In the Chinese Buddhist canon, although the practice of astrology is generally prohibited as a livelihood for monks, it is only the *Saddharmasmṛtyupasthāna-sūtra* that specifically attacks astrology and refutes its validity. This criticism and the relevant prohibitions against the practice of astrology never arrested Chinese Buddhist interest in astrology. We must bear in mind that there are statements in Mahāyāna scriptures that encourage bodhisattvas to master mundane sciences, which includes astrology and calendrical science. This no doubt gave a degree of sanction to the study of such subjects. If anything did curtail the development of Chinese Buddhist astrology, it was state laws that forbid the unauthorized study of astronomy, astrology and calendrical science. These laws, however, could be ignored as central state authority declined following the An Lushan rebellion during the mid-eighth century.

Although several astrological texts dealing with *nakṣatra* astrology were translated into Chinese from the fourth to seventh centuries, none of these were practical within a Chinese system of astronomy. There were no major attempts at translating and explaining the Indian system of astronomy during these centuries. Moreover, there was actually no need for astrology within Chinese Buddhism until the eighth century, when the Chinese sangha had to properly time rituals as prescribed in Mantrayāna literature. This requirement to time rituals according to an astrological schedule, which differs from the *pakṣa* cycle explained in earlier texts, is explicitly stated in the *Mahāvairocana-sūtra*, translated in 724, and explained in further detail in Yixing's commentary written shortly thereafter. The explanation in the commentary is only a rough overview of contemporary Indian astrology, and would not have been sufficient to determine an auspicious time without further information or instruction. This is what prompted Amoghavajra to compile his astrological manual, the *Xiuyao jing*, in 759. This first draft was an attempt at not only translating astrological lore, but also providing an explanation of how to employ Indian astrology within a Chinese astronomical context. This first result was problematic, which prompted Amoghavajra to revise his manual in 764. As with earlier works, the *Xiuyao jing* employs the Chinese lunar stations as functional equivalents for Indian *nakṣatra*–s, but in this case the whole system is formulated mathematically, eliminating

the need for observational astronomy. It might also be pointed out that the content of the *Xiuyao jing* and Amoghavajra's biographical information indicate that although he might have had an interest in astrology, he was by no means a professional astrologer, especially when we consider that the *Xiuyao jing* alludes to more advanced forms of astrology, such as horoscopy, but provides no concrete details. Amoghavajra, it would seem, relied on the expertise of his peers when it came to advanced astrology. Other esoteric Buddhist literature, some of which was also translated by Amoghavajra, speaks of astrologically determined fate. These factors contributed to a widespread interest in foreign astrology and encouraged the translation of new foreign materials.

Throughout the eighth century, Indian astronomers working for Chinese court, in particular the Gautama family, played a role in facilitating the transmission of new astronomical knowledge into China. Gautama Siddhārtha in 718 translated the *Navagraha-karaṇa*, a manual of Indian mathematical astronomy, which is cited in the *Xiuyao jing*. This demonstrates that Indian court astronomers had a role in the development of Chinese Buddhist astronomy. Around the year 800, however, we can distinguish a shift away from Indian sources of astrology and astronomy, toward Iranian sources. This shift is best explained by the appointment of a court astronomer named Li Su sometime around 781, and the translation of texts on astrology and astral magic by ethnic Iranians, and most likely some members of the Nestorian Christian clergy.

Although such works were not Buddhist, Chinese Buddhists still incorporated the new material into their own practice. These Iranian sources, many of which appear to have been translated from Sogdian, include the necessary lore and techniques required to draft horoscopes; horoscopy being originally a product of Alexandrian Greco-Egyptian culture. This art, which by the late-Tang was often based on a translation of the astrological manual of Dorotheus of Sidon, was used alongside earlier *nakṣatra* astrology. Chinese astrologers continued using Chinese astronomy when practicing foreign astrology, leading to a number of technical problems. Nevertheless, they ultimately produced a functional system. The mature form of Buddhist astrology in the late-Tang is represented by the *Qiyao rangzai jue*. This manual incorporates Cao Shiwei's *Futian li* calendar, which itself was designed under some Iranian influences, and with astrology in mind.

The works of several Daoist and prominent Chinese authors in the ninth century, such as Du Mu and Du Guangting, also display a strong interest in horoscopy, demonstrating that the popularization of astrology in China increasingly affected all areas of society during the ninth century. It was within this context that astral magic and its accompanying iconography flourished in both Buddhism and Daoism.

Buddhists had at their disposal Iranian astral magic, in addition to a full range of Indian *dhāraṇī*–s and other rituals aimed at eliminating the negative influences of the *navagraha*. I argue that it was Buddhist fears of the *navagraha* deities that prompted the emergence and development of the Tejaprabhā cult, starting from around the turn of the

ninth century. The texts of this cult, and later its icons, generally place the planetary deities in the presence of Tejaprabhā, who effectively tames these malefic beings. This Tathāgata, who is unknown in Indian and Indo-Tibetan sources, became a widely-worshipped figure in China, and later across all of East Asia. We should furthermore recall here that the Sanskrit name Tejaprabhā is not attested in Indic sources. The first appearance of this name is traced back to Nanjō Bun'yū in 1883. Although the Tathāgata in question bears some similarities to Tejorāśi, he still must be regarded as a separate East Asian development. Scholars must now consider whether to continue using the name Tejaprabhā.

Buddhists also incorporated into their pantheon the seven stars of the Big Dipper, demonstrating the rich interaction between Daoism and Buddhism during the late-Tang. This point alludes to the possibility that the Buddhist community that engaged in these practices had become less interested in traditional theories of karma and liberation, and instead focused on astral magic and horoscopy as a means of understanding fate and overcoming obstacles. This in itself is an enormous change from Amoghavajra's time, when the *Xiuyao jing* was compiled for the primary purpose of ascertaining auspicious days to maximize the efficacy of rituals.

Chinese astral magic employed various astrological icons. I proposed that the astrological iconography ought to be divided into three general types: Indian, zoomorphic and Iranian-Mesopotamian. The Indian icons are primarily only found in sources depicting the figures of the Garbhadhātu-maṇḍala. The zoomorphic icons are a peculiar set that is only described in the *Qiyao rangzai jue*. The Iranian-Mesopotamian set, which became mainstream, has in the past been misunderstood as either Indian or Chinese creations, but I have securely established their relationship to Near Eastern traditions, most notably by showing their parallels with the Latin *Picatrix*, a translation of an Arabic manual of astral magic originally based on various Syrian sources. I have also argued that the icon of the planet Yuebei is a form of Iranian Āl or Semitic Lilith. This and its function as the lunar apogee in astrology point to a foreign rather than a Chinese source, which stands in contrast to Mak's assumption that Yuebei is a "Chinese pseudo-planet". Based on the available data, I argue that it was Nestorian (East-Syrian) Christians who transmitted these icons and the associated astral magic around the turn of the ninth century. If Yuebei and Ziqi are, in fact, Near Eastern in origin, then a future investigation of the body of astrological lore and magic associated with them would shed light on the transmission of Near Eastern religious knowledge into China during the late-Tang.

One of the most significant figures that I discussed in this study is Yixing. I demonstrated that we need to understand Yixing in two ways: the historical Yixing and the legendary pseudo-Yixing. The historical Yixing was a court astronomer who reformed the state calendar, producing the *Dayan li*, which incorporated some foreign elements, but was mostly based on Chinese models with a unique reliance on number theory derived from the *Yijing*. We know that Yixing produced a number of other works

on the *Yijing*, though none of these are extant. He also assisted in the translation of the *Mahāvairocana-sūtra* under Śubhakarasiṃha, though no evidence suggests Yixing actually knew Sanskrit. Hence, we should understand Yixing as an editor, rather than as a translator. He also reformed the state system of 'field allocation' astrology. This historical man is different from the later image that developed. Several texts dealing with astral magic were attributed to this new pseudo-Yixing. Yixing, as a court astronomer and early pioneer of Chinese Mantrayāna, was the most suitable figure to whom new forms of Buddhist astral magic and astrology – blending Daoist, Indian and Iranian materials – could be attributed. Fictional accounts from the ninth century were incorporated into later secular and Buddhist biographies of Yixing, leading to several modern studies conflating Yixing and pseudo-Yixing. These studies anachronistically project late-Tang developments back into the 720s, and consequently distort the historical record of Buddhist astrology and astral magic in China. Scholars must now properly differentiate between the real Yixing and the later pseudo-Yixing. When this is done, we can see that the Mantrayāna of the 720s did not include any Daoist influences or practices. These are developments that actually appear several decades after Yixing died.

Even when we rule out the possibility of the historical Yixing as having been a practitioner of foreign astrology, it is still clear that Mantrayāna in China took great interest in astrology. Although this is known by modern scholars, it has not yet been considered if astrology played a role in political decision making, particularly in the days of Amoghavajra. We might wonder if the Tang court ever consulted Buddhist astrology when undertaking religious or mundane decisions. We might also consider the possibility that rituals performed by Amoghavajra for the state were timed in accordance with the astrological schedule he produced in the *Xiuyao jing*. Such investigations might draw on the details made available in this study.

Finally, this present study demonstrates that Buddhist astrology and astral magic in the Tang dynasty exercised deep influences across East Asia during the centuries following the demise of the Tang. Specimens from Dunhuang and Bezeklik indicate that astrologers were practicing foreign astrology, but not the specifically Buddhist type that we saw with the *Qiyao rangzai jue*. During the early Song dynasty, it seems that Buddhist interest in astrology declined, which appears to be a result of there being no pressing need to observe it, given the rise of Chan and Pure Land traditions, in which astrology is arguably irrelevant. Buddhists in these regions did, however, continue to worship Tejaprahbā, which indicates that this deity had lost his earlier connection to astrology, and instead simply became a common member of the Buddhist pantheon.

In contrast to the situation in China, Buddhist astrology and astral magic continued to flourish in Japan after its introduction in the ninth and tenth centuries. I argue that Buddhist astrology in Japan ought to be divided into two general types. First, the astrology used by Mikkyō (Shingon and Tendai) practitioners as a way of determining auspicious days for rituals based on the *Xiuyao jing*, which I call "Mikkyō

Astrology". This is traced back to the early ninth century when Kūkai brought back to Japan a copy of the *Xiuyao jing* and insisted on its implementation. This system was separate from the Sukuyōdō tradition, which emerged in the tenth century via figures such as Nichi'en and Hōzō. The Sukuyōdō practiced horoscopy using texts such as the *Duli yusi jing*, *Qiyao rangzai jue* and Cao Shiwei's *Futian li* calendar. They also developed throughout the Heian and Kamakura periods the astral magic they had inherited from China. Unlike in Chinese Buddhism, there was an ongoing need to observe astrology in Japanese Mikkyō, which explains why Mikkyō Astrology has survived until even the modern day. To iterate, I argue that Mantrayāna has been the main motivating factor in East Asia behind whether a Buddhist tradition seriously studies astrology.

In light of the close connection between astrology and religious practices, I am very much inclined to think of astrology, and its associated practice of astral magic, as comprising a kind of "sub-religion" that has often been embedded, whether formally recognized or not, within larger religions. As this study indicated, the horoscopy and astral magic practiced by Japanese monks were similar to what a Christian monk in medieval Europe might have done with the *Picatrix* in hand. Their respective traditions are both traced back to the Near East. Buddhism and Christianity are separate religions, but we can see common practices on their peripheries. One of these is astrology, which itself has its own premises, doctrines, beliefs and gods. Astrology might require astronomical knowledge, but that by no means renders it a science according to modern definitions. At the same time, however, few at present would identify astrology as religion. The main objection would be to point to the theories of Ptolemy, who conceived of the planetary influences in a naturalistic or even materialist manner. Ptolemy, despite his later popularity, is actually unusual so far as classical astrology is concerned. The literature that I have read tends to suggest that the early tradition of Hellenistic astrology thought of the planets as gods with their own unique qualities and even personalities, a convention that was transferred into India and East Asia. The Greco-Egyptian tradition of magic also produced means to interact with the planetary deities, which also went eastward. This very religious conception of astrological lore and practice is actually what we see throughout the history of astrology. Astrology, in my opinion, is basically religion, and should be treated as such by scholars.

As a final word, this study, having excavated a major, albeit often overlooked, set of practices and arts within Buddhism, will hopefully provide a foundation for further research on similar topics. It is my hope that the significant role of astrology in Asian history, art, science and religions becomes widely recognized in the academy, given its demonstrated influence and enduring appeal to numerous communities over the centuries. In the case of Buddhist Studies, it is clear that astrology has been important to Buddhists since the beginning of the religion in India. Astrology was initially transmitted into East Asia via Buddhism alongside usually recognized Buddhist practices, such as meditation

and devotional cults. It is widely known that institutional Daoism adapted many elements from Buddhism for their own purposes, but until now scholars have remained unaware that Daoists also made some use of Buddhist astrology, or at least systems of astrology heavily influenced by the earlier Buddhist tradition. The role of astrology in Buddhist culture therefore ought to be widely considered and appreciated as a conduit through which foreign knowledge and practices entered China. Moreover, the predeterminism inherent within astrological thought and its relation to karma also ought to be recognized in discussions concerning Buddhist ideas of fate and destiny.

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SAT Taishō zuzō. http://dzkimgs.l.u-Tōkyō.ac.jp/

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Appendix 1

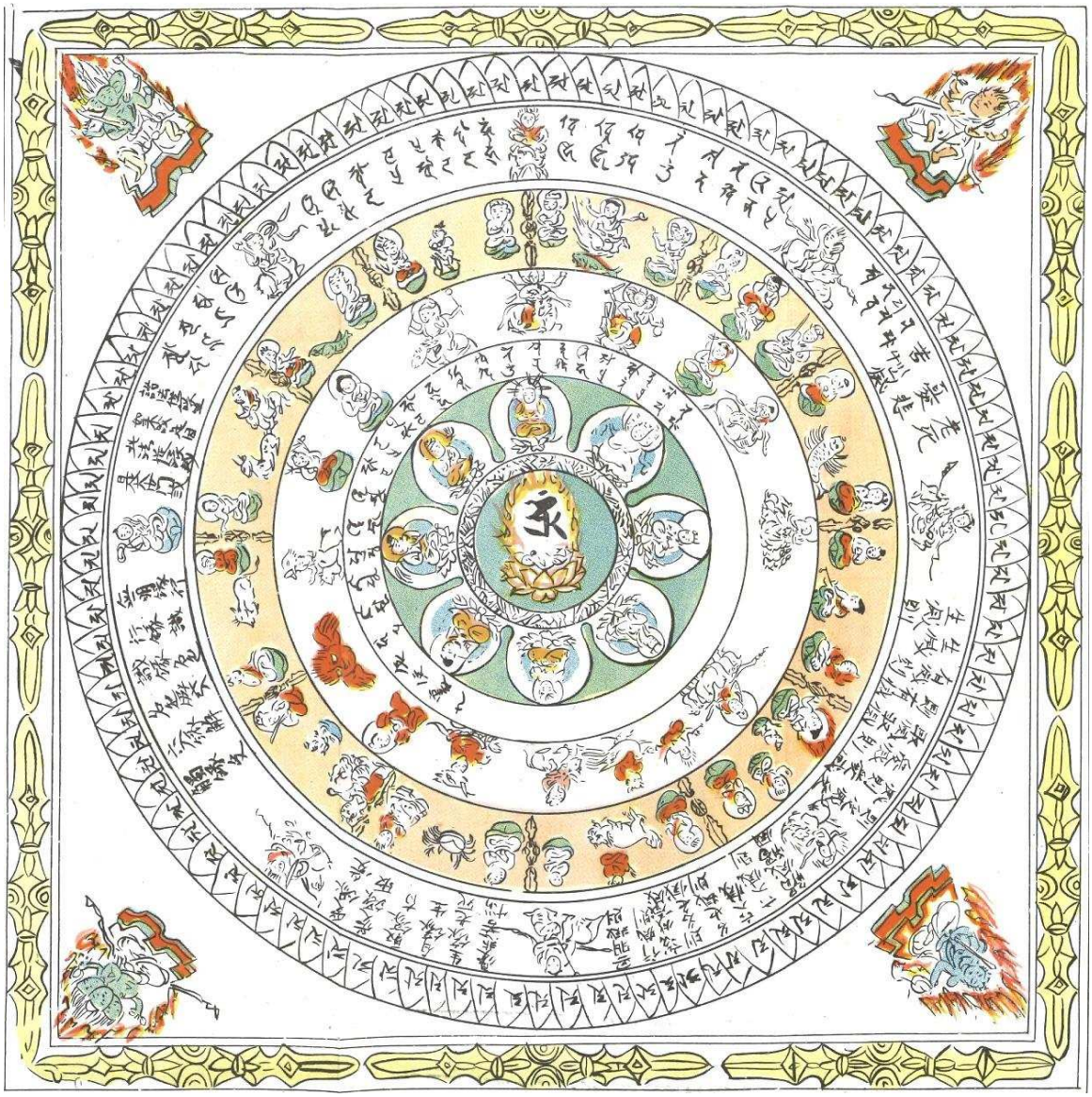
Timeline of Buddhist Astrology and Astral Magic in China

307–313	Dharmarakṣa translates the *Śārdūlakarṇāvadāna*.
385–433	Dharmakṣema translates the **Samādhi-ṛddhi-pāda* 三昧神足品 chapter of the *Ratnaketu-parivarta* 寶幢分.
c.468	Guṇabhadra translates the *Śārdūlakarṇāvadāna* (Mātaṅga-sūtra).
566	Narendrayaśas translates the *Candragarbha-parivarta* 月藏分.
569	Dharmaruci translates the *Poluomen tianwen* 婆羅門天文 (*Brahmin Astronomy*).
585	Narendrayaśas translates the *Sūryagarbha-parivarta* 日藏分.
585–592	Various Indian astronomical works translated into Chinese.
630	Prabhāmitra translates the **Ratnaketudhāraṇī-sūtra*.
718	Gautama Siddhārtha translates the **Navagraha-karaṇa*.
724	Translation of the *Mahāvairocana-sūtra*.
721–727	Yixing 一行 produces the *Dayan li* 大衍曆 calendar.
724–727	Yixing compiles commentary on the *Mahāvairocana-sūtra*.
727	Yixing dies.
759	Amoghavajra's first draft of *Xiuyao jing* 宿曜經 with Shi Yao 史瑤.
764	Amoghavajra revises *Xiuyao jing* with Yang Jingfeng 楊景風.
c.779–817	Career of Persian astronomer Li Su 李素 in the capital.
780–783	Cao Shiwei 曹士蔿 produces the *Futian li* 符天曆 calendar.
785–805	Li Miqian brings *Duli yusi jing* 都利聿斯經 (**Dorotheus*) to China. Also introduces eleven planets.
796	Śīlabhadra translates Tejaprabhā ritual.
c.806	Cao Shiwei updates *Futian li* to account for Rāhu and Ketu.
807	Han Yu 韓愈 writes "Way of the Three Stellar Constellations" (*San xing xing* 三星行) poem.
c.852	Du Mu 杜牧 writes his self-composed epitaph 自撰墓銘.
850–933	Life of astrologer Du Guangting 杜光庭.
806–865	Composition of the *Qiyao rangzai jue* 七曜攘災決.
9th cent.	Composition of various astral-magical rituals attributed to Yixing.
c.850–900	Production of the *Lingtai jing* 靈臺經 (DZ 288).
897	"Tejaprabhā Buddha and the Five Planets" 熾盛光佛并五星圖 painted by Zhang Huaixing 張淮興.
c.898	Production of the *Chengxing lingtai miyao jing* 秤星靈臺祕要經.

Appendix 2

"Tejaprabhā Maṇḍala" 熾盛光曼荼羅

Asaba shō 阿娑縛抄. Image no. 13 of fasc. 58. The accompanying inscription states that it was created in year 6 of Hōen 保延 (1140). TZ, vol. 9, 30–31.



Appendix 3

Tejaprabhā and the planets. Khara-Khoto. Early 12th century. State Hermitage Museum (XX-2424). Photograph courtesy of Arina Mikhalevskaya. Yuebei is the bare-chested female figure on the right.

Appendix 4

Planetary deities from *Kuyō hiryaku* 九曜秘暦. By Sōkan 宗觀 (1125). The Metropolian Museum of Art, New York (item# 1975.268.4).

1. Saturn

2. Sun

3. Moon

4. Mars

5. Mercury

6. Jupiter

7. Venus

8. Rahu

9. Ketu

Summary in Dutch

Deze studie toont aan dat verschillende systemen van buitenlandse astrologie, ontstaan in India, Iran en de Hellenistische wereld, een belangrijke, hoewel tot noch toe grotendeels niet erkende rol speelden in de ontwikkeling van Boeddhisme tijdens de Tang dynastie, en die vervolgens religieuze tradities over heel Oost Azië gedurende meerdere eeuwen diepgaand beïnvloed hebben. Hoewel Indiase astrologie in China beschikbaar werd vanaf de vierde tot de zevende eeuw, werd het nooit breed toegepast in China gedurende deze eeuwen, want het was pas in de achtste eeuw met de invoering van Mantrayāna dat Chinese Boeddhisten een dringende behoefte kregen om astrologie in acht te nemen. Dit wakkerde vervolgens een breed gedragen interesse in buitenlandse astrologie aan onder Boeddhistische en niet-Boeddhistische gemeenschappen in China, een ontwikkeling die de gelijktijdige ontwikkeling bevorderde van astrale magie bestaande uit elementen van meerdere bronnen, inclusief enkele die herleid kunnen worden naar Grieks-Egyptische en Levantse tradities. Rond de overgang naar de negende eeuw, verschoof de vertaling van astrologische werken van Indiase naar Iraanse bronnen als gevolg van Perzische astronomen werkzaam aan het hof. De populariteit van astrologie faciliteerde bovendien de proliferatie van unieke Chinese astrale goden binnen het Chinese Boeddhisme, met name Tejaprabhā Boeddha en de zeven sterren van de Grote Beer. Deze onderbelichte interactie die het gevolg was van een diepe interesse in astrologie markeert een belangrijke overdracht van culturele en religieuze kennis via meerdere beschavingen.

Curriculum Vitae

Jeffrey Kotyk was born in August, 1985 in Lloydminster, Saskatchewan, Canada. He grew up in Winnipeg, Manitoba, where he attended Gordon Bell High School, graduating in 2003. He studied East Asian Studies at the University of Alberta, graduating in 2009 with a BA with Distinction in East Asian Studies. Between 2009–2011, he studied Buddhist Studies at Komazawa University in Tōkyō, earning a MA in Buddhist Studies. Between 2011–2014, he wandered between India and Taiwan, working as a translator of Buddhist books. He formally commenced his PhD research under Prof. Jonathan Silk in 2014. He conducted PhD research at Dharma Drum Mountain and Komazawa University before taking up residency in Leiden in June, 2016.