ORIGIN OF THE UNIVERSE

- Rayalu Vishwanadha

In the tenth book (Mandalam) of Rig Veda, 129th Hymn (Suktam) deals with the origin of the universe and creation. Original text and my translation are given below:

Nasadiya Suktam

नासदीय सुक्तम्

नासदियसुक्तम् न तथा न राज्या अह आशीर्वद्धे।
आनीदवां स्वद्या तेष्वं तपाद्वान्यन्त्र परः किंदनास॥

तम आशीत्तमसा गुःकर्मेश्वर्क्रमेत् संहितं सवंमा हुद्॥
तुच्छगन्यकायित्वं यदासीत्तपस्तममिना जामुनेत्र॥

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कामसद्ये समावतेनाधि मनोभेषणो रेते: प्रथम यदासीत्।
सऽतो बन्धुसरित्विन्दुन्त हुद् प्रतीच्छां कवयो मनीषा॥

kāmastadānre saṁavartatah manaso retaha prathamaṁ yadasit
sato bandhumasaṁ nirāvindan heti pratiṣyā kavayo maṇisā
tīrthīn evānto rajamāraṇaḥ: śvindasī 3 duṇārī śvindasī 3 v
tetāya āsminṛihmane aśtanvadāya aśvastatayātāḥ: pūrasano
tīrthīn evānto rajamāraṇaḥ: śvindasī 3 duṇārī śvindasī 3 v
tetāya āsminṛihmane aśtanvadāya aśvastatayātāḥ: pūrasano
Neither existence nor nonexistence was there
Neither matter nor space around
What covered it, where it was and who protected?
Why, that plasma, all pervading, deep and profound?

Neither death nor immortality was there
And there was neither day nor night
But for that breathless one breathing on its own
There was nothing else, surely nothing

It was darkness concealed in darkness
And an uninterrupted continuum of fluid
Out came in material form and shape
That one lying deep inside, on its own intent.

In the cosmic mind, all pervading
Desire, the primal seed made its first appearance
And the wise men, seeking deep in their heart
Could see the link between ‘that is’ and ‘that is not’.

Reins of the link, a grid of crisscross lines,
Holds all the seeds and mighty forces,
Microcosmic forces within
And macro forces out above.

Who really knows, who can declare
When it started or where from?
And where will the creation end?
Seekers and sought entered later –
And so who knows when all this manifested?

7. That one, out of which the creation came
    May hold the reins or not,
    Perceiving all from above, That one alone
    Knows the beginning – may not know too.

Let me confess at the beginning, I could not do justice to the poetic beauty of the original. I could not do justice to the poetic beauty of the original. In just seven verses, we find ourselves in the ‘no time, no space’ mode, gradually reaching the center of deep darkness, surrounded by smooth, unending plasma. And lo! Out of shapeless nothing, matter with shape emerges. The whole description is picturesque. Poetry is said to be a window with a frame of words and through this window, we see beyond time and place. Surely these verses awaken the poet in us and make us see far, far beyond.

But Veda is not only poetry; it also goes deep into the cause of the events taking place in the universe and unveils the facts. Modern cosmology tells us that the universe started with a ‘Big Bang’. Let us compare these verses with the statements of the Big Bang theory and assess the scientific approach manifested in Veda.

The beginning and the first moments as described by the big bang theory and the statements from Nasadiya Sukta are given side-by-side for easy comparison:

<table>
<thead>
<tr>
<th>Time Sequence</th>
<th>Cosmology</th>
<th>Rig Veda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning of time</td>
<td>There is no physics. Theory cannot account for conditions existing or not existing</td>
<td>Neither existence nor nonexistence was there; Neither matter nor space was there;</td>
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<td></td>
<td></td>
<td>(1st two lines of 1st Verse)</td>
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<tr>
<td>$10^{-32}$ seconds after Big Bang</td>
<td>The inflationary mode ends, having made the universe smooth and almost homogenous. Matter, anti-matter, and radiation are a bubbling opaque stew</td>
<td>And an uninterrupted continuum of fluid.</td>
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<td></td>
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<td>(2nd line of 3rd Verse)</td>
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<tr>
<td>$10^{-4}$ seconds after big bang</td>
<td>Universe expands. Matter and anti-matter annihilate each other. There is slightly more matter and this excess comprises the matter in the universe today forming galaxies.</td>
<td>Out came in material form and shape That One lying deep inside, on its own intent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Last 2 lines of 3rd Verse)</td>
</tr>
</tbody>
</table>
It can be seen that the modern science is saying the same thing what Rig Veda declared earlier.

Rig Veda says in the sixth verse, who will know and who can declare when and where from it all started since we, the seekers were not there and also the causative forces were not present. They came later. Even gravity broke away from the presumed unified force later. Veda makes it clear that so long you are in search of the causative forces only, you will not get the answer. The same view is expressed by Robert Jastrow (internationally known astronomer and authority on life in cosmos; founder and director of NASA’s Goddard Institute of Space Studies), in his book “God and the Astronomers”. The essence of the mathematical calculations and scientific observations in to the galaxies is: The universe has a beginning – that it began at a certain moment in time, under circumstances that seem to make it impossible – jot just now, but ever – to find out what force or forces brought the world into being at that moment. The famous British theorist, Edward Milne, wrote a mathematical treatise on relativity and he concluded by saying: “As to the first cause of the universe, in the context of expansion, that is left to the reader to insert, but our picture is incomplete without Him.”

Will the universe eventually stop expanding and start contracting or will it expand forever? Stephen W. Hawking, famous theoretical physicist of the present day, says in his book “A Brief History Time”: “If the density of the matter in the universe is greater than the critical value, gravity will stop the expansion at some time in the future”. As we are not in a position at present to calculate the density even to an approximation, we cannot answer the question. Robert Jastrow confirms there is a theory in the scientific world envisaging a cosmos that oscillates forever passing through infinite number of moments of creation in a never-ending cycle of birth, death and repetition. This has the advantage of being able to answer the question – What preceded the explosion? (In his book “God and the Astronomers”). Veda also says that this creation and its ending is a repetitive cycle. Modern cosmology, on the basis of available evidence, envisages the end will come in darkness. Beginning follows the end. Veda describes the beginning in the same way – darkness concealed in darkness was the state of things.

Cosmology limits its search and research to material universe only. Is molecule simply a sum of its atoms? Can we define an atom as only a group of electrons and protons? Man is not a bundle of flesh and bones only? Herbert Reeves, the famous astrophysicist, after discussing about the primordial force of Big Bang and subsequent distinct forces like gravity, asks a relevant question: “Did not the universe, somewhere, aim at achieving self-awareness through the creation of human mind?” (His article in Figaro-Magazine of February 1983) The answer is available in Rig Veda for all thinkers of all ages. The answer does not limit human beings only, but extends to all animate and inanimate worlds. Cosmic mind and primordial desire appeared on the scene. Desire entered the mind. Seeds and forces, we know and will know are manifested. These ‘seeds’ for germination (also procreation) and the ‘forces’ to keep all matter into cohesive shapes, spread throughout to transform into macro and micro worlds.
The cosmic mind is also mentioned as Prajapati in other Suktas. In Satapatha Brahmana (6-1-1-8) it is stated – “praajaapati rakaamayata”, meaning Prajapati desired. Cosmic mind desired and it happened. Same is the case in the microcosmic world of human body. We desire, act and incidents take place.

Every object has not only a mechanical formula but also purpose. All are purposive in tune with the all-pervading purposiveness around. This can only be explained by accepting that the cosmic mind and its forces are all-pervading, within also. The human mind perceives (Vedic word for this is “pasya”) to find out their purpose. Why should we have this desire? Because human mind also emerged from the same cosmic mind and the desire is part of that primal desire. Thus Veda not only defines and describes all “containers” in this universe, but also their “contents”.

The Kavi, Rishi or Wiseman seeking deep in his heart could see the link since both the physical and spiritual hearts (“known” to him) are there. Veda says that is the way to “see” and know.

The last verse is more profound in its meaning. That One, the “author” of all events should know the beginning. Veda says That One also may not know! That breathless One is breathing on its own. The beginning of universe, its expansion, demise and re-emergence – entire process is like involuntary inhaling and exhaling. If someone puts a question to any other one, when did you start that particular inhalation, the obvious answer will be – I do not know. It is a continuous process of which I hardly take notice of. The process is a continuum. Beginning and end are relevant to us, parts and parcels of universe. We float and sink in the ocean of time but not that continuous flow of events or its “author”.

Veda explains all natural phenomena (a) in a poetical manner, appealing to the esthetic mind, (b) gives details in a practical prosaic way to satisfy the pragmatic, down-to-the-earth mind, and also (c) discusses the philosophic approach to meet the demand of the spiritual seeking mind. The knowledge is communicated to all the three facets of the ever-inquisitive human mind, effectively. That is the way the timeless book speaks.