



## VIMS-7 SCIENTIFIC CONCEPT EMBEDDED IN THE VEDA TOWARDS THE TREATMENT OF "WATER" (apah)

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At the advent of 21st Century an intense urge is felt everywhere to get peace, security and a life divine. With a view to achieve this goal we are to take resort to our age long Vedic tradition enriched by our fore-fathers, the illumined Vedic seers. The spirit of culture embedded in Vedic tradition does not propagate world negation. It regulates life in all its many relations; sacred and secular. The synthetic character of the Vedic view of life also believes in checks and balance between the mundane and the supramundane. The Veda is the everlasting word rock of India's firm spiritual foundation, the eternal source of knowledge. It is believed to be the embodiment of truth and has a powerful message for contemporary humanity which is gripped with enormous problems and crisis. The Vedic seers were foremost scientists of the world who envisaged to develop the material life with a view to find out the right clue for solving enormous problems of our present day life - the ecological problems, the problem of pollution etc.

The word "Vijnanam" (science) is often used in the Vedas in the sense of knowledge par excellence — both for matter and spirit. The Spirit is one and Absolute. This material world and all beings are nothing but the emanation of that One, Absolute. He is the ultimate cause of everything in this Universe. The motto of the Vedic seers, the natural scientists was to make the matter ready to manifest the spirit which is involved in the matter. Since there is inter-relation between the matter and spirit, it is envisaged by the Vedic seers that the matter shall reveal the Spirit's gaze. It is clearly emphasized in the Upanisad (Mundaka 1.4) that two types of knowledge - material and spiritual should be cultivated simultaneously. Through material science one can conquer death i.e., all limitations - barriers in the way of progress in life and through spiritual knowledge one earns the capacity to attain immortality, salvation or "Moksa" - the fourth Purusartha. So it is emphatically stated in the Isopanisad - 'a vidyaya mrtyum tirtva vidyatamrtamasnute.

In this present century of scientific & technological development mankind has achieved a remarkable progress; he has become 'daksa' (expert, skillful), no doubt, in different spheres of material achievement but due to lacking of 'diksa' (a benevolent determination) and 'daksina' (offering to the righteous experts) and sense of 'yajna' (the right attitude of sacrifice), he is far away from the goal of holistic progress & development. There is seen everywhere a rapid erosion of human values, an intolerable situation of unrest, insecurity and

violence which threaten the very existence of the Universe and the creation. At this critical juncture of chaos and disaster, we have no other alternative but to take resort to our age-long Vedic culture, luminous with the light of knowledge. It is the need of the hour to have a keen observation about the scientific concepts embedded in the Vedic literatures with a view to find out a right clue for solving the problems of our present day life.

In this presentation I intend to focus the scientific view as regards "water" (apah), one of the five basic elements (Pancabhutas) of creation. It is repeatedly stated in the Upanisads that water was the first manifestation of the Primal Being (Purusa or Hiranyagarbha) - 'salilamidamagre asit etc. In order to maintain the vast rtam (natural, eternal law), to remove pollution and overall to solve the ecological problems, the Vedic seers tried off and on to promote awareness among people as regards the right attitude towards the use and utility of water.

Modern scientists prove that H<sub>2</sub>O = WATER, which amply states that water in its very inherent nature of molecules has the capacity of burning and as a consequence by churning the water Hydro-electric power is invented. This modern scientific discovery of extracting fire from water has been possible since due to cause and effect relation, fire is already involved in water. This scientific notion was very much known to our Vedic seers also. In a famous verse of Hiranyagarbha-Sukta of the Rgveda (RV.X.121.7) it is clearly stated by the seer Prajapati in way of dealing with cosmology. He emphatically stated that the fire is hidden in the womb of vast water. "Apah ha yadvrhatirvisvamayam garbham dadhana janayanti agnim"

Similar concept is seen in another verse of the same Samhita (RV.I.70.2) - 'garbho yo apam garbhe.....' that Agni (Fire) exists in water as well as in earth, in plants, in stones, in human beings and in animals, is explicitly mentioned in a verse of the Atharva Veda (AV.12.1.19) - 'Agnirbhuyamosadhisvagnimapo vibhratyagniramasu agnirantah purusesu gosvasvesvagnayah"

In another verse of the Atharva Veda, we find that the vedic seer having scientific notion states that the heat power of Fire may be extracted from water itself :

'agne pittamapamasi' (AV. 18.3.5)

In the Sukla yajurveda (XXIII.63) we have an account of the creation of the world by the Omnipotent God who generated initially the Hiranyagarbha or Prajapati - his creative agent out of the vast cosmic water pervading the Universe. Cosmic water is thus regarded as the source of creation. In the beginning, the universe was nothing but limitless vast expanse of water. On this water was floating an embryo or golden egg out of which was generated the Primal Being or Prajapati (Syv. XXVII.25). The Satapatha Brahmana also recounts the legend of cosmic waters and golden egg in the sixth Brahmana.

The theory of the existence of Agni (Fire) and Soma in water is clearly mentioned in a verse of the Atharva



Veda (AV 2.29.1). Due to the involment of these two elements in water the latter has the capacity of generating life-force and valour.

'Agnisomau vibhratyap it tah tivra raso madhupsamarangamah a pranena'

(AV. III.13.5)

According to modern science, the water is evolved out of the combination of 2/3 Hydrogen + 1/3 Oxygen. It may be assumed from the above verse of the Atharva Veda that the proportionate combination of 'Agni' and 'Soma' can evolve water. That the fire (agni) involved in water is repeatedly alluded in verses of the Atharva Veda :

'Yohapsu agni.....(AV. 16.1.7)

'yo va apohagniravivesa (AV.16.1-8) etc.

'Vadavagni', fire in the ocean - is mentioned in the AV. This type of fire in the womb of ocean - water is very powerful : (AV. 13.3.15; 13.1-40)'antah carasi arnave'etc.

Owing to causality, effects are essentially identical with their material cause. This has been illustrated in the Chandagyopanisad by Acharyya, the illustrated Uddalaka Aruni in the process of deliberation that the three principal elements of creation viz. earth, water and fire have their single and ultimate root in the Absolute Being (Sat) and these three elements are again interrelated by the law of causation. There is causal relation between fire and water '..... adbhih saumyo sungena tejamulamanniccha, tejasa saumya sungena sanmulamanniccha, sanmulah saumyemah sarvah prajah " (Ch. UP. 6.8.4).

Uddalaka continued : " On this point, my dear, understand this body is a sprout which has sprung-up. It will not be without a root (cause); what else could be its cause than earth (food). So with earth (food) for a sprout, look water as the root. With water, as a sprout, look for heat as the root. With heat, my dear, as a sprout, look for Being (Sat) as the root. All creatures here, have Being (Sat) as their root, have Being as their home & support ". Such theory of causality has been enunciated in detail in the Samkhya- Patanjali system of Indian Philosophy. In way of dealing with the process of cosmic evolution this philosophy gives an account of the origin of five principal elements (**pancabhutas**) -- earth (ksiti), Water (ap); fire (tejas); air (vayu) and space (akasa). This concept of five elements as the basic cause of the material universe is, however, much older. It occurs in the Aranyakas and the Upanisads (8th Century B.C.)