



Ancient India And It's Vedas: The Teacher Of The Universe

¹Dr. Lalita Behera, ²Dr. Premananda Behera

¹Lecturer, ²Senior Resident

¹Odia Language And Literature, ²Ophthalmology

¹SCS Government Autonomous College, Puri, India, ²SCB Medical College and Hospital, Cuttack, India

Abstract: Vedas, literally meaning knowledge, originated in India consists of Rigveda, Samaveda, Yajurveda and Atharvaveda are the true Teachers of the Human being. The Rigveda contains countless secrets and clarifications about the origin of the Universe, the importance of the Gods and a lot of advice that enlightens the Universe for living a satisfying and successful life with Truth and Non-violence. The Samaveda is the Veda of chants, the powerhouse of knowledge of chants, the foundation stone of Indian classical music and dance; consists of hymns of ritual applications, worship and devotion to Gods. The Yajurveda in its chapter-32 explains- God is only one and he is the Supreme and the Supreme Spirit has no 'Pratima' i.e. no physical body or no human faced idol or material shaped body and also explains anyone can see him directly as he pervades all beings in all forms and all directions of the visible and invisible range; so Vedas completely ban idol worship, contains instructions for religious rituals. The Atharvaveda the encyclopedia of medicine consists of spells against enemies, sorcerers, and diseases; the Ayurveda, the Science of Life is a supplement of Atharvaveda fights against the diseases is a blessing to the mankind.^{1,3,8}

Index Terms - Veda, Rigveda, Samaveda, Yajurveda, Atharvaveda, Vedic Period, Science, Scientists, Invention, Discovery, Universe.

I. INTRODUCTION

Veda is the true origin of modern Science and technology which is considered as the powerhouse that delivers unlimited power source for human being. The Vedic Knowledge is capacious to cover all the disciplines of modern education. Physics, one of the discipline of natural Science has it's origin from Veda, Ramayana, Mahabharata, Srimad Bhagabat Gita etc. The Science of Astronomy, Cosmology, Aviation, Chemistry, Mathematics, Biology and Science related to the origin of the Universe is well explained in ancient times using the Indian Literature as a base, those reflected in many old literatures including the Vedas, the Ramayana, the Mahabharata, the Srimad Bhagabat Gita etc. The mantras in the Vedic texts were the formulas of that time, that explains the phenomena of creation, existence and destruction of anything.^{1,3,8}

II. OBJECTIVES

Indian Literature, the ocean of knowledge that contributes to the well being of humanity and other creatures of the earth by it's applied aspects in the discipline of Science as described in the Veda, Purana, Ramayana, Mahabharata, Srimad Bhagabat Gita etc can be correlated to the modern Science for a better encouragement for invention process.

III. MATERIALS AND METHODS

The nature of this study is descriptive and based on the ancient Indian Literatures including the Vedas. Some other data collected from the internet based journals, epics, books etc which were published at different times in different languages and translated into English.

IV. SUBJECT

IV.1 The Origin of the Universe and Today's Biological Kingdom

Santha Araksita Das of Olasuni Cave in Cuttack wrote in his book "Mahimandala Gita" about the origin of the universe, creation of earth, water, fire, air, sky and using this five particles the living kingdom was created and classified animals according to their habitats, have perspectives on different streams of science much before the evolution of modern Science.² The Big-Bang theory of modern days explains the creation of the universe is very similar to the theory given in Purusa-sukta of the Rigveda which also explains the origin of the Universe begins from Hiranyagarbha or golden egg i.e. Cosmic Nucleus.⁸ This Hiranyagarbha gave rise to the creation of all massive planets and stars. The Rigveda writes "Hiranyagarbhah samvartatagre bhootasya jatah patirek aasit, sadadhar prithavim dhamutemam kasmayi devay havisha vidhem", that literally means at the time of beginning of the creation process the Hiranyagarbha was born, holds the heaven and earth and became the Lord of all created things what we see around us in visible and nonvisible range. Maharshi Hiranyastupa Angirasa explained the battle between the two opposite forces namely Indra and Vritra in the Hiranyagarbha. The Indra force expanding the Hiranyagarbha overpowers the Vritra representing inertia force resulting in Brahmanda Vishphota explains the modern theory of Big-Bang in which it is assumed that the visible Universe had been created from a primeval atom.⁹

IV.2 The Solar System

5125 years lapsed since the end of Dwapara Yuga, in which the World's largest War the Mahabharata happened; in Mahabharata war while delivering Srimad Bhagvata Gita, Lord Krishna made visualized to Arjuna, the countless galaxies i.e. multiverse instead of universe we see and uncountable stars among which the existence of our solar system having nine planets revolving around the Sun; in every part of the universe God Krishna the another form of the supreme God is present as visible to Arjuna as noted in the Vedas is proven here in the Mahabharata battle field. God Krishna gave divya drishti i.e. micro and macro visibility power to Arjuna to make him observe at the scale of sub atomic trajectory implies that the limitations in the capabilities of materialistic human body could violate the phenomena of Werner Heisenberg's uncertainty principle in which observation of subatomic particles can alter the subatomic particle's trajectory, in other words it is impossible to measure or calculate exactly both the position and the momentum of an object. Rishi Bhaskaracharya, wrote in his book 'Sidhanta Shiromani' that, the time period of revolution of earth around sun is 365.258756484 days.⁵ "Brihath Sathaka" gives the smallest unit of time is 3×10^{-8} seconds surprisingly very close to the life time of some mesons and hyperons. Rigveda writes the speed of light, converted and calculated to be 3×10^8 m/s and the age of the universe i.e. the life span of the universe is approximated as 8.64 billion years; these figures of measurements are very similar and close to the modern day's measured values.¹⁰ India's rich scientific heritage exhibition coordinator, Ashish Manjramkar, states that, "Very few of us know that the speed of light was well known to Indians in Vedic period. A shloka reveals that the speed of light is 2202 yojana per half nimisha where yojana is a unit of measurements of distance which equals to 9.06 miles and half a nimisha i.e. nimishardha is one tenth of a second and all these figures are very close to the modern day mathematical measurement of the speed of light".⁵

IV.3 Force of Gravity and Laws of motion

The principle of the Gravity first described in his book the 'Surya Siddhanta' by Maharshi Bhaskaracharya, one of the most distinguished astronomer and mathematician in 11th century. He wrote- "Madhye samantandasya bhugolo vyomni tishthati, bibhranah paramam saktim brahmano dharanatmikam" in the Shloka-32 of 12th chapter of the "Surya Siddhanta"; literally means that, the spherical earth stands at its centre in the space due to the dharanatmikam shakti i.e. the Gravitational force which prevents earth from falling away from it's centre and helps it to stand firm at there. Siddhanta Shiromani, Bhuvana Kosa's Shloka-6 states that, "Aakarshita shaktiska mahi taya yat svastham guru svabhimukham svasaktya, aakarsyate tatpatativa bhati same samantat kva patatviyamkhe" which means every object falls on the ground due to the force of attraction of the earth, allowing the sun, earth, moon and constellations to stay in their respective orbits. Maharshi Bhaskaracharya also explained the gravitational force in his book 'Lilavati' about 1200 years before Newton gave his laws of gravitation.⁵ Rishi Kanaad in his book 'Vaisheshika Sutra' in 600 BCE described the laws of motion and explained the relationship between motion and force.⁶⁻⁷

IV.4 Quantum Physics

In 600 BCE Rishi Kanaad proposed the Original Quantum Mechanics and explained in Vaisheshika Atomic Theory; Almost 2500 years later in the 20th century, Niels Bohr also explained the atomic model in 1913 AD and Erwin Schrodinger stated the famous Schrodinger equation of quantum mechanical wave function and its evolution with time that, all matter have an associated matter wave. According to these laws, each object can be reduced to finite numbers of atoms i.e. anu. As mentioned in “Vaisheshika Sutra” the Earth possesses colour, taste, smell and touch, Air possesses the touch but these characteristics are not in ether.¹¹ The atomic theory proposed by Rishi Kanaad in the “Vaisheshika Sutra” has been way back long before it is proposed by John Dalton who is popularly now known as the father of Atomic Theory in Modern Science. The Atom Bomb invented by an American theoretical physicist J. Robert Oppenheimer, known as the father of atom bomb was based on the studies of Indian scriptures such as Ramayana, Mahabharata, Puranas, Vedas and Srimad Bhagvata Gita. The study of Brahmashttra, the weapon of God Brahma and other deadly weapons of God Bishnu, God Shiva and God Indra of the Mahabharata and Ramayana time was done by Oppenheimer.¹² The destroying capabilities of these modern day’s atom bomb weapons has been demonstrated with the furious application in Hiroshima and Nagasaki of Japan.

IV.5 Optics

“Surya Siddhanta”, the ancient Indian text contains information in detail about optics and the behavior of light; describes the image formation in concave and convex mirrors, the refraction of light through different types of lenses, and the phenomenon of diffraction. The speed of light has been accurately mentioned in Rig Veda calculated and converted to 3×10^8 m/s.¹⁰

IV.6 Sound

The secret of emergence of energy by chanting of mantras at particular frequencies generating a positivity in the atmosphere is well known to the Indians since the Vedic age; Vedas explain resonance of frequency which triggers any form of energy by chanting mantras.¹² Prasastapada, an Indian philosopher states that, Sound is the quality of akasa i.e. sky, can be noticed by auditory organs; it is momentary, can be produced by contact, disjunction or by another sound. The sound is divided into two kinds namely the Varna and Dhvani. Varna results from the contact of the internal organ and self while influenced by memory. The larynx of the throat struck by the moving air, producing a contact with the akasa, results in production of sound. The property of production of Sounds are always in a series, like a series of ripples in water and when these waves of sounds reach the ear we are able to hear them.¹³

IV.7 Electricity

“Agastya Samhita” written by Agastya Maharshi, in it’s shlokas states about the knowledge of electricity; “Samasthapyam mrinmayam patram tamrapatram susamskritam, chadayet sikhigrivena cardrabhih kashthapamsubhih. Dastalosto nidhatatva hparadaschditastatah, utpadayati tanmitram samyogastramradastyoh” explains after placing of earthen vessel and copper vessel securely, closing the vessels opening with copper sulphate and saw dust, lumps of gems generate electricity by the reaction of Copper and Zinc. The methodology for construction of electric battery was explained by Agastya Maharshi. He also explained the splitting of water in electrolysis into hydrogen and oxygen.¹⁴ Rishi Agastya is the inventor of electro-voltaic cell.

IV.8 Aeronautic inventions

The eminence of Maharishi Bharadwaja explained in the book “Vaimanika Shastra”, written by him in about 5000 years ago is an authoritative text in which he showers the knowledge of aeronautic inventions not just constructing airplanes but also on the process of navigation, aviation fuels and pilot preparation and how spaceships and airplanes appear and disappear and travelled from one planet to another in ancient times. Vimanas i.e. modern day’s aeroplanes described in epics were built to fly at the speed of rockets.

IV.9 Missiles

In the ancient era the Invention of missiles by Vishwamitra Maharshi, the most appreciated sage in India, who explained the functioning and mechanism of working of missiles, different types of missiles having smoke, spark, fire and radiations that never fails to strike the target.¹⁵

V. DISCUSSION

India and its Vedic Science is the one and only, and is the base of knowledge for the Modern Science. Modern day's flying technology, missiles technology, Optics, Sounds, and other applied aspects of Science originated from India's Veda, Purana, Ramayana, Mahabharat, Srimad Bhagabat Gita etc.

VI. CONCLUSION

Indian Literature is the base of modern Science that enlightens the whole universe by distributing its hidden knowledge to the human society. The unread knowledge of Veda and Purana can be used as the base for inventing new things such as new instruments etc for the welfare of the human as well as other living kingdom. The Big-Bang theory, the theory of evolution, the theory of Gravity as evidenced in the ancient Indian Literature.

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