15 Nocturnal (dark) anthropology

Spotlight on an ancient Indian civilisation

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Introduction

Artificial light at night (ALAN) and night-time illumination has had a long association with security and more recently—with beautification of cities after sunset and before sunrise. Beyond safety and decoration, the time of the night is reserved for sleep and rest, while the time of the day is meant for work and production. For centuries, nights without lights have been utilised by people for activities that could not be conducted in the broad daylight, such as burgling, hunting, and praying. The antagonistic relationship that the night and the day shared necessitated the domestication of night with the help of light. With the passage of time and with fancy illumination, societies have lost touch with the night and the natural sources of light at night, which includes the starlight and the moonlight.

However, modern times have witnessed the resurrection of night as a legitimate area of investigation for ethnographers, geographers, and anthropologists. Night studies have emerged as a theme in anthropology (Galinier *et al.*, 2010; Schnepel and Ben-Ari, 2005), which had previously been dominated by a day-centred tradition. These are exciting times for anthropologists and associated scholars with the shift in investigative focus entailing the adoption of new tools and paradigms for studying spatiotemporal nocturnal dimensions. In exploring the nature of aesthetics and imaginaries stirred by the nocturnal hours, this chapter examines the rituals, beliefs, and imaginaries that are broadly situated within an Indian context, supplemented by comparative examples from other cultures.

Imagination and imaginaries

Imagination is both an individual and a social process that contributes to a sense of cultural reality. In several ways this includes creating images or representations of objects that do not exist or of objects that do exist but are not immediately perceptible (such as celestial objects dotting the skies) (Ricoeur, 1994). Imaginaries may be accessed through verbal expressions, the artefacts that people produce, or graphic, pictorial, and written products (Salazar, 2020). Deeply intertwined with cultural and social contexts, imaginaries play an important role because they bind people together as parts of larger groups (see Dobbernack, 2014). In this context,

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the chapter underscores how imaginaries are at the core of nocturnal anthropology. When examined historically and by focusing on the night sky, imaginaries help researchers to explore how ancient societies described the night sky and celestial phenomena. Several other questions are raised. What are the most meaningful aspects about night skies? Would societal wellbeing suffer if people lack access to these meaningful aspects? How would night imaginaries be configured if people cease to engage with night skies? Do cultural variations influence or shape cultural imaginaries or are there widespread consistencies across space and time?

This chapter is divided into four parts. The first part elucidates ancient celestial observations accessed from the historical records of various cultures, with a special emphasis on the Indian context. The second part illustrates how night imaginaries are transmitted across generations through material forms (seals, carvings, and architecture), with instances from the Indian subcontinent highlighted. The third section focuses on how the differential, changing significance of the night skies might lead to the loss of both associated imaginaries and material forms. The last section underscores the contemporary means of re-establishing or probing people's changed relations with the night skies and draws contemporary implications for preservation and economic activities.

Ancient celestial imaginaries from historical records

The skies, especially dark skies, have served as a considerable source of inspiration for human ancestral groups and their imaginaries. For centuries, people have keenly examined and observed the night skies and have both externalised the results of their examinations as built architectural forms and have internalised these as religious beliefs or theological insights. This illustrates the predisposition for people to find patterns or perceive meaning in the absence of externally supplied patterns—a tendency labelled as pareidolia by psychologists (Liu et al., 2014). When it comes to constellations or random groups of stars in the night skies, pareidolic tendencies have motivated people to attach diverse meanings to celestial bodies. For instance, the Pleiades, a cluster of seven blue stars in the constellation of Taurus visible from most parts of our planet, have been a potent subject for religious beliefs. The Pleiades are also the subject of an ancient Greek mythical story about the seven daughters of the Titan Atlas (Norris, 2016). The Seven Sisters were pursued by Orion, another star constellation visible in the Northern Hemisphere's night sky from November to February and represented as a hunter. The sisters were turned into stars to protect them from Orion.

The Greeks are not alone in interpreting Orion in this way. Several Aboriginal clans in Australia also construe Orion as a hunter, or as a young man, and also associate the Pleiades with a group of mythical women or girls who are chased by Orion (see Johnson, 2011). Several other cultures from different geographical regions have created similar stories wherein Orion chases the stars of Pleiades (Gibbon, 1972). These common narrative themes could be attributed to the movement of celestial objects that follow the path of Pleiades across the night sky (Johnson, 2011). On the other hand, psychologists may be inclined to correlate

these themes with attempts at humanising both the celestial bodies and cosmic phenomena (Haynes, 1990)—undergirded by "collective societal pareidolia".

In contemporary times, literature reports that one of the seven stars—one of the Seven Sisters, Pleione-is barely visible to an unassisted human eye due to the glare from a nearby star. This was not the case 100,000 years ago when human ancestors were emerging from the African continent and migrated across Europe and Asia before eventually moving to Australia (Norris and Norris, 2021). To our ancestors, all seven stars were visible in the night sky. In line with the hypothesis on this subsequent invisibility, several mythical stories about the "lost Pleiad' have been narrated in Asia, Africa, Australia, and Europe, each offering explanations that apparently seek to reintegrate the invisible seventh star with the constellation's visible stars. For instance, in Hindu mythology the Pleiades are known as the Krittikas. The Krittikas, or the Seven Sisters, are married to seven sages, the latter the personification of the Big Dipper asterism, or Saptarshi, that is a part of the Ursa Major constellation. One day, six of the Seven Sisters fell for the charms of the fire god, Agni. Consequently, the husbands charged their wives with unfaithfulness and banished them. They eventually became the stars of Krittikas, with only one sister, Arundhati, remaining in her original position (Vahia, 2011).

This brief review shows that cultures seem to have recognised celestial groupings and used these groupings to construct imaginaries that reveal how the night skies have provided a canvas for people to weave celestial themes into their stories consistent with their predisposition for seeking patterns. Moreover, these imaginaries shaped people's terrestrial lives, and the following section illustrates how imaginaries were channelled into material forms, including coins, figurines, temples, and seals.

Celestial imaginaries and material forms

Prior to drawing connections between imaginaries and material forms, I introduce ancient religious beliefs from the Rig Vedic period (1500 to 1000 BC) as well as the post-Vedic period (1000 to 600 BC) (Dokras, n.d.). The Bronze Age civilisation—the Indus Valley civilisation—that flourished during the pre-Vedic period in the Indian subcontinent is also known as the Harappan civilisation after the city of Harappa. The civilisation thrived near the Indus River during the fourth/third millennium BCE in what is now the eastern parts of Pakistan and north-western India (Brahmavaivarta and Puranashave, 2009; Gonlin and Nowell, 2017). The earliest phase dates back to 3500 BCE while the mature phase is approximately pinned from 2700 BCE to 1900 BCE (Marsh, 2017).

The religious and economic life of the people from the Indus Valley was heavily influenced by celestial bodies. These ancient people were keen observers of lunar cycles and the movement of star constellations across the night sky. The observed cyclical patterns were integrated into mythic traditions as they gradually adopted agricultural practices and moved away from hunting or food gathering activities. The fertile land of the valley may have played a key role in precipitating this occupational shift, yet the sustenance of agricultural activities required careful time

measurement to determine appropriate periods or seasons for planting and harvesting. As such, the celestial cyclical patterns may have formed an important basis for measuring time; indeed, the discovery of artefacts with astronomical notation supports this line of explanation, with discoveries resembling finds from other ancient agricultural societies, such as those identified in settlements surrounding the Nile (de Heinzelin, 1962). A common Indian form of marking depicted a lunar phase that consisted of a cycle of waxing moon (13 days), full moon (3 days), a waning period of 11 days, and an invisible moon period for 1–2 days. Such designs were imprinted on ancient pieces of pottery and later, on Nicobar sticks discovered from Nicobar Island (Rao, 2005).

The impact of the lunar phases and other cyclical patterns associated with star constellations extended beyond the agricultural domain, to the celestial imprints on the religious life of people, notably in deploying iconographic features of material forms upon seals, figurines, and temples. Since the domain is broad, the analysis of celestial imprints is restricted to two themes. First, the focus is on the ancient worship of *Śakti*, or Mother Goddess, that marks a seminal association between fertility, the menstrual cycle, and the observations of lunar phases. Second, an explanation is adopted that seeks to showcase how the later introduction of the sun god and other associated social changes impacted the later-occurring incarnation of Mother Goddess.

The ancient people of the Indus Valley, like their counterparts in Europe and Australia, monitored constellations and the moon's monthly cycle. Initially, these observations may have been undertaken to support foraging or hunting, but with the discovery of fertile land, the relationship between celestial movements and the fertility of nature became marked. Two core elements centred upon the cyclical features of natural phenomena that have a beginning and an end and a corresponding relation between the moon and the menstrual cycle of women (North, 2008). Terrestrial life thus became intimately linked to celestial phenomena, with the observations of natural phenomena and their celestial themes and cyclical patterns infusing social and religious imaginaries and shaping the material forms that the ancient people left behind. The following two sub-sections discuss a few prominent seals and figurines from the era.

Lunar divinities and religious life

The pre-Vedic period was characterised by the predominance of female deities. The worship of Śakti, or the feminine creative force, is one of the longest standing traditions, known from prehistoric times. The term *Śakti* embodies power or dynamic energy that is responsible for creation like mothers who give birth to a new life. Like the natural and celestial cyclical patterns, Śakti also maintains and destroys. The cycle of creation, maintenance, and destruction continues indefinitely. The seminal connection to the lunar phase is laid out by Roy (1976), who states that the half-crescent moon was the symbol of mother goddesses from several cultures. A comparable example is the Greek moon goddess, Selene, who has been depicted as a woman with a crescent moon placed on her head.

Several texts mention that the notion of feminine power that undergirds the goddess Śakti subsumes both erotic and maternal aspects (Wangu, 2003), as illustrated by the excavated Indus-clay female figurines and stamp seals—bearing images that highlight female reproductive organs (Sullivan, 1964). The latter images possibly visualise fertility rather than sensuality, although their interpretation is open to debate.

The erotic and the regenerative potential of Śakti may also accrue from its association with the cult of Śiva—specifically the symbolism of Śiva as a phallic form—even though De (2021) argues that Śaivism should not be simply considered a sexual cult. Indeed, other forms of Śaivism have also been prevalent, such as the tantric form of Śaivism that thrived in the second half of the first millennium (see Hatley, 2012) and attributes a terrifying character to Śakti.

At any rate, Śakti stimulates Śiva, who embodies passive energy in the form of consciousness. For the Indus Valley people, Śiva was also Pasupati or Trimukha (Singh, 2011) and was worshipped as a phallic deity along with Mother Goddess (Ferreira, 2019). Interestingly, there appears to be an intrinsic relationship between phallic gods and female deities in various other cultures across history, including the classical civilisations of Egypt, Greece, and Rome (Bachofen, 1967).

The major support for the worship of Śiva comes from Seal 420 that was discovered at the Indus Valley civilisation site by archaeologists John Marshall and Ernest Mackay in the late 1920s. The central and largest element of the seal is a human-like figure, wearing a headdress with horns and seated on a platform in a yogic position (Figure 15.1). Two wild animals are etched on the either side of the figure—an elephant and a tiger on one side and a water buffalo and a rhinoceros on the other. Besides the animals, there is also an etched fish. The central figure is carved with a quasi-phallus between its legs. John Marshall describes the figure as a prototype of Lord Śiva. Marshall further explains that the four animals highlight Śiva's character as the Lord of the Beasts (Srinivasan, 1975). This interpretation is also in line with the other activities carried out by the inhabitants of Indus Valley, for animals were domesticated to support agricultural production.

Thoughtful objections have periodically been expressed to counter Marshall's interpretation of the central figure that appears on Seal 420 (see Saletore, 1939; Sullivan, 1964; Ferreira, 2019, for other explanations). Despite these objections, two key features link it to lunar veneration and these aspects are more important for the present argument. First, the horned motif also appears on other pieces of material arts belonging to the Indus Valley (Ferreira, 2019). Second, the fish symbol—as it appears on this seal—is also visible on other seals and in the Indus script (Mahadevan, 2011).

The horned motif is intricately linked to lunar veneration, fertility, and harvest and may have been older than the Indus tradition. Pre-Harappan pieces of pottery from the site of Kot Dijian also depict a horned head. Both horns are marked with white paint marks corresponding to the lunar count, with the size of marks decreasing from the bottom to the tip to signify the phases of the moon. Beyond the Indus Valley, evidence from other ancient societies supports this proposed lunar link. A prehistoric French Venus of Laussel is etched with amplified bodily parts.



Figure 15.1 Seal 420 at the National Museum, New Delhi. Creative Commons.

She holds a crescent-moon-shaped bison horn in one hand that bears 13 vertical marks that possibly signify 13 lunations in a year, or the rhythm of ovulation (Marler, 2003). And from ancient Mesopotamia is a bull, a specifically lunar animal with horns representing the crescent moon (Ornan, 2001). Across cultures, the wide-spread use of bulls for ploughing may constitute the underlying factor that precipitated the association between the moon and the bull. At any rate, the commonalities across ancient cultures shows that people's attempt to make sense of their celestial surroundings and their association of celestial phenomena with their common agrarian needs generated similar imaginaries across different geographical areas. Consistently, material forms from different cultures bear similarities as well.

The examples from the Indus Valley show that as with other cultures, celestial objects from the dark skies left deep imprints on religious and social life. As far as the specific relationship between Śakti and Śiva is concerned, Śakti played a more prominent role while the Proto-Śiva may have been her consort (Ferreira, 2019). Ancient lunar worship is also visible in contemporary depictions of Śiva in which he is portrayed with a crescent moon placed like a crown on his forehead. Alternatively, it may be that the crescent moon replaced the horned headgear after the pre-Vedic period, as the worship of Śiva became more prominent (Rao, 2005).

Secondly, in several older linguistic notations from India, the fish symbol signifies a star (Heras, 1953). Close scrutiny of the Indus text reveals a combination of 6 fishes that have been interpreted as associated with the six stars of Pleiades

(Mahadevan, 2011) that as previously discussed, played a significant role in ancient Indian mythology.

The Bull Cult and the taurus constellation

The Pleiades, due to their easy visibility and with an annual setting and rising pattern after a complete orbit of earth, earned a special place amongst the Indus Valley inhabitants. As the previous text shows, the significance of Pleiades can be gauged through its significance for marking agricultural activities that accrue from the star cluster's positions in the dark sky, marking the beginning of autumn and spring or seasons for ploughing and seeding (Ceci, 1978). While direct evidence is not available to link cattle breeding with the cyclical visibility of the Pleiades as it may be available for other ancient nomadic cattle groups (Sparavigna, 2008), the discovery of seals with animal motifs paired with the use of beasts for supporting agricultural production hints at links between the star cluster and cattle for the Indus Valley people.

A further line of distal evidence is available in the form of legendary stories that associate the goddess Śakti, the Seven Sisters, and bull veneration, mirroring the spatial proximity between the Pleiades and the constellation of Taurus, with both generally observed in the Northern Hemisphere's winter months (Ceci, 1978). An impressive feature of Taurus is its V-shaped pattern that resembles a bull's head and is called Hyades. Another bright, reddish star, Aldebaran, lies very close to Hyades, making it easy to perceive Aldebaran as the bull's red eye. The celestial bull impressions are captured both in material forms that the Indus Valley people produced and the mythical tales that they left behind. Examination of Indus Valley figurines (see Figure 15.2), pieces of pottery and seals reveal that the bull was not only a key figure (Sharma, 2018) but has also been closely associated with the V-shaped pattern of Hyades. The latter claim finds support in the depiction of bull horns that are commonly represented as a V (Hiltebeitel, 1978), with the most majestic motif—the zebu bull—with a hump above its shoulders.

Beyond simple pictorial depiction, the bull mythology becomes quite complex. On one hand, some argue that the crescent moon worn by Śiva is intricately linked with bovine symbolism rather than the moon or any other celestial asterism (Hiltebeitel, 1978), an argument that foregrounds the social importance of the bull as a domesticated animal and as a mode of transportation (Sharma, 2018). On the other hand, others argue that Śiva's bull epithet emanates from the traits and features of his predecessor, *Rudra*. The storm deity of that time, Rudra, is popularly labelled as the wild bull of heaven or simply the great bull (Long, 1971). The resonance with the ancient bull-Śiva pairing is the close spatial depiction of a white bull and Śiva in several present-day temples across India.

Other cultures around the world have also had a place for legendary bull stories, which have often been translated into cave paintings and figurines, as for example, with the paintings of the outlines of a bison in the ancient Palaeolithic cave discovered in south-western France. In addition, the fertility cult and the concept of Mother Goddess has been closely associated with bull symbolism within other



Figure 15.2 Animal figurines at the National Museum, New Delhi. Photograph by Neha Khetrapal.

Neolithic cultures. Striking images include those of a Mother Goddess with a bull-headed son or a child (Ganesh, 1990; Sharma, 2018). Several historians and theorists contend that the bull-headed son may represent the Hyades or the constellation of Taurus (Sołtysiak, 2001).

The bull-son finds parallels in the Greek myths of Mother Goddess or Mother Earth too (Dietrich, 1967) that focus on the story of a divine child, bearing close resemblance to the bull, who is born and dies annually, much like the cycle of the growth and decay of vegetation. These tales share features with the cycle of creation, maintenance and destruction that are often attributed to Sakti. Although there are interesting similarities, a direct comparison between the divine child and the child of Śakti remains to be drawn. The son of Śakti, not introduced thus far, is known by various names—Skanda, Kārttikeya, Murugan, and Kumāra. Evidence drawn from both textual and non-textual sources—seals and coins—traces the cult of Skanda to North India. According to the famous Indus Valley hypothesis (Agrawala, 1967; Mann, 2007), the term Kārttikeya alludes to the possibility that Skanda was the foster son of Krittikas, who may have evolved from Seven Sisters to seven divine mothers by this time. Although there are varied iconic representations of Skanda, the one with six heads offers links between him and his six mothers who are visible in the night sky to an unaided eye. Unearthed Indus seals depicting Skanda with the seven divine mothers (including the lost Pleiad) corroborate this line of argument (Aravamuthan, 1948). Within this framework of Skanda's origin,



Figure 15.3 The Dancing Girl statuette at the National Museum, New Delhi. Photograph by Jen Calliope. Creative Commons.

a rare astrological event that occurred during the third millennium BCE may have been responsible for Skanda's birth (Volchok, 1970).

From the period between the first and the fourth century CE (Dasgupta, 1974), Skanda is also portrayed as a warrior, the brave son of Śiva and his consort, Parvati. As a warrior, Skanda is associated with Orion, who slays the buffalo-demon (Mahishasura) with his spear in the view of Śiva, as portrayed in the Harappan tablet H95–2486. In this claim to Skanda's parentage, Śiva's dominance is asserted over the others, including his consort Parvati, the embodiment of Śakti. According to a recent controversial claim (Chopra, 2016), the famous Dancing Girl statuette from the Indus Valley represents Parvati (see Figure 15.3).

At the same time, it is hard to ignore arguments that there is no connection between Skanda and Śiva (Agrawala, 1967). To reconcile these opposing lines of arguments, others have claimed that Skanda may have been absorbed into the cult of Śiva by the seventh century (Chatterjee, 1970). The absorption of Skanda is paralleled by the modified iconography that emerged after the third millennium BCE, where Skanda is more frequently paired with Śiva. In the Southern Indian Tamilian iconography, Skanda's mother, Parvati, possesses a green complexion, exemplifying her continuity with nature, Mother Goddess, and the cycle of rejuvenation and destruction on Earth—as signalled by the rising and setting of Pleiades.

Influx of Aryans and modified ancient imaginaries

The Indus Valley people came in contact with several Indo-European groups between 1750 and 400 BCE (Wangu, 2003), who entered India via difficult routes over mountain ranges and failed to bring a comparable number of females with them (Sarkar, 1987). These nomadic groups, also called Aryans, appeared to be in conflict with the people of Indus Valley. This conflict eventually gave way to cooperation (Wangu, 2003). Nevertheless, Aryans who are believed to be worshippers of nature, introduced new gods into the social fabric of the region. One of the most important forms of worship was associated with the sun god (Jing, 2018), with a wheel or a golden circular plate as a key symbol (Hopkins, 2005). The wheel appears prominently in various sun temples later built across India, exemplifying how Aryan imaginaries, beliefs, and rituals were translated into material forms. However, the dominance of the Aryan groups also meant that the imaginaries that originated from the Indus Valley and their associated material forms were assigned a differential level of importance or relegated to the periphery. Consequently, visual images of female divinities seem to be absent during the period under discussion (Mukherjee, 1983). With the further passage of time, male divinities became centralised. Put differently, the dark skies that structured the religious and social landscape of ancient Indian society were subsumed under bright skies in much the same manner as the struggle between the Neanderthal religion, characterised by moon worship, and the sun religions, which later became prominent (Laoupi, 2006).

The transformation was brought about by the influx of Aryans, whose deities, representing the gendered fabric of their clans, were predominantly male (Sahgal, 2018). As a result, the Aryan patriarchal stratum superseded the matriarchal stratum of the Indus Valley (Fane, 1975). Thereafter, mother goddesses were marked by their peripheral importance (Dasgupta and Ashrama, 2004). Evidence for the dwindling importance of female deities accrues from the religious-philosophical texts of Hinduism, the Upanishads, that pay scant attention to female deities in the post-Vedic period, except for their roles as saviours to men or as wives of male deities (Amazzone, 2011). The major male deity to assume prominence was Śiva, whose transformation from proto-Śiva to Śiva exemplifies the transformed gendered-structuring of the era (see Lodrick, 2005, for other explanations associated with the prominence of Śiva). With the rising popularity of Śiva, Krittikas—identified with the stars of Pleiades—were incarnated as well. Identified as foster



Figure 15.4 Sapta-Matrikas from Pratihara, Uttar Pradesh (dated, ninth century CE) at the National Museum, New Delhi. Photograph by Rohini. Creative Commons.

mothers to Skanda, their cluster was elaborated as the Matrikas in Puranic literature (Goswami, Gupta and Jha, 2005)—whose composition dates from the fourth century BCE to 1000 CE. In the form of Sapta-Matrikas, or Seven Divine Mothers (see Figure 15.4), these female deities were also considered the goddesses of the battlefield—as created by Śiva—and who fought demons alongside him.

Although space restricts the elaboration of these transformation stories, a few important summary points are noteworthy. First, the influx of Aryans transformed the matriarchal structure of the Indus Valley. Second, the links between the veneration of night-time celestial bodies and female divinities dwindled with time. Third, the prominence of male divinities implied that female divinities played roles that accorded with their positions as consorts of male deities. Fourth, the introduction of sun worship inspired new material forms (sun temples) that become more popular than the material forms and architecture associated with female divinities.

Bright skies: sun worship

Despite this struggle and subjugation, the worship of Śakti and the reverence for Matrikas were handed down to the next generations beyond the Puranic period, albeit in a modified form and paired with the respect that was offered to the bright skies (see Das, 1977, for the spread of the Śakti cult). For instance, the Indus Valley seals, depicting female sexuality and fertility, are comparable to the images that belong to the early Gupta period (Banerjea, 1954) from the early fourth century CE to the late sixth century CE. A famous example is the image of Lajja Gauri, a female deity that bears a lotus head and exposed genitalia (Sankalia, 1960). Other discoveries of Indian plaques dating back to the fifth century CE links Lajja Gauri with the white bull icon of Śiva. These discoveries also link the worship of Lajja Gauri to the fertility cults from the Harappan times (Mishra, 2004).

Simultaneously, the sun god had achieved the status of the chief deity by the Gupta period, and several sun temples were built (Sarkar, 2011). Beyond the Gupta period, there is evidence for Matrika sculptures from the periods of the Pallavas, Cholas, and Pandyas (7th to 13th century). For these sculptures, their clothing is minimal as well (Goswami, Gupta and Jha, 2005). It is important to emphasise that although attempts to date several social and religious transitions have been carefully considered for this chapter, there are several transitions that either happened simultaneously or the historical dates—as mentioned—have been reported as estimates in previously published literature.

Revival of dark skies (contemporary)

Before the intrusion of modern ALAN and night-time illumination, ancient dark skies played a significant role in the development of religious practices, timekeeping mechanisms, architecture, and astronomy around the world. The current overview of literature from ancient Indian civilisation is only a small aspect of this global phenomenon. At the same time, astral timekeeping strategies, astral festivals, and material forms inspired by lunar traditions are other astral facets that have considerably declined over time. A large chunk of literature that tracks the decline of astral traditions and material forms is not easily accessible or has not been published, at least within the Hindu tradition. However, comparative examples from the West serve as an important basis for concluding that the relevance of night skies for Hindus and Indians has dwindled considerably. For instance, data available from Europe shows that festivals linked to star constellations are practically non-existent today (for instance, as with the festival of Panathenaia, celebrated in ancient Athens, Boutsikas, 2011). It is probable to propose that Indian night-time traditions have lost their appeal in the face of the increased reverence for the sun god and restricted access to dark skies.

More positively, the contemporary world has witnessed a revival of interest in dark skies, as testified by the recent rise of dark skies locations in Scotland (Edensor, 2013) and Arizona. Furthermore, tourism has also increased to Iceland, Canada, and Norway, where natural darkness is an essential ingredient for experiencing *aurora borealis* (Edensor, 2011). The increase in tourism and natural dark spots is encouraging, but it still remains to be seen whether this contemporary interest can compare to the widespread sanctity of ancient darkness.

Recently, Khetrapal and Bhatia (2022) argued for combining night-time tourism with cultural heritage by citing the Khajuraho temples of Central India as a means of arresting the loss of heritage value attached to architecture inspired by ancient mythical beliefs (see Figure 15.5). They further argue that the success of this new endeavour is dependent upon the minimisation of artificial illumination and the preservation of natural starlit reserves. In the long run, efforts to combine night-time tourism with cultural heritage might provide a unique opportunity to foster engagement with the nocturnal environment and rediscover the cultural or religious meanings associated with starlight and moonlight.



Figure 15.5 Temple at Khajuraho, Madhya Pradesh, India. Photograph by Paul Mannix. Creative Commons.

For the future, it remains to be seen how nocturnal imaginaries that integrate cultural practices, traditions, material forms, and architecture could potentially serve as a driving force for making progress in nocturnal, dark anthropology. In the interim, it appears as if the contemporary dichotomy between day and night may become more blurred and the metaphoric association of night with suffering and danger may diminish as endeavours within the domain of nocturnal anthropology begin to take shape.

References

Agrawala, P. K. (1967) 'Skanda-Karttikeya (A study in the origin and development)'. *Monographs of the department of ancient Indian history, culture and archaeology*. Varanasi, India: Banaras Hindu University.

Amazzone, L. (2011) 'Durga: Invincible goddess of South Asia', in Monaghan, P. (ed.) Goddesses in world culture. Westport, CT: Praeger, pp. 71–84.

Aravamuthan, T. G. (1948) 'More gods of Harappa', *Journal of the Bihar Research Society*, 34(3–4), pp. 31–82.

Bachofen, J. J. (1967) Selections myth, religion, and mother right: Selected writings. Princeton, NJ: Princeton University Press.

Banerjea, J. N. (1954) 'Some aspects of Shakti worship in Ancient India', *Prabhuddha Bharat*, 59(3), pp. 227–232.

Brahmavaivarta, D. B. and Puranashave, V. L. (2009) 'Cult of Varahi in Orissa', *Orissa Review*, pp. 80–84.

- Ceci, L. (1978) 'Watchers of the Pleiades: Ethnoastronomy among native cultivators in Northeastern North America', *Ethnohistory*, pp. 301–317.
- Chatterjee, A. K. (1970) *The cult of Skanda-Kiirttikeya in ancient India*. Calcutta: Punthi Pustak.
- Chopra, R. (2016) 'Mohenjodaro "Dancing girl" is Parvati', *The Indian Express*, 26 December. Available at: https://indianexpress.com/article/india/mohenjodaro-dancing-girl-is-parvaticlaims-ichr-iournal-4444981/.
- Das, B. (1977) 'The development of Sakti cult in Orissa during ancient and medieval periods', Proceedings of the Indian History Congress, 38, pp. 130–137.
- Dasgupta, K. K. (1974) A tribal history of ancient India. Calcutta: Nababharat Publishers.
- Dasgupta, S. B. and Ashrama, A. (2004) *Evolution of mother worship in India*. Belur Math: Advaita Ashrama.
- De, D. (2021) 'The aniconic cult of Lord Shiva: The mostly different and mysterious God of the Hindu pantheon', in Pathak, G. and De, D. (eds.) *Approaches into Indian history and cultural heritage*. New Delhi: Prakhar Goonj, pp. 99–115.
- de Heinzelin, J. (1962) 'Ishango', Scientific American, 206(6), pp. 105-118.
- Dietrich, B. C. (1967) 'Some light from the east on Cretan cult practice', *Historia: Zeitschrift für Alte Geschichte, (H. 4)*, pp. 385–413.
- Dobbernack, J. (2014) The politics of social cohesion in Germany, France and the United Kingdom. London: Palgrave Macmillan.
- Dokras. (n.d.) Puranas—collection of essays on Hindu temples. Stockholm: Indo Nordic Author's Collective.
- Edensor, T. (2011) 'Aurora landscapes: The effects of light and dark', in Benediktsson, K. and Lund, K. (eds.) *Conversations with landscape*. Aldershot: Ashgate.
- Edensor, T. (2013) 'Reconnecting with darkness: Gloomy landscapes, lightless places', *Social and Cultural Geography*, 14(4), pp. 446–465.
- Fane, H. (1975) 'The female element in Indian culture', *Asian Folklore Studies*, 34(1) pp. 51–112.
- Ferreira, M. V. (2019) Proto-Soma and Tantra: An iconographical exploration into the possibilities of the Vedic Soma's prototype in the Indus Valley. Long Beach, CA: California State University.
- Galinier, J., Monod Becquelin, A., Bordin, G., Fontaine, L., Fourmaux, F., Roullet Ponce, J. and Zilli, I. (2010) 'Anthropology of the night: Cross-disciplinary investigations', Current Anthropology, 51(6), pp. 819–847.
- Ganesh, K. (1990) 'Mother who is not a mother: In search of the great Indian goddess', *Economic and Political Weekly*, pp. WS58–WS64.
- Gibbon, W. B. (1972) 'Asiatic parallels in North American star lore: Milky way, Pleiades, Orion', *The Journal of American Folklore*, 85(337), pp. 236–247.
- Gonlin, N. and Nowell, A. (2017) Archaeology of the night: Life after dark in the ancient world. Denver, CO: University Press of Colorado.
- Goswami, M., Gupta, I. and Jha, P. (2005) 'Sapta matrikas in Indian art and their significance in Indian sculpture and ethos: A critical study', *Anistoriton*, 9, section A051.
- Hatley, S. (2012) 'From Mātṛ to Yoginī: Continuity and transformation in the South Asian cults of the mother goddesses', in Keul, I. (ed.) *Transformations and transfer of Tantra in Asia and beyond*. Berlin: Walter de Gruyter, pp. 99–129.
- Haynes, R. D. (1990) 'The astronomy of the Australian Aborigines', *The Astronomy Quarterly*, 7, pp. 193–217.

- Heras, H. (1953) Studies in proto Indian Mediterranean culture. Vol. I. Bombay: Indian Historical Research Institute.
- Hiltebeitel, A. (1978) 'The Indus valley" Proto-Śiva", Reexamined through reflections on the goddess, the Buffalo, and the Symbolism of vāhanas', *Anthropos, (H.5/6)*, pp. 767–797.
- Hopkins, T. J. (2005) 'Saura Hinduism', in Singh, N. K. and Mishra, A. P. (eds.) *Encyclopaedia of oriental philosophy and religion: Hinduism (volume 3)*. New Delhi: Global Vision, pp. 767–768.
- Jing, C. (2018) 'The mythological thought of Rigveda', International Journal Online of Humanities, 4(4), p. 12.
- Johnson, D. (2011) 'Interpretations of the Pleiades in Australian aboriginal astronomies', *Proceedings of the International Astronomical Union*, 7(S278), pp. 291–297.
- Khetrapal, N. and Bhatia, D. (2022) 'Our brightly-lit future: Exploring the potential for astrotourism in Khajuraho (India)', *The Canadian Geographer*, 66(3), pp. 621–627.
- Laoupi, A. (2006) 'The Greek myth of Pleiades in the archaeology of natural disasters. Decoding, dating and environmental interpretation', *Mediterranean Archaeology and Archaeometry*, 6(2), pp. 5–22.
- Liu, J., Li, J., Feng, L., Li, L., Tian, J. and Lee, K. (2014) 'Seeing Jesus in toast: Neural and behavioral correlates of face pareidolia', *Cortex*, 53, pp. 60–77.
- Lodrick, D. O. (2005) 'Symbol and sustenance: Cattle in South Asian culture', *Dialectical Anthropology*, 29(1), pp. 61–84.
- Long, J. B. (1971) 'Siva and Dionysos-visions of terror and bliss', *Numen*, 18(3), pp. 180–209. Mahadevan, I. (2011) 'The Indus fish Swam in the great bath: A new solution to an old riddle', in *Bulletin of the Indus research centre*, *No. 2*. Chennai: Indus Research Centre, Roja Muthiah Research Library.
- Mann, R. (2007) 'Skanda in epic and Puranic literature: An examination of the origins and development of a Hindu deity in North India', *Religion Compass*, 1(6), pp. 725–751.
- Marler, J. (2003) 'The body of woman as sacred metaphor', in Panza, M. and Ganzerla, M. T. (eds.) *Transiti, Metamorfosi, Permanenze*. Bologna: Associazione Armonie, pp. 9–24.
- Marsh, M. G. (2017) 'The Indus river valley civilization & the Vedic age of India (CA. 3000 BCE—700 BCE)', in Skjelver, D. M., Arnold, D., Broedel, H. P., Glasco, S. B., Kim, B. and Broedel, S. D. (eds.) *History of applied science & technology: An open access text-book*. Available at: https://press.rebus.community/historyoftech/part/chapter-2-the-indus-river-valley-civilization-and-the-vedic-age-of-india-ca-3000-bce-700-bce/.
- Mishra, D. B. (2004) 'Headless goddess of Nuapada Orissa (A study of its antiquity and indentify)', *The Orissa Historical Research Journal*, pp. 53–64.
- Mukherjee, B. N. (1983) A plea for study of art in coinage. Numismatic Society of India (19).
 Norris, R. P. (2016) 'Dawes review 5: Australian aboriginal astronomy and navigation', Publications of the Astronomical Society of Australia, 33, p. e039.
- Norris, R. P. and Norris, B. R. (2021) 'Why are there seven sisters?' in Boutsikas, E., McCluskey, S. C. and Steele, J. (eds.) Advancing cultural astronomy. Cham: Springer, pp. 223–235.
- North, J. (2008) Cosmos: An illustrated history of astronomy and cosmology. Chicago, IL: The University of Chicago Press.
- Ornan, T. (2001) 'The bull and its two masters: Moon and storm deities in relation to the bull in ancient near Eastern art', *Israel Exploration Journal*, 51, pp. 1–26.
- Rao, N. K. (2005) 'Aspects of prehistoric astronomy in India', Bulletin of the Astronomical Society of India, 30, pp. 499–511.
- Ricoeur, P. (1994) 'Imagination in discourse and in action', in Robinson, G. and Rundell, J. F. (eds.) *Rethinking imagination: Culture and creativity*. London: Routledge, pp. 87–117.

- Roy, S. B. (1976) *Prehistoric lunar astronomy [19000–3100 BC]*. New Delhi: Institute of Chronology.
- Sahgal, S. (2018) 'Constructing "Vedic" masculinities', *Social Scientist*, 46(9–10), pp. 23–42.
- Salazar, N. B. (2020) 'On imagination and imaginaries, mobility and immobility: Seeing the forest for the trees', *Culture & Psychology*, 26(4), pp. 768–777.
- Saletore, B. A. (1939) 'Identification of a Mohenjo-Daro figure', *The New Review*, 10, pp. 28–35.
- Sankalia, H. D. (1960) 'The nude goddess or" shameless woman" in Western Asia, India, and South-Eastern Asia', *Artibus Asiae*, 23(2), pp. 111–123.
- Sarkar, B. K. (2011) 'Temples of the sun god in early Assam', *Karatoya: NBU Journal of History*, 4, pp. 2–35.
- Sarkar, P. R. (1987) 'Tantra and Indo-Aryan civilization', *Discourses on Tantra*, 1, pp. 141–175.
- Schnepel, B. and Ben-Ari, E. (2005) 'Introduction: 'When darkness comes': Steps toward an anthropology of the night', *Paideuma*, pp. 153–163.
- Sharma, R. (2018) 'A study of terracotta bull figurine of Harappan Sites in Rajasthan (Indian context)', *Proceedings of the Indian History Congress*, 79, pp. 744–755.
- Singh, U. (2011) 'Religious life under the Chandellas', *Proceedings of the Indian History Congress*, 72, pp. 220–231.
- Sparavigna, A. (2008) *The Pleiades: The celestial herd of ancient timekeepers*. Available at: http://arxiv.org/abs/0810.1592 (Accessed: 8 August 2022).
- Srinivasan, D. (1975) 'The so-called proto-Siva seal from Mohenjo-Daro: An iconological assessment', *Archives of Asian Art*, 29, pp. 47–58.
- Soltysiak, A. (2001) 'The bull of heaven in Mesopotamian sources', *Culture and Cosmos*, 5(2), pp. 3–21.
- Sullivan, H. P. (1964) 'A re-examination of the religion of the Indus civilization', *History of Religions*, 4(1), pp. 115–125.
- Vahia, M. (2011) Astronomical myths in India. Mumbai: Tata Institute of Fundamental Research.
- Volchok, B. Y. (1970) 'Towards an interpretation of the proto-Indian pictures', *Journal of Tamil Studies*, 2(1), pp. 29–51.
- Wangu, M. B. (2003) *Images of Indian goddesses: Myths, meanings and models*. New Delhi: Abhinav Publications.