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# **Astronomy and Science-Behind the Myth**

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#### Abstract

Most of the mythological scholars are from the background of languages and literature. So the inner scientific meanings of various facts are masked. Only the knowledge of science more precisely Astronomy can give a correct interpretation. The correct interpretations are very revealing and make many unknown notions to light. Such types of innumerable insights are strewn across the ocean of literature. From the detailed analysis it has been shown that indeed these were known a long back this period and most of the concepts are in fact inherited from the earlier legacy.

#### 1. Introduction

The word Myth can be traced to the word 'Mithya' the Sanskrit word, literally it means untruth. Most of our Indian mythology was written as poetic and allegorically descripted and based on scientific and astronomical events and facts [1,2,3]. Unfortunately, our most of the mythological scholars are from the background of languages and literature. So the inner scientific meaning of various facts are masked. Only the knowledge of science more precisely Astronomy can give a correct interpretation. The correct interpretations are very revealing and make many unknown notions to light.

### 2. Astronomical Chronology of Events

In Rig Veda, the oldest extant Indo European literature, where various hymns were attributed to Sunashepa, literally it was the tail of the dog [4]. From the hymns it was appeared that Sunashepa was to be sacrificed to heaven as promised by Sunashepa's father. He was bound by the three pegs. At the time of sacrifice Sunashepa implored the Gods and finally was spared though instead of sacrifice he had to accept the head of an animal. Similar myth occurred later in the other tradition also. Orion the Hunter with the three stars in his belt and the dog star Sirius trailing behind and trying to enter Zodiacal belt of the heaven. Interestingly, the stars near the Orion's head, in Sanskrit which is called Mrigasira or it literally means head of an animal.

The story of Sunashepa appeared in Hindu Epic in two different forms. First is the story of Trishanku in Ramayana literally with the three pegs was a mythical king and he tried unsuccessfully to enter the heaven means the zodiac in the human form. Trishanku was not admitted and left hanging in midway. Apart from this mythological representation of the constellations, it also gives astronomical chronology which enables one to date this events and epics.

Another mythological character appeared as the king Yudhishthira, in the later epic Mahabharata. After losing all his near and dear Yudhishthira started the lonely trek to heaven accompanied by a faithful dog. At the gate of heaven he was welcomed but he was informed that there is no

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permission for the dog to come in. As the dog was abandoned so he rejected the invitation to heaven. This event also refers to constellations Orion the hunter and trailed by Sirius the dog these are just outside the zodiacal belt which is the path of the Sun or the abode Vishnu.

The Ramayana is the one of the oldest epic of India which is created around the story of Rama who was an embodiment of moral and just. Rama or Ramachandra, the meaning of Chandra is the Moon and moon is wedded to Sita. Sita is the symbol of perfection and she is the daughter of King Janaka literally means the king of man. Sita was found in the farming field while Janaka ploughing. If anyone go through these symbolism and imagery, it is clear that it relates to fast agricultural practice by human and left hunter gatherer lifestyle. Sita is the production of Earth which is the harvest and is wedded to Moon that is symbolises months and seasons. In this way earliest calendar started on the basis of lunar months. For the necessity of agricultural activity humans are forced to invent calendar. Chronologically, there is agreement with the modern estimate of start of the agricultural activity, which is actually the epi- paleolithic age.

In Ramayana we find description of various events which took place parallely when human coexisted with a species of sub human called Vanaras, literally means not fully human, in myth it is considered as monkeys. Vanaras used stone weapons unlike the human who used the Bows and arrows. The archaeological excavations in Nevali Cori shows exactly this type of coexistence [5]. Stone age implements can be found along with the megalithic structures like Carved pillars, Halls and well planned habitations and various complicated sculptures. The date of archaeology of this civilization is approximately 7500 BC, this date coincides with astronomical chronology of the author of portions of Rig- Veda and Ramayana. We should remember that the culture generally coexists with succeeding culture, before it dying out. The Mahabharata describes various events which took place much later in the iron age.

In Ramayana the two different interesting facts are- the first fact is related to the Ancient Indian mythological concept of ten manifestations or Avatars. This corresponds very closely to the evolutionary patterns of life on earth. The first manifestation/ avatar was the fish which symbolises the origin of lives in the sea. The second manifestation/ avatar was the tortoise which symbolises the amphibious character of next stage of the evolution. The third manifestation/ avatar was a boar which which symbolises a mammal's appearance. Next we move to pygmies. It is mentioned in Ramayana that human Parshurama was a manifestation and axe was his weapon. The axe-wielder Parashurama who lived upto the manifestation of Rama, in this manifestation bows and arrows were used. The symbolical fact that the stone axe of stone age turned into more modern bows and arrows. The Rama avatar was turned into Krishna who was one of the heroes of Mahabharata. Krishna avatar belonged to the early prehistoric periods and to the iron age. In fact Krishna used various iron

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weapons. It is explicitly mentioned that Rama and Krishna are to different manifestation of two succeeding eras.

In Ramayana the second correlation is that the bridge which was built by Rama and the forces of Vanaras, between India and Sri Lanka. It is very surprising that from evidence of satellite imaging technique, it is clear that indeed there is a bridge like formation which connects India and Sri Lanka exactly at the same place as described in Ramayana.

Indeed a thorough study of some of ancient Indian literature reveals surprisingly an accurate knowledge not only about the sky but also about geography. As for example, in Markandeya Purana [6] it is described that the earth is flattened at the poles in one hand, on the other hand it describes many lands including samar Kanda, the Samarkanda of present day and various rivers including some of the nearly forgotten rivers of India like Vansadhara and Nagavalli.

Various mythological depictions actually describe the drama in heavens that was guessed in the 19th century [7]. For example, the Goddess Saraswati riding a swan and plays the stringed musical instrument. Celestial Saraswati is actually the Milky- Way flowing over Swan the Cygnus with instrument Lyra the Harp. Another example The Goddess Durga appears as a virgin rides a lion, can be identified with the Constellation Virgo the virgin on Leo the lion and so on.

A very interesting mythological story was that an ancient Indian king named Bhageerath who saw the souls of many of his ancestor are in a grieving state. They were the children of king Sagara, literally means the sea. They requested Bhageerath to bring the water of celestial Ganga to them for their redemption. To bring Ganga is a very beautiful tale that describes many tribulations and travails which Bhageerath had undergone to fulfill the desire of his ancestors. At first Bhageerath had to convince the Ganges to come down to earth. But then he came to know that the earth would be broken up with some impact. He then plead and persuade God Shiva to take this impact onto himself. God Shiva agreed to do but very soon got annoyed, and tied up this falling water of Ganga in his hair knot or Sikhara, literally means peak. Bhageerath then plead and persuade once again God Shiva to release the water of Ganga. After this travails finally Bhageerath was able to bring Ganga to his ancestors that is to the sons of Sagara means sea at the Bay of Bengal. Every year this day is celebrated there. This is the mythological tale how water falls down on Himalayas and it gets frozen on the lofty peaks of Himalaya, one of the peaks is known as Shivalik Mountain range till today. The snow of Himalayas then melts and the water falls down and flow as Ganga with many tributaries. In fact, the river Ganga feeds drying up tributaries that are Bhageerath's ancestors, the sons of the sea. Finally the river Ganga ends up in Bay of Bengal.

In Mahabharata, it is mentioned that Arjuna accompanied by Krishna encounters an 'Asura' named as Maya. They acted as friend with Maya and in return of friendship Maya built a castle for Arjuna. Indian mythology says that the planet Venus(Sukra) is the preceptor of Asuras while the planet

Jupiter(Brihaspati) is the preceptor of Arjuna and his folk. According to Mayan legend, the people of dark and fair visited them- literally Arjuna means fair and literally Krishna means dark. Mayan legends also suggested that the fair warrior is ambidextrous- that infact Arjuna is known by this name. Final insight of the meaning of all has come from two different facts. According to Varahamihira's Panchasiddhantika, C.500A.D, a compiled five calendar of astronomical traditions could be known [8] that the Asuras are antipodal people- actually Mexico and India are on the opposite side of the earth's meridian. Moreover, the ancient people of Mexico are known that they were obsessed with Venus, also they had the detailed informations about this planet and preserved till today in Dressden Codex. But India follows sixty years Jovian cycle of planet Jupiter. Moreover both the cultures having the same period of early prehistory. Thus the legends of mythological Mahabharata describe the encounter of the two cultures. The above discussion would explain the puzzle of the presence of some of the Hindu motifs, for example, the elephant or a tortoise carries twelve pillars, in the Mexican symbolism. As mentioned in the above discussion, the composers of both the myth had surprising knowledge about the various physical events, even including the water cycle. In Aditya Hrudayam or in Hymn of Sun, the Sun drinks water on earth and again it pours

#### 3. Conclusion

down the water back to the earth.

Such type of innumerable insights are strewn across the ocean of literature. Some scholars concluded, without a proper evidence that even the concepts such as zodiacal constellation and the other constellation were of the Greco- Babylonian origin. From the detailed analysis it has been shown that indeed these were known a long back this period and most of the concepts are in fact inherited from the earlier legacy.

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