

## CONTRIBUTION TO 'WEATHER SCIENCE IN ANCIENT INDIA'

### II - INDRA IN ṚGVEDA

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The 32nd *sūkta* of first *maṇḍala* of *Rgveda* is full of symbolism which when analysed gives interesting details of weather disturbances observed by the Aryan settlers in the hilly regions through which the tributaries of Indus pass before reaching the plains. Indra principle and his confrontation with *āsuric* (negative) forces as revealed in the *sūkta* referred to above have a direct bearing on these weather disturbances.

#### INTRODUCTION

The hymns of *Rgveda* do not constitute the work of a single hand, nor do they belong to the same age. They were composed by different *ṛsis* at different periods and some of them were probably composed just when they were moving to the Punjab plains from the hilly regions on the north and northwest. These give clue to the weather disturbances to which they were exposed and probably there were many occasions or periods during which they were not getting adequate water for domestic and agricultural purposes. The settlements should have been on the banks of the tributaries of Indus river where river-flows get substantial contribution from snow-melt, throughout the year. The thunderstorm activity brought in by the monsoon current pushes back the activity of the westerly systems or western disturbances and during the monsoon season the river flow is copious because of monsoon rainfall in the lower reaches and snow and glacier melt in the upper reaches. During the winter season, the flow in the rivers dwindles down and if temperature conditions are not favourable in the snow bound regions of the catchment, the flow in the spring season considerably decreases causing water scarcity. Westerly systems continue to affect the hilly regions till late spring and under their influence fog, mist and cloudiness envelop the snow bound areas preventing sunshine and therefore snow-melt. In the hot season whenever there is a feed of warm air from the south, instability conditions are built up leading to the development of thunderstorm activity which continues during the monsoon season also. The sky clears afterwards and there is bright sunshine aiding snow-melt. Warm rain falling on snow also results in snow-melt due to release of latent heat. Thus the river flow increases giving relief to the settlers. Water also gets released from glacier snouts when temperature conditions are favourable.

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The above phenomena together with some associated occurrences have been picturesquely described in the *R̥gveda* in some of the prayers to God Indra. Before we deal with these prayers it is necessary to know what exactly is Indra principle according to *R̥gveda*.

### INDRA PRINCIPLE

Indra is an important God and is conceived as the lord of the *antarikṣa* or atmospheric region. Nearly one fourth of the *R̥gveda* is devoted to prayers addressed to him and some of them deal with his functions. Śaunaka in his *Bṛhaddevatā*<sup>1</sup> lists three of his important traits, viz. 1) taking up *rasa* (soma essence from above and water vapour from below to produce rains), 2) killing of Vṛtra and 3) the complete accomplishment of every kind of mighty deed. In his activities according to Śaunaka<sup>2</sup> the aids are Parjanya, Rudra, Vāyu, Bṛhaspati, Varuna, Prajāpati, Mṛtyu and Bṛhamanaspati. Indra is sometimes identified with the Sun who, with his all-pervading rays causes life on earth. He interacts with Viṣṇu (the principle of feeding *soma* to *agni*) and is responsible for the *yajña* cycle of the universe.<sup>3</sup> The *ṛtus*, for example, which are responsible for the creation of all types of life on earth are the result of confrontation between Indra (*agni* category) and Viṣṇu (*soma* category). Indra's mighty deeds are brought into play in the atmosphere in which region he successfully overpowers all negative or *āsuric* forces which (1) work against the *yajña* cycle, (2) which prevent occurrence of rains, (3) which always envelop the region in darkness, (4) which pollute the waters of the region by freezing them into snow, ice, glacier, etc. and thus rendering them unfit for human use and (5) which also prevent the operation of divine forces (sun's light and heat) on them. The *soma* feed from above is taken up by Indra of the atmosphere who exhibits his might in the form of lightning and thunderstorm activity. The *soma* reaching the atmosphere mixes with the water vapour and Indra aided by Parjanya brings rains to the earth. The *soma* feeding of the atmosphere is based on what is called *gotatva* (*soma rasa* emanating in thousands of rays and feeding the Sun and also the atmosphere through the rays) of the Parameṣṭhi region which is responsible for the *yajña* cycle of the entire *vīrāt* (universe) and is therefore responsible for life on earth. The Vṛtra, Ahi, Vala principles are the *āsuric* or the negative forces mentioned earlier and we shall see some details of these by going through the 32nd *sūkta* of first *maṇḍala* of *R̥gveda*. We have made use of the translation of this *sūkta* by Wilson with our modification.<sup>4</sup> Wilson closely follows Sāyana's interpretation of the text.

### DISCUSSION OF 32ND SŪKTA OF FIRST MAṆḌALA

- \*1. 'I declare the former valorous deed of Indra which the thunderer has achieved: he killed Ahi; he cast the waters down to the earth; he broke a way for the torrents of the mountain'.

\*The numbers indicate the serial number of *ṛk* in the *sūkta*,

This refers to the thunderstorm activity in which we have rain associated with thunder and lightning. The word *ahi* really means a serpent and denotes here the long and sometimes zig-zag tracks of glacier, ice and snow on the hill slopes. Melt-water reaches the lower level whenever there is sun-light resulting in temperature rise. Also warm rain falling on the slopes results in the release of latent heat and sometimes throws the glacier and ice blocks into disarray.

2. 'He killed Ahi seeking refuge on the mountain. Twaṣṭa sharpened his far whirling bolt. The flowing waters quickly hastened to the ocean, like cows (hastening) to their calves'.

Here the Twaṣṭa principle is what gives the right shape and dimensions to the created objects.

3. 'Behaving like a bull, Indra sought *soma* and drank the *soma* prepared in the *trikadruka* sacrifice. Indra took the thunderbolt and killed the first born of the *Ahis*'.

Here the *soma* feed of the atmosphere which results in lightning is symbolically represented as Indra drinking *soma*. The *trikadruka yaga* which has three components, (*iyotiṣa*, *go* and *āyus*) is nothing but the demonstration of the maintenance of *yajña* cycle of the *virāt* (universe). It will be interesting to examine what is meant by the first born of the *Ahis*. The Aryans were familiar with various forms of existence of water at low temperature, like fog, mist, dew, snow, which finally becomes fern, ice and glacier. In post-vedic Sanskrit literature we have words like *dhūmika* or *kujhaṭi* (thick fog), *avasyaya* (dew), *tuṣāra* (frost), *hima* (snow) etc. It is very probable that by the first born of *Ahis*, low cloud or thick fog is meant.

4. 'In as much, Indra, as thou hast divided the first born of the *Ahis*, thou hast destroyed the delusions of the deluders, and then engendering the sun, the dawn, the firmament thou hast not left an enemy (to oppose thee).'

In the light of the comments on *ṛk* 3 the meaning here is fairly clear.

5. 'With his vast destroying thunderbolt Indra struck the overpowering but mutilated *Vṛtra*. As the trunks of trees are felled by the axe, so lies Ahi prostrate on earth'.

Severe thunderstorm activity sometimes disturbs the huge snow pilings which come down in huge blocks of ice. Widespread avalanche activity also takes place whenever there is sudden warming of the upper air. In such cases complete disarray of the snow and ice pack on mountain tops and slopes results in huge chunks of ice and snow coming down, sometimes accompanied by land slides also. This is what is described here. Sometimes these huge blocks cause land slides on the steep banks of the channels which completely get blocked as a result, and sometimes their courses get altered. Because of the transport of ice and snow to lower levels,

melting increases though the heaping effect restricts the area of exposure to sun light and tends to decrease the rate of melting.

6. 'The arrogant Vṛtra, as if unequalled defied Indra the mighty hero, the destroyer of many, the scatterer of foes; he has not escaped the contact of the fate of (Indra's) enemies. The foe of Indra has crushed the (banks of the) rivers.'

The passage should be fairly clear in the light of our comments on *ṛk* 5.

7. 'Having neither hand nor foot he defied Indra, who struck him with the thunderbolt upon his mountainlike shoulder, like one emasculated trying to pose, as virile person: then Vṛtra mutilated very badly, slept'.

Here the shattered blocks of ice and snow lying on the bottom of the slopes of mountains are referred to.

8. 'The waters that delight the minds (of men) flow over him recumbent on this earth; as a river (bursts through) its broken (banks) Ahi has been prostrated beneath the feet of the waters, which Vṛtra by his might, had obstructed'.

The melt water flowing in the channel completely submerging the ice blocks which are sometimes partially buried in land slides is described here. A distinction is made here between Vṛtra and Ahi. We shall comment on this when we deal with *ṛk* 11.

9. 'The mother of Vṛtra was bending over her son, when Indra struck her nether part with his shaft. So the mother was above and the son underneath; and Danu slept (with her son) like a cow with its calf'.

The huge ice/fern/snow block lying in the background of the mountain with shattered snow covered top after an avalanche is probably meant here.

10. 'The waters carry off the nameless body of Vṛtra, tossed into the midst of never stopping, never resting currents. The foe of Indra has slept through a long darkness'.

The description is that of floating ice pieces tossed about in the water currents.

11. 'Just like the cows blocked by Pani, the waters stood obstructed when they were guarded by Ahi and were under the control of Dasa (Vṛtra?) as though they were his wives. But by slaying Vṛtra, Indra set open the cave that had confined them'.

Here we get some clue to understand the terms Ahi and Vṛtra. Ahi represents an ice block or a big snow chunk or even a glacier. Vṛtra represents a condition in which water is not allowed to flow out of these pieces. This interpretation will hold good for ṛk 8 also. However this distinction is not strictly adhered to by the ṛsis (see ṛks 7, 9 and 10). When temperature conditions are favourable water makes its way through them and comes out at one end through the snout while the other end remains buried under the moraine. During thunderstorm activity the water flow from the snout is accelerated.

12. 'When the single resplendent Vṛtra returned the blow (which had been inflicted) by Indra by the thunderbolt, you became (furious) like a horse's tail. You rescued the waters; you have won, hero, the *soma* juice and you have let loose the seven rivers to flow'.

The seven rivers mentioned here represent the tributaries of Indus in Vedic times.<sup>5</sup>

13. 'Neither the lightning nor the thunder (discharged by Vṛtra) nor the rain which he showered, nor the thunderbolt, harmed Indra, when he and Ahi contended, and Maghavan triumphed also over other (attacks)'.

This is probably a poetic imagination of the ineffectiveness of thunderstorm activity on the ice and snow pilings on the mountains in the beginning and probably after a gap of a few days, they yielded water when thunderstorm recurred.

14. 'When fear entered Indra into thy heart, when about to slay Ahi, what other destroyer of him didst thou look for that, alarmed, thou didst traverse ninety-nine streams, like a (swift) hawk'?

The number ninety-nine is probably mystic. While its use here is not very clear, we wish to only mention that according to the vedic seers the *āsuric* principles are three times the divine principles which number 33. The passage may also mean the quick passage of thunderstorm and associated lightning activity from one area to another area in a mountainous region covered by a number of rivulets flowing to the plains (In this case ninety nine stands for a large number).

15. 'Then Indra the wielder of the thunderbolt became the sovereign of all that is movable or immovable, of hornless and horned cattle; and, as he abides the monarch of men, he comprehended all things (within him); as the circumference comprehends the spokes of a wheel'.

We have no comments to make on this.

There are many other *ṛks* occurring elsewhere<sup>6</sup> which generally deal with the same type of activity of Indra. We give below a few examples (Translation—Wilson).

- (i) 'Thou hast opened the receptacle of the waters; thou hast detained, in the mountain, the treasure of the malignant; when thou hast slain Vṛtra, the destroyer, thou madest the sun visible in the sky.
- (ii) When Indra, who delights in the sacrificial food, had slain the stream-obstructing Vṛtra, and was pouring down the waters, he stood firm, amid the torrents like a mountain and, endowed with a thousand means of protecting (his votaries) increased in vigour.
- (iii) The strong heaven was rent asunder with fear at the clamour of that Ahi, when thou, Indra, wast inspirited by (drinking) the effused (*soma* juice) and thy thunderbolt in its vigour struck off the head of Vṛtra, the obstructor of heaven and earth.
- (iv) The darkness obstructed the current of the waters; the waters were concealed in the joints of Vṛtra's belly. Indra made them flow down to the earth.
- (v) Thou thunderer has shattered with thy bolt the broad massive mountain at the various joints and has sent down the waters that were confined in it to flow (at will); verily thou alone possessest all power'.

It is not our intention in this paper to deal with all aspects of Indra. Indra and Vṛtra principles as depicted in *Rgveda* are fairly complicated and we have touched upon only certain important traits of them which are relevant to the *sūkta* we have analysed here. Particularly we wish to point out that the *āsuric* forces with which Indra fights and which are described here are those which prevent the availability of water in channels by creating conditions like unfavourable temperature, absence of enough sunshine etc. in which water gets blocked in glaciers, ice and snow. Indra himself represents sunshine, favourable temperature conditions and thunderstorm activity which overpower the above *āsuric* forces.

That some of the *ṛks* may refer to glacier phenomena was suspected earlier by Hillebrandt, Paramasiva Iyer<sup>7a,b</sup> and some others. But we have presented the *sūkta* from the scientists' point of view.

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## REFERENCES

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- <sup>2</sup>————— i 122, p. 10.
- <sup>3</sup>*Rgveda*, 6.69.8
- <sup>4</sup>Wilson, H. H., *Rig-Veda Samhita*, Vol. I, N. Trübner and Co., London, 1866, p. 84.
- <sup>5</sup>Ragozin, Z. A., *Vedic India*, T. Fisher Unwin Ltd., London, 1915, p. 1. (Map)
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