

## **"Parjanya" - The Mechanical Water Machine - An Exposition<sup>1</sup>**

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पर्जन्य इति मेषपर्यायः। स च जलदः। लेखकः  
वैदिकवचनानि प्रमाणीकृत्य 'पर्जन्यं' हि जलादान-  
यन्त्रमिति पश्यति। सुरुचिरगवेषणापरोऽयं प्रस्तावः।

In this critical Comments regarding 'Prajanya' Dr.<sup>2</sup> A.A. Macdonell remarks:

"This deity occupies quite a subordinate position, being celebrated in only three hymns. 'His name often means 'Rain cloud' in the literal sense; but in most passages it represents the personification, the cloud then becoming an under, a pail, or water skin. Parjanya is frequently described as a bull that quickens the plants and the earth. The shedding of rain is his most prominent characteristic. He flies around with a watery Car, and loosens the water skin; he sheds rain water as our divine (asura) father. In this activity he is associated with thunder and lightning. He also produces fertility in Cows, Mares and women. He is several times referred to the son of dyaus". Dr. Dev Raj Chanana<sup>3</sup> takes Parjanya as a Synonym of 'Sky' in the Vedas. According to Dr. Chanana, in Atharva Veda (AV) Bhūmi is called the Patnī<sup>4</sup> of Parjanya. Parjanya is the Presiding Deity of cloud and rain<sup>4</sup> or the rain cloud.<sup>5</sup> Dr. Hari Datt Shāstrī<sup>6</sup> also takes Parjanya to mean 'a cloud showering forth rain, a water skin (Dṛti).

<sup>7</sup>Rgveda V. 83; VII 101, 102, 103 are entirely devoted to the invocation of 'Parjanya'.<sup>8</sup> This god is also referred to as such in Rgveda VII. 102.5; VI.75 15<sup>9</sup> IX. 113.3; Yajurveda<sup>10</sup> (VS- Vājasneyī Saṃhitā) XXXVI. 10<sup>11</sup> Taittiriya Saṃhitā III.5.8.1 (TS)<sup>12</sup> Atharvaveda (AV) 1.2.1; IV 15.4 X.106-7; XII.1.42;<sup>13</sup> Madhusūdan Mishra while dealing with the 'Etymology of 'Parjanya' Rain cloud' in Viśvarānanda indological Journal, Vol XIV Pt 1. March 1976 pp 5-6-remarks

"The etymology of Parjanya 'Rain cloud' has so far remained obscure. It is not clear which root Macdonell postulated to explain it when he said that it means 'rain cloud' in the literal sense. Of course, its epithets 'Vṛṣabha' literally 'Sprayer' and 'Vṛṣṇyāvant' the possessive form of Vṛṣṇyā the bhāva or Karman of Vṛṣan' 'Sprayer' -contain the radical element in "Parjanya" could have the meaning to rain'. But the primary problem is; what may be the root inherent in 'Prajanya'. On the face value of it Professor Mishra derives 'Parjanya' from 'Parjan' presupposing Pr̄j/Parj. quoting Benfey, Bhotlingk deriving Parjanya from 'Sphūrj' and 'Pari-Janya' (on the analogy of Pariṣad or Par-ṣad assembly) he remarks that Benfey, Bohtlingk and Roth were all embarrassed by the Phonetic difficulty. Analysing the Root. 'Sphūrj' and tracing it back to its original form he calls it a hipper Sanskritised form of the Prākṛta root (P) (Phujj) <Spurj<Sp̄j.<sup>14</sup> He calculates the difference between 'Pr̄j' and Sp̄j in having an extension in Sp̄j at the beginning. He obviously traces the development of 'Sphūrj' from 'Pr̄j'. And from the association of thundering with raining he assumes that 'Pr̄aj' means (to rain) Pourdown. Pr̄j/Parj the guttural variant of 'Pr̄j.' may explain the formation of Phaliga<sup>15</sup> (meaning encompassing, Leather bag<sup>16</sup> any thing to hold liquid)- a receptacle of water, a water Jar. PHarige, or Parigha in which the water is poured down. This suggests Pr̄j(g) associated with pouring down as meaning. Pr̄j(g) he takes as the extended form of Pr̄ having the word 'Pūra (flood a stream) and concludes that 'Pr̄j' definitely means to rain to pour down' 'Parjan' definitely means 'Pouring down (an action noun) Parjanya he takes to be a nominalised adjective, one connected with Pouring down i.e. the rain cloud.<sup>17</sup> Yaska in Nirukta X.10. gives the etymology of Parjanya as under:

*Parjanyastrpeh ādyantaviparītasya tarpayitā janyah.  
Paro jetā Vā Paro Janayitāvā. Prārjayitā Vā rasānām,  
tasyaiṣā bhavati.*

*"Vi Vṛ Kṣān hantyuta hanti rakṣaso  
Viśam Vibhāya bhuvanām mahāvadhāt  
Uta Nāgāniṣate Vṛṣṇyāvato  
Yat Parjanyaḥ stanayanhanti duṣkṛtaḥ  
Vihantivṛkṣān*

*Vihanti Ca rakṣāṇsi  
Sarvāṇi Casmādbhūtāni Vibhyati Mahā Vadhāt.  
Mahānhyasya Vadhāḥ apyanaparādho bhītaḥ Palāyate*

*Varṣa Karmavato Yat Parjanyaḥ Stanayanhanti  
duṣkṛtaḥ...  
Pāpakṛtaḥ"*

i.e.<sup>18</sup> Parjanyaḥ (cloud) is derived from (the rot) Tr̄p (to be satisfied) by reversing the first and the last (letter)-- one who gives satisfaction and is favourable to men (Tr̄p-Janyaḥ= Pṛt+Janyah=Parj+Janyah= Par+Janyah- " or he is so called (because) he is the best conqueror (Parah+Jin) or he is the best Progenitor- Paraah+Jan or he is the bestower of Juices (Pra+ṛj). The following stanza is addressed to him.

"He strikes down trees and he strikes down demons, the entire Universe was afraid of the great slaughter<sup>19</sup> even the guileless fly from the rainer when Parjanya thundering strikes the evil doers." Professor Mishra takes this attempt towards etymology as off the mark.<sup>20</sup>

<sup>21</sup>Peter Peterson referring to Buhler and Maur quotes the etymology of Parjanya as given by Bloom Field as Pari (about) and Jana (folk) i.e. guarding the folk through.

<sup>22</sup>Dr. Siddheśvara Varmā in his Etymologies of Yaska 'refers' to 'Parjanya' with reference to RV V. 83.2 and construes this word to mean as derived from Pra+arj i.e. one that emits fluids <sup>23</sup>Dr. Sudhir Kumar Gupta in his Vaikikabhaṣā ke nairukta adhyayana kī Rūparekhā (Yāskīyanirvancane) No. 118 re-iterates the etymology.

<sup>24</sup>or 'Parjenya' as given by Yāska.

<sup>25</sup>Dr. Sūrya Kāanta construes Parjanya Krandya to mean- rumbling like Parjanya (RV VIII 102.5; Parjanya-Jinvita (RV VII. 103.1) as impelled or quickened by Parjanya; Parjanya Patnī (AV X 10.6) to mean having Parjanya as a husband; Parjanye 'retas- 1 RV VI 75.15) to mean sprung from Parjanya; nourished by rain Parjanya Vṛddh(RV IX.113.3 as nourished by rain. Sir Monier Williams deriving Parjanya from (Pṛ-C or Pṛj) takes it mean a cloud or a rain cloud. Lexicons such as Abhidhāna Cintāmaṇi of Hemacandra<sup>26</sup>, Amara Kośa of Amara Siṃha<sup>27</sup> and Medini Kośa of Medini Kara<sup>28</sup> illustrate 'Parjanya' among the synonyms of cloud. Hemacandra<sup>29</sup> also takes-Parjanya Haryāśvarbhukṣī. Bādhudanteyavṛddha.

Śravasasturāsāṭ. among the forty two names of Indra.

A review of the text is of the Vedas quoted above along with their exegesis makes it evident that Parjanya has been construed in its empirical sense as a synonym of 'Megha' Even Vīrendra Muni Śāstri<sup>30</sup> astaunuch exponent of the symbolic scientific expositions of the Vedas words construing it as a synonym of 'Megha'- translates the Verse - 'Vi Vṛ-Kṣān hantyutā etc as under: "This Parjanya destroys the trees by having struck them with thunderbolt (or lightning). It annihilates the demons. The world fears this mighty 'Vadha'. Even the innocent flees having taken fright from this spraying one. This Parjanya thundering along liquidates the miscreants.

But a minute observation pertaining to the Critical examination of the Rg Vedic, Yajurvedic and Atharva Vedic Sūktas can afford an inkling into the Symbolic factor that can be construed by an interpretative study of the cultural background in which the expression has been employed in references both Vedic as well as classical literature. According to A.A. Macdonell, Parjanya invoked in full in three hymns is only mentioned some thirty times in the Rgveda. The name in several passages still means simply 'Rain Cloud'. The personification is, therefore, always closely connected with the Phenomenon of the rain storm in which the rain cloud itself becomes an udder, a pail, or a water skin. Often, likened a Bull, Parjanya is characteristically a shedder of Rain.<sup>31</sup> Dr. Kṛṣṇa Kumāra<sup>32</sup> construes 'Parjanya' to mean - a cloud that showers rain'. Taking 'Nanya' as a technical word component he says: 'One that replenishes from all "etc. Somah ati Vārāṇyavy divyāḥ na kośāso abhravargāḥ Vṛthāḥ Samudram Sindhavo na nīcīḥ Sutāso abhi Kalaśān asṛgrān.'<sup>33</sup>

meaning:—

Those some juices pass through the woolen fleece like the rains of heaven showered by the clouds; the effused juices flow promptly to the pitchers as rivers running downwards (flow) into the ocean.<sup>34</sup>

:daśān daśān daśā vastrādhibhojanāḥ  
daśo hiraṇḍān divodāśadasā-niṣam.<sup>35</sup>

meaning *Chesti Trunk*<sup>36</sup> along with

"Gobhirvāṇo ajyate sobhasīṇāṁ rathe kośe  
hirāṇyaye.

Gobandhavah Sujātā-sah işe bhuje mahānto nah  
sparase nu"<sup>37</sup>

The voice of the (Maruts) blends with teh songs of the saubharis in the Receptacle of their golden chariot. May the mighty well born Maruts, the off spring of the (brindled) cow be gracious to us in regard of food, enjoyment and kindness.<sup>38</sup>

and "Dṛti" in RV IV 45.1,3:

"eṣa sya bhānurudiyarti yujyate; and ā vartanīṁ madhunā  
jinvathospatha dṛtim vahethe madhumantamaśvinā"<sup>39</sup>

*rathāḥ parijmā divo asya Sānavi.  
Prkṣāso asmin mithunā adhi trayo;  
dṛti-sturiyo madhuno vi rapsate<sup>40</sup> 33*

"dṛtrsturiyo" and dṛtim madhumantam- here are significant of "a bucketful or a leather bag or a leather water machine for the inward and upward movement of water (madhuno) etc-amply illustrate the point that in Rgveda V. 83. 7,8; dṛti" and 'Kośa' have been associated with Parjanya.

*"Dṛtim Karṣa Viṣitam nyañcam"*  
is translated by A.A. Macdonell-as-  
"Draw well they water skin unfastened downward"

"dṛtim"- the rain cloud here compared with a water skin doubtless like the leather bag made of a goat skin still used in India by water carriers"<sup>41</sup> Actullity it should have meant

"Pull downwards the well knit water machine provided with a water skin as in a "Caṭasa" (a mechanical Pully system well) for the over flow of waters.

Like Rgveda V. 83.8; VII.101.4;

*"Uasmin Viśvāni Bhauvandni tasthuḥ;  
tisrodyāvastredhā Sasrurāpah.  
trayah Kośasah Upasecanāah  
Madhvaś Cotantyabhito Virapsam"<sup>42</sup>  
-Having 'tryah Kośasah Upasecandāsah".*

is quite significant having the sense of three Kośas (Water buckets or leather bags (Kośa being a Synonym of dṛti) provided onto a water pulley moving up and down in order to fill up water from a well or a reservoir and to bring it up and then to send it down.

"Madhvah" Occuring in IV. 45<sup>43</sup> 3; X.73.9<sup>44</sup> has been invariably meant sweet juice or sweet water symblically in the form of honey, mead etc as in "Ā-prisūkta" (RV I.142.1-13<sup>45</sup> (Smiddho' agnāā-vaha devān adya Yatasruce)<sup>46</sup>

*ghṛavantamupamāsi modhumantam tanūnapāt.*<sup>47</sup>

*And*

*Śuchiḥ Pāvako adbhuto madhvā yajñam yajñam  
mimikṣati*<sup>48</sup>

Dr. Deo Prakash Pātañjala Śāstrī has construed 'Madhu Mantam' as having water and "ghṛta Vantam" as having heat and light"<sup>49</sup>.<sup>50</sup> VII 102.3.3 also contains the word 'Madhumattamam' as an epithet of Parjanya.

*"Parjanyāya Pra gāyata; divesputrāya mihfuṣe;  
Sa no yavasmicchatu. Yo garbhamoṣadhīnām.  
Gavām Kṛṇoty arvatām. Parjanyaḥ Puruṣīṇām.  
Tasmā idāsyे havirjuhota madhumattamam i  
Item naḥ samyotam Karat".*

In RV. IX. 113.3<sup>51</sup>

*"Parjanya Vṛddham Mahiṣam tam sūryasya  
duhitābharat"*

is also symbolic of the point that a buffalo swollen by Parjanya may mean the leather bags of a "Caṭasa Well" Swollen by water while coming and going up wards Sūryasya duhitā may be Uṣāḥ the day break when wells ply admirably.

*In classical literature Kālidāsa in Raghuvamśa  
XVII.15*<sup>52</sup>

*"Stūyamānah Kṣaṇ-etośminnalakṣyata Saḥ  
Vandibhiḥ.*

Pravṛddha iva Parjanyah Sārangair abhinanditaḥ and  
Samarāganasūtredhāra of Bhoja-XXXVI.5<sup>53</sup>

*Ājuena payasā dadhnā pūjayacchi-khinām Punah.*

*Śāligodhūma mṛdvādyai-rdhanyaiḥ  
Parjanyamarciyet.*

Can also be construed symbolically to mean the same  
apparently cloud but symbolically a water machine.

"Dhanapāla in his Tilakamañjarī has referred to the term  
'Caṭasodaka' construed by the Commentator as 'Carmapuṭa Jalam'  
in the following prose compound.

*"Āgantuka pipāsā prati-Kriyodyukta-bhukta  
Parijana-Punaruktopapādita-recyamāna  
Caṭasodakeṣu"<sup>54</sup>*

Caṭasa has been-Construed as a Synonym of 'Carmapuṭa'  
by Medinīkara.<sup>55</sup>

In amarakośa 'dṛti' also means a Bellows- "dṛti\_Sīmanta  
Harito romanthodgītha budbudāḥ"<sup>56</sup>

Hemacandra in 'Abhidhānacintāmaṇi' has it as "dṛtih  
Khallaś-Carma-mayī-tvāluh Karakapātrikā".<sup>57</sup>

Sir Monier Williams takes it as a Skin or leather, a leather  
bags for holding water and other fluids (figuratively a cloud) a  
pair of Bellows.<sup>58</sup> or a bloated skin Parjanya Vṛddham mahiṣam-  
has been translated (RV IX.113.3) along with Sūaryasya-  
dhuhitābharat-as "The daughter of Sūrya brought the vast soma  
large as a rain cloud"<sup>59</sup>

On Ṛgveda V.83.8 A.A. Macdonell's remarks:-

"The process of Shedding rain here is compared with the  
drawing up of a pail from a well and pouring out the contents" in  
illustration of-

*"Mahāntaṁ Kośamudacā niśiñca;  
Syandantāṁ Kulyā Viśitā Purastāt.*

*Gṛtena dyāvāprthivī vyundhi;  
Suprapānam bhavatvaghnyābhayah.<sup>60</sup>*

i.e.

*Draw up the great bucket pour it down :  
Let the streams released flow*

forward : drench heaven and earth with ghee (or water) or Grease; let there be a good drinking place for the cows".

-amply corroborate the view expressed by me above that 'Parjanya' the god invoked by the Seers in RV. V. 83, VI 101, 102, 103 refers to a VEdic contrivance of a mechanical water-machine having buckets in a circle or a row moving up and down made of leather and supplying water for irrigation purposes.<sup>61</sup>

"R̄gveda IX.96.6" Mahiṣo mṛgānām 'has' Mahiṣa to mean a 'Buffalo' In RV. IX. 113.3 also we can equally construe-"Parjanya vṛddham Mahiṣam" as a Buffalo grown up along with the water machine whom the daughter or Sūrya i.e. Morning twilight brought up Symbolically. A Buffalo is dark. The bellows is equally dark or it is normally made out of Buffalo's Hide.

The allusion of Kālidāsa-

*"Pravṛddha iva Parjanyaḥ Sāraṇigairabhinanditah"<sup>62</sup>*

Can also mean:-

"A water machine of huge norm Welcomed by the Peacocks, Elephants or spotted an-telopes or by thrush birds (Cātaka) the variety of senses taken by Sir Monier Williams.<sup>63</sup>

Hence etymologically viewed and construed by a comparative study of the R̄gvedic hymns - Parjanya to me is a symbolic term for 'Mechanical water Machine' having 'dṝtis' forming its components employed for the transference of water in a streaming flow for purposes of Irrigation (a bhrāntimadvāriyantra) of Mālavikāgnimitram of Kālidāsa Act I.12.

*"Bindūtkṣepānpipāsuh paribhramati  
Śikhī bhrāntimadvāriyantram"<sup>64</sup>*.

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1. Paper presented to seminar on 'Agriculture in Ancient India' April 25, 1992. Institute of Oriental study, Shiv Shakti, Naupada, Maharsi Karve

- Road, Thane 4006002. (Maharashtra).
2. A Vedic Reader for Students by Arthur Anthony Macdonell. Geoffrey Cumberlege Oxford University Press. Printed in India 1951. Re-printed 1954 P. 104
  3. R̥bbhāṣya Saṃgraha Munshi Ram Manohar Lal Oriental Book Sellers and Publishers PB 1165, Nai Sarak Delhi-6, Also P.B. 5715, 54 Rani Jhansi Road New Delhi 110055, pp. 328-329.
  4. Ibid.
  5. Ibid.
  6. R-KSūkta Samgrahaḥ. Sāhitya Bhaṇḍāra Śāhitya Prakāsaka. Subhash Bazar Meerut 25002. Fully revised New Education 1989 Intruduction. P. 25
  7. S.D. Sātvalekara's Text Svādhyāyamaṇḍala Aundha-Nagara (Saṭārā) 1940 pp. 332; 457-458.
  8. Ibid, p. 557, huve Vātasvanaṁ Parjanya Karandyamṣahsahāḥ Agniṁ Samudra Vāsasam̄.
  9. Ibid, P. 391 Ālāktā yā Ruruśīrṣṇyatho; yasyā ayo mukham, Idam Parjanya-ratasa iṣvac devyai bṛhannamah.
  10. Ibid. p. 625 Parjanya Vṛddham Mahiṣam; tam Sūryasya Duhitābharat. Tam gandharvāḥ Pratyagṛbhnan; Tam some rasumādadhrindrāyendo parisrava.
  11. The Yajurveda (VS) Devi Chand. P. 487 S. Paul & Co Malwa Street Paharganj New Delhi-1, 1965.
  12. Parjanyātāmabhyo. TS III 5.8.1 P. 140.  
S.D. Sātvalekara's Text Svādhyāya Maṇḍala Pāraḍī. IIInd Ed. 1957.
  13. S.D. Sātvalekara's Text Svādhyāya Maṇḍala Pāraḍī 1957. pp. 1; 62-63; 242; 272.
  14. Viśvaśvarānanda Viśva Bandhu Institute of Sanskrit and Indological studies Panjab University oshiarpur 146021 edited by K.V. Sharma. M. Mishra University of Delhi C4/3 Model Town, Delhi-9.
  15. Purā yat Sūastamo apītestamadrivāḥ Phaligam̄ hetimasya. Śuṣṇasya cit Parihitam yadojo divaspari sugrathitam̄ tadā-R̥gveda I 121.10 P 92 cit. cff 8 above. -dah i.e. when the sum (had emerged) from the struggle with darkness, then didst break the wonder of the thunderbolt: the cloud that had been his annoyance and didst Sunder the well fostened covering in which Shushna had enveloped him. H.H. Wilson on R̥gveda Vol. I P. 201. The Bangalore Printing and Publishing Co. Gangalore City may 1946.  
also R̥gveda I-62-4.  
Sa Suṣṭhabhā Sa stubhā saptaviprahiḥ,  
Svareṇādriḥ Svaryo navag-vaiḥ.  
Saranyaḥ Phaligamindra Śakra-Valaṁ ravena darayo daśag-vaiḥ  
Ravena darayo deslag vaih. Ibid P. 43.  
Powerful Indra, who art to be guarded with a laudatory and well accented hymn by the seven Priests whether engaged for nine months or ten, and desirous of (Safe) protection there hest terrified by thy voice

- the divisible fructifying cloud.  
 H.H. Wilson Vol. I Lit P. 96 R̄gveda VIII 32.25 P. 499.  
 Ya Udgāḥ phaligam bhinannyak Sindhūnavāsṛjat.  
 Yogoṣu pakvam̄ dhārayat.  
 i.e. who clove the cloud for (the issues of the rain, who sent down the waters; who placed the matter (milk) in the cattle.  
 H.H. Wilson Vol V P 89 R̄gveda. Poona Ashtekar and Co. 1928.
16. A Practical Vedic Dictionary Dr. Surya Kanta P. 483. Delhi Oxford University Press (Bombay, Calcutta, Madras 1981).
  17. The Nighaṇṭu and the Nirukta. Lakshman Sarup Motilal Banarsi Dass (MLBD) Bungalo Road Hawahar Nagar, Delhi-110007 P. 177 Tex4t 1968.
  18. The Nighaṇṭu and the Nirukta. Lakshman Sarup-Introduction English Translation and notes. MLBD 1962 P. 157
  19. R̄gveda V. 83.2 Macdonell construes "Mahavadhāt" to mean mighty weapon. A Vedic Reader for students-P 105 Op-Cit ff-3 above. Peter Peterson constures it as mighty soear and rakṣas as spirits of darkness. Hymns from the R̄g-Veda Bhāṇḍārkarā Oriental Research Institute Poona 1974. P. 317.  
 Dr. Dev Raj Chanana follows Macdonell in construing 'bhīṣaṇa astra' R̄g Bhāṣya PB. 1165 Nai Sarak Delhi-6 New Delhi 54, Rani Jhansi Road New Delhi-110055 also PB 5215. Dr. Hari Datt Shastri takes (Mahān Vadhasé as such by Mahā Vadhāt, R.K. Sūkta Saṁgraha P-97.
  20. VIJ. Vol XIV Pt I March 1976 P. 5 Op Cit Cff 15.....7 above.
  21. Hymns from the R̄g Veda. BOR-I 411004. 1974 P. 165.
  22. pp 19, 197, 114 Viśveśvarānanda Vedic Research Institute (V.V. R.I) Po Sadhu Ashram, Hoshiarpur-146021 First Edition 1953.
  23. Vedavāṇī XVII. 2. P. 18 Bhāratī Mandira Anusandhāna Śālā Viśvavidyālaya Puri Jaipur-2
  24. A Practical Vedic Dictionary P. 418.
  25. A Sanskrit English Dictionary P. 666 Oxford at the Clarandon Press 1899-1951.
  26. Nabhrāṭ traṭitvān mudir ghanāghanō Bhraṇ dhūmayon; -stanayitnu meghāḥ.  
 Jimuta Parjanya balāhakāḥ ghano dhārādharo vāhada-Mugdharā jalāt.  
 Abhidhānacintāmani (ACM) by Pandita Haragivinda Śāstrī and Dr. Nemicandra Śāstrī.  
 Caukhambā Vidyābhavana Vārāṇasi I 1964 P. 48. II. 78
  27. Parjanyau rasadabḍendrau; A thunder cloud: Indra : Rain cloud.  
 Amarāś Nāmaliṅgānuś (Text) A Sanskrit Dictionary in three chapters- Critically edited with Introduction and English equivalents for each word and English Word Index by Dr N.G. Sardesai and D.G. Padhye. Poona Oriental Book Agency Second Ed. 1969 Tr̄tiyam. P. 130.

28. Parjanyo meghasabdé pi dhvanadambuda-Śakrayo. Medinikośa Edited by Jaganātha Śāstrī Hośirīga Sāhityā Cārya. (CSSO Varanasi I. 1968. P. 119. Verse 91.
29. Op. Cit. 27 ff. P. 50.
30. Vedāṅga Nighaṇṭu Nirukta (Hindi Translation) Viśvaveda Pariṣad Ādarśa Press C-81 7 Mahānagara Lucknow-226006 Also Nirukta Śāstra by Paṇḍita Yantrālaya Ajmera.
31. A History of Sanskrit literature Moti Lal Banarsi Dass Bungalow Road, Jawahar Nagar, Delhi-110007 1962, P. 76.  
Dr. Ram Gopal in his Vaidika Vyākhyā Vivecana pīṭha (RV V-83-2) also constituents Publishing House 23 Darya Ganj, New Delhi-110002
32. Vaidike Sāhitya Kā Itihāsa. Sāhitya Bhaṇḍāra Śikṣā Sāhitya Prakāśaka. Subhash Bazar Meerut. 250002 Fifth Edition 1984. P. 63.
33. RV. IX 88.6 P. 604 Sāta- Valekarās text 1940.
34. H.H. Wilson on IX 88.6 P 295 Ṛgveda Vol-V Ashtekar and Co Poona 1928
35. RV. VI. 47.23.P.370 Text 1940
36. A Practical Vedic Dictionary by Dr. Sūrya Kānta P 259.
37. RV VIII. 20.8. P. 486, Text 1940
38. Wilson. (H.H.) on RV. VIII. 20 P. 58. Vol V Ashtekar and Co. Poona- 1928.
39. RV.IV 45.1,3; Text 1940 P. 288  
The glowing sun is rising. The chariot of Asvini Kumaras is advancing towards all. Sun is endowed with a brilliant chariot. This chariot has over it a triple fold gnna or food or felly and a Vat full of some juice is adorning it as a fourth constituent : A vat full of water.
40. A Vedic Reader for students. P. 108 Geoffrey Cambridge Oxford University Press Re-printed 1954.
41. Ibid, P. 109 A.A. macdonell-Notes.
42. RV. VII. 1014 P 457 Text 1940
43. Madhvah Pobatam madhupebhīrāsabhiḥ;  
Uta priyam madhune ya-jāthām Ibid P. 269.
44. Cakram Yadasyāpsvā niṣattam;  
Uto tadasmai madhviccacchadyāt;  
Pṛthivyāmattitam yadūdahā Payo gośvadadhā oṣadhiṣu. Ibid P. 689.
45. Ṛgveda Kā subodha Bhāṣya Sātavalekara's Part I Svādhyāyamaṇḍala Pāraḍī 1967. PP 382-385
46. I bid. Verse 1-3 pp 382-383
47. Ibid.
48. Ibid.
49. Cff. 5. P 88 my paper. Indra as a Synonym of cloud" published in Journal of the Gaṅgā-Nātha Jhā Kendriya Sanskrīt Vidyāpeeṭha edited by G.C. Tripathi and Mayā Mālaviyā. Motilal Nehru Park (Now Chandra Shekhar Azad Park) Allahabad. 2. 1979 Vol XXXV July, December 1979 Parts 3-4. Also see A Critical study of the Ṛgveda I. 137-163 P. 161 by Dr. Deo Prakash Pātañjala Śāstrī Pātañjala Publications

- New Delhi 1963 on RV I 142 203.  
 Thou measurement out to (the Sacrificer possessed of Ghṛta (Heat) and Madhu (Wter) O Janūnapāt! The sacrifice belongs to the wise and Zealous giver like me and  
 Bright Purifying wonderful (Agni) wants to sacrifice with Water. etc.
50. RV VII. 102-P. 458 Text 1940.
51. Ibid. P. 625.
52. Kālidāsa Granthāvali Dr. R.P. Dvivedi p. 237 Kashi Hindu Viśvavidyālaya Vārānasi-1976
53. Samarangana Sutra dhra by T Gaṇpati Śāstrī by Dr. V.S. Agrawal, Oriental Institute Baroda 1966. p. 212.
54. Tilakamañjari Dvitīo bhāgah Edited with a Vivṛtti named 'Parāga' by Śrī Vijaya Pāvahya Sūri Śāstra-Viśārada Kavi Ratna and Published by Śrī Vijaya Lāvanya Sūriśvara Jñāna Mandira Boṭāda, Saurāṣṭra 1953- P 270 Line-4.  
 TM NSPE Bombay 1938 p. 124 14-15  
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55. Medinikosā Page 95 Verse 26. (SS E. 1968 edited by Jagannātha Śāstrī Hoshirīga Sāhityācārya.
56. Amara-Siṃha's Nāmaliringānuśāsanaṃ.  
 (Text) A Sanskrit Dictionary in three chapters Critically edited with Introduction AND English equivalents for each word and English word Index by. Dr. N.G. Sardesai and D.G. Padhye Oriental Book Agency Poona Second edition 1969. P. 152.
57. IV. 91 P. 252 by Pañḍita Haragovinda Śāstrī and Nemi Candra Śāstrī CSSE. 1964
58. Sanskrit English Dictionary P. 491 1951 Edition.
59. H.H. Wilson P. 338 Rgveda Vol. V. Ashtekar and Co. Poona 1928.
60. A Vedic Reader P. 109 Op. cit Cff. 49 above.