

The Concept of ‘Origin of the Universe’ and other ‘Scientific Facts’ as mentioned in the Various Shastras of Ancient Bharatha Varsha

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Abstract

A humble attempt is made to understand the Concept of ‘the Origin of the Universe’ and enumerate some of the scientific knowledge mentioned in some sacred texts of ancient Bharatha Varsha.

॥मङ्गलाचरणम् ॥

यद्ज्योतिषां ज्योतिरिति प्रचक्षते यदंशुभि स्सर्व
जगत्प्रकाशः।
यद्भासते सर्व हृदिस्वयंप्रभा तमेवभान्तं प्रणतोऽस्मि
नित्यम्॥
यदंशुमथनाद्दिव्यमुदित्यं जातवेदसम्।
वहन्ति केतवोनित्यंतन्नत्वांशुप्रभाकरम्॥

|Mangalacharanam|

Translation

To that Light which is proclaimed by the Learned to be the “Giver of Light” to all the Luminous objects , such as “The Sun”, “The Moon”, “The Stars”, “Lightening”, and so on; Whose luminous Rays Illuminate the Entire inanimate Universe , which is (without the Aid of any external object)- Self Effulgent and Shines in the hearts of all Beings , as if a mere Witness (Sakshi); and to that Self Effulgent light of Paramatma, in the Absence of which, as the Sruti Says, “no other Luminous object can Shine”; I offer my Salutation.

रूपं रूपं प्रतिरूपो बभूवतदस्य रूपं प्रतिचक्षणाय।

He became the **Original Form** of every form; It is **His Form** that is everywhere to be seen. -Rigveda 6-47-18.

Introduction

The Aggregate form of the Veda so obtained by Sage Bharadwaja was very difficult to Learn. Hence-forth Sage Vedavyasa split them into Rigveda, Yajurveda, Samaveda and Atharvana Veda and taught them to his disciples Paingala, Vaishampayana, Jaimini, Sumantha, who in turn further split the four Vedas into Branches and sub-branches. Eminent Sages like Bharadwaja, Vedavyasa, Kasyapa, Aangirasa, Aswalayana, Bodhayana, Aapasthambha, Yagynavalkya, having studied and understanding all the vedas, summarised into categories called Smruthi, Puranas, Itihasas, Dharma-Sutras, Kalpa Sutras and Brahmanas. They composed various Shastras for the benefit of Mankind. These sacred

Texts clearly explain the Process of Creation of the past Kalpas and the present Swetha Varaha Kalpa.

The word “Veda” means “knowlrdge and more”. In his book “Science and Technology in Vedas and Sastras”, Dr. R.V.S.S. Avadhanulu, explained the meaning of the word “Veda” thus:-“The Sanskrit word Veda has Vid as its dhatu or elemental component. At its gross level of understanding, it is a verb meaning “to know”. Vedic scholars have not stopped with mere understanding of this. They have delved deeper to realise and stated as shown below:

विद्विचारणे विद्सत्तायां विद्ज्ञाने, विद्लाभे, एतेषां धातूनां विषये वर्तन्ते यस्मात्ततो वेदा इत्युक्ताः।

Dr. R.V.S.S. Avadhanulu quotes the above verse from Veda Saara Ratnavali, and gives its meaning as “Vid is enquiry and contemplation, vid is ‘to be’ or ‘to exist’, vid is to be illumined with knowledge, vid is ‘to obtain’ and ‘benefit’. Because these aspects are subject matter of the dhatu or elemental component vid, the word ‘Veda’ is formed providing the same”.

The logic of materialist science fails when observers are considered. How can inanimate matter, governed by fixed laws, lead to mind? To bring in consciousness as a separate category like space, time, matter, as suggested by many physicists and neuroscientists, leads to further paradox. This very issue was considered with great subtlety in the Vedic tradition of Ancient Bharatha. Our knowledge of the physical world is based on empirical associations. These associations reveal the laws of the physical world. But how do we study the nature of consciousness? There is no way to observe one’s own awareness. The Vedas deal precisely with this

central question of the nature of knowledge. The consciousness aspect of the Vedas was emphasized most emphatically by Sri Dayananda Swami (1824-1883) and Maharishi Aurobindo (1872-1950).

The Ancient BharathaVarsha had witnessed the Fame and Glory of the Empires of the Monarchs (चक्रवर्ती) such as of “Soorya Vamsa”, “Chandra Vamsa”, “Agni Vamsa”, long before any other Civilisations existed in the World. The Glory of these Dynasties is reflected in the richness of Knowledge attained by the Maharishis during these periods, owing to their study of the “VEDAS” ,“UPANISHADS” and “SHASTRAS”. These “VEDAS” are said to be “अपौरुषेया”, meaning not written by any Human. They are said to be of Divine Origin. The “Shastras“ areSciences revealed to the Maharishis during Meditation called “स्फुरणम्” from their study and understanding of the VEDAS.

In his book “Science and Technology in Vedas and Sastras”, Dr.R.V.S.S.Avadhanulu, says that “The Vedas are the revelations of Eternal Truth, transmitted as a vibrational-language. They are the revelations of the Sages called ‘Rishis’, in the beginning of Creation of the Universe, for the Moral, Spiritual and Physical guidance and for uplifting of Humanity to make Human race Perfect and Ideal”. Vedas are said to be revealed to the Rishis by Lord Brahma for propagating in Bhooloka i.e., Earth.

In the present Paper, a humble attempt is made to understand the “Concept of The Origin of Universe“ and enumerate some of the Scientific Knowledge mentioned and

explained in some Sacred Texts of Ancient BHARATHA VARSHA.

The Concept of Origin of Universe

“TIME” or “काल” is of two Kinds :- ‘Avaaccya’ or ‘Unlimited’ and ‘Vaaccya’ or ‘Limited’. The ‘Unlimited’ Time is also called “AVYAKTHA” or “UNMANIFESTED”. This is also referred to as “Nirguna”. This is the unmanifested state of the “BRAHMAN” in Philosophical works.

On the other hand Astrological Texts like “Soorya Siddhantha” declare that the same Unlimited Time, in the Form of Avyaktha Brahman, converts into the State of Vyaktha or the state of ‘Limited Time’ or ‘Manifested State’ and Extends through the Universe according to the ‘Kalpa’ concerned, in order to Manifest into the “SAGUNA” State of Brahman. (In the Modern Scientific Theories, this state is termed as the “Primordial State of Matter”).

Maha Rishi Parashara in the Eleventh Aphorism of the Fifth Chapter of his “Anda KaustubhShastra”, reading as:-

महाकल्पात्रिषष्टयुत्तर शतम् ।

Explains the extent of the Limited Time as follows:- “ The Limited Time extends over three hundred and Sixty MahaKalpas”. These MahaKalpas start with “The ParashaktiKalpa” and end with the “SadasivaKalpa”. The Process of Creation during each Kalpa is conducted by the Lord of that Kalpa.

As given in the Aphorism:-

।अथकल्पसृष्टिरात्मत्वात्सूर्येण ॥

पराशक्त्याद्यासदाशिवः कल्पान्तंयथाक्रम ।

महाकल्पाश्चतुष्षष्टिरितिशास्त्र विनिर्णयः ॥ १ ॥

जगत्सृष्टिः क्रमात्तेषुत्ततत्कल्पाधिकारिभिः।

तत्तत्कल्पश्रुतिप्रोक्तरीत्यानानाप्रकारतः ॥ २ ॥

अन्नान्नाद्प्रभेदेन सृज्यते पूर्वकल्पवत् ।

एवं हि स्वेतवराहकल्पश्रुत्यनुसारातः ॥ ३ ॥

Thus the Creation of the ‘SwethaVarahaKalpa’ is conducted by “Soorya” (the Sun) , since He is identical with the Paramaatma, according to the Aphorisms (Axioms) mentioned above. In the later Aphorisms (4).....(33). It is mentioned that the process of Creation of the Present Universe, is similar to the Process of the Creation of the previous Kalpas. The Present Swetha VarahaKalpa has been calculated to be the ‘One Hundred and Forty Eighth’ MahaKalpa, according to the Mathematics of Valmiki Maharishi. As mentioned in the Aphorisms given above, the process of Creation of anyKalpa is the same. The process of Creation of the Swetha VarahaKalpa is also explained to be in accordance with the Sruti Vaakyas which is briefly explained in many Puranas and Itihaasaas.

Sri Madhura Krishnamoorthy Sastry, who is a renowned Astrologer and GanithaSiddhanta Scholar from Rajahmundry, in his study of theAstronomical Text “Soorya Siddhanta”, stated that in the 90th Verse of the XIIth Chapter, information about “The Sun and His Rays” is given. It is stated that the Sun bestows Illumination to the Entire Universe and that the Orbit of His Illumination in the Sky is called “AKASHA Kakshya”. The measurement of its radius in Yojanaas is also furnished. The information giving the Radius is given in the Verse:

“KhakashyaYojanaaMaanamaaha”

(the measurement of AakshaKakshya is as follows):

खव्योमखाजय खसागर पुष्कनाम व्योमाष्ट शून्ययम
रूपनगाष्ट चंद्राः ।

ब्रह्मांड संपुट परिभ्रमण समंता दभ्यंतरे दिनकरस्य
करप्रसारः ॥

The Solar Radius is called “Akasha Kakshya”. It is Spherical and admeasured as 187120808640000 Yojanas. The rays of the Sun will roam about in this Orbit only. In other words the Solar Orbit is defined as the distance in the outer space to which the rays of the Sun can reach or spread.

This distance is very impossible to Measure. But our Ancient Rishis (Vedic Scientists) have given a Formula or Theorem for calculation of the extent of rays of Sun viz., KhaaKakshya , in the following Verse:-

कल्पोक्त चंद्रभगणाः गुणिताः शशिकक्षया ।
आकाश कक्षा साडेया करव्याप्तिस्सधारतेः ॥
KalpaChandraBhaganamulu X Chandra
Kakshya = AakaashaKakshya

Further, Sri Madhra Krishna Murthy Sastry, states that in the Bhavishya Purana, Brahma Purva 78, II Adhyaya, the following details regarding “Rays of Sun” are given:-

यथा पुष्पं कदंबस्य समंतात्के सरैर्वृतं
तथैव तेजसांगोळं समंताद्रश्मिभिर्वृतं ।
सहस्रशीर्षा पुरुषः ब्राह्मयोग मुदाहरन्
तैजसस्यच गोलस्य सतुमध्येव्यवस्थितः ॥

“The Solar Globe is full of brilliant rays and radiance, just as the Kadambaa flower is full of its inflorescence. At the Centre of this Brilliant Globe, the Parama Purusha (the Parabrahma endowed with thousand heads) is constant by His Presence. (He is brightly shining with His Thousand Rays).

The above stated thousand rayshave different properties and can cause Coldness, Heat and Rain. 400 Rays are of various

shapes and cause rain as given in the following verse:-

सहस्रंतातकधिकं शीतवर्षोष्ण निश्चवं ।
तेषांचतुश्शतं नाड्यो वर्षते चित्रमूर्तयः ॥

There are several other important properties of Solar Rays that are mentioned in various other ancient Texts and Puranas. In the “VAAYU Purana” the relation between the Solar Rays and the stars and Planets is also given.

In the First Chapter of the ‘AmsuBodhini Shastra’ in the ‘शास्त्र उपोद्घातः’ (in the introduction) it has been mentioned that Lord Brahma addressed BharadwajaMaharishi who was doing Penance in the name of Lord Brahma and took him to Brahma Loka and showed him four Shining heaps of Vedas and presented to Sage Bharadwaja a handful from each heap of the Vedas and instructed him to establish them in ‘Bhooloka’ i.e. the Earth.

पुरा खलु भगवान्भारद्वाजः
इन्द्रानुग्रहसंलब्धचतुःकल्पायुःतपसा ब्रह्माणं संतोष्य
प्रत्यक्षीकृत्यच ।

(श्रु) भरद्वाजे त्यामन्व्येत्यादि एकैस्मिन्
मुष्टिनाददे॥त्यन्तवाक्यसंदर्भैःश्रुत्योक्तप्रकारेण
चतुर्मुखवरप्रसादलब्धं

ऋग्यजुस्सामाथर्वात्मकंसमष्टिरूपंवेदराशिं समानीय
भूलोकेस्थापयामास ।

पश्चात्द्भृगवान्वेदव्यासः तद्वेदराशिं ऋग्वेदः -
यजुर्वेदः-सामवेदः - अथर्वणवेदः प्रभेदेन
चतुर्धाविभज्य स्वशिष्यान् – पैङ्गल - वैशंपायन -
जैमिनि -सुमन्तु- प्रभृतीन् ग्राहयामास ।एवमेव
तच्छिष्य प्रशिष्यादिभिः तद्गृहादिचतुर्वेदाः
शाखाभेदेन विभज्य बहुलीकृताः ।

The Aggregate form of the Veda so obtained by Sage Bharadwaja was very difficult to Learn. Hence-forth Sage Vedavyasa split them into Rigveda, Yajurveda, Samaveda and Atharvana Veda

and taught them to his disciples Paingala, Vaishampayana, Jaimini, Sumantha, who in turn further split the four Vedas into Branches and sub-branches. Eminent Sages like Bharadwaja, Vedavyasa, Kasyapa, Aangirasa, Aswalayana, Bodhayana, Aapasthambha, Yagynavalkya, having studied and understanding all the vedas, summarised into categories called Smruthi, Puranas, Itihasas, Dharma-Sutras, Kalpa Sutras and Brahmanas. They composed various Shastras for the benefit of Mankind. These sacred Texts clearly explain the Process of Creation of the past Kalpas and the present Swetha Varaha Kalpa.

Maharishi Bharadwaja studied the Phrasology like in the following:
(श्रुति)॥अथकल्पसृष्टिरात्मत्वात्सूर्येण ॥

“All Creation Emanates from SOORYA” which was given in the “Atharvana Veda” and “Sooryopanishad”. He stated that there are three kinds of Creation:- 1)Gross (स्थूल), 2) Subtle (सूक्ष्म), and 3) Causative (कारण), which result from the powers present in the Solar Rays.

तेष्वतीतकल्पसृष्टिक्रममभिवर्ण्य
वर्तमानश्चेतवराहकल्पसृष्टिक्रमोऽपि प्रतिपादितः।
तथैव भगवान्भरद्वाजोऽपि
(श्रुतिः) सूर्याद्वैखल्विमानिभूतानिजायन्ते ॥
इतिअथर्वणिकसूर्योपनिषद्वाक्यान्ज्ञानदृष्ट्या
सम्यक्संशोध्यसूर्यकिरणस्थितस्थूल-सूक्ष्म-कारण
शक्ति भिरेवजगत्स्थूल-सूक्ष्म-कारण
सृष्टयोभविष्यन्तीति, निश्चित्य तत्र स्थूलकिरण
शक्तिभिर्जायमान, स्थूलसृष्टिक्रमं,
मणिदर्पणयंत्रौषधादि
स्थूलोपकरणैःतथैवसूक्ष्मकिरणप्रकाशसृष्टिवीजशक्ति
भिर्जायमान, सूक्ष्मसृष्टिक्रमंयोगशास्त्रोक्तसंयमनादि
सूक्ष्मोपकरणैःतथा कारण सृष्टि वीजकिरण प्रकाश
शक्तिभिः जायमान, कारणसृष्टि क्रमं, वेदान्त

शास्त्रोक्त विचाराद्युपकरणैश्च अनायासेन
मन्दमतीनांकरतलामलकएतत्प्रत्यक्षेण प्रदर्शयितुंकेवल
सूर्यकिरण प्रधानं“अंशुबोधिनीशास्त्रं “
द्वादशाध्यायपरिमितं सहस्राधिकारैः सूत्र रूपेण
रचयामास॥

In order to demonstrate his Theories on the ‘Gross Creation’ (स्थूलसृष्टि), Sage Bharadwaja invented several (मणि) ‘Mani’ or ‘Crystals’ such as ‘Kirana Vibhajaka Mani’ (किरण-विभाजक-मणि) (Ray Dispersion Crystals) mentioned in a work known as ‘Mani Prakarana’ (मणिप्रकरण) (Probably identical with the Present day “Theory of Crystals “or “Crystallography”). He also invented several varieties of Glass such as ‘Kaladini’ (कळादिनि) described in ‘Darpana Prakarana’ (दर्पणप्रकरण)(Theory of Mirrors) He also invented some Appliances and Machines such as ‘Kirana Shakthi Vibhajaka Yantra’ ‘किरण-शक्ति-विभाजकयंत्र’(ray energy dispersing instrument , probably something like our Modern Spectrometers) which are detailed in the ‘Yantra Prakarana’ ‘यंत्रप्रकरण’ (Theory of Instruments or Instrumentation) . He also described formation of some ‘Acids’ in ‘DravakaPrakarana’ ‘द्रावकप्रकरण’ (Theory of Fluids or Fluid Mechanics).

In order to demonstrate how the ‘Subtle Creation’ (सूक्ष्म सृष्टि) takes place from the Subtle Forces of the Solar Rays , Sage Bharadwaja Propounded Subtle Means such as the ‘Vaasthu’(वास्तु) , ‘Samyamana’(संयमन) etc., described in the ‘Yoga Shastra’.

In order to demonstrate the ‘Causative Creation’ (कारण सृष्टि) that Emanates from the ‘Causative Forces’ of the Solar Energy, Bharadwaja Maharishi Propounded

‘Metaphysical Arguments and Reasoning’ – ‘Vichara’ dealt with in ‘Vedanta Shastra’ (वेदान्त शास्त्र) .

Bharadwaja Maharishi incorporated all the above explanations lucidly and clearly in a Text called “AmsuBodhini” in the form of ‘Aphorisms’ (श्रुति)s extending to a Thousand Sections categorized under Twelve Chapters.

In his research paper “High Technology in Ancient Sanskrit Manuscripts”, Dr.C.S.R. Prabhu has presented significant facts related to “Vimana sastra” of Sage Bharadwaja. He says ”The Vimana Sastra deals with advanced Metallurgy, Material Science, Machine Design, Mechanical engineering and Rocketry. The Text describes detailed procedures in the preparation of several hundreds of materials such as Alloys and Glasses which are unknown to modern science. Most of these materials can be reproduced in the modern Laboratories. Some of the Principles of Metallurgy which are detailed in the Textual description indicates an advanced development in Technology and Engineering in the Ancient Bharatha Vedic Periods.

Dr.Prabhu and his team have conducted several laboratory Experiments following the procedures given in the “Vimana Sastra” and have successfully reproduced several materials and machines. They tested the properties of the materials reproduced by them and found them to have extraordinary properties and unknown in the modern Material Science Text books. One machine “Vakraprasarana yantra” was reproduced as a working model and was found to be a novel gear mechanism with its 16 gear wheels.

Vimanas are widely described in the genuine ancient texts such as the Ramayana and Mahabharata, as well as other later texts such as the dramas of Kalidasa. They are not metaphors or hyperbole, nor do you have to be a God to own or ride one as in other mythologies. The Vimanas are treated as manufactured, physical objects, even if portrayed as fanciful flying houses, invested with magical powers of levitation. Sometimes they are simply employed as a plot device to get characters from one end of India to the other quickly.

In the Maharishi Bharadwaja’s Vaimanika Shastra , there is an intriguing list of Vimana capabilities, particularly what is called today as ‘countermeasure’s. This includes:- 1) Means to view remote images on screens; 2) listen to remote sounds; 3) disguise the vimana as clouds or other images; 4) create terrifying sounds, and so on. There is an extensive discussion of the various types of vimanas and their construction, including some that can double as boats or submarines. There are discourses on the structure of the Atmosphere, Aeronautic hazards and how to avoid them, There is also a section on Diet and Clothing for Aviators. A subject of interest is the discussion of “Flying” through the various Yugas (epochs) -- in the earliest, most spiritual yuga, people could fly without any mechanical contrivances.

Scholars of Ancient India indeed cared more for ‘Spiritual’ welfare than for mundane Happiness. It is this pursuit that made them to conduct laborious investigation to find the Real State of ‘Brahman’, which is the Abode of Eternal Bliss. With this Aim they conducted research work and Experiments in

all conceivable fields of Sciences. With the Experience thus gained the AncientRishis composed various Shastras for the good of Mankind. Of these Shastras, the Religious and Philosophical Texts deal with 'Brahman' as the Primary object and scientific truths as secondary subjects. While, the Scientific works treat about the "Scientific Principles" that govern the 'Creation of the Universe and the 'Creations there-in' as the Primary Aim, though the ultimate object of research is the 'Brahman' itself.

Maharshi Bharadwaja is an august name in the pantheon of Hindu Sages who recorded Indian civilization, in the spiritual, intellectual, and scientific fields in the hoary past. They transmitted knowledge from mouth to mouth, and from ear to ear, for long Eras. Written transmission through birch-backs or palm-leaves, or home-made paper, is from this side of a thousand years. Even they are to be found in mangled forms owing to the depredation of time, weather and insect hordes. There is no-written material for the vast volume of Vedas, Upanishads, Shastras, and Puranas, which have come down for over 10000 years as a patrimony, not only for India, but for mankind in general.

According to another school of thought, universal consciousness, as a unity, is called Shiva or Bhairava. The Shiva makes it possible for the material associations of the physical world to have meaning. The Aphorisms of Shiva called Siva Sutras (SS) are a late reiteration of the Vedic view of consciousness. According to a legend, Vasugupta (ca. 800 C.E. in Kashmir) 'saw' the aphorisms (sutras) in his dream. Siva Sutras led to the flowering of the Kashmir school of consciousness (Kashmir Shaivism).

It is due to a very clear exposition of the issues the Kashmir,Shaivism has come to be quite influential in contemporary scholarship. Further the Philosophic, Psychic, Religious, Physical, Metaphysical, Chemical, Medical, Alchemic, and other Branches of Science are so blended together in other works that it is not easy to draw clear lines of demarcation between them.

Some of the other Shastras mentioned in various Ancient Texts are:-

1. "Shakti Tantra" given by Maharishi Agastya.

This work explains 32 kinds of "Energies" like Electricity, and also of the various Machinery and other Appliances which can be invented by its help.

2. "Suddha Vidya Kalapa" propounded by Maharishi Aswalayana.

This Shastra deals with the following points:-

- i. The State of the Universe Prior to the Creation,
- ii. The Cause of Creation of the Universe
- iii. (iii) The varieties and wonders of Creation of Ishwara and that of Jeeva.
- iv. Many other very interesting points are also explained in this Shastra.

3. "Brahmanda Sara" given by Maharishi Vedavyasa.

In this Shastra, the Characteristics of the many "Brahmandas" (Universes) such as (i) their Dimensions, (ii) the Moveable and Immovable Phenomena existing in them, and (iii) the "Gross" and "Subtle" methods of finding them and (iv) many other points of Practical Utility, are explained.

4. "AmsuBodhini Shastra" by Maharishi Bharadwaja. Some of the subjects dealt

with in this Shastra (asmentioned in the Title of the Shastra itself) , are :-

श्रीमद्भगवत्सृष्ट्यंतर्गतसकलवस्तुसँशोधनक्रियाप्रबोधक भौतिकादि भौतिकाशास्त्रप्रवर्तकानां वस्तुसँशोधक विद्वन्मणीनाम अत्यन्तोपकाराय , समस्तवस्तु श्रुष्टि-स्थिति-लय कारक शक्तिस्वरूपप्रदर्शनोपयुक्त यंत्र, तंत्र, द्रावक,मणि, दर्पणाद्युपकरणप्रदर्शकम् सूर्यकिरण प्रधानभूतं, श्रीमद्भरद्वाज प्रणीत भौतिकादि भौतिकशास्त्रान् अंतर्गतम्
“अँशुबोधिनी शास्त्रम्”- (प्रथमाध्यायः)

After the Creation of the Universe by the ‘Almighty Bhagawan’, a Study and Investigation of all the things Created was made by the early Humans. They enquired as to how the different phenomena take place. They sought clear knowledge of the properties of energies of Solar Rays. They tried to conduct Demonstrations of those properties by experimentation. They invented Machinery to demonstrate some practical applications of those properties, These are some of the Physics related aspects detailed in the Shastra composed by BhagawaanBharadwaja called “AmsuBodhini Shastra” . In the Twelve Chapters of this Text some more of the scientific matters detailed are:-1) components of Solar Light, 2)Darkness, 3)Colour, 4)Heat, 5)Coldness,6) speed of the Solar Rays, 7)Effects of Solar rays on Human emotions,8) reasoning for occurrence of Seasons, Day and Night, 9)forces responsible for the Transmission of Solar rays are also discussed.

There are many other Shastras composed by the Great Maharishis, some of which only the names and Composers are given below:-

5. ANDA KOUSTHUBHA SHASTRA, By Maharishi Parasara.

6. KOUMUDI by Maharishi Somanatha.
7. MeghotpattiPrakaranaby Maharishi Angirasa.
8. Akaasha Tantra by Maharishi Bharadwaja.
9. LokaSangraha byVivaranacharya.
10. AgasatwaLahariby Aswalayana Maharishi.
11. PrapanchaLahari byVashishtha Maharishi.
12. Yantra Sarvaswa by Sage Bharadwaja.
13. Loha Tantra by Shakatayana Maharishi.
14. KheraSarvaswa by Jaimini Maharishi.
15. KarmabdhiSara by Apasthambha Maharishi.
16. Dhatu Sarwaswam byBodhayana Maharishi.
17. RigHrudayam by Atri Maharishi.
18. NamarthaKalpa by Atri Maharishi.
19. Vayu Tatwam by Shakatayana Maha Rishi.
20. VaishwaanaraTantra by Narada Maharishi.
21. DhoomaPrakaranam by Narada Maharishi.
22. OushadhiKalpam by Atri Maharishi.
23. KaarakaPrakarana by Atri Maharishi.

The names of these Shastras are suggestive of the subject matter dealt by them. These Shastras are full of Scientific facts, research and achievements of AncientBharatha Varsha Sages. Achievements such as “Vayu Vega Prayana” i.e., travelling with the speed of wind, “Mano Vega Prayana” i.e., travelling with the speed of the Mind, were regularly practiced by the Ancient Indian Learned Scholars. In fact , (in the words of the local pandits) telling about the presence of the same Priest in both the Ancient Temples in the Himalayas ‘The Kedarnath Temple’ and ‘The Badrinath

Temple' which are several Kilometres apart, can be explained only by the Scientific practices of 'Flying in the Air with speed of the Mind' Techniques. Entering the Bodies of another Person "ParaKayaPravesah" was another Spiritualistic Practice of many Rishis in Ancient India.

The Vedas, Vedic rituals and its ancillary sciences called the Vedangas, were part of the curriculum at ancient universitiessuch as at Taxila, Nalanda and Vikramashila According to Deshpande, "the tradition of the Sanskrit grammarians also contributed significantly to the preservation and interpretation of Vedic texts. Yāska (4th c. BCE) wrote the Nirukta, which reflects the concerns about the loss of meaning of the Mantras, while Pāṇini's (4th c. BCE) Aṣṭādhyāyī is the most important surviving text of the Vyākaraṇatraditions. Mimamsa scholar Sayana's (14th c. CE) major VedarthaPrakashais a rare commentary on the Vedas, which is also referred to by contemporary scholars.

Conclusion

All these Shastras speak of the Great Civilisations which were present in Ancient BharathaVarsha ever since the Creation of the Universe. Thus the Shastras so composed in each Kalpa or Creation of Universe is Innumerable. Due to the vast numbers of these Sacred Texts which is also captioned in the Aphorisms "अनन्तावै वेदाः", and in "अनन्तशास्त्रं बहुवेदितव्यं", the Maharishis picked up a few shastras by way of their relevance during that period of time and categorized them as PrasthanaTrayas "प्रस्थानत्रया". Each PrasthanaTraya is a Shastric catalogue of only

the Principal Shastras , which will be in force for Five Thousand years. After this period a new 'PrasthanaTraya' will be defined.

From the First Creation of the Universe, it has been calculated that there have been- 3,91,176 (Three Lakhs, Ninety one Thousand, one hundred and Seventy Six) such PrasthanaTrayas have come into force and gone. The present PrasthanaTraya is the 3,91,177th PrasthanaTraya which is in force. In the Shastra Nirnayadhikara of his work ' Shristi Vilasa ', Maharishi Suka, who is popularly known to narrate all Puranas to his shishyas in Naimisaaranya, and a disciple of Maharishi Veda Vyasa, says that the present Prasthana Traya is of two kinds:- 'BrihatPrasthanaTraya' and 'LaghuPrasthana Traya'. In determining the periods of Time, when the various Shastras come under the PrasthanaTrayas, the Calculation of Time is made under Three Tables of Time:- Human, Divine or Daiva and Brahman.

Modern Astronomical and Astrophysical Scientists are unveiling many more astonishing aspects of the Universe with the help of latest Sophisticated Scientific Equipment . If they also take the information of the Ancient Bharatha Varsha Texts with due respect and with belief, then many more secrets of the Universe can be revealed for the benefit of Mankind.

धर्मो रक्षति रक्षितः

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