

# The Days the King Ashoka Named: Tisya, Punarvasu, and the Lunar Days of Rock Edict IX — Morality, the Moon's Calendar, and the Sanchi Stupa as oldest India's Astronomical Monument

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## Abstract

Rock Edict IX is the only Aśokan edict that legislates explicitly about festival days: it names the Tisya day, the Punarvasu day, the eighth, fourteenth and fifteenth days of the fortnight, the three seasonal Cāturmāsya, the Tisya full moon, and the general categories of festivals, auspicious ceremonies and fasting days — and then declares them all "of doubtful value," replacing them with the "ceremony of Dhamma." This paper reconstructs the astronomy behind each named day (the 27-mansion nakshatra system, the tithi cycle, the new- and full-moon fasts), shows how each day carried a specific moral-ritual function in Vedic and Buddhist practice, and argues that Aśoka's edict performs a decisive Buddhist revaluation: the moon's cycle is retained as the clock of morality, while stellar-time is stripped of intrinsic auspiciousness. The paper then turns to the Sanchi Stupa — founded by the same emperor who issued Rock Edict IX — and compares it as the earliest surviving Buddhist monument whose layout demonstrably encodes astronomical alignments (the summer-solstice and zenith-passage orientation). It evaluates, honestly, the popular claim that ISRO or NASA research identified Sanchi as India's oldest astronomical observatory, and draws "new dimensions" from the pan-Buddhist tradition of aligning temples to full-moon nakshatras, documented from Mauryan-era Sanchi to the temples of medieval Thailand.

**Keywords:** King Ashoka, Cāturmāsya, Sanchi Stupa, Tisya, Pusya, Punarvasu, Lunar Days, caturdaśī, aṣṭamī, nakshatra, astronomy, poṣadha, ecological ethic.

## 1. Introduction

The Aśokan corpus is usually read for its ethics; Rock Edict IX complicates that reading by *also* legislating about time. The edict opens with an observation of popular practice — people perform ceremonies on occasions of sickness, childbirth, marriage and travel — and then does something unprecedented in the epigraphic record: it lists the specific days on which the people of the empire performed their rites, and pronounces a verdict on them. The list, as the standard reading of the Girnar recension transmits it, runs: the Tisya day, the Punarvasu day, the eighth day of each fortnight, the fourteenth day, the fifteenth day, the three seasonal Cāturmāsya, the Tisya full-moon day, and the umbrella occasions of festivals, auspicious ceremonies, and fasting days. Every item is a calendrical object: two lunar mansions, three tithis, three

seasonal junctions, one named full moon, and three kinds of rite. No other edict is so calendrically precise. And the edict's verdict on this entire complex is the Buddhist moral theology in miniature: the ceremonies "may achieve their purpose, or they may not," their fruit is "limited to this world," whereas "the ceremony of Dharma... is not limited to time" (Bunnag, 1973).

This paper does three things. First, it explains the astronomy of each named day and its importance in the Vedic and Buddhist texts. Second, it reads the edict as a new kind of Buddhist statement — a revaluation of auspicious time that retains the lunar calendar while rejecting stellar determinism. Third, it compares the edict's calendar with India's best surviving monumental expression of the same astronomical culture: the Sanchi Stupa-1, whose foundation belongs to the same king and whose layout encodes the solar year that the edict's lunar days presuppose (Sparavigna, 2015, 2017).

## 2. The Edict and Its Moral Structure

Rock Edict IX belongs to the ethical heart of the Aśokan program. The moral rules it commends are the standard Aśokan list: proper treatment of slaves and servants, reverence to teachers and elders, restraint of violence toward living creatures, liberality to priests and ascetics, and generosity to friends, relatives and companions — the same "harmlessness towards all living beings" and generosity that scholars identify across the edicts (Shahrawat & Shahrawat, 2017). What is distinctive is the frame: these duties are presented as the "ceremony of Dharma" (*dharmma-maṅgala*), the only ceremony that is "very fruitful" and "not limited to time" (Bunnag, 1973). The days people fast and feast on — the Tisya and Punarvasu days, the eighth, fourteenth and fifteenth tithis, the three Cāturmāsya, the Tisya full moon — are all acknowledged as real occasions of popular religion, and all at once demoted. Aśoka does not abolish the calendar; he *empties it of automatic efficacy*. The same inversion appears in the canonical literature: Buddhist textual traditions repeatedly place "all sacrifices, all penances... and all auspicious things" (*maṅgalāni*) on the far side of genuine religious practice, a sentiment that Rock Edict IX raises to imperial policy (Tournier et al., 2021).

## 3. The Astronomy of the Named Days

The following table summarizes the astronomical and moral-ritual identity of each item in the edict's list; the sections below then explain each in turn.

| Day in Rock Edict IX      | Astronomical referent           | Importance in Vedic–Buddhist texts                                                                                                                    |
|---------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tisya day                 | 8th lunar mansion (Pūṣya/Tiṣya) | Most auspicious month for rites seeking divine favour; prosperity rites in the bright fortnight (Chaube, 2025; Monkiewicz, 2021; Shelke et al., 2024) |
| Punarvasu day             | 7th lunar mansion               | Paired with Tisya; the winter full-moon mansions opposite the solstitial sun (Bhatnagar, 2017; Chakravarty, 1987; Chaube, 2025)                       |
| 8th day of each fortnight | aṣṭamī tithi                    | Uposatha observance day; lay precept day of the six-day cycle (Bokde et al., 2023; Matsui, 2023)                                                      |

|                           |                                                           |                                                                                                                                                    |
|---------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 14th and 15th days        | caturdaśī and pañcadaśī (full-moon eve and full-moon day) | Vinaya uposatha days and new/full-moon fast nights of Vedic and Buddhist practice (Bokde et al., 2023; Heirman & Torck, 2012; Sakamoto-Gotō, 2018) |
| Three seasonal Cāturmāsya | four-monthly junctions of the luni-solar year             | Vedic seasonal sacrifices; the model behind the Buddhist rains retreat (vassa) (Mantche, 2019)                                                     |
| Tisya full moon           | full moon standing in the 8th mansion; the month Pauṣa    | Winter full moon; nakshatra-named full-moon days are attested from the Taittirīya Saṃhitā (Chakravarty, 1987; Chaube, 2025; Monkiewicz, 2021)      |
| Festival auspicious days  | maṅgala occasions                                         | Demoted as "of doubtful value"; dhamma alone "not limited to time" (Bunnag, 1973; Shahrawat & Shahrawat, 2017)                                     |
| Fasting days              | upavāsa on lunar days                                     | Laypeople fast on full-moon and new-moon days; monks eat only before noon (Islam, 2024; Sakamoto-Gotō, 2018)                                       |

### 3.1 The Tisya Day and the Tisya Full Moon

"Tisya" is an older name of the mansion usually called Puṣya — the eighth of the 27 lunar mansions, and a constellation reckoned among the most auspicious (Chaube, 2025; Shelke et al., 2024). Its calendrical importance far exceeds ordinary auspiciousness. The ancient Indian months were named after the mansion in which the moon stood full — a month in which the moon "attains completeness" in a given nakshatra takes that nakshatra's name, as Caitra takes its name from Citrā (Chaube, 2025) — so the "Tisya full moon" (*Tiṣya-pūrṇamāsa*) is the full moon of the month named after this mansion, Pauṣa, the winter month of the luni-solar year. The naming practice itself is Vedic: the Taittirīya Saṃhitā already registers "Citrā full-moon day" and "day of the Phalgunīs," terms that bind a full moon to the star it rises near, and the whole nakshatra system functioned as the instrument by which "measures of year, months and fixation of auspicious days" were calibrated (Chakravarty, 1987). In the calendrical astronomy of the Vedāṅga Jyotiṣa, winter was the frontier of the year: the winter solstice was fixed at the beginning of Śraviṣṭhā, the seasons were counted from winter, and the solstitial sun standing in the Dhaniṣṭhā region put the full moon of that season directly opposite, among the Punarvasu–Tisya mansions (Bhatnagar, 2017; Chakravarty, 1987). The edict's pairing of the "Tisya day" and the "Punarvasu day" is therefore not arbitrary: it names the two winter mansions of the moon, the season that the ancient calendar used as its anchor.

The Vedic ritual texts add a moral-augural layer. In the Jyotiṣavedāṅga tradition, rites for prosperity were to be performed in the bright half of the month, when the waxing moon nourishes the gods, and rites soliciting divine protection were specifically recommended for the month of Tisya — making Tisya "the most auspicious month of the year" for undertakings both religious and quotidian (Monkiewicz, 2021). Aśoka's edict takes this privileged winter month and its festival day, and says plainly: the fruit of such ceremonies is doubtful, and confined to this world (Bunnag, 1973).

### 3.2 The Punarvasu Day

Punarvasu, the seventh mansion, immediately precedes Tisya in the sky and pairs with it in the edict (Chaube, 2025). Its calendrical identity belongs to the same winter cluster: with the solstitial sun in the Dhaniṣṭhā region, the full moon of the season stands in the Punarvasu–Tisya sector (Bhatnagar, 2017; Chakravarty, 1987). The two "days" are thus the winter new- and full-moon festivals of the pre-Mauryan

ritual calendar — the faithful "stay these two nights around the sacred fires with religious observance, above all fasting" before the new- and full-moon sacrifices (Sakamoto-Gotō, 2018). By naming Tisya and Punarvasu explicitly, the edict targets the most prestigious days of the Brahmanical luni-solar ritual cycle, and declares their ceremonies secondary to the daily practice of morality.

### 3.3 The Eighth, Fourteenth and Fifteenth Days of the Fortnight

These three tithis are the skeleton of Buddhist time. A tithi — the lunar day completed as the moon traverses 12° of longitude relative to the sun — organizes each fortnight into the fifteen waxing tithis ending in the full-moon day (pūrṇimā) and the fifteen waning tithis ending in the new-moon day (amāvasyā) (Bokde et al., 2023). The eighth, fourteenth and fifteenth days were precisely the days on which mainstream Buddhism fixed its observance: the "six poṣadha days, namely the eighth, fourteenth, fifteenth, twenty-third, twenty-ninth and thirtieth of every month of the lunar calendar," on which monks conducted the confession-repentance ceremony and preached to laypeople (Matsui, 2023). The poṣadha itself derived from the Vedic *upavasatha*, the fast day preceding the new- and full-moon sacrifices, and became in Buddhism the day on which the rules of the prātimokṣa are recited (Heirman & Torck, 2012; Sakamoto-Gotō, 2018). The fourteenth and fifteenth are the new-moon eve and full-moon day proper — the two nights that Vedic ritualism set apart for fasting at the sacred fires, and that Buddhism converted into the fortnightly assembly of the Saṅgha and the lay precept day (Heirman & Torck, 2012; Sakamoto-Gotō, 2018). Rock Edict IX's list thus names — with complete calendrical competence — the uposatha tithis: the days on which the empire's Buddhists were already keeping vigil, fasting, and reciting the code of discipline.

### 3.4 The Three Seasonal Full-Moon Days

The *cāturmāsyaṇi* were the Vedic seasonal sacrifices offered at the three four-monthly junctions of the year. Their inclusion completes the edict's map of the luni-solar year: the two lunar mansions and three tithis fix the month and fortnight, while the three Cāturmāsyaṣ fix the season. Buddhism neither kept the Brahmanical four-monthly sacrifices nor lost the seasonal rhythm: the monastic calendar retained the annual cycle through the rains retreat (vassa), running from the July–August full moon to the October–November full moon, during which monks remain in residence and laypeople intensify their observance (Mantche, 2019). The edict acknowledges the seasonal festivals as facts of popular religion while insisting that their merit cannot compare with the daily, untimed ceremony of dhamma (Bunnag, 1973).

### 3.5 Festival Days, Auspicious Days, Fasting Days

The final items of the list are the general categories: festivals (maha), auspicious ceremonies (maṅgala), and fasting days (upavāsa). They are the umbrella under which the named days fall — every Tisya day or full-moon day is at once a festival, an auspicious occasion, and a fast day. The fasting component carried real moral weight: Buddhist laypeople, "especially at full and new moon," followed the monks' discipline of eating only two meals before noon (Islam, 2024). The edict's verdict — "other ceremonies are of doubtful value... the ceremony of Dharma, on the other hand, is not limited to time" (Bunnag, 1973) — is a complete theory of ritual: it neither denies the moon's cycles nor sanctifies them, but relocates all efficacy in moral action.

## 4. New Dimensions: The Buddhist Revaluation of Auspicious Time

Read together with the astronomy above, Rock Edict IX yields four interpretative dimensions that scholarship has underplayed.

**A) Time is moralized, not abolished:** Aśoka keeps the entire lunar framework — the auspicious winter

mansions, the uposatha tithis, the seasonal festivals, the fasts — and redefines what makes a day fruitful. The Buddhist contribution is not a new calendar but a new *theory of the calendar*: the moon organizes the rhythm of morality (assembly, recitation, fasting, restraint) while the stars lose their power to confer fortune (Bunnag, 1973; Shahrawat & Shahrawat, 2017). This mirrors the canonical doctrine that the 27 mansions are the moon's path, not the arbiters of human fate (Chakravarty, 1987).

**B) The edict is a bridge between Vedic and Buddhist time.** The same phraseology that in the Minor Rock Edicts still draws on "late Vedic and epic calendrical motifs" — Aśoka's epigraphs show him, "inspired perhaps by early residence in Ujjain," moving from that inherited grammar toward "Vinaya calendrical material in the pillar edicts" (Wright, 2000) — appears here in full flower: the edict of the uposatha days is also the edict of the Cāturmāsya and the winter mansions. Rock Edict IX is the hinge text.

**C) An ecological ethic is embedded in the calendar.** The days named are all days of fasting and restraint — and restraint toward living beings is the edict's first moral charge (Islam, 2024; Shahrawat & Shahrawat, 2017). The lunar rhythm thus functioned as a periodic brake on consumption and slaughter: a pre-modern "calendar of sustainability" centered on the full and new moon. This is a genuinely under-explored dimension of Buddhist environmental ethics and deserves its own study.

**D) Astronomy is retained as science, rejected as divination.** The edict presupposes a precise luni-solar knowledge — it could not name its days otherwise — while suppressing the *predictive* use of that knowledge. This is the exact policy of the Buddhist canon, which excludes star-divination and nakshatra-omens from the monk's livelihood as "low arts" while quietly incorporating calendrical astronomy (Fiordalis, 2014; Geslani et al., 2017; Wei-xing, 2024). Rock Edict IX is that canonical posture carved into rock.

## 5. The Sanchi Stupa: The Edict's Calendar in Stone

### 5.1 The Monument and Its Date

Sanchi was founded by the same hand — and the same calendrical imagination — that issued Rock Edict IX. The earliest structures belong to the Mauryan era, and the associated landscape is now dated independently: optically stimulated luminescence dates for the Sanchi reservoir complex cluster "between the third and second centuries B.C.," contemporary with "the earliest Buddhist monuments at Sanchi," and central to exchange networks binding the monastic and lay worlds (Julia et al., 2007). The monument's astronomical credentials are twofold: the *built* alignment of its stupas and gateways, and the *topographic* fact that Sanchi lies at a latitude where the sun passes through the zenith at the summer solstice (Sparavigna, 2015, 2017).

### 5.2 The Alignments: Solstice and Zenith

The documented archaeoastronomical finding, first identified by N. Kameswara Rao and developed in the satellite-based studies of Amelia Sparavigna, is an alignment of the Sanchi stupas with the direction of the sunset on the summer solstice (Sparavigna, 2015, 2017). Because Sanchi's latitude is close to the Tropic of Cancer, the solstice and the zenith passage coincide there: on the same day the sun's noon altitude is about 90°, so the alignment marks "the sunset direction of the day of the zenithal sun" (Sparavigna, 2015). This is the very geometry that Indian astronomy prized: Varāhamihira (6th century CE) noted that in the ancient kingdom of Avanti — the same latitude band as Sanchi, with Ujjain at 23°10'12" N — the day of the summer solstice and the day of the sun's zenith passage were the same (Sparavigna, 2017). The king who drafted Rock Edict IX had himself been viceroy of Ujjain (Wright, 2000); the calendrical culture of

that meridian — the later prime meridian of Indian astronomy — is inscribed in both the edict and the stupa.

### 5.3 India's Oldest Astronomical Monument:

Is Sanchi "the oldest astronomical object surviving in India"? Three qualifications are in order, and the honest answer requires them. First, Sanchi is certainly the earliest *Buddhist* monument in India whose layout demonstrably encodes astronomical alignments within a Mauryan horizon ([Julia et al., 2007](#); [Sparavigna, 2015](#)). Second, the claim that it is an astronomical *monument* in the instrument sense is an inference from orientation.

The rigorous model of a temple *as* an astronomical instrument is supplied by Kameswara Rao's study of the Sringeri temple which was built in the 8<sup>th</sup> century, where the illumination of zodiacal pillars was observationally tested and shown to encode a far earlier epoch ([Rao & Thakur, 2011](#)), here the same methodological standard can't be applied to Sanchi as this is built as whole astronomical monument not as a tool to examine zodiac signs. Third, older astronomically structures like circulating path, equal division system, each nakshatra spans 13° 20' are crucial to establish Sanchi as astronomical monument which oldest in India. Here Lunar phases and Sanchi stupa circulating path pillars its pillars shows moon cycle and the later Sanskrit term nakshatra denotes a special class of heavenly bodies associated with the moon. Sanchi stupa built during 3<sup>rd</sup> century in India, so "oldest in India" established scholarly verdict.

### 5.4 New Dimensions: The Pan-Buddhist Calculus of Full-Moon Architecture

The most productive comparison between Rock Edict IX and Sanchi is not chronological priority but *shared logic*. The edict names the days on which Buddhist time is kept; across the Buddhist world, sacred architecture was aligned so that those very days could be read on the horizon. In Thailand, the Phra That Doi Suthep temple is oriented to the acronychal rising of Alpha Coronae Borealis, the reference star of the Viśākhā nakshatra, precisely so that the full-moon Vesak day — the Buddhist calendar's new year — is marked by the sky ([Riyaprao et al., 2023](#)); the nearby Sri Suphan temple reproduces the same Vaisakha-nakshatra orientation ([Tiansawang et al., 2025](#)); and the Angkorian Phimai temple is aligned with the Pleiades full moon, the full moon standing in the Kṛttikā mansion opposite the sun in Scorpius ([Saelee et al., 2024](#)). Khmer temple planning, moreover, translates the Indian cosmic axis of Mount Meru into architecture, with "the position of rising and falling of the sun and stars over the temples" read as markers of the solar calendar and seasons ([Nakhon-Thailand et al., 2025](#)).

The same genre of building — the temple as a full-moon calendar — finds its Indian Buddhist prototype at Sanchi, whose stupa row was set to the solstitial sunset that fixes the zenith day of the tropical year ([Sparavigna, 2015, 2017](#)). Rock Edict IX and Historically, nakshatra referred to stars or star-groups associated with the Moon's path. In later *jyotisha*, the term also came to denote 27 equal divisions of the ecliptic.

## 6. Conclusion

Rock Edict IX names the Tisya day, the Punarvasu day, the eighth, fourteenth and fifteenth days, the three Cāturmāsya, the Tisya full moon, and the festivals, auspicious days and fasts built on them — and tells the empire that none of these days carries fruit by itself. The astronomy of the list is precise: the two winter mansions of the moon ([Chakravarty, 1987](#); [Chaube, 2025](#)), the uposatha tithis of the Buddhist fortnight ([Heirman & Torck, 2012](#); [Matsui, 2023](#); [Sakamoto-Gotō, 2018](#)), and the seasonal junctions of the luni-solar year ([Mantche, 2019](#)). The morality is equally precise: restraint toward living beings, reverence, liberality, and the untimed ceremony of dhamma ([Bunnag, 1973](#); [Shahrawat & Shahrawat, 2017](#)). Sanchi

monumentalizes the same calendar at the same latitude that produced India's canonical astronomy (Sparavigna, 2015, 2017; Wright, 2000), and joins a pan-Buddhist tradition of building the full-moon day into stone (Riyaprao et al., 2023; Saelee et al., 2024; Tiansawang et al., 2025). The new dimension Buddhism contributes — in the edict and the stupa alike — is the refusal to let the sky rule: the moon's cycle is kept as the rhythm of virtue, while every claim that a day or a star is auspicious in itself is quietly, and grandly, set aside.

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