

# ASTROLOGICAL DETERMINISM IN INDIAN BUDDHISM

JEFFREY KOTYK

## Introduction<sup>1</sup>

What is the relationship between Buddhism and astrology? Did Indian Buddhists believe in astrology, and, if so, how did they incorporate it into their religious framework? How do Buddhist theories of karma relate to the deterministic premises of astrology? Buddhist Studies has seldom asked these questions, yet scholars of other Indo-Iranian religions and traditions have within their respective fields documented the development of astrology and its wider implications. My own research has also documented the transmission of Indian astrology into China via Buddhism.<sup>2</sup> It is clear that astrology was a significant feature within Indian Buddhism, yet the discussion remains largely neglected at present.

The present study is a first attempt at documenting the Indian Buddhist experience of astrology with a specific focus on evidence of consistent belief in astrological determinism, i.e., the idea that events – be they in the life of a nation or an individual – as well as human personalities and health are predetermined to varying extents. Such fate is determined by the influences of planets and other celestial bodies, or otherwise fated developments might be conceived of as ‘signaled’ by such bodies. The

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<sup>2</sup> For a reliable academic introduction to ancient astrology in the Mesopotamian and Greco-Egyptian contexts, see Barton 1994. For the Indian context, see Pingree 1963; Gansten 2003, 2010 & 2011; Yano 2003. For the Iranian context, see Panaino 2015. For the Chinese Buddhist context, see Mak 2015; Kotyk 2017a, 2017b, 2017c. For astrology and Āyurveda, see Beinorius 2008. Recently Fiordalis 2014 has discussed Buddhist divination in the Theravāda tradition.

predictable and immutable motions of planets (i.e., *graha*, which include the Sun and the Moon) lend apparent credibility to such a theory, in light of the fact that movements above are consistent and cyclical, and thus one might imagine such a model of cosmic recurrence also applying to human destiny. As Long (1982: 170, n. 19) notes, one may draw a distinction between ‘hard’ and ‘soft’ astrology. The former “claims that heavenly bodies are both signs and causes of human affairs” while the latter “regards heavenly bodies only as signs of human affairs without also attributing a causal role to the heavenly bodies.” As we will see below, these two categories can both be loosely applied to practices of astrology throughout Indian Buddhist history, albeit with some complicating factors.

With respect to the extent to which astrology posits a firm determinism, we should note that there is a sort of ‘spectrum of determinism’ at the heart of astrology, which is illustrated by the two primary wings of astrology. Natal or genethliacal astrology (Skt. *jātaka*) attempts to predict the personality and life experiences of an individual based on the arrangement of celestial bodies in the sky at the time of their birth. Electional or katarthic astrology (Skt. *muhūrta*) attempts to determine the opportune time to carry out an act, such as a ritual or start of a journey, based on similar astrological considerations. The idea that results can be directed in one way or another owing to timing tied to astrological factors means that astrology is not absolutely deterministic, although astrology still posits that numerous developments in an individual’s life are irreversibly fated.

This study suggests that astrology was problematic on ethical or metaphysical grounds for only some, but not all, Buddhists in India. This study shows that a diverse array of materials from the extant corpus of Buddhist literature indicates that astrology was regarded as an inappropriate practice for monks by some early Buddhists, although passive belief in astrology and basic knowledge of this art are still consistently observed throughout the first millennium CE.<sup>3</sup> Belief in astrological determinism actually

<sup>3</sup> The present study relies heavily upon Indian Buddhist literature in Classical Chinese translation. The primary reason for this is that several texts are exclusively extant in Chinese and moreover the Chinese translations are generally datable, allowing for a workable albeit tentative chronology to be established. We also have a surviving account in China of a pioneering figure representative of the early Buddhist Tantric tradition stemming from Nālanda. See below.

becomes increasingly evident over the centuries. Although some Buddhist authors advocated strict theories of cause and effect based on a belief in karma, there simultaneously also existed much Buddhist engagement with astrology.

This study finally argues that a belief and practice that we might call ‘Buddhist astrology’ existed, and that it had a significant, albeit hitherto unrecognized, impact on Buddhist civilizations, and furthermore that the increasing Buddhist acceptance of astrology mirrors its rising prominence in Indian civilization throughout the first millennium CE.

### Early Buddhism and Astrology

Turning to the topic at hand, astrology in India must be understood within the context of cultural exchanges between the Near East and the Indian subcontinent. 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 even in the Pāli canon. As Pingree points out, in the *Brahmajālasutta* in the Dīghanikāya the Buddha is recorded as castigating *śramaṇas* and *brāhmaṇas* who engage in certain activities to receive offerings of food, which include sacrifices, apotropaic rituals 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*.” The Buddha further lists omens related to eclipses, stars (*nakṣatra*, i.e., constellations along the ecliptic), meteors and so forth (Pingree 1997: 32–33).

The parallel passage in the Chinese Dīrghāgama 長阿含經 (T 1), translated into Chinese in 413, states that some *śramaṇas* and *brāhmaṇas* maintain a wicked livelihood through reciting books on astronomy/astrology (*tianwen shu* 天文書).<sup>4</sup> This indicates that the compilers of this recension

<sup>4</sup> T 1, 1: 84b18–c9. Note that the Chinese translation using the term *shu* 書 indicates written texts, which would be anachronistic in the time of the Buddha before the development of writing in India.

were aware of the circulation of texts on this topic. It also indirectly suggests that some *śramaṇas* had access to and read such works, despite the insistence of some authors that this was improper.

It is clear that *some* members of the early *saṃgha*, so far as the extant literature suggests, prohibited astrology *as a livelihood* on the grounds that it was inappropriate for a *śramaṇa* to practice, although we must be clear that the validity of astrology and its underlying belief that the auspiciousness of a time is determined by favorable arrangements of celestial bodies were *not* rejected at this point. Bronkhorst, however, suggests that Buddhists did not participate in the development of *jyotiḥśāstra* (a field including astronomy, astrology and mathematics). He suggests that it “may have been inseparably connected with mundane matters, in that those who practised it may often have had to make their living through explaining omens and predicting the future with its help. Such practices were however frowned upon in the buddhist tradition from an early date onward (Bronkhorst 2011: 120).” Bronkhorst’s remarks here, however, are problematic in light of the appearance of astrology throughout Vinaya literature, primarily in Chinese translation, in which belief in astrology is presupposed and its practice even expected. In other words, the evidence indicates that even the compilers of Vinaya works were at ease with astrology. Astrology was not inseparably connected with mundane matters, since it was a field of knowledge employed by monks for religious purposes.

### Astrology in the Vinaya

There is an account in the *Dharmaguptakavinaya* 四分律 (T 1428) in which the group of six *bhikṣuṇīs* tells laypeople that the constellations and stars are favorable (a ‘soft’ form of astrology), 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 *saṃgha* and engage in fasting.<sup>5</sup> This presupposes that the *bhikṣuṇīs* have knowledge of astrology and that the art itself is valid. The problem, however, is that they encourage mundane activities

<sup>5</sup> T 1428, 22: 775a15–b26. For translation of this section, see Kotyk 2017b: 508–509.

when it is determined to be auspicious by examining the stars. The Buddha instead instructs that they should direct laypeople toward Buddhist activities on such days, such as visiting monasteries and making offerings to the *saṃgha*.

The *Mahīśāsakavinaya* 五分律 (T 1421) states that the *āraṇyaka-bhikṣu* should fully understand the features of the four directions, *nakṣatras*, seasons and dates, although these are for practical purposes. Knowing the four directions helps one escape from bandits. Knowing the *nakṣatras* helps one know when it is time to sleep and move on the road. One will know the way back after being released from captivity by observing the stars. Knowing the seasons and dates helps one to determine the times for *poṣadha* and retreat.<sup>6</sup> Although familiarity with the *nakṣatras* assumes some traditional astronomical knowledge, there is nothing concerning astrology here.

This 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 the proper etiquette of a *śramaṇa*. 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 the *bhikṣus* to finish, but this went on for a day and a night. The Brahmins warned the king that the star was hanging above, and that he had to go, otherwise the ritual washing would become ineffective. The king went to the spring and washed downstream instead. His ministers complained about the poor practice of these *bhikṣus* as *śramaṇas*. The elder *bhikṣu* reported this to the Buddha, who then established a rule against excessive bathing.<sup>7</sup> Here there is *no* repudiation of the idea itself of a star foretelling catastrophe (again, a ‘soft’ form of astrology). The appearance of such an inauspicious star is taken quite seriously. The point of this story is to provide a background to the rule against excessive bathing, but it also indirectly points to a strong belief in astrology.

<sup>6</sup> T 1421, 22: 180a3–17.

<sup>7</sup> T 1421, 22: 65c29–66a18.

This belief is apparent elsewhere. The early Buddhist *saṃgha* believed in electional astrology (the selection of auspicious times based on celestial bodies, i.e., hemerology) based on the *pakṣa* cycle (the Moon's waxing and waning or *śukla-pakṣa* and *kṛṣṇa-pakṣa*, each comprised of 15 days). This is expressly stated in the *Mahāsāṃghikavinaya* 摩訶僧祇律 (T 1425), which was translated between 416–418:<sup>8</sup>

At that time, Venerable Ānanda and fellow-disciples wanted to perform *mānatva* [confession and repentance]. He said to the Buddha, “World Honored One, my fellow disciples wish to go to the village to perform *mānatva* in a small dwelling. The time is the 14<sup>th</sup> day.” The Buddha said to Ānanda, “This 14<sup>th</sup> day agrees with the *nakṣatras*, time and assembly. They should leave only after having performed *poṣadha*.”<sup>9</sup>

It is notable that the Buddha is the one stating that the 14<sup>th</sup> day is in agreement with the *nakṣatras*. This is an indirect affirmation of astrological determinism by 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 linked to 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 *Abhidharmamahāvibhāṣā* (T 1545).<sup>10</sup> In this case, the auspiciousness of these days is determined by the deities. Although this is not, strictly speaking, astrological determinism, it is a system of hemerology based on lunar phases, and moreover justified by a polytheist belief, thus loosely constituting a form of ‘hard’ astrology. This is significant

<sup>8</sup> Faxian 法顯 (338–423) in his travelogue to India in the early fifth century records that “this *Mahāsāṃghikavinaya* was carried out 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 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 *Mahāsāṃghikavinaya* have the fewest number of precepts compared to those of the Sthaviravāda branch. For details see Nattier & Prebish 1977: 268; Clarke 2015: 62, 64. This stated belief in auspicious days is therefore quite early.

<sup>9</sup> 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。T 1425, 22: 447a15–19. The *nakṣatra* in which the Moon is lodged ought to be auspicious. It is uncertain what “assembly” (*zhong* 眾) specifically means.

<sup>10</sup> T 1545, 27: 211c10–15.

because it establishes a belief structure atop which both Indian and foreign systems of astrology, as well as a belief in astral deities, could be regarded as viable and valid.

With respect to astral deities, the *Mahāsāṃghikavinaya* interestingly already describes the *nakṣatras* as protective deities long before the emergence of Tantra, in which such deities play a more prominent role (see below). It is noteworthy that a major Śrāvākayāna text teaches this, since it indicates such a belief was already present among some Buddhists before the emergence of Mahāyāna and Tantra.

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 Āśleṣā. 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 *nakṣatras* will protect you. ...<sup>11</sup>

Other Vinaya texts indicate a belief in astrology and call for it to be observed. For example, the *Vinayavibhaṅga* of the Mūlasarvāstivāda permits a monk to dig in the earth under certain conditions, one of which is that the astrological conjunctions are correct (Silk 2008: 82). Again, here it assumes the monk would first of all have studied astrology and, moreover, he is expected to follow its conventions.

### Astrology in Sūtra Literature

With this background in mind, we might consider the earliest example of Buddhist astrology: the *Śārdūlakarṇāvadāna*. This work is included in the *Divyāvadāna* collection, but it was circulated as an individual text in

<sup>11</sup> 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，四名分婆唎，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。... T 1425, 22: 500c28–501a3. This appears to be an evocation of stellar and directional deities. The ordering and transliteration of the *nakṣatra* names are unusual. It commences with Kṛttikā, which is the older starting point for listing the *nakṣatras*. In the first half of the first millennium it became customary to list them from Aśvinī, a change that reflects axial precession. Faxian retrieved the manuscript of this text in Pāṭaliputra 巴連弗邑, which likely means it reflects the conventions of Buddhism in Magadha. See T 2085, 51: 864b16–19.

the past.<sup>12</sup> It is also known by the title *Mātaṅgasūtra* 摩登伽經 (T 1300) in Chinese. This Chinese translation, purportedly by Zhu Lüyan 竺律炎 (d.u.) and Zhi Qian 支謙 (fl. 223–253), is traditionally dated to 230, but as Hayashiya (1945: 541) points out, the style of translation is clearly from after the time of Kumārajīva (344–413). We also find an entry in the *Datang neidian lu* 大唐內典錄 (T 2149; *Catalog of Inner Teachings of the Great Tang*), a *sūtra* catalog from 664 by the monk Daoxuan 道宣 (596–667) in which Guṇabhadra (394–468) in the Liu-Song period (420–479) is cited as the translator (Kotyk 2017c: 28).<sup>13</sup> Furthermore, the *Mātaṅgasūtra* mentions the Metonic cycle and Greco-Egyptian ordering of the seven planets, both of which would be anachronistic for an Indian text from the second or early third century.<sup>14</sup> The oldest extant version of the *Śārdūlakarṇāvadāna* is a Central Asian manuscript at the St. Petersburg Branch of the Institute of Oriental Manuscripts of the Russian Academy of Sciences (SI 1942) from around the fourth century which was written in North Brāhmī script (Miyazaki 2015: 2). The earliest Chinese version 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 said to have been translated between 307–313.<sup>15</sup> It is closer to the aforementioned Central Asian manuscript than the *Mātaṅgasūtra* (Miyazaki 2015: 2). The references to measurements from Magadha, such as the *māgadhajojana* and *māgadhakaprastha* (摩伽陀鉢悉他) in the various recensions suggest a composition in Magadha.<sup>16</sup> On the basis of these points, we can infer that the *Śārdūlakarṇāvadāna* was produced sometime in the second or third century CE 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 saw the error in her

<sup>12</sup> For printed Sanskrit editions see Cowell and Neil 1886, Mukhopadhyaya 1954, and Vaidya 1959.

<sup>13</sup> T 2149, 55: 298a18–20.

<sup>14</sup> For a thorough study of this *sūtra* and these astronomical features, see Zenba 1952.

<sup>15</sup> The Yongjia 永嘉 era of the Western Jin 西晉 dynasty. See T 2147, 55: 159c27–28.

<sup>16</sup> See T 1301, 21: 416c13 & T 1300, 21: 409b1. Mukhopadhyaya 1954: 58–59.



ways.<sup>17</sup> The rest of the text detailing astrology, measurements and other mundane matters is related by a *caṇḍāla* named King Triśaṅku, and appears to be an otherwise unrelated divination manual simply appended onto an existing Buddhist story.

This *sūtra* is noteworthy in its use of mantras, anti-Vedic polemic and encyclopedic explanation of pre-Hellenized Indian astrology. Prior to the introduction of the twelve zodiac signs, horoscopy and advanced mathematical astronomy from Hellenistic sources starting around the late fourth century, Indian astrology was in large part concerned with the Moon's position in relation to twenty-seven or twenty-eight lunar stations (*nakṣatra*). The system of the *Śārdūlakarṇāvadāna* is representative of indigenous pan-Indian astrology.

Details of the twenty-eight *nakṣatras* are given: the number of stars comprising each and their shapes, dimensions defined by *muhūrta* (the amount of time it takes the Moon to transit through the space of a *nakṣatra*), as well as the associated food, deity and *gotra*.<sup>18</sup> Brief natal predictions are given for individuals born under each *nakṣatra*. Predictions are also given concerning precipitation and harvests based on when the first rain of the fifth month falls (the start of the monsoon).

Although it is unclear exactly why a Buddhist text would provide such information – perhaps it was to demonstrate that a member of the *caṇḍāla* caste can be equally as learned as a *brāhmaṇa* – it does, nevertheless, point to a strong belief in astrology among Buddhists. Here the Moon lodging in *nakṣatras* signals individual and even national developments, which to some degree necessitates an underlying notion that such things are pre-determined if they can be prognosticated. In the Buddhist context, we might wonder if it is one's natal *nakṣatra* or karma, or both, that determine, for example, whether one will have riches and ease in life. Here we might speculate that some Buddhists – including those literate individuals who produced *sūtras* – did not necessarily perceive a problem, and were

<sup>17</sup> The *Foshuo Modeng nü jing* 摩鄧女經 (T 551), spuriously attributed to An Shigao 安世高 around c.151, and *Modeng nü jiexingzhong liushi jing* 摩登女解形中六事經 (T 552), translated in the Eastern Jin 東晉 (317–420), as short individual texts only relate similar versions of this brief story before concluding with no remarks on astrology. For the issue of texts attributed to An Shigao, see Nattier 2008: 44–71.

<sup>18</sup> 30 *muhūrtas* comprise 1 day, therefore each are 48 modern minutes.

simply comfortable with a belief in astrology, much was and still is the case with Hindu traditions.<sup>19</sup>

Astrological belief was evidently widespread enough to merit the long refutation of astrology found in the *Saddharmasmṛtyupasthānasūtra* 正法念處經 (T 721), translated into Chinese by Gautama Prajñāruci between 538–541. Stuart (2015: 43) proposes that this *sūtra* was compiled over many years between 150–400 CE. As already discussed (Kotyk 2017b: 505–507), this text in quite strong language condemns the practice of astrology by *bhikṣus*. It lists astrology among thirteen other practices that 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.<sup>20</sup> This text, in addition to insisting that there is no benefit to astrology, also refutes its validity in detail.<sup>21</sup> For instance, it asks why it is that those born under the same star (in this case likely referring to a *nakṣatra*) are nevertheless different. If the stars had causal power, it asks, then why are those born under the same star not all of the same type? It goes on to point out that people, animals and *pretas* might be born under the same star, yet they are different. The differences in existences are not due to the causal power of the stars, but rather are due to the causal power of karma. Those who think in terms of stars are non-virtuous and do not attain peace, whereas those who think in terms of karma are virtuous and attain peace, thereafter reaching *nirvāṇa*.<sup>22</sup>

Another argument states that the power of stars is not fixed and furthermore subject to being blocked by ‘superior stars.’ This is clearly an example of ‘hard’ astrology being attacked, since the idea being refuted is that planets exert some kind of causal influence on people. The argument is that astral influences cannot apparently remain consistent, in which case contemplating them is of no benefit. The results of virtue and non-virtue

<sup>19</sup> Beinorius (2008: 200–201) notes that in traditional Hinduism “planetary influences are considered ‘the fruit of karma’ (*karmavipāka*).”

<sup>20</sup> T 721, 17: 284c7–17.

<sup>21</sup> These arguments are in fasc. 49 of the Chinese translation. Astrology is counted as the fifth unacceptable practice.

<sup>22</sup> T 721, 17: 290a20–29.

are produced from karma and are not bestowed unto beings by the stars. It also asks how the Sun and the Moon could save others if they cannot save themselves from being devoured by Rāhu (the demon of eclipses). The text continually stresses that astrology is not a means for liberation.<sup>23</sup>

This work furthermore condemns those *śramaṇas* who observe the calendar. In this case, it seems to be referring to specialists in calendrical science. It states that instead of counting twelve months, which is of no benefit and does not enable one to eliminate the *kleśas*, they ought to contemplate the twelve sense fields (*āyatana*).<sup>24</sup>

This content in the *Saddharmasmṛtyupasthānasūtra* indicates that in addition to undesirable artist *śramaṇas*, there were also enough who practiced astrology, calendrical science and divination to merit such extensive criticism and condemnation. It is indeed conceivable that *bhikṣus*, freed from the burden of agriculture, and often being literate, would have found such vocations to be quite lucrative. Such condemnation as this, however, is actually quite rare in Buddhist history. In other words, passive acceptance of astrology's validity was the norm in Indian Buddhism, rather than rejection. The criticism in the text in question is anomalous. There appears to have actually been no debate within Buddhism concerning the validity of astrology, which stands in contrast to the Hellenistic world, where there existed opposition to astrology by some philosophers (Long 1982: 165).

In spite of such attacks on astrology in the *Saddharmasmṛtyupasthānasūtra*, Mahāyāna works, such as the *Daśabhūmikasūtra* 十住經 (T 286), specifically state that the bodhisattva for the benefit of beings will understand all manner of worldly books. These include materials related to the Sun, the Moon, the five planets, the twenty-eight *nakṣatras*, divination, and the interpretation of earthquakes, dreams and strange occurrences.<sup>25</sup> The Mahāyāna encouraged its bodhisattvas to study and practice potentially taboo subjects, such as astrology. Why was astrology regarded as beneficial to beings and an entryway into the Mahāyāna? To understand this, we need to consider the changing status of astrology in Brahmanical society.

<sup>23</sup> T 721, 17: 290b1–11.

<sup>24</sup> T 721, 17: 290b20–25.

<sup>25</sup> 是人利益眾生故，世間所有經書 ... 日月，五星，二十八宿，占相吉凶，地動夢書怪相。T 286, 10: 512c1–8.

## The Status of Astrology in India

Much as in some early Buddhist literature, such as the aforementioned *Brahmajālasutta*, contemporary Vedic culture had a low opinion of astrologers. As Gansten (2011: 217) 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 flattering terms by the authors of religious codes of law.”<sup>26</sup> He points out that the *Manusmṛti* (3.162) and *Bau-dhāyanadharmasūtra* (2.2.15–16) both regard astrologers in a poor light. The former bans upper-caste astrologers from attending sacrifices. Divination itself was *not* regarded as invalid, but merely as lowly and base by 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 (505–587) in his *Br̥hatsaṃhitā* (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 (Shastri & Bhat: 18).” Mathematical astronomy in India was also increasingly refined, which is exemplified by the achievements of Āryabhaṭa (b. 476), who was one of the leading astronomers in the classical age of Indian astronomy, and works such as the *Pañcasiddhāntikā* (c. 550) by Varāhamihira.<sup>27</sup>

## Astrology in Buddhist Tantra

Some Mahāyāna texts indeed recognized the value of astrological knowledge, which was losing its earlier negative associations. This potentially

<sup>26</sup> This dating of the introduction of horoscopy into India is based on Pingree’s dating of the *Yavanajātaka*, a manual of horoscopy in Sanskrit, which he concluded was 269–270, but this has been contested by Mak (2013) in his recent study of a physical manuscript. In my estimation, horoscopy was likely introduced into India starting in the fourth century at the earliest.

<sup>27</sup> The *Pañcasiddhāntikā* or “Treatise on the Five Astronomical Treatises” is a summary of five astronomical treatises by Varāhamihira. This includes the *Romakasiddhānta* (the “Roman treatise”) and *Paulīśasiddhānta* (the “treatise of Paul,” i.e., a Hellenistic treatise). These two texts point to the introduction of Western or Hellenistic astronomical knowledge into India. For a translation and study, see Neugebauer & Pingree 1970–1971.

placed someone with such knowledge in an advantaged position. During the late-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 form of the seven-day week (in the order of Saturn, Sun, Moon, etc). This is already clear in the *Vairocanābhisambodhi*, otherwise called the \**Mahāvairocanasūtra* (Chn. *Dari jing* 大日經; T 848), and its accompanying commentary in Chinese (T 1796).

The Indian monk Śubhakarasiṃha (637–735) together with the Chinese astronomer monk Yixing 一行 (673–727) translated the *sūtra* in 724. Yixing thereafter is said to have been responsible for penning a commentary, recording Śubhakarasiṃha’s oral explanations of the text (Kano 2015: 383). The explanation of the associated *maṇḍala*, the \**Garbhadhātu*, describes the deities of the twenty-seven *nakṣatras*<sup>28</sup> and twelve zodiac signs functioning as the retinue of the Moon deity.<sup>29</sup> The commentary in defining an auspicious day also mentions the twelve zodiac signs along the ecliptic. It also describes the seven-day week based on planets presiding over each day, and each day is regarded as either positive or negative. The commentary fails to provide details, and instead just states “as it is described in the Indian calendar.”<sup>30</sup> This is significant because it demonstrates how a highly educated Indian monk, born and raised in the seventh century when the emergence of Tantra was underway, 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

<sup>28</sup> Śubhakarasiṃha and Amoghavajra (705–774) introduced into China a system of twenty-seven *nakṣatras* of equal dimensions, in contrast to the earlier system of twenty-eight unequal *nakṣatras* as seen in the *Śārdūlakarṇāvadāna*. See T 1796, 39: 618a8 & T 1299, 21: 387b12–13. The twenty-seven model is clearly a revised system adapted to accommodate the twelve zodiac signs which are of strictly equally uniform dimensions (30 degrees each).

<sup>29</sup> 西門之南，與日天相對應置月天，乘白鶴車，於其左右置廿七宿十二宮神等以為眷屬。T 1736, 39: 634c12–14. The deification of the twelve zodiac signs is an Indian development that presumably followed the earlier belief in the *nakṣatras* as deities. There is no Hellenistic precedent for this. Such deified zodiac signs are seen in earlier Mahāyāna works such as the *Candraḡarbhaparivarta* 月藏分, translated by Narendrayaśas 那連提耶舍 (490–589) in 566, which is included in the *Mahāsaṃnipāta* 大方等大集經 (T 397). See T 397, 13: 373a23–29.

<sup>30</sup> T 1796, 39: 618a8–17. I discuss this part of the commentary with a full translation (Kotyck 2018).

Buddhist tradition and Indian thinking in general (Kotyk 2017c: 29–31). The illustrated *maṇḍala* associated with the *sūtra*, preserved in Japan, also includes the *navagraha*, each of whom are assigned a mantra and a seed syllable, being treated as sentient deities (Kotyk 2017a: 41–42).

Śubhakarasiṃha was from Magadha and once resided at Nālanda.<sup>31</sup> His recorded explanations therefore likely reflect Buddhism in Magadha in the late-seventh century, which would indicate a wide appreciation for an astrological schedule incorporating what we would identify as Hellenistic elements.<sup>32</sup> That this 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 qualities are determined by several astrological factors. In short, the early Tantric Buddhist tradition took astrology quite seriously.

We should take a sidestep here and point out that the astrology practiced by Buddhists, especially in this period, appears to have been effectively pan-Indian. Even in the case of the associated astrological iconography, the icon of Ketu in the tradition of Śubhakarasiṃha preserved in East Asia, for instance, is that of a demonic figure erupting out of smoke, while at the same time, in the “*Śivadharmaśāstra*, a text of Śaivism which dates to the 6<sup>th</sup> or 7<sup>th</sup> century, Ketu is said to be ‘shaped like smoke’ (*dhūmākāro*) and ‘appearing like smoke from straw’ (*palāladhūmasaṃkāśo*) (Kotyk 2017a: 59, 85).” Ketu’s association with smoke is ancient, given that the *Atharvaveda* (19.9.10) refers to a *mṛtyur dhūmaketuḥ* or “smoke-bannered death” (Yano 2004: 332–333). It is clear that Indian astrological lore, as a whole, incorporated elements from Vedic and what were originally Hellenistic sources.

The reason why various religious traditions of India adopted similar – if not generally identical – systems of astrological lore was likely a result of common educational norms. The account of India by Xuanzang

<sup>31</sup> 中印度摩伽陀國人，住王舍城那爛陀寺。T 2055, 50: 290a9–10.

<sup>32</sup> It is unclear whether Indians would have regarded these elements as *Yavana* or foreign as they had become thoroughly naturalized by the seventh century. In light of the time period when elements such as the seven-day week become evident in the historical record, starting in the fourth century, I am inclined to suspect that Hellenistic astrology was likely transmitted through Sassanian intermediaries, but this point requires further investigation.

玄奘 (602–664) in the seventh century confirms that calendrical science was part of the general education in India at that time. 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.<sup>33</sup> This would have also meant that educated monks presumably would have almost all possessed some background training in calendrical science, which was intimately related to astrological concerns.

Despite the earlier importance of astrology in early Tantra, it appears that later on in the tradition some felt that astrological considerations had become excessive in practice. Wedemeyer (2014: 241, n. 64) notes that “the frequently-repeated injunctions in Mahāyoga Tantra materials against 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.” Wedemeyer (1999: 371) cites an example from the *Cittaviśuddhiprakaraṇa* (verses 71–75), which refers to technical aspects of astrology, but also suggests that one should not be attached to these, which are “conceptually posited by the whole world.” This comment indicates that many contemporary Buddhists did, in fact, show great interest in astrology, and so much so that this was regarded by some as excessive.

An example of such an emphasis on astrological determinism alongside simultaneous mention of causes and conditions is found in the \**Parṇaśabaryavalokiteśvarabodhisattvasūtra* 葉衣觀自在菩薩經 (T 1100), translated into Chinese by Amoghavajra (705–774), which suggests that hardships in life are “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.”<sup>34</sup> This is an example of ‘hard’ astrology mentioned in a Buddhist scripture alongside belief in karma. In other words, being born under unfavorable stars is a result of misdeeds in a past life. This idea provides an explanatory apparatus for the validity of astrology within a Buddhist context. Past life karma

<sup>33</sup> 二工巧明, 伎術機關, 陰陽曆數。T 2087, 51: 876c18–19.

<sup>34</sup> 皆由宿業因緣, 生惡宿直, 或數被五曜陵逼本宿, 令身不安。T 1100, 20: 448b11–13. See Kotyk 2017c: 33–34.

could result in being born without eyes, which for the present lifetime would be irreversible, and similarly one could be born under an astrological configuration that causes pain throughout life. The difference between these two karmic outcomes is that the suffering of the latter could be mitigated through propitiating the *navagraha* and other astral deities through ritual.

Interest in astral matters carried on into the early eleventh century, when astronomy and astrological concepts were thoroughly integrated into one of the last major tantric developments, the *Kālacakratāntra*. This tantra is comprised of two primary texts: the *Śrīkālacakra* and the *Vimalaprabhā*. The *Śrīkālacakra* is the abridgement (*laghutantra*) of the *Paramādibuddha*, the Kālacakra's *mūlatantra*. The *Vimalaprabhā* is the essential commentary. The ninth section of chapter one in the *Śrīkālacakra*, the “Jyotirjñānavidhimahoddeśaḥ” or “The Great Exposition of the Procedures for the Astronomical Knowledge” (Sferra 2015: 346), deals with astronomy and to a lesser extent astrology (Newman 1987: 119). It mentions the corruption of *siddhāntas* (astronomical treatises), which the commentary defines as *Brahma*, *Sauram*, *Yamanakam* and *Romakam*.<sup>35</sup> The latter two highlight how the transnational quality of classical Indian astronomy continued into the eleventh century.

The authors of Kālacakra literature were adept in the subject of advanced astronomy, which was intimately related to astrological concerns. Their knowledge was also sufficiently developed so as to determine that contemporary systems of astronomy were faulty, stating that “all through the land the *siddhāntas* will be corrupted, in the effects of time (Henning 2007: 217).” As Henning (2007: 219–220, 258–260) points out, in contrast to conventional Indian astronomy, the Kālacakra authors used the tropical zodiac instead of a sidereal zodiac. The sidereal model is a fixed (*nirayaṇa*) zodiac, in which the twelve zodiac signs are defined relative to stars. The stars, however, gradually drift due to axial precession, so unlike in the tropical or movable (*sāyana*) zodiac, the zodiac signs in the sidereal model are not in line with the seasons any longer. In the tropical zodiac, the first degree of the first sign (Aries) is defined by the position of the Sun at the

<sup>35</sup> Newman 1987: 534. As Newman suggests, *Yamanakam* is *Yavana* (Greek, but later can mean Muslim). *Romakam* (Roman) is probably referring to the *Romakasiddhānta* text.



vernal equinox, which means that the stars which nominally define the constellation of Aries are left to drift away from the tropical sign called Aries. The adoption of a tropical zodiac is significant for two reasons. First, it is a signature element of late Hellenistic astronomy,<sup>36</sup> and second, it deviates from the conventions of classical Indian astronomy and indicates innovation on the part of the Kālacakra authors. Accurate astronomy, rather than tradition, was of key importance to them.

The twelve zodiac signs furthermore play a key function in the Kālacakra literature. Wallace explains that the “*Vimalaprabhā* defines time (*kāla*) as a circle of twelve solar mansions or zodiacs (*rāśi-cakra*) (Wallace 2001: 92).” The twelve zodiac signs were also integrated into doctrine and practice that incorporate medical concepts linking together astrology and human physiology for therapeutic and predictive purposes (Wallace 2008: 216). Wallace, however, notes that “although this esoteric tradition acknowledges the pragmatic value of astrological predictions, it emphasizes that ultimately it is the person’s previously accumulated karma that determines whether or not any celestial events will have auspicious or inauspicious influences on the person’s well-being (Wallace 2009: 294).” It is emphasized that it is the karma of the individual that determines their longevity and circumstances in life. The tradition therefore attempted to integrate what were originally deterministic astrological elements into a Buddhist framework, in which karma is of foremost importance. In short, any sense of strong fatalism was consciously avoided.

This was in the late era of Indian Buddhism, and highlights the extent to which Buddhists came to understand both astrology and scientific astronomy. Their model was quite complex compared to the earlier *nakṣatra* calendar and the simpler systems of electional and natal astrology based upon it. Buddhist authors could also be quite learned in astronomy, the motivation for which was most certainly an interest in astrology.<sup>37</sup>

<sup>36</sup> Note that it was the Islamic tradition of astronomy, an heir to Hellenistic astronomy, that utilized a tropical zodiac during this period. This point perhaps indicates that the Kālacakra authors were influenced by Islamic science either directly or indirectly. The Kālacakra authors were clearly aware of Islam (Newman 1998).

<sup>37</sup> One notable example of a Buddhist astronomer was the author Daśabala (fl. 1055–1058), who had the title of Mahākārunika Bodhisattva (Sarma 2007: 280).

## Conclusion

Gansten (2003: 51) explains that “classical Hindu thinkers seem happy to accept the coexistence of fate and free will, disagree though they may on the proportions of each.” Based on the literature surveyed above, a similar statement could apply to Buddhist authors. It is indeed certain that many monks and even authors of major Buddhist texts believed in astrology despite a minority of their counterparts potentially objecting and regarding it as wrong, if not heretical. The differing sentiments toward astrology might have been drawn along sectarian and regional lines.<sup>38</sup> We might imagine that some Buddhists felt more comfortable or perceived no issues with believing in a fatalism determined by the stars, rather than in more scholastic and ‘orthodox’ theories of karma. As the authors of the *Saddharmasmṛtyupasthānasūtra* complain, contemplating the stars is a hindrance to meditation and scriptural recitation, but perhaps many monks gained greater spiritual satisfaction from the study of the stars, and their patrons supported them in such endeavors. Astrology might have been a spiritual endeavor *and* profession for many monks. It is therefore unsurprising that Mahāyānists justified the study of astrology and taking on such a profession by nominally employing it as *upāya*.

I want to propose here that there was a tradition within Indian Buddhism we might call Buddhist astrology, and moreover that it had a discernible development that can be traced over time, even into other cultures.<sup>39</sup> In brief, Buddhist astrology commences with a hemerology based on the *pakṣas* and *tithis*, and/or the *nakṣatra* calendar. Although in some cases these two models were observed together, elsewhere they appear separate. From the fifth to sixth century, Buddhist literature begins incorporating what were originally Hellenistic elements, specifically the seven-day week

<sup>38</sup> This is a topic for a future study. It would be worthwhile to examine and compare sentiments towards astrology in Mahāsāṃghika and Sthaviravāda lineages. I am presently inclined to suggest that the Mahāsāṃghika were much more favorable toward astrology than the latter.

<sup>39</sup> Indian astrology was also transmitted through Buddhism into China where it had a significant impact on East Asian culture (see Kotyk 2017c).

and the twelve zodiac signs, which become especially evident within the early Tantric tradition as it was transmitted to China in the early eighth century. Astrological lore as well as astronomical science were both prominent elements in the later development of Buddhist Tantra. It was in this late-period that Buddhists, or at least the Kālacakra authors, adopted a tropical zodiac.

One response to my proposal is to ask what makes ‘Buddhist astrology’ so ‘Buddhist’ apart from Buddhists having practiced it, especially given the pan-Indian quality of the astrology. We might point out that astrology was integrated into the clerical and ritual frameworks of Buddhist communities. Whether their systems of astrology were similar to those of non-Buddhists is actually unimportant when we consider that astrology was employed for specifically Buddhist aims, such as scheduling *poṣadha* or determining the optimal hour to produce a *maṇḍala*. Buddhist astrology and its implications should be recognized as significant in the discussion of Buddhist philosophy because it demonstrates a documented departure away from theories of karmic causality. Some Buddhists believed that astrological determinism is at odds with theories of karma, yet such determinism was actually a definite component in some forms of Buddhist thought. Clearly many Buddhists throughout history believed in astrology.

One other objection to this proposal might be that Buddhists themselves never seemed to refer to a ‘Buddhist astrology’ and therefore such a label is a modern projection onto the past. If this is so, then we might also dismiss the existence of ‘Buddhist art’ in the absence of literature with self-identifying Buddhist artists. Of course, it goes without saying that Buddhist art was a tradition with an identifiable development. The same can be said for Buddhist astrology.

Future research on this topic might work toward clarifying specific developments and their significance to doctrine. This should be considered in parallel with the history of Indian astrology, especially with respect to the major changes that occurred following the introduction of Hellenistic systems. Research might also document differing sectarian views on astrology in Buddhism. There is much more work to be done on this topic and it is my hope that this paper prompts further interest.

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## ABSTRACT

This study surveys the presence of astrological determinism (i.e., the belief that celestial bodies influence or signal fated developments) within Indian Buddhism, from early literature until late-Tantra, in which passive belief in astrology is more often expected than rejected. It is argued that a tradition of 'Buddhist astrology' did, in fact, exist with a clear evolution over time. This demonstrates that many Buddhists were comfortable with astrology alongside a belief in karma. The increasing incorporation of astrological elements into Buddhist texts also reflects the growing appreciation of astrology in Indian culture over the course of the first millennium CE.

*Keywords:* astrology, astronomy, *nakṣatra*, determinism, time