

Glimpses of Science and Technology in Veda-s

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Abstract

Vedas have a treasure-house of highly sophisticated knowledge since long. Whatever *Siddha Maharshi-s* and *Yogi-s* perceived directly in their highest state of Consciousness, they wrote down in the form of *Sutra-s* and *Sloka-s*. Their ways of discovering deeper/inner realms of *Prakrti* are so mystical and divinized that it is very difficult for anyone to believe or be convinced about that. All those *Maharshi-s* were great Spiritual-Explorers with their laboratories established in a cave or under a green/grand banyan tree with *Kamandala*, *Rudraksa*, *Mala*, *Trisula*, *Cimta*, Sandal paste, flowers...as their scientific equipment! What they discovered and inscribed thousands of years ago, is now being discovered by western scientists at a cost of billions of Dollars guided by the manuscripts plundered and purloined from India during British rule. Not only that, many of them have declared viciously that ancient India did not know science/technology at all!

Discussion

Here in as under are glimpses of the vast ocean of knowledge bequeathed by those of *Siddha-s*, *Hindu-s* has every right to be proud of the following:

Vedic Cosmology/Astronomy, Vedic / Hindu traditional wisdom has *Brahmas* day and night which adds to 8.4 billion years as life of the universe. Scriptures other than *Veda-s* too mention the same numbers.

The *Nasadiya Sukta* of *Rg Veda* revealed in the 10-129:1-7 mentions creation of the universe in detail.

The solar phenomena such a Corona, Solar Wind, Solar Prominence and Solar Flares are mentioned in *Rg Veda*.

In *Atharva Veda*, *Tapa* means heat, *Urmi* means motion, *Panca-Karma* refers to live properties of motion and *Panca Mahabhuta* stands for five orders of pre-elements. Thus, *Atharva Veda* explains

construction of atom and atomic forces. *Dvi Pada Dhenu* i.e. two legged cow actually means bipolar magnetic force, one legged cow is single Proton in the first element, Hydrogen. In *Veda-s*, *Himama* i.e. cold fire and *Dhramsama*, i.e. hot fire mean electron and proton respectively. Western scientists discovered all these constituents of Physics in last 200 years only.

In Vedic *Sanskrita*, *Ukha* i.e. pit means void. *Viraja* means Carbon, *Skamba* stands for Hydrogen and *Brahmacari*, for Lithium. Their Vedic numbers tally with the atomic numbers given in the so-called modern Periodic Table. *Brhaspati* is Nitrogen with Vedic number of 7 with the same being atomic number of Nitrogen in Periodic Table. *Rudra* is Sodium with number 11, also called *Ekadasa Rudra* with 11 as its atomic

number. Similarly, *Brahmodana* stands for Phosphorus.

Black Hole has been described as *Krsna Drapsa* i.e. Black Drop in the *Atharva Veda* by *Maharshi Bharadwaja*. *Aitareya Brahmana* says, “Sun never sets, never rises”. *Maharshi Aryabhata* was the first to state, earth being spherical in 5th century AD, thousands of years before Copernicus and Galileo. *Maharshi Brahmagupta* estimated circumference of earth to be 5000 *Yojana*-s (*Yōjana* is the Vedic measure of distance. One *Yōjana* is equal to 7.2 Kms) i.e. 36000 Kms. In *Bhagavat Purana* it is mentioned on exploration of another Solar System sometime in 4000 BC. Elliptical order of planets has been mentioned in *Rg Veda* while Black Holes are described in *Visvaruci*, 7000 BC. Monsoon during summer solstice finds mention in *Rg Veda*.

Vedic Helio-Centric

The theory of Vedic Astronomy is the oldest and most accurate in the world. *Rg Veda* explicitly states ‘*Yat Bhumim Vaivartayet*’ (8.14.5), meaning ‘Earth revolves around the Sun’.

In 2001, an astronomical code hidden in *Rg Veda* was unravelled which accurately determined distances between earth and moon as well as earth and sun. According to the code, diameter of moon multiplied by 108 precisely elicits distance between earth and moon i.e. moon is 108 moon-diameters away. Similarly, diameter of sun multiplied by 108 provides distance between earth and sun i.e. sun is 108 sun-diameters away from earth. Latest astronomical calculations settle the figures at 110.6 and 107.6 for moon and sun respectively.

Such a highly advanced Cosmology/Astronomy would not have been possible to attain without first-person direct observation in absence of scientific instruments of now days. They achieved the knowledge with highest degree of accuracy as they were able to migrate out of their gross bodies being *Siddha Yogi*-s, visit deeper realms of space, observe them from close quarters, return to re-embodiment themselves and inscribe those details, discoveries with a writing instrument and *Patra*-s. This is the most mystical domain of Vedic knowledge known to Hindu-s alone.

Vedic Physics principle on uncertainty for which Heisenberg was awarded Nobel Prize was already illustrated in the *Upanisad*-s thousands of years ago.

The *Aswamedha Sukta* in *Rg Veda* (1-162:1-22) discuss the measurement of light waves. *Aswa* means light in Sanskrit.

Matter, energy and their inter-convertibility were known to *Rsi*-s discovered as claimed by Albert Einstein. Similarly laws of Mechanics, Gravitation, Electrolysis, wave motion of light etc. were vividly known.

Maharshi Kanada was the first exponent of Atomic Theory in 600 BC as *Vaisesika Sutra*.

Maharshi Patanjali defined matter as any substance which can exist in *Santa* i.e. negated state of past and *Abhyapadesya* i.e. emerging state of existence. It was stated by Warner Heisenberg in 20th Century and earned Nobel Prize for that!

Similarly *Ksana* i.e. moment was been defined by *Maharshi Vyasa* thousands of years ago exactly as it has been done in so-called modern science. Paulis Exclusion Principle earned Wolfgang Pauli Nobel Prize in Physics,

a discovery which is described in *Maharshi Patanjalis Yoga Sutra-s*.

Velocity of light was precisely defined and computed in *Rg Veda* sometime in 1400 BC.

Tachyon, that moves faster than light, is mentioned in *Mundaka Upanisad*, 7000 BC.

Infra-Red bands are described by *Sulohita*, circa 7000 BC.

Electrical cells were described in great detail in *Agastya Samhita*, circa 4000 BC.

Mundaka Upanisad describes nuclear energy while Gravitation by *Prasnopanisad*.

Vedic Mathematics

Grtsamada Maharshi composed Mandala II of *Rg Veda* which mentions numerals, odd numbers as well as multiples of ten.

Another sage *Maharshi Medhatithi* propounded method of counting in tens and went to the level of *Prarabdha* i.e. billions.

Vedic sacrificial alters were complex geometric designs which encouraged development of sophisticated Geometry. Alters of Harappana age discovered from UP to Iran proved *Sulva Sutra-s* of *Boudhyana*, the most ancient mathematical text. American mathematician Seidenberg holds *Sulva Sutra-s* source of entire ancient mathematics in the world.

- 1) **Vedic Trigonometry:** is the discipline of study of *Tri-kone-miti* i.e. triangles developed by *Maharshi Aryabhatta*. Even terms Sine and Cosine are derived from *Samskrita*.
- 2) **Vedic Arithematics:** It is the science of numbers and all the three fundamental inventions viz. numbers 1 to 9, 0 and

decimal system were done by *Rsi-s* and *Maharshi-s* during II century BC. *Maharshi Bhaskaracaryas* work *Leelavati* is regarded as the first text on the subject. An Australian Indologist declared, "World owes entire realm of Mathematics to India".

Vedic Medicine

Atharva Veda is the world's earliest work on medicine. It contains description of diseases of heart, abdomen, kidneys etc. and herbal treatment recommended with a success rate that is envy of western physicians.

Rg Veda Mandala VIII mentions names of sages who had undergone surgeries of various types including ophthalmic.

Ayurveda deals with lymphatics, nerve plexus, fascia, adipose and vascular tissues, mucous and synovial membranes and many more muscles than even today's cadaver may know.

Maharshi Atreya in 500 BC, almost 2,400 years before modern discovery, described that parental seed is independent of parental body, contains in itself entire parental organism.

Maharshi Susruta is regarded as father of Surgery the world over. *Susruta Samhita* also covers subjects like Obstetrics, Hygiene, Nutrition and even medical education. *Maharshi Susruta* has described 1,120 diseases, 760 medicinal plants, 121 surgical instruments with 101 blunt and 20 so sharp with edge so fine that can divide even hair on skin. He was founder of Plastic Surgery with 15 operations for repair of torn ear-lobes etc. *Samhita* mentions 300 different operations using 42 surgical processes. *Maharshi Susruta* was also a pioneer in the field of Human Anatomy. He

has enumerated in great detail, 7 Primary Fluids, 700 arteries, 500 muscles, 900 tendons, 300 bones, 24 veins, 9 nutritional canals, 6 sinews, 2 intestines and even 35 million hair-pores!

Proto-Historic Genetics observed in *Brhadaranyaka Upanisad* and several other ancient texts describe procreation that there is a special type of food for a particular type of child one may aspire. It has been scientifically examined by western scientists who discovered success rate at more than 80%.

Matapurker, a renowned Stem Cell scientist believes that 100 *Kaurava*-s were born through stem cell route. He holds US patent of growing human limbs from stem cells.

C.P. Trivedi, a Vedic scholar has claimed in his latest book *Vedic Science vis. a vis. Modern Science* that DNA was known to our ancestors some 18,000 years ago. DNA has been described in *Veda*-s and its diagrammatic representation has been discovered on some seals recovered from Indus Valley civilisation. DNA was referred to as *Tvasta* and *Vivasvata* in *Veda*-s with details of their helical structure and Gene-transfer process.

Vedic Aviation: *Rg Veda* comprises of at least six references to flying equipment. In 1895, Shivker Bapuji Talpade demonstrated a flying aeroplane constructed according to the Vedic description on a Mumbai beach in presence of thousands of people and Maharaja of Baroda. Britishers confiscated the plane, tormented Talpade to his sad demise.

Vedic Engineering: Our ancients were highly skilled metallurgists too. Iron Pillar at *Visnu Stambha* i.e. Qutub Minar in New Delhi is a conspicuous example wherein iron of the pillar

is devoid of rust even after 1600 years in open, directly under the sky. IIT Kanpur discovered the reason of that being devoid of rusted in the layer of corrosion resistant chemical coating of iron, Hydrogen and Oxygen exclusively known to them alone. Conversion of steel into stainless steel was a remarkable achievement discovered by our ancestors. British people acknowledged antiquity of Indian steel making process is no less astonishing than its ingenuity.

Sanskrita and Pali have numerous references of international maritime activity in ancient India. Ships have been mentioned numerous times in *Veda*-s, *Purana*-s, *Ramayana* and *Mahabharata* and our ancients pioneered ship-building. *Ramayana* mentions ships large enough to carry hundreds of warriors. *Maharshi Panini* in 2000 BC referred to various types of boats. *Maharshi Varahamihira* authored *Brhat Samhita* during 5th century wherein he described ship-building technology, 'monsoon winds' in great detail. Without such an extensive and deep knowledge of ship technology, long-drawn trade voyages on Harappana vessels to East African coast, Egypt and Persian Gulf would have been impossible.

Glass-making was thoroughly known during Mauryan times in 1500 BC. Glass was differentiated from *Sphatika* i.e. crystal as early as in the days of *Susruta*. A glass factory of 5th century has been discovered in UP. They developed a variety of glass that looked like water, used in *Varanavata* Palace during *Mahabharata* to kill *Pandava* brothers.

Robotic engineering finds mention in *Samarangam Sutradhara*, circa 1050 AD.

Vedic Botany: Vedic sacrifices have continued to be celebrated not only centuries after the Vedic period, but even up to the present day is an unquestionable proof of the persistence of the old religion, bearing in mind that the ‘*yajña*’ constitutes its more important element (Aguilar, 1976). The execution of rituals maintains the balance of the five major elements (sky, wind, fire, water and earth) affording sun-shine and rain in reasonable measures, resulting in proper growth of crops and plenty of food. Rituals are performed to get relief from excess or scarcity of rain, diseases like small-pox and tuberculosis, dangers from poisonous creatures, wild animals and thieves and other sorts of disturbances (Sarma, 1989). Though all the four Vedas described plants to perform Vedic Rituals, but the Yajurveda (YV) texts (*Samhita*, *Brahmana* and *Āraṇyaka*) have described more number and types of plants and trees.

Proper identification of higher plants is based upon the external structure of plant organs. The classification (Taxonomy) of various plant parts, their structures and growth is explained in detail in the *Taittirīya Samhita* (TS), *Vājasaneyā Samhita* (VS) of Yajurveda and related *Brāhmaṇās*. Plants are in the first place and are broadly classified into three groups— (i) *Vṛkṣa* (trees), (ii) *Auśadhi* (herbs or small plants) and (iii) *Vīrūdh* (creepers or herbs with spreading stems).

Yajñas and *Yāgas* are being performed as spiritual and scientific approaches for the welfare of the people, benefit of the society and for the world peace. It is almost impossible to perform *Yajñas* and *Yāgas* without using plants or trees and their related products. Therefore, the plants, herbs, shrubs

and the trees revealed in the YV are the vital elements in performing *Yajñas*, *Yāgas*, *Hōmas* and *Iṣtis*. The flora of YV consists of more than hundred plant species that are used in various rituals, magical, medicinal and in manufacturing *Yajña* implements are described (Boddupalli, 2015, 2019).

All these spectacular achievements in *Veda*-s have been denied by Nobel Laureate Steven Weinberg who belongs to the tribe of pseudo-Indologists which originated with Max Mueller and stretched to Dorothy Figueira of Georgia University. Their sole objective is Christian agenda through India bashing. He has quite ignorantly asserted that ancient Vedic knowledge was devoid of engineering/technology. Enough details have been provided to contradict his irrational notions and beliefs.

The so-called modern sciences, so much adored by these ANTI-HINDU/ANTI-BHARATA pseudo-intellectuals, do not have scientific equivalent of *Yoga Sastra* at all! What does science have to offer to match week-long *Yoga* practice that leads to considerable and perceptible augmentation in overall well-being? *Yogi*-s can sit on ice-slabs whole night without affecting body temperature, can decrease cardiac rate to the level of hibernating animals, appear and disappear at will. Does so-called modern science of these Anti-Hindu scientists have an alternative route to achieve that? These so-called western intellectuals have miserably failed to understand the fundamental reality that all *Siddha Yogi*-s had/have been great scientists and Vedic wisdom is not only far more advanced than science but also, it is mother of all sciences. They reveal their extreme ignorance by comparing semitic

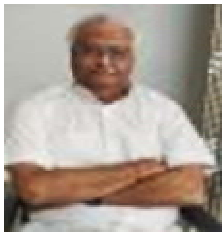
religions like Christianity / Islam with Sanatana Hinduism which is a *Dharma* / wisdom and not religion at all. As a matter of fact, Christianity in earlier times never encouraged newer explorations in violation of Christian Theology, imprisoned and brutally slew explorers of science. Christian brutality went so far as burning so-called witches and animals live.

Purported western scientists who won Nobel Prizes for the researches purloined from *Veda-s* and other scriptures have now the audacity to tell us, science never existed in *Bharata*! They stand advised for their own benediction, “*Namulam Likhyate Kincit*” i.e. “Write nothing about something having no foundation in truth.”

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Dr. Ramakant Tiwari, MSc., PhD - After an illustrious career in corporate world, Dr. Ramakant Tiwari has stepped into the world of Sanatana dharma and deeply involved in studying ancient scriptures and writing commentaries (*bhashyas*) on Srimad Bhagvadgita, Svadharmayoga Upanisad and Mysticism of *Samkhya Darsana* are published. He is currently working on Valmiki Ramayana.