Volume 10 (2003), Issue 6

# A note on the Ramayana

by S. S. N. Murthy

ISSN 1084-7561

http://dx.doi.org/10.11588/ejvs.2003.6.776

#### A note on the Ramayana

S. S. N. Murthy, School of Physical Sciences, Jawaharlal Nehru University, New Delhi-110067, INDIA. E-mail: ssnm0700@mail.jnu.ac.in

The stories of Rāmāyaṇa (Rmn) and Mahābhārata (Mbh) are always viewed differently from the other Hindu mythological stories as they are categorized as 'itihāsa' or Epics, implying that they contain some historical facts. The authors of such Epics generally tended to make liberal use of philosophy, yogá, numerology and Vedic themes, often obscuring the original historical event (if any)¹. In the past, Rmn has been subjected to in depth analysis to find out to what extent the story depicted in Rmn is historical in nature (for a review, see: Goldman 1984; Brockington, 1984, 2000). However, the problem is compounded by the presence of three early versions of the Rmn: the Vālmīki Rmn; the Rāmôpākhyāna of the Mbh and the 'Daśaratha Jātaka ' (DJ), (the Buddhist version), each of them differing from the other considerably. Also, these versions seem to have undergone a lot of modification (especially the Hindu versions), before they were handed over to us in their final form²,³. Under these circumstances, keeping in mind the religious purpose behind all this literary activity, it is difficult to pinpoint the original story.

From all the available literary evidence, it appears that the Epic Rmn was compiled between 300BC-200AD, although the core story could be as old as 500BC (Winternitz, 1996, Goldman 1984; Brockington, 1984, 2000). The main story as depicted in the Hindu version of Rmn (which is the subject of present discussion), if historical, can not be older than the kingdom of Kosala as the story revolves around it, and hence, cannot be given a date prior to ~700 BC. Some historians date the event between 800-600 BC and the scene of the battle (Laṅkā) to be Chota-Nagapur region in India (Sankalia, 1971; Thapar, 1987); while others view the battle as part of an aggressive Aryan colonization of Southern India (Kosambi, 1999; Mudaliar, 1983) and the modern Srilanka to be the place where the great battle took place. Some orthodox scholars place the event of Rmn even prior to the historical period of Mbh, but unfortunately the Mbh that we know today appears to be a dramatized version of 'the battle of ten kings' described in RV and, as such, has no historicity of its own (Murthy, 2003). Some absurd dates have also been suggested in order to establish monkeys in the Epic Rmn, as the missing links in the evolution of human beings.

<sup>&</sup>lt;sup>1</sup> See, for example Thadani, 1933; Bhattacharya 1969; Bunce, 2002; and Murthy, 2003.

<sup>&</sup>lt;sup>2</sup> Brockington (1984) based on linguistic and stylistic details, is of the opinion that the Epic Rmn has grown to the present status in five phases: 1st (37.1% of the text, 4th to 5th century BC); 2nd (34.1% of the text, 3rd C BC to 1st C AD); 3rd (24.6% of the text comprising kāṇḍas I & VII, 1st to 3rd C AD) and the remaining portion of 4.2% of the text after 4th C AD to 12th C AD (and above).

<sup>&</sup>lt;sup>3</sup> The role of Bhrgus in the amplification of the Epic is well described by Goldman (1977).

The archeological excavations (Ghosh, 1989) at places mentioned in the Epic story have failed to substantiate the above claims or yield any information of importance in the context of the historicity of the Epic. However, the archeological discovery of a large number of Harappan sites in the Indian subcontinent especially in the last 20-30 years (Kenoyer, 1998), has given rise to fresh speculation that these sites might have something to do with the kingdoms mentioned in Hindu mythology. Some claims have also been made to establish the hero of Rmn as belonging to the Harappan civilization, and have become a subject of criticism (Witzel and Farmer, 2000).

Many explanations exist regarding the origin and theme of the Epic story. According to Jacobi (cf. Sen, 1997; Winternitz, 1996; Garrett, 1997) the Epic is largely based on the Vedic theme of the Indra-Vṛtra myth and vegetational fertility, and hence, it is believed that the events mentioned in Rmn are of doubtful historical value. Jacobi's argument is based on the mention of the word 'Sītā' to mean 'furrow' (or the goddess of agriculture<sup>5</sup>) in the Vedas<sup>6</sup>. Although, in the Vedas the word 'Rāma' appears to refer to a man<sup>7</sup>, in the later Hindu mythology it is always connected with the name of persons associated with agriculture (Winternitz, 1996; Dumezil 1959)<sup>8</sup>. Weber and others (cf. Davane, 1995) see a strong analogy between Rmn and the Greek mythology and similarities between the Greek goddess of agriculture 'Athene' and 'Sītā' of the Rmn. However, comparison of Rāma with the Vedic god Indra, as is done in some of the above works, is not entirely convincing as many other characters of the Epic are also referred to as Indra. However, one cannot miss the involvement of Brahmā in the entire Epic.

Brahmā (m) is not a vedic deity and is not mentioned either in the Vedas or in the earlier Upaniṣads. He is a personalized form of the abstract Bráhman (n) of the late Vedas and Upaniṣads. He is credited with some cosmogenic myths associated in the later vedic period with Prajāpati, essentially he (Brahmā) is a fusion of a creator deity with the impersonal absolute Bráhman in a more popular and therefore, personalized form (Brockington, 1997). He was a major figure in the early Purāṇic time (200 BC to 100 AD), but is subordinate to Bráhman along with Viṣṇu and Śiva. During the Purāṇic times, he is also conceived as a fusion of certain traits associated with the other Vedic deities like viz. Prajāpati, Dhāta, Viśvakarman, Hiraṇyagarbha and Puruṣa as well

<sup>&</sup>lt;sup>4</sup> Jha and Raja Ram, 1998; and Krishna Rao, 1998.

<sup>&</sup>lt;sup>5</sup> See Gonda (1969), especially p.29.

<sup>&</sup>lt;sup>6</sup> RV.IV.57 and AV.III.17.8, 9 and Sītā appears as a woman of wonderful beauty and wife of Indra in Kauśikasūtra (cf. Davane, 1995). Also, see AV. VI.30.1, where Indra is described as the 'lord of the plough' (also see, Kharade, 1997). However, some caution has to be exercised as RV.IV.57 is regarded by Oldenberg and many others as late addition. Witzel in his comments on this article (private communication), is of the opinion that Sītā just means "furrow" here, no goddess or woman is intended in these hymns.

<sup>&</sup>lt;sup>7</sup> RV.X.93.14 (also, see Macdonell, 1995). The word "Rāma" means 'dark' or 'to please' (MWD) and is also said to mean 'water' in the RV (Mudaliar, 1983).

<sup>&</sup>lt;sup>8</sup> Balarāma and the sage Paraśurāma of the Mbh always carried a plough and a battle-axe respectively as their weapons: both of which are agricultural implements (Winternitz, 1996). Interestingly, in Rmn, Rāma is addressed as 'Rāma -Candra', where Candra, the moon is 'the lord of vegetation' (Apte, 1998).

(Khan, 1981; Gonda 1950)<sup>9</sup>. As Prajāpati he is related to Kāla, time personified as a god (AV.XIX.53) and Savitṛ (RV.4.53). The Bhṛgus are one of the main contributors to AV<sup>10</sup>, also known as Brahmā -Veda. The senior Bhṛgu is said to be born to the Prajāpati in the Brāhmaṇas (Khan, 1981; Mitchiner, 1982) and whereas, in Rmn (Rmn.VII.94.613), he is said to born of the mind of Brahmā. Interestingly, the authorship of Rmn is attributed to the sage Vālmīki, a descendent of Bhṛgu. Consequently, it is not surprising that a deeper analysis of Rmn clearly reveals an attempt by Vālmīki to not only involve Brahmā (though indirectly) but also to cleverly incorporate the myth of creation<sup>11</sup> ascribed to Brahmā in the Epic story with a view to glorify him. The characters and events actually revolve round the natural phenomenon of the formation of rain (water) that creates and nurtures all life on earth. In the entire Epic one comes across innumerable instances which corroborate this view and which are discussed below. It is assumed the reader is familiar with the Epic Rmn<sup>12</sup>.

## (I). Brahmā as the main force in the Epic:

On a closer examination of Rmn, one can realize that it is actually Brahmā who is the main force: (i) he creates both Rāma and his brothers, by offering the divine pāyasa to Daśaratha through his assistant; (ii) is instrumental in creating Rāvaṇa, through his mind born son Pulastya Brahmā; (iii) he is also instrumental in creating problems to the three worlds by making Rāvaṇa and Indrajit powerful through his 'boons'; (iv) his creation, the divine chariot 'Puṣpaka', is used to kidnap Sītā, which becomes the root cause of enmity between Rāma and Rāvaṇa, and (v) finally, he ends the entire drama by getting Rāvaṇa killed by his divine weapon, the 'Brahmāstra'. Moreover many characters in the Epic are either the descendants of Brahmā or were made powerful by his boons.

The author's fascination for Brahmā in the Epic also becomes clear by the frequency with which he uses certain numbers, especially four, seven and ten, associated with the cult of Brahmā <sup>13</sup> for the description of various themes, characters and events. Various forms of Brahmā, in which different people worshipped him, made various numbers sacred to the respective worshippers. It is very difficult to say at what stage these numbers were inducted into the story either collectively or in stages, because

<sup>10</sup> The Bhṛgus are sometimes clubbed together with the so-called Brahma-rākṣasas who have contributed to the bulk of AV, and hence, the AV is also called as Brahma-rākṣasas Veda (Pargiter, 1997; Dawson, 2000).

<sup>&</sup>lt;sup>9</sup> The reader may also refer to: Gonda (1984, 1989).

<sup>&</sup>lt;sup>11</sup> The myth of creation by Brahmā is discussed in many of the Purāṇas, including the oldest ones. The commonality of the occurrence of the same myth in all Purāṇas makes us believe that it must have a common origin, which in all likelihood is as old as the AV. That the Purāṇas exist check at the time of the AV is evidenced by the mention of them in some of the incantations of AV.XI.7.24; XV.6.4.

<sup>&</sup>lt;sup>12</sup> The citation shown in the brackets throughout the present article refers to Rmn (Sastry, 1962), along with the page number, unless specified otherwise.

<sup>&</sup>lt;sup>13</sup> Bhattacharya (1969) thinks that this cult was mainly considered as a religion of the ásuras, after its suppression by the Vedic religion. The association of the numbers 4, 7 and 10 with this cult was very well described by Bhattacharya in his book and hence, needs no further explanation. He is also of the opinion that this cult is pre-Vedic in nature, and was later on accepted by the Bhagavata and Vaisnava religions.

the numbers seven and ten are also used many a time in the Vedas. The prevalence of these three numbers in the Brahmā cult is because of three different philosophies associated with Brahmā. The numeral ten is sacred as the Bráhman (n) is said to pervade the entire universe, which is often described as having ten different directions<sup>14</sup> and since, Brahmā is a personalized form of Absolute Bráhman (n), this number has also become sacred to the worshippers of Brahmā. This number has been used at a few places in Rmn<sup>15</sup>. In this context it is interesting to see the incantation AV. IV.6.1, addressed (according to the anukramaṇī) to the deity Takṣaka<sup>16</sup> (Brahmā in the form of ViŚvakarmā <sup>17</sup>?), which reads as follows. "The Brāhmaṇ was born first with ten heads, with ten mouths; he first drank the soma; he made the poison sapless" - (Whitney's translation). Whitney is of the opinion that the term 'Brāhmaṇ' refers to the first varṇa<sup>18</sup>. The same verse in the translation of Devi Chand reads, "The ten headed and ten faced Brāhmaṇ was first brought to life. First…"

The word 'ten headed Brāhmaṇ' may also mean as the one who is endowed with ten good qualities, and the word 'ten faced Brāhmaṇ' as the one who possesses settled rule in ten directions (Devi Chand, 1982). [Spiritually, the number ten refers to ten senses: five of internal and five of action (Thadani, 1933)].

Interestingly, the idea behind the creation of Rāvaṇa, the villain of Rmn, can be traced to the above verse. He possesses ten heads<sup>19</sup>. [And also he is said to be the grandson of Brahmā (occasionally addressed as 'Rāvaṇa Brahmā'). It is probably because of this reason, he is also said to belong to the first varṇa, (also pl. refer to foot note.18)]. Interestingly enough, Rāvaṇa in Rmn is said to be well versed in the Vedas and is also said to have subjugated all the rulers of the eight / ten directions. A similar meaning can also be ascribed to the word 'Daśaratha', a title said to have been given to the father of Rmn<sup>20</sup>, who is also well versed in the Vedas and at a few places, he is compared to

<sup>&</sup>lt;sup>14</sup> See. AV.XI.7.4 and XIII.4.6.

<sup>&</sup>lt;sup>15</sup> The number ten is inherent in the names of the two important characters in the Epic, viz. Daśagrīvā (Rāvaṇa), Daśaratha; the battle between Rāma and Rāvaṇa lasts for ten days, the army of monkeys is said to be ten crores, ten is the number of years Rāma spends in the forest of Daṇḍaka, reference to ten directions at a few places in the Epic, reference to a Tāṭa tree with ten crests located between the Meru and Aṣṭācala mountains, performance of ten Aśvamedha yāgas by Rāma and use of ten arrows at a time in the battles mentioned in the Epic, etc.

<sup>&</sup>lt;sup>16</sup> Whitney considers Taksaka to be the primal Brahman among the serpents.

<sup>&</sup>lt;sup>17</sup> See, Dawson (2000).

<sup>&</sup>lt;sup>18</sup> Many native scholars are of the opinion that 'Brāhmaṇ' simply is the one who knows 'Bráhman' (through the Vedas) and as such, it does not refer to any varṇa, especially during the Vedic period. Interestingly, however during the Purāṇic time, the descendants of Brahmā are said to belong to the first varṇa although there is a lot of confusion on this front.

<sup>&</sup>lt;sup>19</sup> For various opinions on the ten heads of Rāvaṇa, the reader may see p.15 of Brockington (1984). Brockington is of the view that they are metaphorical for his strength.

<sup>&</sup>lt;sup>20</sup> Mani (1975), quoting Kambar Rāmāyaṇa, tells us that the actual Rāmāyaṇa name of Daśaratha is 'Nemi'. He is named so as he had fought the demon Śambara in all the ten (daśa) directions using his chariot (ratha).

Prajāpati (I.15, 160). By relating them to Brahmā / Prajāpati the composer's intention to involve Brahmā in the Epic becomes evident again, and hence, one does not see any historicity in these characters.

The other number used in Rmn<sup>21</sup> and considered sacred to the Vedic Rsis is the number seven. Connected with the creativity of Prajāpati, this number is important in yogá philosophy, too. According to Mitchiner (1982), the seven Rsis 'reside in the head' and the head is the residence of Bráhman (the absolute, Supreme of all) and is the Brahmā -loka itself -- whence the entire creation is sent forth with the help of the seven Rsis or Prāṇas (vital airs). Because Brahmā is a fusion of a creator deity (Prajāpati) with the impersonal absolute Bráhman in a more popular and therefore, personalized form, the same numeral seven has become sacred to Brahmā too. In iconography, this aspect is represented symbolically in Brahmā's car being drawn by seven swans<sup>22</sup> (Khan, 1981). Interestingly enough, seven is also associated with the cult of Kāla<sup>23</sup>.

An important number used very liberally in Rmn that deserves a detailed discussion is the number four, which is central to Brahmā. For a Hindu, only The Absolute, the Brāhmaṇ, represented by the square is perfect and all that is on earth is imperfect. The square with its four sides, implies stability and unchanging character of The Absolute (Brāhmaṇ), and is represented as a four petalled lotus seat of Brahmā<sup>24</sup> in Hindu mythology (Bunce, 2002). This association of Brahmā with number four can clearly be seen in his iconographical features as four heads and four arms. In the Purānas,

2

<sup>&</sup>lt;sup>21</sup> Seven are the kāṇḍas of Rmn, seven storied houses, sevenfold notes of music, the theme of seven palm trees and seven Rṣis, seven councillors, seven seas, use of seven arrows at a time in the battles and seven courtyards in the city of Kiṣkindha etc. It is also interesting to see that seven of the beings are present in the final battle in the form of men. They are: Rāma, Lakṣmaṇa, Vibhīṣaṇa + four of his followers.

<sup>&</sup>lt;sup>22</sup> The swan is a symbol of purity (Biedermann, 1996), and hence, is a symbolic representation of the soul and also of 'Prāṇa'. Therefore, the seven swans represent seven Prāṇas or Ṣṣis. They are also said in Viṣṇudharmottara Purāṇa to represent the seven regions above the earth (cf. Bhattacharya, 1969). In iconography, the chariot of Sūrya is also drawn by seven horses (Nagar, 1995).

It can be seen by the fact that  $4 \times 7 = 28$ , the number of days in a month and  $4 \times 27 = 108$ , (the days of a season consisting of four months), which is exactly equal to the number of beads in the rosary situated in one of the four hands of Brahmā in his iconography. Bhattacharya, (1969) cites the hymn AV (XIX.53), to show that the numeral seven is also associated with Kāla, and hence, the association of this cult with that of Brahmā.

<sup>&</sup>lt;sup>24</sup> The Purāṇas state that Brahmā sits on a four-petalled lotus atop Meru, which is in turn supported by four mountains. Meru is surrounded by four continents and four seas. Four different kinds of trees, four colors and four castes are always talked about in the context of its description. The king of Yakṣas, ie. 'Kúbera' is said to live around in this region with four of his followers and is also said to have four sons (see, for example: BP, BhP and Pargiter, 1997). Interestingly enough, in Hindu mythology the time (personified as Kāla) is devided into four parts: viz. four yugas, four seasons in an year consisting of three months each, four phases of the moon consisting of seven days each in a month, and division of the day into four parts (Bunce, 2002). All these characteristics are believed to have been adopted into the Buddhist philosophy and iconography (Bhattacharya, 1969). Bhattacharya points out that the Buddhist Jātaka, no. 95; is based on the cult of Kāla and Dharma, where the numeral four appears at many places in Jātaka tale, as 4-marvellous gifts, 4-fold army, 4-kinds of bricks etc.

the four arms symbolize four directions, and the faces refer to four Vedas, yugas, varṇas (classes) or goals of life<sup>25</sup>.

This number four appears in the Epic altogether about a couple of hundreds of times, and in about not less than 55 different contexts, which have been summarized in appendix I. A reference to the Purāṇic attributes of Brahmā with four arms and four heads appear in Rmn at many places as can be seen in appendix I. In the Purāṇas, it is also said that the two frontal arms of Brahmā are said to symbolize his activity in the manifest world and the other two located on his back symbolize his activity in the unmanifest world (cf. Khan, 1981). Coincidentally, the four sons of king Daśaratha are referred to as four arms emanating from the same body (I, 53). Only two sons (Rāma and Lakṣmaṇa) are involved in the later story (which is believed to be the genuine Rmn<sup>27</sup>) while the other two (Bharata and Śatrughna) have no role to play. The appearance of the number four at many places in the Epic also gives rise to the suspicion that the brothers of Rāma are not historical persons<sup>28, 29</sup>.

<sup>25</sup> They refer to dharma (virtue), artha (prosperity), kAma (love) and mokSa (liberation) (Khan, 1981).

<sup>&</sup>lt;sup>26</sup> This reminds us of the incantation in the AV.XI.4.22 addressed to the deity Prāṇa (Prajāpati) by a Bhṛgu, which reads: "It (the chariot of the Sun) rolleth on, eight- wheeled and single fellied, and with a thousand eyes, forward and backward. With one half it engendered all creation. What sign is there to tell us of the other"—Griffith's translation. Though, in the above verse it is the Sun who appears as the deity addressed, one must bear in mind that the Sun and Prajāpati are some times addressed as the same.

<sup>&</sup>lt;sup>27</sup>Kāṇḍa I and kāṇḍa VII, are believed to be later additions (Winternitz, 1996 and now Brockington, 1984, also see foot note 2).

<sup>&</sup>lt;sup>28</sup> This view is supported by the fact that the in the Buddhist version of the story named as Daśaratha Jātaka (cf. Vaidya,1972), the brothers of Rāma are not four in number and Sītā appears as a sister of Rāma.

<sup>&</sup>lt;sup>29</sup> It is interesting to note in the present context that Gehrts considers two of the four brothers are later addition to the Epic (cf. Brockinton, 1984).

<sup>&</sup>lt;sup>30</sup> According to Mitchiner (1982), the bear was regarded as a sacred animal throughout Asia and North America. It is interesting to see that Jāmbavat, the king of bears, in Hindu mythology is said to be born of Brahmā in Rmn The idea of associating Ursa Major (the seven star constellation or Sapta RSi) with bears,

apes' (Apte, 1998), though this is a late usage. The other word in Sanskrit for bear is 'bhalluka' which means both a monkey and a bear (MWD). At many places in Rmn, one can see a confusion created intentionally by the composer who refers to the bears as monkeys (see, for example, I.74). The internal evidence of Rmn (Ayodhyā kānḍa), iustifies that the gods have taken the form of monkeys<sup>31</sup>.

## (II) The creation of rain and vegetation

In addition to involving Brahmā directly in the Epic, the author has tried to depict him as the creator by weaving the entire story around the (philosophy and) phenomenon of rain (so important to the Aryans after they had settled in the region of Punjab<sup>32</sup>), associated with mountains, clouds and vegetation. This is evident in the way the important characters in the Epic are named.

- (a). Monkeys: Most of the prominent monkeys in Rmn<sup>33</sup> are named after the mountain ranges mentioned in it, and in some of the oldest Purānas, the details of which are given in appendix III. A closer examination of appendix III reveals that, the mountains stated are all located around Meru, the abode of Brahmā. It clearly shows the composer is not interested in referring the monkeys to any historical figures, as some of the mountains mentioned in appendix III are semi-mythical in nature and some of them can not even be identified with any certainty with the mountains of India (Ali, 1983).
- (b). The Titans: The comparison of titans to clouds can be seen often in the yuddha kanda of Rmn. Clear testimony of this is the title of 'Meghanātha' (lord of the clouds) given to Indrajit. The association of titans with clouds can also be seen in the use of the word 'ásura' to denote them, which also means a 'cloud' (MWD).
- (c) Sītā: As mentioned earlier Sītā means furrow or the goddess of agriculture and is also identified as the wife of Indra (MWD). In the Epic Rmn, she spends most part of her life in a forest, and even during her captivity she was kept under a tree in Lanka (not in a palace!). She has often been compared to a forest as in a passage (V.15): "Sītā looked like the earth with its dark blue forests in the rainy season". Similarly, she was also compared to a forest divinity and to the goddess 'Śrī Laksmī' (III.34) who elsewhere in the Epic (VII.109) is called 'the goddess of vyavasāva'. The word 'vyavasāva' in many Indian

might have been brought to India on one of the several waves of Indo-European migration. For the identification of it with pitrloka and seven Rsis, Mitchiner cites RV and the seals of Harappa that depict seven priests in support of his argument.

<sup>33</sup> The 'monkeys' are not later addition to the Epic as the names of the monkeys are mentioned in VI.27, 28; which belong to the 1st phase of the composition of Rmn If we follow the criteria of Brockington (1984).

<sup>&</sup>lt;sup>31</sup> The idea of involving monkeys might have also originated from the Vṛṣakapi hymn of RV. X.86; and also, from some local 'monkey cult' the presence of which is mentioned in Jain literature (cf. Bhattacharya, 1969). Interestingly, the fourth(!) Tirthamkara of Jain religion has a monkey as his totemic symbol (Bhattacharya, 1969).

<sup>&</sup>lt;sup>32</sup> See, Vajracharya, 1997.

languages means 'agriculture' (MWD, Sankaranarayana 1982). These descriptions, in addition to her extraordinary birth and death, clearly identify her with vegetational fertility.

(d). Rāma: Rāma is addressed as 'Rāma -Candra' throughout the Epic. It is said (III.31) that he in countenance is like the moon and he spreads happiness everywhere like the moon (II.16). However, such comparisons alone cannot be the basis for addressing him as 'Candra', as many people including Sītā, are compared to the moon in countenance (see, for example, V.30, 404). We must remember that the in the Epic/ Purāṇic times, the Vedic soma is identified with the moon, Candra<sup>34</sup>. Like the soma of Vedic times Candra is also identified as 'the lord of vegetation' (Apte, 1998). And interestingly enough the moon during the Purāṇic time was believed to be responsible for converting the water collected by the Sun into raindrops through its cool virility <sup>35</sup>. Apart from his identification with soma, Rāma appears like Indra<sup>36</sup> as a god of battles. He, in the form of Indra, is helped by his trusted Vedic allies the wind god, Maruts (Hanumān), and Viṣṇu (Lakṣmaṇa)<sup>37</sup> in slaying the titans and most of them are killed by Rāma, and Hanumān, along with Lakṣmaṇa <sup>38</sup>. At the same time, the composer has tried to place Brahmā much above the popular gods of that time by equating Rāma with one of the four hands of Brahmā to help him in his creative activity in this manifest world.

Thus, it appears that the final battle of the Epic is the symbolic representation of raining phenomenon where one can visualize the mountains (monkeys and bears) blocking the clouds (titans), thereby helping Indra and soma ( $R\bar{a}$ ma -Candra) to deliver water to help vegetation ( $S\bar{t}\bar{a}$ )<sup>39</sup>. In this context, it is interesting to note that at the end of the battle, all the monkeys are still alive (as most of them were revived by the magical

<sup>34</sup> Some scholars are of the opinion that by the end of Rgvedic period itself, especially in books IX & X of the RV, Soma is identified with the moon (Macdonell, 1997).

<sup>&</sup>lt;sup>35</sup> The rainfall process is described in BhP (22.12-27), VP (51.14-20) and in other Purāṇas as well. Although, it was noted that there was a relationship between the phases of the moon and the tides of the ocean, neither the concept of gravity nor the concept of earth's rotation was understood in the Purāṇas. It is said (BhP.22.21), the two, viz. the moon of cool virility and the Sun of hot virility, sustain the world by means of their combination.

<sup>&</sup>lt;sup>36</sup> Indra is both a rain god as well as a god of battles even during the post-Vedic period. In the present context, it is interesting to see that in one verse of AV. VI.30.1, he is called 'the lord of the plough' and the Maruts, 'the ploughers'.

<sup>&</sup>lt;sup>37</sup> This comparison is justified because at some places in Rmn, for example VI.92, 267, Lakṣmaṇa is referred to as Upendra (Viṣṇu) [and Rāma is said to be Indra].

 $<sup>^{38}</sup>$  It is interesting to see in the context of what is said in the above footnotes, that R $\bar{a}$ ma is said to belong to the Sun cult and Sugr $\bar{a}$ va said to be born of the son god, is his strong ally.

<sup>&</sup>lt;sup>39</sup> In this context, it is interesting to see the symbolism behind the comparison of monkeys and titans to mountains and clouds. According to Biedermann (1996), in most cultures, 'mountain' is a virtual universal symbol of proximity to God, and the 'clouds' are symbols of concealment of the mountaintops where the gods dwell and are also symbols of fertility.

herbs), whereas the entire leadership of the titans is terminated. [This is one of the several layers of meaning: all poems, rituals, paintings/sculpture work on several layers (some not even intended by the artist!), which people see in them].

The intention of the composer to involve both types of 'prajās', i.e., bipeds and quadrupeds and also, both animate and inanimate things (fulfilled by the comparison of monkeys and titans to mountains and clouds, respectively, as described above) as part of the creation of Prajāpati or Brahmā are very much clear from the above discussion.

### (III).Other points of interest in the Epic:

- (a). 'Rkṣāḥ', as a key word in the Epic: Apart from the significance of this word in the creation myth of Brahmā as discussed in the previous section (I), this word appears in the Epic in many contexts; 1.the author of the Epic Vālmīki, a descendent of Bhṛgu, is also called Rkṣāḥ 40; 2. 'Rkṣapuñgava' (Jāmbavat), is the king of the bears; 3.a mountain named 'Rkṣavat', is the abode of the monkeys and bears; 4. 'Rkṣa- rāja', the father of Vāli and Sugrīva, is said to be the son of Brahmā or Prajāpati (VI.67) and also, 5.the numeral seven (inherent in the word 'Rkṣāḥ') has been used in Rmn at several places. The hero of the Epic is Rāma -Candra, where the moon is said to be 'Rkṣa-pati (lord of the constellations)'. Linguistically, the word 'Rkṣa-pati' can also mean 'the lord of bears'. Bears, coincidentally, were also close companions of the Greek goddess of agriculture Athene (Biedermann, 1996), with whom Sītā of Rmn has close similarities.
- (b). The role of magic and magical medicines in the Epic: In the Vedas, Varuṇa is the only god whose divine domain is termed 'māyā' (Macdonnell, 1995), but, during the post-Vedic times, Brahmā is also associated with 'māyā' (Bhattacharya, 1969). It is probably not correct to identify the present country 'Srilanka' with Laṅkā (literally meaning 'island') of Rmn for two reasons:
- (i). It is said to be located on the mountain named 'Trikūṭa'<sup>41</sup>, which is part of the divine domain of Brahmā and, (ii) it may be a symbolic representation of a smaller 'māyā (Daitya māyā)' in the sea of 'māyā' of Varuṇa; who is also the lord of waters.

On the side of Rāma, the only magic demonstrated in the Epic is the revival of the dead through magical medicines<sup>42</sup>. The medicinal men (or beings) involved in this cure are Suṣeṇa (said to be born of Varuṇa), and Jāmbavat (said to be born to Brahmā)<sup>43</sup>, and

<sup>41</sup> Mentioned in AV (IV.9.8, 9; XIX.44.6 and IX.8.2) as 'Trikakūd', and interestingly, these hymns are all ascribed to Bhṛgus and Bhṛgu- Áṅgirass. In the Purāṇas, Trikūṭa is a mountain located around Meru, the abode of Brahmā. Griffith (in his translation of AV), identifies it as a high mountain in the Himālayas: the modern Trikūṭa located in Kashmir.

<sup>&</sup>lt;sup>40</sup> He is identified as the 24th 'Vyāsa' (arranger of the Vedas) in VP.

<sup>&</sup>lt;sup>42</sup> In the Vedas, Varuṇa is connected to herbs and is capable of bringing people back to life (Macdonnell, 1997). It is interesting to see that one of the four herbs brought by Hanumān, is 'mṛtásaṃjīvin' which has the above property of bringing back people to life.

<sup>&</sup>lt;sup>43</sup> It is interesting to note that Jāmbavat is not very much affected during the battle by the Brahmā weapon used by Indrajit.

interestingly enough, both of them appear as bears at some places in the Epic 44. Association of bears with medicines is guite common in many cultures (Biedermann, 1996). Jāmbavat also appears in another mythological story in a similar role in connection with the churning of the milky ocean. Interestingly, the Bhrgus are well associated with medicines in  $AV^{45}$ .

(c). The story of Vali: The kidnapping of the wife of Sugrīva (said to be born of Sūrya, the Sun god), by Vali (said to be the son of Indra), appears like a dramatization of the Rgvedic theme of 'Indra stealing the wheel of the Sun'.46.

From the discussion given above, it is clear that Rmn is a creation myth explained in the form of a fanciful story, to glorify Brahma, the favorite deity of the Bhrgus. Thus, the time of composition of the Epic is clearly post Vedic period. Rāma, after whom the Epic is named, appears to be a fusion of 'Indra, and Candra'; but is subordinate to Brahmā in his role, as he appears as one of the hands of Brahmā helping him in his creative activity in this manifest world, although in a few passages in Rmn, he is compared to Prajāpati or supreme god<sup>47</sup>. In this context, it is interesting to note that the fish, tortoise and boar incarnations of Visnu of later mythology, are initially that of Brahmā as Prajāpati, and in all these cases the final task is to rescue the earth goddess<sup>48</sup>. Here also we can see a similarity between the above theme and that of Rmn, where Sītā is the daughter of the earth goddess and Rāma appears as related to Prajāpati as Brahmā. Thus, much of the story given in Rmn is of doubtful historicity. It makes it difficult for any one to claim that the dynasties mentioned in Rmn are of real historical value. The story at the most could have been written to glorify the dynasty of Kosala.

**Acknowledgements:** The author wishes to thank Prof. M. Witzel, for his comments on this article.

Appendix-I: Details of the occurrence of the number 'four' in the epic Rāmāyana.

S.	Context	Ref. to
No.		Ram.
1	Four are the sons of Daśaratha - at many places.	I.18; II.34- 37; II.99
2	Four are the daughters of the Janakas.	I.72.142.
3	Four is the number of beings, involved in the final battle of Rāmāyaṇa, viz. men, monkeys, bears and titans.	VI.

<sup>&</sup>lt;sup>44</sup> See, RmnVI.24, where Jāmbavat, Susena and Vegadarśin are addressed as 'the leaders of the bears'.

<sup>&</sup>lt;sup>45</sup> Interestingly, the medicinal herb named 'Viśalyakarani' in Rmn (see appendix I) is clearly mentioned in the verses of AV (XIX.44.2 and IX.8.2) ascribed to: Bhrgu / Bhrgu-Ángiras.

<sup>&</sup>lt;sup>46</sup> The actual meaning appears to be the blocking of the Sun by thunderous clouds (Macdonnell, 1995).

<sup>&</sup>lt;sup>47</sup> Rmn I.1and VI.121.

<sup>&</sup>lt;sup>48</sup> Bhattacharya (1969) was of the opinion that it was a clear sign of the fusion of the mother goddess cult of Harappan civilization with the cult of Brahmā.

4	Four are the councilors of Sugrīva.	IV.13, 198;
	-	III.75, 159.
5	Four are the councilors / followers of Vibhīṣaṇa.	VI.16-17.
6	Four are the councilors of Rāvaṇa.	V.49, 454.
7	Four are the advisors / companions of Prahasta.	VI.57,140.
8	Four are the councilors of Bharata.	II.100, 398.
9	Rāma altogether kills four of the brothers of Rāvaṇa, viz.	III.26, 30;
10	Rāvaṇa, Kumbhakarṇa, Khara and Dūṣaṇa.	VI.67, 110.
10	All but four (Rāma, Lakṣmaṇa, Viśvāmitra and Janaka) are said to have collapsed with the sound of the breaking bow.	I.67, 134.
11	The divine 'payasa' gets divided into four parts among three queens.	I.16, 42.
12	Four are the miracle herbs, which revive Lakṣmaṇa and the monkeys.	VI.74, 216.
13	Reference to four means to success.	II.100, 398; V.41, 435.
14	Mention of four types of elephants.	I.6, 21.
15	Mention of four tusked elephants.	II.14, 197; V.9, 354.
16	Mention of four types of horses.	I.6, 20.
17	Mention of four sons of Kuśa (Viśvāmitra's ancestor).	I .32, 71.
18	Mention of four sons of Viśvāmitra.	I.57, 115.
19	Mention of four types of Rsis altogether in the epic, viz.	
20	rāja-, brahma -, mahā-, and deva- Rṣis.	X 0 X X 51
20	Mention of Brahmā with four heads.	I.2; V.51, 459.
21	Mention of four regions.	I.5, 16; I.13; II.82, 358 etc.
22	Mention of four oceans / four seas surrounding the earth- many times in the epic.	II.104, 405; IV.11, 190; VI.130, 368; I.5, 16; etc.
23	Mention of four castes many times in the epic.	I.25, II.17, IV.4 etc.
25	Mention of four protectors of the world.	II.16, 204; VI.93, 271.
26	Reference to four elephants supporting the four quarters of the earth.	I.40, 85: VI.67, 186 etc.
27	Division of life into four compartments called 'āśramas'.	
28	The room of Rāvaṇa is said to have four lamps on four sides and the carpet is described as earth with four corners.	V.9, 355- 359.

29	Pulastya Brahmā (grand father of Rāvaṇa) is said to be the fourth of the six Prajāpatis.	V.36, 419.
30	Rāvaṇa was told by Śūka & Śaraṇa that four of the foremost monkey leaders are assembled who are equal to the protectors of the worlds.	VI.25, 61.
31	Rāvaṇa was quoted to have defeated four serpent kings (Vāsukī, Takṣaka, Śaṅkha and Jati).	VI.7, 18.
32	Mention of four fold army of Varuna.	VI.7, 18.
33	Description of Lanka: Four immense gateways and four long drawn bridges.	VI.3, 6.
34	Lankā is said to have been built on a mountain with four fold defenses.	VI.3, 7.
32	Rāma meets four sages in the Daṇḍaka forest. They are: Śarabhaṅga, Sutikṣaṇa, Agastya and his brother, Idmávāha.	I.1, 5; III.5, 7, 12.
33	Altogether, four (?) sets of twins are mentioned in the epic. They are:  (i). Lakṣmaṇa + Śatrughna, - like Aśvins.  (ii). Mainda + Dwivida, - born of Aśvins.  (iii). Vāli + Sugrīva (look alike or twins?).  (iv). Lava + Kuśa (sons of Rāma).	I.18, 45. I.17, 43. VII.37, 502. VII.66, 96.
36	The number of mighty titan warriors killed by Sugrīva is four! They are: Prāghāsa, Kumbha, Virūpākṣa and Mahodara.	VI
37	It is said that only four monkey warriors (Hanumān, Añgada, Nīla and Sugrīva) are capable of crossing the sea by air route.	V.2, 340.
38	Mention of 'Svastika' mark, which has four arms (also, pl. see footnote*).	II.89, 370; VI.130, 367.
39	Four monkeys named Dadhimukha, Sumukha, Durmukha and Vegadarśin; are said to have been born to Brahmā.	VI.30, 74.
40	Reference to Vibhīṣaṇa sending four spies.	VI.37, 89.
41	Rāma is described to have four auspicious lines on the fore head, neck and frontal teeth.	V.35, 414.
42	Mention of fourth watch (division of time of the day and night?).	VI.128, 359.
43	The journey from Kosala to Mithilā is said to have taken four days.	I.69, 136.
44	The chariot of Indrajit is said to be drawn by four lions.	V.48, 450.
45	Reference to army consisting of four divisions.	II.79, 355; II.93, 381.
46	Indrajit is said to be bestowed with weapons by four gods.	V.59, 485.
47	It is said that there is no fourth refuge for a woman.	II.61, 313.
48	Reference to four types of power.	IV.54, 301.
49	Reference to four arrows been shot at a time at the opponents –	III.27, 59

50	Four titans at a time seize the monkey warriors- it appears at many	VI.41, 101;
	places in the epic.	VI.57, 140.
51	Reference to four armed God, Nārāyaṇa.	VII.8, 397.
52	Viśravas, the father of Rāvaṇa is said to be like unto a fourth fire.	VII.9, 398.
53	Reference to the creation of four kinds of beings by Prajāpati.	VII.35, 493.
54	Reference to the division of Indra into four parts.	VII.86, 600.
55	Reference to four days of time.	III.15, 200;
		VII. 53,
		538.

<sup>\*</sup> The 'Svastika' is known in the Indian subcontinent since 3500BC. Initially it appeared on the Harappan pottery for ornamental purpose, but later by about 2700BC, it is visible on the Harappan seals. Thus, it is non-Āryan in character. It means 'well being' in Sanskrit. But it is also said to represent four cardinal points and a circular or dynamic movement of universe. It is also related to the wheel of time and the recurrence of the seasons as discussed in section-I and hence, is a symbolic representation of the god Kāla and hence, that of Brahmā. Some Indian scholars (for example, Sunder Raj, 1983) interpret the symbol as an eight-edged (Śakti) weapon of the vedic god Pūṣaṇ.

Appendix- II. Four main creations from the body of Brahmā (Bh.P,VP)\*.

	ispension in the control of the cont			
	Born from Brahmā 's	When discarded his body	Prevailing	
Creation	part of the body	transformation	guṇas	
Titans	loins and vital breath	night	tamas	
Gods	shining face	day	predominant sattva	
Manes	mind	juncture of the day and night	pure sattva	
Human- beings	mind	moon light or dawn	rajas	

<sup>\*</sup>Sattva: goodness; rajas: passion; tamas: darkness.

#### Appendix- III.

	Toponaria III.		
	Name of the monkey	Details of the mountain with same name (MWD, BP, Bh.P).	
1	Rkṣāḥ (father of Vāli and Sugrīva).	Rkṣavat*, one of the seven Kúla-mts. of Jambūdvīpa.	
2	Āñjaneya (Hanumān)	Añjanagiri*, located on the southern side of Kailāsa in Jambūdvīpa.	
3	Kesari (father of Hanumān)	Kesari, one of the seven Kúla mountains of Śakadvīpa.	

4	Sugrīva	Sugrīva, a mt. mentioned in MWD, but without details.
5	Nala	There is no mt. with this name, but it is the name of a famous king of Niṣādha mt. region situated to the south of Meru.
6	Nīla	Nīla*, a central range to the north of Meru.
7	Maindra	Maindras, Greek name for the Mandara* mt. range (Bhattacharya, 1991) – located east of Meru.
8	Gandhámādana	Gandhámādana*, situated to the west of Meru.
9	Śveta	Śveta*, a range of mts. to the north of Meru.
10	Hemakūṭa	Hemakūṭa*, Varṣa mts. to the south of Meru, part of northern Himālayas.
11	Ŗṣabha	Rṣabha*, located in Jambūdvīpa east of the subcontinent Kímpúruṣa- north of Meru (south of Meru in Rmn).
12	Dvivida	Dvivida, located in the continent Krauñcá.
13	Kumuda	Kumuda, situated in the continent of Śālmala or Plakṣá.
14	Jāmbavat (king of bears)	(i). Rkṣavat*: as in entry with S.No.1 above or Rkṣagiri (MWD). (ii). Jambunada - a mt. mentioned in Mbh (III.139.16) in connection with Mahā-Meru (cf. Sorensen, 1963).
15	Jambumat	Jambumat (MP).
16	Candra	Candra*, one of the Varṣa mts. of Kímpúruṣa in Plakṣá.
17	Dhūmra (lord of bears), (brother of Jāmbavat)	Dhūmra: east of the Varṣa mts. of Kímpúruṣa- situated to the east of Meru and west of Kailāsa
18	Samarocana	Samarocana*
19	Sannadāna or Samnadāna	Saṃdhāna*
20	Aruṇa	Aruṇa - located east of Meru and west of Kailāsa.
21	Gaja	Gajaśaila?
22	Dudhra/Durdhara	Durdhara*: a mt. located in Kuśá-dvīpa.
23	Gaya	(i). Gaya: a mt. range south-west of the city of Gaya (Bhattacharya, 1991); or (ii). Gayaparvatham (Mani, 1975).
24	Sușeṇa	There is no mt. with this name, but it means 'beautifully clustered' (MWD): implying a mountain or hill.

<sup>\*</sup>Also mentioned in Rmn, although there is a mismatch in the details of the location.

# List of abbreviations:

AV Atharvaveda Saṃhitā

BP Brahma Purāṇa

Bh.P Brahmānda Purāṇa

MP Mārkaņdeya Purāņa

MWD Monnier Williams, Dictionary of Sanskrit-English

Rmn Rāmāyana

RV Ŗgveda Saṃhitā Va.P Vāyu Purāṇa VP Visnu Purāna

#### References:

Ali, S.M. The Geography of the Purāṇas, People's Publ. House, New Delhi 1983 (reprint).

Apte, V.S. The Practical Sanskrit-English Dictionary, Motilal Banarsidass, Delhi 1998 (reprint).

Beidermann, H. Dictionary of Symbolism, Wordsworth, London, 1996.

Bhattacharyya, N.N. The Geographical Dictionary. Ancient and Early Medieval India, Munshiram Manoharlal, 1991.

Bhattacharya, T. The Cult of Brahmā, Chowkhamba Sanskrit Series Office, Varanasi, 1969.

Brockington, J. L. Righteous Rāma, Oxford University Press, New Delhi 1984.

Brockington, J. The Sanskrit Epics, Leiden / Boston: Brill, 1998.

Brockington, J. Epic Threads. On the Sanskrit Epics, Oxford University Press, New Delhi 2000.

Brockington, J. L. The Sacred Thread, Oxford University Press, New Delhi 1997.

Bunce, F.W. Numbers. Their Iconographic Consideration in Buddhist & Hindu Practices, D.K. Printworld, New Delhi, 2002.

Davane, G.V. Perspectives in the Vedic and the Classical Sanskrit Heritage, D.K. Printworld, New Delhi. 1995.

Dawson, J. Dictionary of hindu mythology, D.K.Printworld, New Delhi 2000 (reprint).

Dumezil, G. 1959: cf. Brockinton (1984), p.11-12.

Devi Chand, The Atharvaveda, Munshiram Manoharlal, Delhi 1982.

Garrett, J. A. Classical Dictionary of India, D.K.Printworld, Delhi 1999.

Ghosh, A. Encyclopedia of Indian Archeology, New Delhi 1989.

Goldman, Robert P. Gods, Priests and Warriors: The Bhrugus of the Mahabharatha, Columbic Univ. Press, New York, 1977.

Goldman, Robert P., In the introduction to 'The Rāmāyaṇa of Vālmīki: An Epic of Ancient India', Tr. by Robert P. Goldman, R. Lefeber, R. Pollock, S.L. Sutherland, and B.A. van Nooten; Vol. I, Bāla Kānḍa, Oxford University Press, 1984.

Griffith, R.T.H. Hymns of the Atharvaveda, Munshiram Manoharlal, Delhi 1985 (reprint).

Griffith, R.T.H. Hymns of the Rgveda, Motilal Banarsidass, Delhi 1999 (reprint).

Jha, N and Rajaram.N.V. The Deciphered Indus Script, Aditya Prakashan, New Delhi 2000.

Gonda, J. NOTES ON Brahmā N, J. L. Beyers, Utrecht, 1950.

Gonda. J. Aspects of early Visnuism, Motilal Banarsidass, Delhi 1969.

Gonda, J. Prajapathi and the Year, Elsevier Sci. Ltd., Amsterdam, 1984.

Gonda, J. Prajāpati's relations with Brāhmaṇ, Bṛíhaspáti and Brahmā, Elsevier Sci. Ltd., Amsterdam, 1989.

Guruge, A. The Society of Rāmāyana, Abhinav Publ., New Delhi 1991.

Kenoyer, J.M.; Ancient Cities of the Indus Valley Civilization, Oxford University Press, Delhi 1998.

Khan, M.I. Brahmā in the Purānas, Crescent Publ. House, Ghaziabad, 1981.

Kharade, B.S. Society in the Atharvaveda, D.K. Printworld, New Delhi, 1997.

Kosambi, D.D. An Introduction to the Study of Indian History, Popular Prakashan, Mumbai 1999 (reprint).

Krishna Rao, M.V.N. cf.http//www.rediff.com/news/1998/jul/06rama.htm.

Macdonell, A.A. Vedic Mythology, Motilal Banarsidass, Delhi 1997 (reprint).

Macdonell, A.A. and Keith, A.B. Vedic Index, Motilal Banarsidass, Delhi 1995 (reprint).

Mani Vettam, Puranic Encyclopaedia, Motilal Banarsidass, Delhi 1975 (reprint).

Mitchiner, J.E. Traditions of the Seven Rsis, Motilal Banarsidass, Delhi 1982 (reprint).

Monnier Williams, A Dictionary of Sanskrit-English, Munshiram Manoharlal, New Delhi, 2002 (reprint).

Mudaliar, V.P.S. in Tamil Antiquary, No.2: ed. and trans. by M. Mahalingam, in Gems from Prehistoric Past, Int. Soc. For Investigation of Ancient Civilization, Economist Press, Madras, 1983.

Murthy, S.S.N. Electronic Journal of Vedic Studies, Vol.90 (2), 2003 (in press).

Nagar, S.L. Sūrya and Sun cult, Aryan Books International, New Delhi 1995.

Parameswaranand, S. Encyclopedic Dictionary of Vedic Terms, Sarup & Sons, New Delhi 2002.

Pargiter, F.E. Ancient Historical Tradition of India, Motilal Banarsidass, Delhi 1997 (reprint).

Sankalia, H.D. Rāmāyana: Myth or Reality, Peoples Publ. House, New Delhi 1971.

Sankaranarayana, Dictionary of Telugu-English, New Delhi 1982.

Sastri, H.P.; The Rāmāyaṇa of Vālmīki, Shanti Sadan, London, 1962.

Sen, M.L. The Rāmāyaṇa of Vālmīki, Munshiram Manoharlal Publ., New Delhi 1997.

Sorensen, S. An Index to Names in Mahābhārata, Motilal Banarsidass, Delhi 1963 (reprint).

Sunder Raj, M. RG Vedic Studies, Int. Soc. for the Investigation of Ancient Civilization, Madras, 1983.

Thadani, N.V. The Mystery of the Mahābhārata, Vols. 1-3, Bharat Publ. House, Karachi. 1933.

Thapar, R.; A History of India, Penguin Books, Delhi 1990 (reprint).

Vaidya, C.V. The Riddle of Rāmāyana, Oriental Publ., Delhi, 1972 (reprint).

Vajracharya, G. V. The Adaptation of Monsoonal Culture by Rgvedic Aryans, Electronic Journal of Vedic Studies, Vol.3 (2), 3-13, 1997.

Whitney, W.D. Atharvaveda Saṃhitā and Bhāṣya of Śāyaṇācārya, ed.by K.L.Joshi, Parimal Publ., Delhi 2002.

Winternitz, M. A History of Indian Literature, Motilal Banarsidas, Delhi 1996 (reprint).

Witzel, M. 'Looking for the Heavenly Casket', Electronic Journal of Vedic Studies (EJVS), Vol.1-2, 1995.

Witzel, M. 'The Pleiades and the Bears Viewed from Inside the Vedic Texts', Electronic Journal of Vedic Studies (EJVS), Vol.5-2, 1999.

Witzel, M. and Farmer, S.; Frontline (India), Vol.17 (20), 2000 and the subsequent discussions given in the same issue.