

Astronomy of three Indian tribes

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Abstract: Indian subcontinent hosts a large number of tribes that have lived semi isolated existence with their own intellectual traditions. Here we have report the principle astronomical beliefs of three such tribes in Nagpur region. The communities are conspicuous by their lifestyle and their habitation – in reserved forests of India. They do not have long term calendars – typically resetting them every year with sky observations (now handed down by tradition) and a count of no more than 3 years. We discuss their principle astronomical beliefs reflect their relation with the land. Tribes with the longest farming traditions – the Gonds have the most complex astronomical beliefs while the foragers like Kolams have a better memory but relatively less sophisticated if more imaginative astronomical ideas. Kolams also use sky extensively for predicting monsoon and have memories of eclipses. Compared to this, the most recently settled Banjara's have only a passing interest in astronomy and do not look at the sky for any guidance.

1. INTRODUCTION

India has a large tribal population that has lived an independent existence over the millennia (von Furer-Haimendorff, 1982). They have their own intellectual traditions that have not been contaminated by ideas from the main stream India. With the programmes of Government of India to integrate them into the larger national mainstream through education employment and infrastructure, their traditional knowledge and belief systems are being lost. In order to preserve records of their astronomical traditions, we spent about 2 weeks spread over 2 years understanding their astronomical ideas. These are presented in detail in Vahia and Halkare, (2013) and Vahia et al. (2014). Here we briefly summarise their astronomical beliefs and discuss its relation to their lifestyle.

2. THE INDIAN TRIBES

The three tribes we studied are the Banjaras, Gonds and. Kolams. Even though they share the same geographical landscape of central India, and often live in the same village, their endogamous practices and other tribal dynamics have ensured that they remain independent of each other.

Banjaras are a very large tribal group distributed in most parts of India and claim to have relation with the Gypsies of Europe with whom they have a lot of cultural affinity and some genetic similarity also. They speak a language with roots in Austro Asiatic with a heavy and localised admixture of local languages. Conventionally they have been movers and traders running large networks of transportation of goods across the subcontinent by moving in large groups with commercially useful material. They are therefore one of the most forward looking tribe conscious of their traditions. With the advent of railways about 150 years ago, their major trading activities became redundant and they were forced to settle down in different parts of India.

Kolams are one of the smallest and poorest of tribes who lived by forest produce until recently. These foraging groups were also very mobile and only over the last few decades have they settled into villages. In many villages the elders can recall their foraging lifestyle of younger days. With their extensive knowledge of the landscape and the skies, they must have been masters of traditions of forest worship. They therefore also served as priests to the Gonds in recent past.

Gonds are the largest of Indian tribes which is largely settled in central India and have had a long tradition of farming. They are also known for their independent traditions and farming methods. At the peak of their cultures they had a kingdom extending over large stretches of central India.

All these tribes reside in protected forest of central India and survive on its produce. Education is now becoming available to them and many youngsters often speak the language of their native state. In general their religious beliefs rely on worship of Sun, Moon and supernatural beings who helped their communities in the early times. However, their myths are not very well developed.

3. PRIMARY ASTRONOMICAL BELIEFS

In table 1 below we have list the primary astronomical beliefs of the three tribes.

Table 1: List of astronomical beliefs of the tribes and Hindu astronomy (Vahia et al., 2014). Cells in bold indicated their most commonly found beliefs.

Banjara	Kolam	Gonds
Orion – Harini	Pleiades: Kovala Kor one large and several small birds.	Orion and Tipan and the entire farming scene around it.
Big Dipper as the cot of death Jamakhat (Yamakhat)	Big Dipper <i>Saptarshi</i> is <i>Mandater</i> meaning cot.	Big Dipper Saptarshi as an old lady's cot
Porya Tara – a morning star	Three following stars are 3 people, a Kolam, a Gond and Pardhan (chief).	Morning and evening star
Subtara – evening star (star of good omen)	They know Orion as <i>Tivpate</i>	Comets as god's broom
Comet star with tail	Morning star is <i>Vegud suka</i>	Milky way
Shooting star as Tara tutgo	Evening star is <i>Jevan suka</i> .	Names of Sun and Moon
Milkyway (Mardaar wat)	Solar Eclipse	Pleiades as stones thrown to birds
Moon is called Chanda	Samdur Pegasus	Shooting stars
Glow around the moon to predict monsoon	Five animals around Pegasus	Duration of Month and leap year
Pleiades as a piece of jewelery Jhumko tara	Crux as Mahua tree	Purad or Hola (Canis Major)
Pole star identified	Milkyway is <i>Margam</i> a path of the animals	Glow around the moon
Monsoon predictions by direction of clouds	Scorpius as snake	Names of months
Crow nest and monsoon	Cygnus as <i>Kavadi Kunde</i>	Samudar
Taurus when seen in the East brings rain.	Comets Sipursuca stars with tails	Scorpius
Moon with old lady and tree	<i>Bhori</i> is Taurus. It is a bird (Aldebaran) with two eggs.	Topli
At Canis Major they can see the Medi	Scorpius as <i>Tuntor</i> (scorpio)	Bohahari
Solar Eclipses	Canis Major is <i>Met</i> . The ground is known as <i>Kalave</i> .	Medi
Fox in the jungle	Shooting star	Glow around the moon and monsoon.
	Rainbow	
	Asterism that appears like a spiral	

	Lunar Eclipse	
	Directions	
	Big Dipper Saptarshi as a spoon that brings rains	
	Orion as <i>Kavadi Kunde</i>	
	Leo	
	Moon glow and rain	

As can be seen from the table, the primary astronomical beliefs of the three communities vary very significantly. While Orion, Ursa Major and the concept of morning and evening star seem to be the most prominent associations with the sky, the importance of other observations vary between different communities.

Gonds have astronomical perspective that includes cosmogony and mythology as well as relation to their daily life. For example, they imagine a magnificent farming scene in the region of Orion – Taurus – Andromeda. They also insist that Big Dipper should not set in the sky – an observation that would have been real around 1000 AD. They also see a procession of death in Leo and use it as a reminder to what nature can do if they do not respect it.

Compared with this Kolams are more sensitive to local omens. They use the sky to predict monsoon in an intricate manner. They predict the strength of the monsoon by studying the glow around the moon and the brightness of constellations around Pegasus or Centaurs. They have a strong beliefs on Solar eclipses with total eclipse being good while eclipse where only upper or lower part is covered as unholy for humans and animals respectively.

Banjaras are not very enthusiastic sky watchers. They used terrestrial omens to predict monsoons and see bits jewellery in Pleiades and some commerce on the Moon.

The difference between the three tribes correlates well with their relation to land. Gonds with the longest farming traditions have the most extensive astronomy while Kolams who have been foragers have a more direct approach to sky and omens. Banjaras who have been settled only recently do not have any particular love for the night sky.

References

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