

!!AUM!!

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AUM

## **Basic Material Cause of the Creation**

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## The Memory and devotion

### **In International Year of Physics**

Having respect and honour for representative of great Vaidic philosopher Rishis of universal truth, eternal Vaidic convention, spiritualist and the unique image of Dharma, Maharshi Dayanand Saraswati and representative of learned scientist of modern science, great scholar Sir Albert Einstein, In the human creation 1960853106<sup>th</sup> year, In loving memory of my inspirer and guardian Respected mother Smt. Omwati Devi Ji Respected father Shri Indrapal Singh Ji Sisodia Respected Uncle Shri Gopal Singh ji Sisodia Respected Uncle Shri Bhagwan Singh ji Sisodia Respected Uncle Shri Nawab Singh Ji Sisodia And preceptor Acharya Prem Bhikshu Ji Maharaj, Mathura, U.P.

To Scientists and philosophers of whole world Humble devotion,  
31.12.2005

Agnivrat Acharya Naishthik  
Paush Amavasya, Saturday  
Vikaram Samvat 2062

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“Modern Science originates from philosophy and ends also in philosophy. So where capability of science ends, function of philosophy begins. Hence science and philosophy are not contrary to each other, but complementary to each other. Philosophy is the root and science is its fruit and complete knowledge is a large tree.”

**Acharya Agnivrat Naishthik**



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**Dt. : 21.03.2005**

**FOREWORD**

Physical sciences and in particular physics attempt to explain the observed physical phenomena. During this long drawn process. One of the prime goals of physics, cosmology and elementary particle physics is to search for the fundamental constituents of the Universe have been the subject matter for discussion in several religion philosophies and in particular in Vedas. The Vedic sages pondered a lot on these questions and they have discussed various aspects of such issues.

They studied Mother Nature in the best possible manner in those days and enriched all the available information with deep spiritual and physical insights. However, obviously, the methods adopted by them cannot be termed as "scientifically complete" by presently accepted definition of "scientific investigation" because even though intuition and insights are the

integral components of development of scientific breakthrough, it is observational/experimental crosschecks, sequence of deductions based on investigations are the accepted norms of "scientific investigation".

However the latter approach has its limitations and, on the other hand, it is probable that the spiritual insights of the Vedic sages transcend such deductive approach. And this small book by Acharya Swami Agnivrata is an attempt to appraise the readers and the physicists about the Vedic view on this topic. I hope the professional physicists would treat this book with due respect and not with short-sighted ridicule and disdain. In a broader sense, one might recall here a famous quote of Einstein:

"Science without religion is lame, religion without science is blind.

It is highly creditable that though Swami Agnivrata have not had much of formal education in Physics he has privately studied physics with great ardour in order to understand Vedic messages in a clearer way. To my surprise I found Swami Agnivrata to be keenly aware of several shortcomings of particle physics like there may not be any particle or set of particles which can be truly called as fundamental constituents of the Universe. He feels that answers to such questions can be eventually found only in Vedas and not by conventional scientific investigation. Even though this might be true I am certain that there must be no end to our scientific investigation. Yet, I feel that even professional scientists might, at certain junctures, improve the investigations by taking cues from the Vedas. In fact many seeds of the ideas expounded by modern Quantum Mechanics may be found to be present in the Vedas, at least, as expounded by Swami Vivekananda. Probably it is not known to many that Heisenberg, one of the founders of Quantum mechanics, was a guest of Ravindranath Tagore at Shantiniketan and Heisenberg has admitted that the discussions on Indian philosophy he had had with tagore were a great help for him.

I have personally benefited from reading of this book and I hope other readers and professional physicists would be benefited too by reading the same. At the end, I would like to recall another quote by Einstein:

"I am of the opinion that all the finer speculations in the realm of science spring from a deep religious feeling".

A. K. Mitra

**(A. K. Mitra)**

### **Brief Introduction of the Author**

Birth place :- Village – Ahan, Dist.- Hathras (Uttar Pradesh)

Date of Birth : Bhadrapad Krishna 9/2019 Vikram Samwat

10.10.1962 (According to school)

**Education, Interest and Aim :-** He is popularly known as Swami or Brahmchari and some people know him as Acharya Agnivrat Naishthik, His name was Brahmchari Pradeeparya Naishthik. He inherited his Arya Sanskar from his parents since birth.

Father Shri Indrapal Singh Ji and Mother Shrimati (Mrs.) Omwati Devi Ji. He got faith towards Satya(truth), Ahinsa (Compassion and inoffensiveness) and Asteya(honesty), since his birth and patriotism, Nyaypriyata(justice), and self esteem from the Generation. He was very sharp in mathematics and physics (Atomic, Nuclear and Astronomy) Once in his childhood he impressed the Reader of the physics Deptt. of Roorkee University while asking some questions being a student of higher secondary class. He joined service in Animal Husbandary Department of Rajasthan; he left his college education incomplete due to some reasons. Later he felt that he was not in right place according to his qualification and the corruption and malpractice around him made him give up his service. Having resigned from service he got Deeksha of Naishthik life long Brahmcharya from his Acharya Prembhikshu Ji Maharaj of Ved Mandir, Mathura. Once he cherished a dream of being a great Atomic scientist, now has entered the Arya Samaj and started the study of Sanskrit grammar from Acharya Swadesh Ji, Mathura.

He left Mathura due to some serious illness and for last 14<sup>1/2</sup> years he has been living at Arya Samaj Bhinmal, Jalore (Rajasthan). Being here he devoted himself to the works of social welfare, promoting Vedas and writing critical and Research Reviews and Presentation in national and international Vaidic Seminar. He also lived in Rishi udyan Paropakarini Sabha, Ajmer for some period. Ultimately after consulting with Additional chief engineer N.P.C.I.L., Mumbai Shri V.K. Bhalla in Aug. 2004 and discussion with the scientist of B.A.R.C.Mumbai and encouragement of

Dr. Jagdish Vyas, Dr. (Shri) Abhas Ji Mitra The head of the theoretical astrophysics section, Bhabha Atomic Research Centre, Mumbai and Shri Swami Dharmbandhuji Maharaj Patron of trust, he decided to concentrate and research on Ved and Science.

How ever he is an energetic speaker, very good writer and lover of cows, nation, environment and humanity, still he thinks that to save the Vedas is necessary to make the world happy. In order to reach this goal the presentation of the knowledge and science of Vedas before the developed science of the world is necessary. Then only the Vedas can be religious books of total man-kind. After other teaching of Vedas as Yoga, Religion, spirituality, state and society order etc. can get their proper place. We think and believe that you can give a new direction to atomic, nuclear physics and cosmology in coming 10-15 years by Vaidic thoughts and definitely by going through in this deep field.

Scientists devotion towards God will continuously increase. It can be the prettiest (best) means for co-ordination of materialism and spirituality in the world.

This small research book is first publication of our trust. Learned readers can think by reading this book that erudite and dedicated author has got respect of famous scientists by his self reading, reasoning, thinking and wisdom though he had been struggling from serious illness continuously since childhood he did writing work social work and different types of works. Then, definitely, if he works with single mindedness in this direction only and get co-operation of great scientists continuously, we hope for good research results in future. He has a great capacity of undivided meditation indepth understanding of words or Vedas and physical science. He seeks the whole-hearted support encouragement and affection of the whole vaidic and scientific associations and science scholars.

If all of us make him free from all economic worries and liabilities, he will take the vaidic world to the zenith of success, with this hope and assurance

Jitendra Singh Sisodia,

Lecturer, Kuchaman College Kuchaman city

**Trustee, Shri Vaidic Swasti Pantha trust**

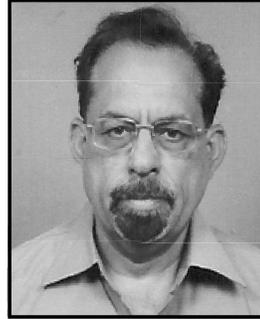
**Preface**

It is human nature to know the fact and myth or trying to know what is real and unreal. Man has been very eager to know about this



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**MESSAGE**

Swami Agnivrata Nyashthik Jee, who started his Theological Learning with a reading of Satyarth Prakash (The Magna opus of Swami Dayanand Saraswati) has now without modern scientific background attempted visualization of  $\times\hat{e}\ddot{U} \cdot \text{æ}$ ,  $\hat{A}y \cdot \text{æçI}$  - UPA (Ultimate Physical Atom) in this write up. This is indeed very daring as admitted by himself.

Never the less it may be mentioned that visualization attempts / mechanistic modelling of subtle and subtler grades of matter / particles into field / energy like entities are no longer taken seriously. Rather since 1905, the idea that everything in the universe should be visualized mechanically has gradually become ridiculous. Only calculatibility is deemed necessary and sufficient inspite of the Philosophical yearnings for visualizability.

It is hoped that his spirit of inquiry will be well received.

*Vijay Kumar Bhalla*  
12/14/2005

**(Vijay Kumar Bhalla)**

Additional Chief Engineer

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universe since the time immemorial. To know that which elementary particle has been used in forming this universe is a very deep and micro subject. What is the theory of modern physical science and ancient eternal Vaidic view regarding this is the subject of this book. Efforts have been made to review the both theories in this small book. I am not of the disposition that I accept any line of thinking without serious consideration. Some scholar friends try to find out famous theories and discoveries of modern science in Vedas and consider them the universal truth. They try to find the discovered facts of Einstien, Stephan, Hawkins or of some other great scientists in Vedas.

According to me, doing such neither is appropriate nor justice to Vaidic philosophy. I think human being is always ignorant and will remain so.

The principles of science are not absolute and last one. New theories replace the old ones. Then the principle for which they claim to be found in Vedas and feel proud, if these Principles prove false dose it mean the Vedas also will prove false?

Some scholars say the collection is research and do not represent their own thinking and reasoning. We don't dare to think against the mere popular theories in vogue whether they are of modern science or Vaidic philosophy. But a little advancement on the same path is called research. Those research Scholar friends will excuse me, I think in some different way. I think that we should try to see both ideologies independently and from the point of view of their basic objectives.

If there is any similarity, it is very good and if not then also it is not the matter of regret. What is in my own soul and wisdom should be reflected or revealed. I had a long discussion with Dr. Abhas Mitra ji the great scientist of Bhabha Atomic Research centre, Mumbai, and with senior scientist Dr. Jagdish Ji Vyas of B.A.R.C., Mumbai, on the subject with Shri Mitra Sahib by exchange of letters and telephone. Today's science considers only truth in these things, which have been proved by experiments, Mitra Sahib expressed his view like this by a letter sent to me on 10.02.2005.

When we are doing science (even if it is momentarily incorrect) we need

not bring in vedas or anything (even if they are correct) else. We need to have faith in those writing. But approach of science is completely different, there is no faith, only questions and verifications. This is not to tell that science will lead to correct picture always, ..... Vedas may have given correct description of the origin of the universe and many other physical queries,. But yet this is not science, Because science is not based on faith. By guided your faith (which may be correct), you think, the modern cosmologies must be incorrect and this is indeed possible. But still we cannot claim to have denounce cosmology or anything unless we have strong and sufficient observational or theoretical arguments.--"

Your \clear mentioned views are highly admirable. But objective to write this book is not only to describe the theories either proved from only direct evidences or likely to prove, but efforts have been made to understand both types of theories by going through the field of science and philosophy. It is not necessary that we can prove each and every truth experimentally. Present evidence is an important proof in Vaidic philosophy, but the definition of present evidence is given in details. Necessity and indispensability of two other main proofs namely 'estimation and authentic quotation's proof are also given with this. It was well-known to Rishis that it is not possible to get direct evidence of everything. Things which can be observed by genius scientist' a layman can not observe that. Is it then appropriate that layman not accept the scientists views because he could not observe that. No, he should accept the view of that scientist and Rishi condising that as intrinsic evidence.

If a physical scientist does not know the general rules of health does he not consult to general Vaidya or doctor? Is it possible to get direct evidence by each person in each field? We will have to accept the authentic quotation's evidence. Definitely we should try our best to observe things directly but there are many fields and many modes of life. No one is expert in every field, then mutual exchange of knowledge is a must. Scientists who give principles on the basis of direct evidence also first imagine something, then move forward by estimation. As President Dr. A.P.J. Abdul Kalam says that imagine something. However imagination, estimation, and logic are not in the circumference of science and they give

base to science to grow these seeds by giving a fertile climate and sophisticate atmosphere and make a building on its foundation is the task of science. But science can not go further without that seed or base, many experiences get different results from the same experiment.

Science growing on experiments is continuously variable, while truth never changes.

It proves that some mistakes remain somewhere. When antibiotic was invented, it was thought that now no disease will be incurable in the world but today every body knows that there is no decrease in the number of diseases but it has increased and is still increasing.

In now –a – days a good doctor avoids to give antibiotic because he knows the side effects of it. Now famous doctors, who prescribe medicines to their patients, perform surgery, they themselves adopt natural Yogic and Ayurvedic curing not only to avoid medicines but also to avoid an necessary surgery.

I know such natural and Yogic curing specialists who never use vaccine. They have their own theory. It doesn't mean that Alopahy is not needed but this is definitely true that it is not very needed everywhere besides emergency and serious surgery cases. So many options are available for that. Ayurved, natural and Yogic curing specialist neither have so many resources of experiments nor they consider that essential, nevertheless, importance of these pathies is increasing in the world. In ancient time people used to enjoy disease free life. This is the wonderful system of Sages. I mean to say only this that whatever we can't visualize, may not be classified in modern science so it can't be true, this thinking is not right. As Dr. Mitra sahib also accepted in his letter. I am very much impressed by his openmindedness. I wish to present such theories of Vaidic philosophy before scientists so that scientist community get some new points or indications to do new inventions. From such scientists may escape sometime and at the same time, authenticity of philosophical concept increases.

Respected Mitra Sahib also accepted this and hope that I represent Vaidic secrets before scientific community. It is a very difficult task; especially due to lack of assistance of scholars with same objective and lack of resources. Still I will try with the help of God's inspiration. If

resources and co-operators are available, I will keep on trying to fulfil the desire of respected Mitra sahib. By raising questions on well prevailing principle of science that I don't intend to hurt the sentiments of great scientist or I do not claim to have more knowledge than that scientist; but try to present the questions before scientific world with honour to their hard work, dedication and sincerity so that they can present more clear view on this subject. The scientists who are doing research on truth sitting in laboratories day and night, devaluation of their great task is not my aim at all. But I cannot accept their each conclusion without serious thinking or consideration. Because I know that coming generations can change the theories of today on the basis of experiments. Nevertheless I appreciate the valour of scientists. If such efforts are made by all scholars undoubtedly there will be a great advancement in the field of education, whether philosophy is superior or modern science, by this statement I do not want to create controversy between two rather I would like to give equal weightage in discovery of truth. Science and spiritual knowledge both are in Vedas but we must prefer experimental test. We people don't have resources of experiments then let us work with scientists and they also consider us as the world can be benefitted a lot.

I am neither a scholar of Vaidic literature nor a distinctive fellow of modern science, still I have been presumptuousness to write on both subjects.

I have tried to review the very famous principle also. How my work is appropriate and correct, only great scholars of modern science and learned thinkers of Vaidic literature can tell.

I humbly request to all the scientists and philosophers of the world to think seriously over this book and write criticism, review and advise whether their views are contrary to me or in favour, I would welcome their true and unbiased views from the core of my heart and also try to include their views and correct the errors in next edition. I have not any prejudice. I have always a determination to adopt the truth everywhere and in whatever in the world and to give up, which is far from truth.

**Thanks:-**

After humble obeisance of creator, obstructer and conductor of whole universe, remembering all sages starting from Agni etc. maharshis to modern and last, Rishi Dayanand Saraswati, saints great scientists of whole world, first of all I am obliged to those learned hermits of world's well wisher organization Aryasamaj, who always gave me affection and blessings. Respected Vijay Kumar ji Bhalla, Additional Chief engineer of Nuclear Power corporation of India Limited, Mumbai invited me and gave a chance to hold dialogue and discussion with great scientists of Bhabha Atomic Research Centre. Also he inspired for study and research on Ved and physical science. I fixed my aim of life to go on this direction on his inspiration. Respected Bhalla Ji encouraged me for coming to Mumbai continuously per month and to contact regularly with scientific institutions of high repute. Honourable Dr. Jagdish Ji Vyas, Senior scientists, Bhabha Atomic research centre discussed with me for many hours and inspired and encouraged me.

I am very grateful to great scientist honorable Dr. Abhash Mitra ji from core of my heart who has come in international news by challenging prevailing black hole theory in the world, who himself came to meet me. Further he encouraged me and still is in antilogous contact with me. I sent this book before publication to honorable Mitra Sahib Hon'ble Dr. Jagdish Ji Vyas, hon. Bhalla sahib and a long discussion was held with hon'ble. Vyas ji, some of them have been discussed in this book here and there. If this discussion had been not there, I would have left many topics considering them not very necessary to explain. You sent simple and sweet write-up on black hole, which has given in this book on appropriate place. For this I am heartily grateful to you. I can't express my gratitude to honorable Bhalla Sahib? How nuclear faith and affection he has is beyond expression. Whenever I take a trip to Bombay, he makes ally arrangements for me. He has to promote and market this book of Vaidic thoughts. I got his consent also. He has been inspirer to write this book.

Would this faith be in all of us ved devotees or admirers, definitely the very dream of Rishi Dayanand may come to be true. I am grateful to him and his family. Again I am grateful of Hon'ble Dr. Abhas Mitra, who apart from being a great scientist is also a man, meeting with whom gives sensation of friendship really according to his name. You helped me in

correcting many mistakes related to modern science in this book. There would have been many mistakes in this book, if I had not discussed this subject with him.

I am much impressed by his talent, faith and genuine attachment. I asked him many questions again and again, but according to assumption of modern science without any bias, leaving personal relations apart, he gave me many new and important information. I am very much satisfied by him. Serious study of modern science and Vaidic philosophy is required for me to be fully satisfied. As he answered my objections, keeping friendship on side, I also refused his some suggestion partly keeping friendship on other side.

As my wisdom accepts, I have written in this book. I am highly thankful to you and your family for the good hospitality. I am very much satisfied with your important foreword. In Arya Scholars, I am highly grateful to the man of repute Patron of Trust, great revolutionary, national well thinker, Saint of Saurashtra, my great friendly respectable Swami Dharmabandhuji Maharj; by his co-operation this book has been published. Also, he is continuously giving financial help to the of ved Vigyan Mandir. Acharya Vedvrat ji mimansak encouraged me to work in this direction and respectable Acharya Shri Swadesh ji Mathura, both of you are most inspirers. Respected Acharya Swadesh ji, who taught me some grammar, is very eager to give me full co-operation.

He is very much interested to speed up my task. I am overjoyed by his relationship.

First of all, respectable Shri Kesav Dev Ji Verma inspired and requested me to move in this direction after reading my essay 'Vedon Main Vidyut Vidya' (Electricity's theory in vedas) published in Rajasthan Patrika Hindi Daily for nine days continuously before many years. I am grateful to him because his scientific thoughts hold I like very much. Conversation was there on this science subject with Acharya. Shri Ravindra Ji (M.Tech.) too and large discussion was held on Satva, Rajas and Tamas with Acharya Shri Satyajit ji (M.D. Ayurved, Ajmer) Acharya Shri Ashish Ji (B.E.) and respected Shri Ramkrishna Ji Sadhak.

However their views were not acceptable to me, but I felt the need to explain this subject by this discussion accordingly I have that too

done, for this I am grateful to these well wishers respectable friends. This book is translated into English by Shri Ved Prakashji Arya and Dr. S.P.Singh Bhadaurtiya. So I am very grateful to them. In the last I express my deep felt gratitude to dear trustees of Shri Vedic Swasti Pantha Nyas and other workers of Ved Vigyan Mandir.

May God give all these the highest pleasure, good health and long life.

With this wish.

Human creation Samvat  
1960853106  
31.12.2005  
Place- Bhagal-Bhim, Bhinmal

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### **INITIAL STATEMENT**

Question has arisen with the birth of human being when and why this world formed was. What stuff has been used in making of this world? Such types of many questions often arise in the human mind. We will not discuss all these questions here, but our aim is to know the substance which has been used in making of the world and the creation of the world. What is the cause of the creation of invisible or invisible world? What is the nature of that? When this world is not in its existence then how does it exist and when the world was not there what was there? We will try to know that what initial change takes place in that elementary matter.

Some other books may be written on this point that does this world pass before coming to its present form.

First of all let us talk about the definition of creation. Maharshi Dayanand, the founder of Aryasamaj said "Creation is combination of different types of matters by a skillful and systematic way which gives various forms. What is basic form of them we will discuss it when the whole universe was not in existence. Neither particles known as elementary

particles at present, nor substance known as energy and matter by modern science were there, then which substance was there in the sky was this was completely vacume? We will discuss on this topic in this book.

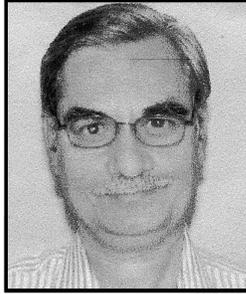
Who is that omniscient and omnipotent conciousness by whom this whole universe is created with great wisdom with different materials, this questions saperate write up or book may be written on this. These are assumptions in the world on creation of the universe most of which are based on an imagination an incorrect one, some ideologies which have the scientific sense of coherence and order of. Ideology of modern science and Vaidic Philosophical and scientific ideology.



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### Message

Swami Agnivrata Naishthik Ji has prepared this book taking facts related to Blackhole and Big bang in his own way, that is definitely a good effort. It is essential to test the scientific facts on for awakening of each society. We assure that every awakened society will welcome this write-up.

Dr. Jagdish Chandra Vyas

### Appendix

The question rises how it proves from the preface of the Rigvedadibhashyabhumika that Rishi Dayanand says that parmanus (minutest particles) are harmonious where as the facts are reverse that parmanus are known as indivisible but by knowledge they can become divisible. The Rishi has quoted the above sentence in “Ved Vishayvichar” (Thoughts regarding to the Veda) so that no one should regard (call) divisible by knowledge as divisible. I am of opinion that the Rishi considers (minutest particles) parmanus are subject to form otherwise in the above context he would not say there that they were not the minutest particles. It meant that though parmanus are indivisible but they have circumference and radius. It loses existence in (dissolution) annihilation. Their indivisibility exists in the condition other than annihilation (total extinction). The Satyarth prakash does not say (Claim) that parmanus are either old or new. It produces two meanings firstly, parmanus remain in whole creation period. Secondly when being minutest “the State of annihilation” is termed parmanus (minutest). At some places the Rishi separated Prakriti (Nature) from “parmanus” and used Nature and Parnanu (See the eight Samullas of the Satyarth Prakash). Further the Rishi quotes in this reference.

Nityayah satwarajastamasam samyavasthayah prakriterutpannam  
paramsukshmanam prithak prithagvartamananam prathamah  
sanyogarambhah.....

It means it is the beginning of the first combination of the minutest and different particles which are created by eternal nature (Prakriti), the similar state of Satwa, Rajas and Tamas properties.

Here also it is clear that Prakriti (nature) has not been assumed the minutest particles’ group but the minutest particles, which are called parmanus can be assumed as produced from nature. Any combination is not assumed as a cause of creation of these particles but the combining processes have been assumed first of all from these particles’ combination by Rishi Dayanand Saraswati.

In my consideration the minutest fundamental particles appeared in the same particular form from the distortion of the equilibrium state of matter, as soon as the Satwa, Rajas and Tamas (force, motion and mass

or inertia) got awakened. And from only them (particles) the behavior of combination and separation began . So Prakriti (nature) is called different from parmanu (minutest particle). If we see the name of Prakriti as parmanu, then that can be assumed the synonymous of nature. From this it is proved that the material of dissolution state (mahapralaya) is not the particle- state but that is the state in which the whole material is filled similarly in whole space, which can not be divided clearly by knowledge too. Due to this reason Rishi Dayanand has ended the manner of division in similarity. If some how any prejudicial person divides the similar omnipresent God by his knowledge what can we say to him ?

At this point I think by other method. we know why somebody takes the solid form ? There are two causes of its shape's formation. First the strong attraction force among the internal particles and 2<sup>nd</sup> the external pressure. So much this force becomes the body is shaped so much solid. If some one heats any iron body at a particular temperature, it will change into liquid form. Its reason is that the binding force among the molecules of that iron body will decrease from heat when we heat that liquid iron, that will convert in gaseous state because the force of molecules will be very little and they will begin to stroll about freely. If we give more heat again, after breaking the molecules take place the plasma state and after giving more energy every particle will be broken and spread out as those particles which are called fundamental particles in modern science. What have been proved from this ? It is proved that the cause of any shape is the force. If we think about the shape of minutest particle why it forms a solid shape ? It can not have any internal structure because it is the minutest particle, then the attractive force is zero , then, why is it solid ? We have assumed Satwa, Rajas and Tamas as signifying of the force , motion and mass successively. these properties are also in dormant state, then , what is the reason of the formation of the shape ?

It is my firm consideration that if all the forces may be finished and motion, inertia (mass) also may not exist , then ~~सत्त्व रजस तामस~~ never be possible but whole matter will spread out every where quite similarly . The manifestation of the shape of that matter can never be possible. Hence natural fundamental matter is called 'Avyakta' (unknowable) at several places , It is specified by Lord Manu from such adjectives at

many places , which are described in this book at appropriate places.

Courtesy : Some vagueness and in clarity remained in our book owing to hastiness or errors. Our respected friend Acharya Satyajit ji (Rishi Udyan, Ajamer) draws our attention to them. Having understood them, we considered it proper to add this annexure. Hence I am grateful to satyajitji. He has also raised some other objection but I do not consider them so important and hence do not need to clarify them. I would wait for objections and suggestions from the scientists all over the world , having considered them all they would be included wherever necessary in the next edition May the man be devotee of true-Dharma (the combination of real spirituality and peaceable science) and live with great pleasure and calm in the world .

The end

## Publisher's Foreword

By God's blessing the Hindi Edition of this book was Published about nine months ago. Many vedic learned persons and scientists sent their views enthusiastically on this book. We are extremely glad that this book is now being published in English for English knowing scientists, philosophers and research doing persons. This English version is prepared by Shri Ved Prakash Arya , a physics scholar Indian Institute of Science , Bangalore and Shri Dr. S.P. Sing Bhadoria. Assistant Professor of English, Kuchaman College, Kuchaman city , Nagaur (Rajasthan). Vedic and Philosophical terminology is suggested by the author himself . we are heartily grateful the both translators, We are also grateful to Shri Pukh Raj Soni, Principal, Sr. Sc. School, Malwara-R, who helped in proofreading and translation of some parts of this book. We are very grateful to Rev. Dr. Abhash Mitra, Head of theoretival astro physics section Bhabha Atomic Research Centre, Mumbai, the well known Scientist of international level who has written the foreward of the book . Senior Scientist Dr. Jagdish Vyas. B.A.R.C. Mumbai and Shri Vijay Kumar Bhalla , Add. Chief Engineer, Nuclear Power Corporation of India Limited, Mumbai have sent their message for the book. We are grateful to them . They have encouraged as well as made Acharya Shriji to keep on working in this field. We request the talented scientists that this book is written by Revered Acharya Swami Agnivrata naishthik, a vediv Sadhu (Sage). He did it so well though he was busy in religious works and was not much devoted to or concentrated on it. On the appeal of so many scientists of Mumbai, he (the author - Acharyaji) has ceased doing other works and decided to study deeply and thororghly both the vedic vagmaya and modern Physics (specially Atomic and Nucleat Physics, Cosmology, Particle and Astro Physics).

He would then give some particular secrets from the vedas to the prejent day scientists so that the scientists would be able to work more efficiently and speedily. Apart from it, their dedication and devotion to the Vedas, Religion Spirituality and God will increase.

In spite of going towards the destructive destination of the culture or luxury, Science will move forward to the goal of renunciation and spiri-

tuality. In this way the world get rid of unrest, greediness, fright-fulness, terrorism, poverty and exploitation, there would be the reign of fraternity, peace, internal ecstasy and justice. The author is of opinion that today's world is divided into sects and people have enmity to one another, they all will get an inspiration to follow a Dharma (religion), based entirely on reason, intelligence and science.

Such a Dharma (religion) will remove superstitions, fraud, jealousy communal violence, terrorism, cruelty from the world. The world will become a family with peace, pleasure, prosperity and love. We request the well known scientists, religions' promoters, and philosophers to read this book thoroughly, attentively and impartially. There are many revolutionary original thoughts in it. You will find that our Acharya is an extraordinary scientific thinker and talented philosopher.

You all Will get a new thinking . All the Scientists are requested to pay attention to the following points and to send their views definitely to our Acharyaji by E-Mail or the post.

1) The universe is not steady but it has been created before a particular time.

2) The universe has been created from which material cause that did not exist in zero volume and full from energy, infinite density and infinite mass but it was spread out every where (in infinite volume) which had zero mass, zero density and zero energy.

3) The universe has not been originated by any explosion in infinitely hot state but it has been originated by granulation of infinitely cold material.

4) Not any particles which are called fundamental particle can be fundamental. Actually the fundamental particle is yet to be discovered .

You will be introduced the real fundamental particles in this book then surely you will get surprised. The author claims that there is no necessity of any temperature for the formation of the fundamental particles in the beginning . In the opinion of the author the fundamental particles are not created by combination of any other particles but they appeared form most similar and initial state only.

5) You will know, how big bang theory, the theory of expan-

sion of universe, Steady state theory fundamental particles' theory and quark model etc. have been reviewed by the author and how this book can give a new direction to modern cosmology and particle physics.

6) After research in this subject the author wants to give a new direction to the modern science specially to cosmology, atomic & nuclear-physics and paricle- physics in detail in forthcoming years. We hope that not only Indians but also the foreign scientists, philosophers and other learned persons will also help us with broad and open mind. They will join in our mission with wide brain and heart. The wealthy persons of the world will help financially in this great object of human welfare and truthness (Scientific and Dharmic-Religious) Although the auther and translators have made every possible effort to avoid mistakes regarding printing yet there may be some mistakes, so the auther seeks your kind suggestions for improvement in next edition.

Expecting your message, objections and co-operation.

Paush Amavasya-2062  
Saturday  
31- December 2005

Your sincerely  
Janak Singh Champawat  
Secretary - Shri Vedic  
Swasti Panth nyas (Trust)  
Bhagal-Bhim, Bhinmal,  
Jalore (Raj) – 343029

This book is printed by the pious donation of Rev. Shri Swami Dharmbandhuji Maharaj, the great revolutionist arya saint of India (Pransala-Rajkot-Gujrat) who is a renowned promtor and guardian of this nyas (Trust).

**File**

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## **A Glance at Modern Scientific View.**

First let us discuss about modern scientific view,

Most of the scientists consider this universe 10-15 billion years old. Some scientists consider this universe as eternal and infinite.

(A) **Review of the theory of the steady state the universe:-**

Universe of steady state theory was propounded by three scientists (Hoyle, Bondy and Gold) of England in 1948. According to this formulation neither this universe originated from big bang, nor it will end itself. It will remain in the same form forever.

(See Vigyan, Manauv aur Brahmand)

Jain sect also in religious world consider this universe eternal and infinite. If we accept this theory, then this question is meaningless that from which substance, this world is formed of? What was the state of the world before formation of this? But can theory of steady universe be true, let us examine.

We assume that the thing formed from constituents, can never be eternal and infinite. We have to accept its creation at sometime and also that thing will be destructive. It means the combination from which thing is created, happened sometime and also this combination will go upto the end sometime. We know that combination leads to creation and isolation leads to destruction.

This world itself is business of combination and isolation. Then, combination, which we have not seen and cannot we see, how can we consider that as eternal? Let us assume, we see to forming any building from bricks and so we don't consider that as eternal, but the building, which we have not seen to form or which is built before our birth, how can we consider that as eternal and to be remain for infinite time? Likewise, how can we consider sun, stars, planet, satellite, Molecule, Atom etc. eternal formed from combination of different substances? It is surprising that science is finding age of all particles except electron, neutrino etc. on one side and at the same time imagination that universe is steady, eternal and infinite. When proton, neutron, quark etc. so-called elementary particles are not stable (we, the Vaidic people, don't accept these as elementary particles), not eternal and infinite how can substances like solar system.

Planets, satellite, water, Air, Fire etc. be steady, eternal and infinite?

If don't we consider these as stable, then which one will be considered as stable? Which substance is named universe apart from these, which we can consider stable? I had a discussion on this topic with famous scientist sir Abhas Mitra ji. He said that substance created by combination cannot be eternal, is not the fact of science at all.

My statement in this regard is that science has only one base of testing, that is direct evidence, but all the things can not be understood by this evidence only. Above mentioned theory is of philosophy, not of science. One thing I also want to clear that at present, which is called science, is actually a part of science, not the specific knowledge having the total meaning of the word science. Today's science can be considered as special knowledge consisting art and technology, which believes only on experimental tests. Solution of all the quests (queries) of life and world can't be found out only on the basis of science. We have to take help from other subjects too.

We have to understand the fact that anything which takes birth does die, is known as Jagat or world. Whatever is created, is known as creation. Things without creation and dissolution cannot be termed as world or universe, that can be said as elementary material only.

In this regard, hon. Mitra Sahib was of the view that nothing is destroyed in the world. there is no special difference between birth and death. I am agreed partly with this statement. Bhagwan Kapil Rishi in Sankhya Darshan writes "Nashah Karan layah" 2/86

Means extinction in cause is called the destruction, not the disappearance of matter. Gita also says the same thing as Mitra Saheb says –

"Naabhavo Vidyate Satah" means thing having its existence never disappears. To destroy, to die are not the synonyms of disappearance. Death means to give up Prana. Nobody can refuse this. Definitely it is a fact that cause of anything is result of any other thing. Cause of earthen pot is soil. When earthen pot was broken, then destruction took place of earthen pot, not of soil. Because earthen pot is made from something, it cannot be eternal. Soil can be termed as eternal rather than earthen pot, but again it should be thought that soil also is made up of molecules. The

conversion of said into molecules is destruction of soil, not of molecules. If this process is continued till that state, which now can't be broken into constituents, only that state can be termed as absolute eternal. These only are elementary particles. This elementary particle only is stable, eternal and infinite.

If anybody says that cycle of creation and dissolution is a continuous process. This is partly accepted to us. Creation and dissolution can be seen in every field of life but complete destruction viz. conversion of total universe in the form of elementary causing material, happens after definite time interval. We are discussing that type of creation and dissolution. This is definitely acceptable to me that flow of formation and dissolution is continuous and will remain continuous. I had a discussion with senior scientist Dr. Jagdish ji Vyas of BARC on this topic. He was of the view that cycle of creation and dissolution in the universe is a continuous process. It has no beginning and no end. I said that this universe has the beginning as well as the end. Definitely such universes repeatedly forms and dissolves. This cycle of construction and dissolution is definitely eternal and infinite. If we assume that creation of new worlds and dissolution of old ones takes place continuously in the universe. It is happening at some place always.

It can be considered as continuous creation-dissolution. Complete and whole universe neither will be annihilated nor it has any beginning, to answer this, we have to take support of philosophy also with science to know that what is the objective of the universe? Only science cannot give the answer to this. I accept that many observers in observatories can see that many stars are formed and many others are destroying also. I have no objection to this. According to me, this creation- annihilation can be compared with creation-annihilation in our daily life.

We see the construction of new buildings and destruction of old buildings on the earth.

Only this much can be assumed from this that this construction destruction is in existence right from the birth of human being and this cycle will continue till the existence of human being. If steady universe theory says like this, it's all right. Formation of mountains on the earth, Volcano explosion, conversion of old mountains into plains can also be

observed. This also can be compared with the assumption of steady universe, but the earth, on which all these phenomenon are taking place formed never, it is not possible. As mountains etc. are formed by combination, in the same way earth and other worlds are also formed by combination. Then the combination of atoms in mountain not be considered eternal and in earth etc. not appropriate to consider combination eternal.

How will it be determined that which type of combination can be eternal and infinite and which type of combination cannot be eternal and infinite? Do we assume that combination as eternal, which we could not see directly? It will not be proper (justifiable). If anybody says that cycle of creation and annihilation continues in different parts of universe at different times. Then I ask, what is the reason behind the continuation of creation and dissolution?

Creation and dissolution of stars can not be it's reason at all. I think that conversion of stars by dissolution into elementary nature matter (in vaidic view) takes place, never would be seen by any scientist and not this process can be seen upto the last point.

Our subject here is not that where dissolution and creation takes place. Why does whole universe convert into elementary matter at definite time? Rather our subject is that into which elementary matter universe, which we see, converts? And when creation takes place, from which elementary matter creation starts? What is the position, by obtaining which, all the processes of creation – dissolution stops? Remaining discussion is the subject matter of philosophy and that is irrelevant here. We have to think that when this world gets to dissolved and again universe forms second time from that state, what remains there in that mean time in the place of world? In which form, that remains? Which state is that, which is the last of all and microstate?

Which are the particles having no origin and dissolution? Most of the scientists assume the origin of world from big explosion

This theory is known as big bang theory. Scientists, who support the theory of steady universe, have no solid logic and base behind it. But because they don't consider the theory of big-bang to be true, so they imagine new theory different from big-bang? These scientists should think

that if the theory of big bang is false then can there not be any other theory, which is true and which rightly explains the creation of universe?

Let any person is saying that this cow, is born from an elephant. It seems to be false to us, but then if we say that because origin of cow from elephant is false, so cow has not originated ever. She is eternal and infinite. This statement is not the appropriate one. We should find the true only.

Science is the other name of change only. Many views disprove by testing and inspection and many new views take place.

### **(B) What is Big Bang Theory?**

Let us see what is theory of big bang? Famous Astrologist Shri Dr. Jayant ji Vishnu Narlikar says regarding this –

“After studying the initial state of universe, scientist George Gamow concluded that nucleus of chemical elements would have been formed from fusion of elementary particles in billions degrees of temperature in initial 2-3 minutes

.....After explosion, the temperature of universe was very high, that is coming down slowly.

(Vigyan, Manav aur Brahamand)

Prof. S.N. Ghosal writes in this regard –

"Modern cosmological theories regard the beginning of the universe about  $10^{10}$  years ago due to a primordial cataclysmic explosion known as big bang. The speculations about the events immediately following the big bang (at zero time) indicate that the universe cooled off rapidly within the first few moments. Thus the time  $+ 10^{-45}$  sec. after the zero time the temp. was about  $10^{32}$  k. Between  $10^{-45}$  sec. and  $10^{-35}$  sec. only two of the fundamental interactions were operative electro weak force and the gravitational force). A type of very heavy particles called the x-Bosons existed during this period, which helped change the quarks into leptons and vice-versa.

We have approach the time  $10^{-35}$  sec. the temp. falls to  $10^{27}$  K. This caused exponential expansion of the universe by a factor of  $\sim 10^{30}$  in  $10^{-32}$  sec. We resulted in a phase transition producing a uniform distribution of the 3k microwave background radiation at present observed. Incidentally the discovery of this radiation by Penzias and Robert Wilson

....

As we approach the time  $+ 10^{-10}$  Sec. there defreezing of the strong plus electroweak interactions and the two interactions now appear as distinct. So there are now the three fundamental interactions gravitational strong nuclear and electroweak in operation,  $W_{\pm}$  and  $Z^0$  bosons appear ..... An important milestone is reached at the time zero plus 3 minutes the temp. is about 70 times that formal in the core of the sun. This is when the protons and neutrons begin to combine to found the complex nuclie. The formation of the atoms come much later. At the time zero plus 500000 years the universe cooled down sufficiently so that the electrons and the nuclie could join together to form the atoms., ....

{ Atomic and Nuclear Physics, Page 951-53 }

Prof. David Halliday, Prof. Robert Resnik, Prof. Kenneth S. Krane and Paul Stanley writes

" According to this theory, the universe began some 10-15 billions years age in a state of extreme density and temp. There were no galaxies or even clumped matter as we know it, the 'stuff' of the universe at early times was a great variety of particles and antiparticles plus radiations ....." (Physics Vol. II page 1187)

Going into the detail of the subject, other foreign scientists writes:-

"All matter may have originally been compressed into an area the size of a nucleon only  $10^{-43}$  sec. After the universe emerged from a state of infinite density and zero volume. At this age the universe had density of  $10^{94}$  gm/cm<sup>3</sup> and had a temp.  $10^{32}$  K...." (The World of Physics - page -208

It is from above statements that –

- (1) Density of elementary matter at the time of big bang is infinite.
- (2) Elementary matter having infinite mass and infinite temperature was confined in zero volume. That temperature fell down rapidly after big bang and it remained 3 billion degree centigrade (about) i.e. 70 times of the temperature of central core of the sun only in 3 minutes. As temperature

decreased, elementary particles were formed by fusion reaction. Atoms and molecules were formed in about 5 Lac years.

### **(C) Objections on Big-Bang hypothesis –**

Let us review above conclusion-

(1) If mass of matter was infinite, then how can infinite mass exist in zero volume? If anybody says that complete matter was in the form of radiation on that time and energy has no mass and doesn't take place. So infinite energy can confine in zero volume. I have objections on this also –

(a) Objection on the existence of infinite heat in the beginning is that How and when this heat is produced. Heat can't be eternal at all. Modern science accepts that heat is produced from motion of atom etc. only. If no motion is there, temperature also will be zero and motion can never be considered as eternal. We will discuss specially on this in due course. If motion has produced sometimes then we have to accept the origin of heat also and then we have to find reason of this that how and when the situation state of big-bang took place? What was before this state?

We may assume big-bang in some different form, then also it can not be considered as basic state.

(b) If we assume zero mass in energy, then density also will be zero, not infinite while science considers elementary matter having infinite density, not having zero density.

(c) Third objection is that is sum of energy and mass at that time conserved today in whole universe? If not, then principle of conservation of matter and energy is not true. Then, in which form this matter converts by decrease in energy and matter? If we say that conservation principle is true, then let us examine this in brief.

Initially energy, mass and density all were infinite. Then after  $10^{-43}$  seconds, volume was of the order of nucleon and density became  $10^{94}$ g/cm<sup>3</sup>. however amount of density is very large, nevertheless it is not infinite.

Radius of expansion of matter that time is told  $10^{-15}$ m, that is stated from the world of physics. In this regard, famous scientist

sir Abhas Mitra ji told radius  $10^{-35}$ m in a letter

written to me. I had a discussion with honorable Mitra Saheb at his residence on January 28, 2005. then he said that elementary matter should

spread at the velocity of light, then radius after  $10^{-43}$  sec. will be  $10^{-43} \times 10^8 = 10^{-35}$  m, not  $10^{-15}$  m at all. So volume at that time proves to be  $4/3\pi \times (10^{-35})^3 \text{ m}^3$ .

Radius known of universe at present is considered about  $10^{26}$  m, then volume will be  $4\pi/3 \times (10^{26})^3 \text{ m}^3$ . In Vigyan, Manav and Brahamand (Science, human being and universe), famous astronomer Dr. Jayant Vishnu Jee Narleekar calculated the average density  $10^{-26} \text{ g/cm}^3$  at present from  $3H^2/8TG$ . Where H is Hubbles constant and G is gravitational constant. Here we find that density decreased by  $1/10^{120\text{th}}$  part while volume is increased  $10^{183}$  times.

It seems from this calculation that mass of whole universe is decreased in that mass whole universe is decreased in the ratio of  $1/10^{63}$ .

It seems that in "The World of Physics," error in calculation of radius is there, where radius is  $10^{-15}$  m in place of  $10^{-35}$  m. Calculation of density also should be much more there in place of  $10^{94} \text{ g/m}^3$ . whichever is the calculation, this calculation is not mine but this much level of decrease in mass is beyond my imagination. If  $10^{94} \text{ g/m}^3$  is assumed to be true, then mass of matter after  $10^{-43}$  sec. should also be about  $10^{-11}$  g only.

However, modern scientists assume-

"Our universe is entirely made up of the small excess of matter that remained after annihilation." (Physics - Vol. II, Page - 1189)

Means scientists has the opinion that initially temperature is very high. At that time, photon like zero rest mass particles produce particle and antiparticle by combining mutually. But when temperature falls down with the passage of time, photons are produced from annihilation of particles and antiparticles, but reverse process does not take place. Then large amount of matter disappears by combining with antimatter and photons are produced.

Present universe is formed from the matter, that remained behind. Here question will arise that when mass at the time of big-bang was infinite, then how infinity of mass came to the end after  $10^{-43}$  sec? Mass, which was decreased, what happened to that? It is often told to decrease in mass as change in energy everywhere. Here this logic also can not be

given. Reason behind this is that energy also was infinite initially, temperature also was infinite, that became  $10^{32}$  K by decreasing.

Then, how will modern science solve the puzzle of decrease in energy and mass both simultaneously? only scientists may know, I am unable to understand this.

Reality in my view is that theory of infinite mass in zero volume is completely wrong itself. I had a long discussion with famous scientist honourable Abhas Mitra Ji of BARC, Mumbai regarding this. He supported my view that it is impossible to be infinite mass in zero volume. He gave me a copy of his research paper and of three scientist of Ireland, Austria and Poland, in which they supported the same thing, but name of shri Mitra Ji is not given there. Respected Mitra Ji writes in his write-up- "In case it would be assumed that the collapse would continue all the way up to  $R=0$ , the constraint  $[ \leq 1 ]$  demands.

That  $M=(R=0)=0$  too, and this is the reason that all BHs (even if they would assumed to exist) must have  $M=0$

I completely agree with this logic that whatever the density is, if volume is zero, then mass also will be zero. If mass is infinite, then volume also will be infinite.

Research paper of honourable Dr. Mitra Ji is of very high level and difficult, which can not be understood by all scholars or general physicist also, due to this only abstract of that paper is stated here. Yes, honourable Dr. Jagdish ji Vyas has sent his very short write-up in very simple language on this subject, which I want to state here as-it-is.

'The thinking which is behind the black hole' starting of this subject can be done by finding answer of two questions :- 1. How much maximum density can be obtained by a solid body due to gravitational effects? 2. What is the extreme limit of motion?

According to general thinking, this gravitational attraction should work upto the least measure of distance i.e. zero distance. Means (so) body should be densified towards infinite density. But on the other hand, extreme limit of motion, which is achieved on the basis of conclusions of experiments, is the velocity of light in vacuum i.e.  $c=3 \times 10^8$  m s<sup>-1</sup>.

From theory of relativity, any body having mass cannot acquire this limit of motion.

But, by any means if the body acquire this motion, then its mass relative to other bodies which has negligible mass should be infinite. So by both means, the concept of infinite mass or infinite density is given. However this type of investigations has not yet been able to prove that this type of infinite mass or density is possible by direct/ indirect experiments. So this subject (topic) is based on assumption only ( It makes no difference if there are other scientific certified theories behind those assumptions ) And this topic is remained to be in discussion due to difficulty in getting such type of facts and impossible also at someplaces.

Why black hole forms, the logic behind this has been given that mass of any solid body with increasing its amount, due to emitting radiation slowly, resulting decrease in temperature of the body, should move towards more and more density with the effect of gravitational attraction.

This attraction balances kinetic and gravitational potential energy

$$\frac{1}{2} MV^2 = GMm/r$$

$$\Rightarrow v = [2GM/r]^{-1/2}$$

Then this velocity v will increase as gravitational effect increases (due to increase in coldness, internal thermal pressure will decrease and ultimately r will decrease) and will achieve an extreme limit i.e. c. in that state

$$c = (2GM/r_c)^{1/2}$$

(Because velocity greater than this is not possible and this velocity is applicable for both parts.

So r will be equal to  $r_c$ . And not any part of internal body having mass M (means radiation also) can escape from this, means this body will take the form of black body. But now question arises that internal pressure, which is being given by remaining radiation, by which radiation it was being given, that radiation also can not escape after getting the state of black body. So tendency of more and more contraction definitely should stop by this radiation.

It is a different matter that remarks are given ignoring this fact in most of the discussions of black hole and so such explanations show then also after knowing this fact that the body will continue to contract towards infinite density. In my view, matter inside the black hole will stop to move towards infinite density, because such type of contraction is not possible in the presence of internal radiation.

On the otherhand, it can be said that denseness of matter should remain nearly the same, as it was in the state of formation of black hole, because

$$M = \frac{4}{3} \pi r_c^3 d \quad (\text{here } d \text{ is density})$$

Putting this equation in equation (1)

$$c^2 = \frac{2G}{3} \pi r_c^3 d / r_c$$

$$= d = \frac{c^2}{8/3 \pi G r_c^2} \dots\dots\dots (2)$$

$$= d \propto 1/r_c^2$$

Because c, G, π are constants.

Now because r<sub>c</sub> is not possible to be small, so infinite value of d is not possible. So after formation of black hole also, contraction of matter upto the state of infinite density doesn't seem to be possible. This fact can be visualized like this also that in the state of formation of black hole

$$D = M / \frac{4}{3} \pi r_c^3$$

But  $r_c = \frac{2GM}{c^2}$  from equation (1)

$$= d = M / \frac{4}{3} \pi (\frac{2GM}{c^2})^3$$

$$= \frac{c^6}{32/3 \pi G^3 M^2}$$

$$= dM^2 = \frac{c^6}{32/3 \pi G^3}$$

(37)

= constant

This equation shows that as  $M$  will increase ( This is quality characteristic of black hole that things fallen down in it from outside by its attraction, which ultimately increase the mass of black hole), Value of  $d$  should be decreasing one, means density should be decreased instead of increased one.

It seems from both type of above examples that with increase in the mass, density of matter inside the black hole should tend to decrease in its value. It is clear from above example that there are many deficiencies (misconceptions) about the general understanding of the black hole.

However purpose of subject of shri Mitra Ji, and Vyas ji is not to criticize the big-bang theory, still in my view, one similarity in big bang and black hole theory is there that is to consider limitless mass in zero volume. However Dr. Mitra Sahib and Dr. Vyas ji do not accept this assumption, but most of the scientists accept this. If it is not the case, why it was needed for Dr. Mitra Saheb to write his revolutionary write-up (abstract of which is given above) 'A new proof for non-occurrence of trapped surfaces and information paradox'?

Assumption, that is not of anybody, what is the need to criticize that? So any scientist doesn't say (Should not say an useless attempt to criticize by me only, the concept of zero volume and limitless unlimited mass. I don't consider the existed assumption of the form of big bang very much different from the existed assumption of the black hole. If scientific community rejects completely the concept of unlimited mass and zero volume, then we are doing comparison of that concept with our concept on appropriate place in this book only, readers may see it there. I think that all the stars will convert into black holes gradually and those black holes will get form of big bang at last. This assumption may be in mind of those scientists also, who are supporters of black hole theory. How it will happen, is not coming in my imagination but it seems to me that scientists also may have such type of assumption. Do scientists accept that cycle of creation and dissolution is a continuous process, I don't know clearly. Big bang theory talks about to go in to the past of universe, while black hole

theory represents the assumption of going into the future of universe i.e. process of dissolution of universe.

**(D) Again Review of Black Hole Theory:-**

Due to this reference, let us try to think briefly on this assumption. I think that whenever the acceptance of black hole theory of infinite density in zero volume will be there, we can not reject the assumption of big bang.

Honourable Dr. Jayant Vishnu ji Narliekar writes about black hole  
“Gravitational force has a strange feature that when other forces defeat from this force, then strength of this tends to increase. As size of star is reduced, its gravitational force tends to increase and velocity of its contraction tends to increase This star tends to be reduced in size with increasing velocity and finally it converts into a point.”  
(Science, Human being and universe)

In my view (From my point of view), the assumption of supporters of big-bang is possible that all stars will convert into black hole having very much gravitation in point form and will capture its nearest planets and satellite in it-self. Then all black holes also will be mutually attracted and will get the form of big-bang like a black hole and this big-bang will be the reason of forming the universe again. Scientists accept this that elementary matter of whole universe at that time (in the sate of big-bang) remains in same point form having zero volume and limitless energy is confined in that point form. Then my question is that black holes, which are continuously emitting the radiation in its whole life time and formed many basic elements. Fusion of those basic elements also took place and radiation scattered outside. Will it form the whole universe this remaining matter very few, if not zero?

It is told that our sun is converting 40 lacs ton of mass into energy per second from crore of years and this process will continue for coming crores of years. When it will become a black hole, its most of the mass had been lost in the form of energy in the space. Then very few mass and energy will remain in black hole formed by this. This situation will be of all

the black holes. Also same state will be of big-bang. How will it prove infinite energy and infinite mass in final black hole in the form of big bang in this situation?

It seems to me that infinite energy and mass will scatter in the form of radiation in this process, remaining will be like zero or very few.

In such condition, the empty space (Volume) like zero, that will remain, consider the creation of universe from that space assuming the existence of infinite mass and infinite energy in it and ignore the infinite mass scattered in the form of energy in limitless space, doesn't seem to be logical. Ignorance of infiniteness and assuming zero as infinite is not scientific attitude.

It should be remembered that big-bang theory will talk about creation of universe again from big bang of this negligible mass, again according to above process, energy will be scattered in that creation and remaining very small mass will form fictitious big bang, again universe will create from that. Again this action will be there and this cycle will continue. In such type of situation, which intellect will accept that matter that is scattered, which has no existence and if it has, then there is not any contribution of this in creation of universe and matter, that remains behind like zero not volume but mass and energy or that becomes completely empty, large universe will continue to form from that.

As somebody throw the cream after extracting it from milk and try to get cream again and again from the creamless milk. At last, after throwing cream outside, wants to get cream from waterlike milk, then can he be considered as a wiseman? Can he get cream? No, not at all. One thing more I want to add that this imagination is not mine, rather I am presenting the assumption of some scientists only. If cycle of creation-dissolution is not considered eternal and endless, then question will arise that from where infinite mass and infinite energy came into existence in zero volume first time? What was before that? And will it continue to remain the black hole in same form after conversion of all things into black hole? For infinite time our view is that whichever is formed, neither can be eternal in the same form, nor can remain upto endless time. If blackhole also will change into any other form, then what will be that form? It is difficult to get answer to this question. Best view is that universe is formed

at some time and will convert into its elementary causing matter by destroying after some particular period and again it will form from same causing matter by the inspisation (induction) of most powerful existence.

This cycle is continuing from eternal time and it will continue for endless time.

**(E) Is energy completely massless?:-**

Now let us think about this possible assumption that some scientists assume that existence of dense radiation in zero volume is there initially, which has no mass and density. Then why is not it possible to confine the infinite energy in zero? My view in this regard is that temperature called by science is not the matter in language of Vaidic philosophy, but is property. This property is of matter named 'Agni', and this principle is also true that not any property can remain without property holder . So space must be essential for 'Agni' matter. If somebody says that may be, 'Agni' is called matter by 'Vaisheshik Darshan (Philosophy), but modern science names it energy and energy is massless and doesn't take place, then I ask that if energy has no mass, then why the mass of moving electron increases. Scientists give a formula also for this increment. That formula is

$$M = m_0 (1 - B^2)^{-1/2}$$

Where  $B = u/c$  and

M is mass of body at u velocity,  $m^0$  –rest mass of an electron, u-velocity of the electron c-velocity of light in vacuum Can we not assume the existence of mass in energy from this formula? Wherever we read the zero mass of photon, it is read and considered in the state of rest only. It is clear from this also that When photon is not in the rest state, then it definitely has the mass. Scientists accept today that not any particle can be stable in rest state. Then how we came to know the mass to be zero in rest state? If they cannot remain in rest state or cannot remain stable in that state, then definitely all the particles either matter particles or quanta of energy, we have to consider then in moving state always. When we will consider then in moving state, then it will be essential to consider space for

motion of them. How volume can be considered zero, if space is there? in this case, we have to consider mass also in them.

If somebody (someone) says that quanta remains in rest state in big bang, then mass will be zero but it is not possible for them to be in rest state. Somehow, if we assume to be these in rest state, then energy of photon in rest state 'hv' will also be zero because frequency in that state will also be zero. Then energy of all photons will be zero. Then mass and energy both will be zero in zero volume, not the infinite, not at all.

Let us think over it separately. We know that high pressure of radiation only in stars balances the gravitational force in stars and due to this, contraction of stars doesn't take place. When gravitational force is lowered, the star starts to expand. As I think radiation passing in vicinity of any star etc. having large gravitational force definitely would have been deviated by influence of its gravitational force. Scientists, who support the black hole theory, they themselves say that the light also can not escape from black hole due to its strong attraction force. Then mass in light particles (Photons) is proved ultimately.

We know that according to Einstein's special theory of relativity

$$E^2 = m_0^2 c^4 + c^2 p^2$$

Where  $m_0$ - rest mass, c-velocity of light in free space, p-relativistic momentum E-relativistic energy

Then for photons

$$E^2 = p^2 c^2 \\ \Rightarrow E = pc$$

We also know that energy of photon  $E = hv$

Where h-planck's constant and u-frequency

Then

$$hv = pc \quad \Rightarrow p = hv/c$$

(42)

$$p=(6.63 \times 10^{-34}v)/(3 \times 10^8)$$

Because photon never remain in rest state. Otherwise any other particle also doesn't remain in rest state.

Then momentum of photon will not be zero and if there is momentum in photon, definitely it has mass also, because momentum and mass both properties have a similarity that both have the requirement of force to change the motion of the body. May be, the mass is in the form of energy in photons but it doesn't mean the non-existence of mass.

And now if we talk about zero mass of photons in rest state, then my view in this regard is that when photon never remains in state of rest or can not remain in rest state, then what is the importance of masslessness in that state? So it proved that nothing in universe is like this, that has no mass, either that substance is energy or matter.

Today science accepts this that ultimately matter and energy both are the samething. Sufficient similarity is there in both. Scientists have the view (accept) and each particle behaves like wave and each energy photon also behaves like particle.

They say-

"Light, long regarded as a wave has an equally convincing partile aspect namely, the photon. At this way the matter long regarded as made up of particles has an equally convincing wave aspect" ( Physics vol II Page - 1035 )

Wave aspect" (Physics Vol II page-1035)

Then it will be definitely wrong to say that infinite energy can confine in zero volume. So the very first basis of big bang theory proved false. If initial matter is considered of very small volume, not of zero volume and simultaneously existence of most powerful is accepted, then this theory can succeed slightly but that also can not be considered as initial state because that matter will be combined with force and combinations that is not possible to be eternal.

**(F) Many big mistakes regarding elementary particles. Let us examine**

2. In above hypothesis:-

Leptons form quarks and quarks from Leptons are produced from the association of Bosons, it is said, this we have shown in the statement of the book of Prof. S.N. Ghosal. It is mutual dependence (cause and effect) mistake. Out of these, existence of any one was before, we have to accept this. Formation of table from tree and tree from table simultaneously is not possible. Anyone only can be true. From which and how X-Bosons formed. How photons formed, what is the role of X-Bosons in production of Leptons from quarks and quarks from Leptons? All these seems to be unclear. How particles called elementary particles are formed, is explained according to the following

"The radiation in the early universe consisted of high energy photons, estimated as 'kt' where 'k' is the boltz man constant and 't' is the temperature at the particular time 't' it can determine from the equation

$$T = \frac{1.5 \times 10^{10} S^{1/2} K}{t^{1/2}} \quad (\text{Physics - Vol II})$$

O.K., Let us think over it

Let the mass of any particle is m. then energy =mc<sup>2</sup>, where c-velocity of light in free space, then

$$KT = mc^2$$

$$= T = mc^2/K$$

Famous scientist Abhas Mitra Ji writes in a letter written to me on 10.02.05 in this regard –

"T<sub>m</sub> is the temp at which particle anti-particle pairs destroy each other, At temp T >> T<sub>m</sub> both the particles and their anti particles coexist.

Thus at the initial hot phase, all the particles, quarks, electrons, neutrinos were present along with their anti particles. For temp much below.

$T_m$  all the particles anti particles Join together to form photons, and only the excess particles survive." .....particles survive”

It is to be noted that formula taken from physics, which is specified by  $T$ , that only here is specified by  $T_m$ , which means that particles of mass  $m$  at some particular temperature  $T_m$ , by combining with its antiparticle, converts into photon. On temperature greater than this, it remains to be its existence.

Author of Physics writes in this regard –

" The dominant processes in the early universe can be represented as

Photons  $\rightarrow$  Particle + anti particle (52-4a)

Particle + anti particle  $\rightarrow$  photons (52-4b)

Reactions of type 52-4a (called pair production) are possible only the combined energy of the photons on the left side exceeds the total rest energy  $2mc^2$  of the particle and anti particle on the right side, If the temp is high enough, then the two reaction are each possible, the rates of both reactions are then the same, and there is an equilibrium between the photons and the particles and the anti particles. As the universe expands and cools the average energy of the photons decreases untill at same point, for specific type of particle reactions of type 52-4a will no longer be possible. At this point no new particles and antiparticles of this type are being produced, and the equilibrium is upset because reactions of type 52-4b ( call annihilation) can still produced. As the particles and antiparticles annihilate one another, their numbers decrease.

(Physics Vol.II, page 1188)

It proves from this that according to modern science photons, quarks, leptons etc. exists with its antiparticles in the beginning. When temperature falls (decreases) upto one particular point (which is different for each particle), then particles form (produce) photons by combining with their antiparticles. These photons, are of low energy with respect to previous photons, which do not converts again into particle antiparticle pairs. In

this way, large decrease is there in number of particle –antiparticle pairs and number of photons are increased.

I expressed these type of views presenting paper on the ‘creation of universe’ in Ved Seminar held on the occasion of Rishi Fair, Ajmer in 1999. It can be seen on page no. 155 of the book ‘Ved and Jyotish’ published by Paropakarini Sabha, Ajmer.

But it is difference that according to me this state is not of the beginning time of the creation of universe, but it can be in the state of generating ‘Tanmatras’ only in the language of Vaidic philosophy. Vaidic Philosophy also accepts the principle of explosion.

Dwe sameechi Sheershtah Jatam charantam

-Rigveda 10.88.16

Means combined two Dyu and Prithivi generated from moving head placed Aditya.

Dheetyagra Manasa Sam hi jagme.

-Atharvaved 9.9.8

Also many more examples can also be given, which proves that initially large fire object was there, by breaking which all the worlds created. Ved also assumes that different types of elements are produced in that fire object having very high temperature only. As is said Tamidgarbham Prathamam Dadhra Apo Yatra

Deva samgachchhant

-Rigveda 17.82.6

Means hiranyagarbha situated in that Virat are adopted taken by nature (minutest particles) first, in which all materials (matters) are generated. I had given above statements in my write-up ‘creation of universe’.

Here no difference is there between science and Ved. Real situation is this that this very not fireobject is different in following way from big-bang theory of modern science.

1. Big Bang theory assumes this state as first state, while according to Vaidic view, this is generated long after the state of Pralaya dissolution.

What was before this, vaidic philosophy presents its description in detail.

2. Big Bang theory assumes that ultra hot state as confined in zero volume, in which expansion takes place by sudden explosion. On the other hand, Vaidic ideology assumes that the creation process of many large fire objects in the universe after large interval of time from the initial state and assumes the creation of different worlds by explosion in these large bodies.

So we will not discuss the origin of that state of explosion because subject of this book is to describe only the initial state. Here purpose behind the giving statements of Vedas is that we want to tell the scholars of modern science field that there are many similarities between our and their opinion and somewhere dissimilarities are also there. we don't reject big bang theory completely, but are showing some differences on type form and time of that. The time will come, when science will be able to see that before the big bang also, something was there.

After this brief discussion of similarities, again we come on that topic. Scientists authors of the book 'Physics' are telling the formation of particle-antiparticle pairs from photons in beginning and photons from particles and antiparticles. My question is that which has previous existence –photons or particles and antiparticles? Formation of there from one another is not possible. Initially one state, we have to consider definitely. If we see accordingly the views of shri Mitra Ji then Photons are formed by annihilation of particles and antiparticles. He also would have been assumed the photons in pre (initial ) state because heat also can remain in form of photons only. Then all those particles and photons, which were definitely in the moving state, never can be eternal. There formation took place at sometime and motion also can not be eternal. These particles do not fit on the definition of an elementary particle, which we will discuss further. Above view of science, do not explain the basic origin of existed elementary particles, but talk about mutual change of them.

#### **(G) Some Questions on Quark Model:-**

Modern science accepts Quarks and Leptons as an elementary particles. Six types of quark particles had been discovered till date. But any quark had not been seen in free state yet, rather it is seen in form of

pair with antiqark. Meaning of seeing, herer is not to see by eyes but is the only estimation of the basic of properties like other particles. Rest energy of these six quarks are told as following

Quark Symbol	Name	Rest Energy
u	up	3 Mev
d	down	6 Mev
c	charm	1300 Mev
s	strange	120 Mev
t	top	17400 Mev
b	bottom	4300 Mev

This description is given on the basis of appendix F of Physics Vol.-II. Rest energy of proton and neutron consecutively is given 938 and 940 Mev in this book. In foot note below the table is written:-

The rest energies listed for the quatks are not those associated with free quarks, since no free quarks have yet been observed, measuring their rest energies in the free state has not yet been possible. The tabulated values are effective rest energies corresponding to quarks bound in composite particles"

In answer to my question that total rest energy of uud is  $3+3+6=12$  Mev, then how proton of 938 Mev can form, whill binding energy is also required to combine quarks, like in the formation of nucleus. Decrease in mass is there and here it is increasing 78 times. Honourable Abhas Mitra Ji told me by letter-

Quarks are held together by strong force whose quanta is gluon. Gluons are massive much more than quarks themselves. Because of strong interactions, the effective mass of a quarks in about 300 Mev, much higher than the bare mass of few Mev, (10.02.05)

Here one new information, I got that Gluon also has the mass and its mass is greater than quark. Author of the book 'Physics' consider this

a particle of zero rest mass, but Mitra Sahib told this having mass more than quark and due to strong interaction effective rest energy of Quark is 300 Mev instead of 3 Mev. Which quark this is, it clearly estimates to us that we are dealing with up quark. Then  $uud = 300 + 300 + 600 = 1200$  Mev by getting decrease in mass, can form proton. By this solution of Mitra Saheb, problem of formation of proton and neutron is solved but many such questions on this quark model are there, which I have not discussed with anybody yet. I hope that honourable scientists will think over them also.

1. As effective mass of quarks due to strong interaction increased 100 times to their rest mass (Probably bare mass told by Mitra Sahib and effective rest energy as said by authors of the book Physics), should effective mass of nucleus also not increase than its rest mass in formation of (their) the nucleus likewise?

While it does n't happen like this there, why?

2. Author of the book physics has described the particles formed by combinations of five quarks, u,d,s,b, but what is the role t quark in structure formation of atom and nucleus, equivalent to which mass of any particle known as elementary particle is not known probably?

Where is the position of many such particles known as elementary particles except electron, proton, neutron, meson, gluon inside the atom? Their life time also is negligible. Like electron, proton and neutron affect directly on structure of substance, Does any other particle affect like this?

It may happen that when we use high energy to break any particle then those particles convert into the energy itself and some new particles either quarks or  $K^+$ ,  $K^0$ ,  $\pi$ ,  $Z^+$  .....etc. are formed from that total energy, which we think that particle which we have broken, is formed by these newly generated particles, while clearly it is not true.

Otherwise, how position and role can be explained of particles known as elementary of particles more than 200 in number discovered yet?

I hope that scientist brothers will think over these two questions seriously.

**(H) Elementary particle yet to be discovered:-**

3. I am of the view that elementary particle has not yet been discovered. Particles known as elementary particles today, not any out of them is elementary particle. If photon having least mass is considered as an elementary particle, then how the particle formed by combination of particles and antiparticles can be termed as eternal elementary particle? If Quark is considered as elementary particle, then how is it possible, when many particles having less mass than this are there?

Photon and Neutron also has the small charge than this. So which are the elementary particles, this topic (subject) is unclear yet. It seems that no one out of these is elementary particles. In my view, the following properties should be in elementary particle.

(a) An Elementary particle should be bearer to or capable to bear the smallest amount of charge and mass.

(b) An elementary particle never forms from combination of two or more than two particles. Definitely it can produce (form) other particle by combining itself.

(c) An elementary particle neither can be generated nor can be destroyed ever. Definitely it can appear from fission of any comparatively large particle or from initial monotony state.

Above properties are written (in general) briefly. Because if we see modern science in detail (minutely), some other mistakes also can be seen. we will discuss real elementary particles in Vaidic philosophical view, where this topic will be more clear. But definitely it is proved that no particle out of 200 particles discovered by modern science, is elementary particle. When elementary particle has not been discovered, then how can the form of basic state be known?

**(I) A blunder mistake of big bang theory:-**

(4) One mistake also is there that this theory talks about the generation of two forces between  $10^{-35}$  and  $10^{-45}$  seconds of big bang. It is automatically proves from this that infinite force of one kind only was acting that time or no force was there in that big bang before explosion. If

not any force was there, then how that elementary matter of whole universe was so contracted and collected? Why that matter was not being scattering? Who was binding that matter in zero volume? And why does its density become infinite?

We know the principle of thermodynamics that higher is the pressure exerted on any system, its volume decreases and temperature increases. Then how force can be considered zero in that infinite temperature and zero volume? Rather limitless force should be there. Let us try to understand this by other method as an example.

Five types of forces are considered at present, out of which strong nuclear force is considered as most strong force. If for a moment, we assume true the Quark model, than force acting between Quarks will be still more strong than nuclear force. So it concludes that the more the density of object, the more will be the force acting inside that object, as most strong force is the force acting between nucleolus inside the nucleus having very large density. Then density of big-bang, which is considered not the maximum only but infinite, no force was acting there, how can it be possible?

Surprising fact is this, that side, which considers absence of force that time, doesn't enable to understand that when you do not accept the origin of force, then that matter was limitless contracted and most dense and when force started to generate, then matter started to be expand. Did only repulsive force produce, which scattered the matter?

Generally attraction force has dominance in five types of forces, then why matter started to be scattered? Will anybody accept this that no force is there between the molecules of solid iron and when it is melted to convert into gas, then strong force of attraction is generated between its molecules? When it is not possible, then how is non-existence of force in big bang possible?

If we assume that infinite force acts that time and this only divides into five types of forces, all right but the question is that how and when this infinite force generates? Force can't be eternal because acting of force is not the natural state and unnatural state can not be eternal. Then that infinite force also has generated at sometime. When force is produced some time, then big bang is no more eternal.

Concept of force, which modern science presents, according to that force can not remain in primary stage. We will discuss the concept of force further according to the topic but here we have to think that force between two particles is produced by mutual exchange of any other particle between them. If we draw our attention here, then it can not be imagined that the existence of any type of particles in zero volume. Then particles and exchange of particles all can not be there. in this condition, how we can assume the existence of strong force, better to say as infinite force. How and between which, that force was acting? Answer of this question, can not be given by big bang theory. When no big bang was there, then what was the form of that matter?

This question remains unsolved.

We will try to solve this question on the basis of Vaidic philosophy.

Dear Readers can judge that due to above four reasons, big bang theory proves to be extreme imagination.

**(J) Two reasons for emergence of the thought of big bang:-**

Now question arises how this thought emerged. There are two interesting reasons of this also.

**(a) Concept of Expansive Universe:-**

Astrophysicist Edwin Hubble was studying the universe in the year of 1920. Then he saw the spectrums of light coming from neighbouring galaxies. Hubble came to know after Analysing these spectrums that assumption lines in ordinary spectrum was not there, where actually these should be. There was some deviation. He concluded that galaxies are moving further apart from each other. He published his discovery in 1929. His theory was

$$u=Hd$$

Where  $u$ = relative velocity of galaxies

$H$ = Hubble's constant ( $=2.335 \times 10^{-18}$ )

(Physics vol. II and science, Human being and Universe)

Dr. Jayant Vishnu ji Narlikar writes explaining this principle 'Real situation can be estimated by comparison of universe with expanding balloon. If we draw small points on the balloon, then as balloon will expand, these points will be farther apart from each other, we cannot assume any

one point as centre. All points have the same importance. On the basis of this comparison, we can say that whole universe is expansive'.

(Science, Human being and Universe)

It is worth mentioning here that basic reason for this expansion is told by big bang. First of all, we are of this opinion that we cannot compare the expansive universe by expanding balloon completely. The assumption that initially centre of zero volume was there which exploded, came into existence only due to this expansion by which whole matter scattered rapidly.

After then only, galaxies are moving further apart from each other. Now let us think over a balloon. When a balloon is expanded (Blowed), then its surface expands and centre of expansion also is its centre, which remains blank space only. As much the balloon expands, blank space increases that much. When explosion would have taken place, all matter would have been expanded. The centre of that expansion will be considered that place only, where explosion took place. When we fire any cracker, then it converts into many sparks in the upsky and these sparks expands further apart from each other. Apart from this, whole matter moves further apart from the place, where the explosion took place and very large place becomes empty.

My question from the supporters of expansive universe theory is that. Is there any centre in whole universe, which is completely empty and galaxies far around are there in definite circumference.

As I have heard and read that very large empty space is there between two galaxies, but I did not read anywhere about the universe of the shape of expansive balloon where inner portion is completely empty and some stars or galaxies are there only in circumference. If someone accede this, then that is not possible also. One question also here is that as galaxies formed from explosion and receding to each other continuously, Are solar systems also formed from galaxies by explosion? Are all those solar systems also receding to each other? Are other members of solar systems also formed according to this model and are all planets-satellites also receding to each other inside those members? If someone says that the principle of explosion is applicable only for big bang, not after that. Then I ask why it can be possible? As a cracker after explosion when

goes up in the sky, converts into many crackers and all those crackers, apart from receding each other, also recedes from the place of explosion. Then explosion takes place in all those crackers and sparkles coming out from all those seen away from each other. Is same thing taking place in universe also?

If yes, then may be, the distance between members of our solar system is increased till now and increasing.

Then changes related to temperature, pressure etc. will take place continuously and life found on the earth will affect greatly. Then this distance will increase gradually and one time will come when all the worlds will enter into perennial and mutual distances will be infinite.

Hubble's law is  $v=Hd$ . So at the time of big bang, when all galaxies were confined in zero volume then distance between constituents of whole matter  $d=0$ , so  $v$  should be zero. Then why  $d$  increased initially or if velocity increased, then why?

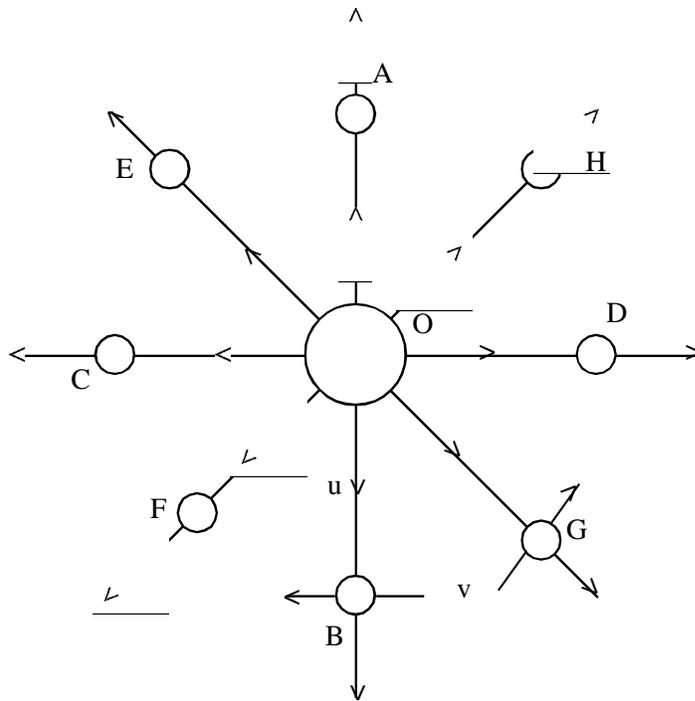
How this principle will give its answer, I do not know. Which force is giving acceleration to galaxies upto now?

Possibly science is not thinking about this. When I discussed this matter with well known physicist Rev. Dr. Abhas Ji Mitra, then he said that expansion of universe is being seen from last 75 years. About, then how can it be called spurious?

Even I can accept that all the world are moving far from each other, but comparison of volume of universe from volume of expanding balloon is not understandable then also due to above cited reasons. Yes, comparison with expansive surface of balloon is possible. I accept this that repulsion force also with gravitational force is acting in the universe. If only attraction force would be there then universe would be shrunk to a body only. That body also would be so solid, of which we have no other example this time. Either it is nucleus having strong nuclear force or nucleons, some empty space is definitely there inside all. Reason behind this is the same that repulsive force is acting everywhere, due to which not any two bodies or particles can be in total contact to each other. If this repulsive force is acting with so much strength among all the bodies that the attraction force may be weak against it then expansion may be possible but the repulsive force is increasing in the ratio of distance between two bodies is

not understandable. Mitra Saheb has given one clarification this also that two velocities are acting in any galaxy.

(One) Velocity is with respect to centre of the universe, which initially was equal to velocity of light. This velocity is decreasing continuously. From this clarification, one question arisen from example of cracker, is solved, but second type of velocity, which is acting between two galaxies, is increasing according to Hubble's law. This is being seen. it doesn't seem the solution of this problem yet. Which is being seen, is completely true, to assume this is not possible for me even now, because many observers draw different conclusions taking some goal manytimes. Let us try to think over it by following diagram also



Let us assume O as centre of the universe, from which A,B,C, D, E,F,G,H galaxies after creation, escaping in specified directions. Velocity of galaxy B is  $u$  with respect to O, which initially was equal to velocity of light and is decreasing continuously and relative velocity  $u$  between galaxies B and G is increasing continuously according to Hubble's law. Likewise, relative velocity between other galaxies is increasing continuously.

Let us assume that Hubble's law is true, then relative velocity between galaxies A and B also should be increased one, but it is clear from above diagram that this velocity will be  $2u$  and value of  $u$  is decreasing continuously. How adjustment will take place between  $v$  and  $u$ ? Likewise, how velocity between E and G, F and H and C and D will increase according to Hubble's law? Likewise, if we think separately on calculation of Age of different worlds based on distances and their temperature etc. in the universe from Hubble's law, then my definite assumption is that this law is not true completely.

Probably scientists also have doubt, regarding this. They say  
'Because of uncertainties in the estimates of the cosmic scale of distance, the Hubble parameter is uncertain'  
(Physics –vol.II Page.-1236)

Question, which we arise before that explosion  $d=0$  and  $u=0$ , then which quantity out of  $d$  and  $u$  increased before and why? Remember that by assuming two velocities ( $u$  and  $v$  as we have written) also this question remains unanswered that is, why explosion took place? Explosion took place means ' $d$ ' started to increase from zero and  $v$  and  $u$  also generated simultaneously which one of these produced first and why? Possibly this principle can't give its answer. Then the principle which is not self attested authentic itself, how can prove the big bang theory? It also seems to me that Hubble's expansive theory may be true in general, then also this will not be a tool of big bang theory, but will be obstructing only.

**Hubble's theory is not a tool of big bang theory but is obstructor:-**

As I have written before, distances between the worlds will become infinite according to Hubble's theory, then all mutual forces will

end up in my view. However Hubble's law will say that on distances becoming infinite, their escape velocities also will be infinite and in my opinion the repulsive force among them will also be infinite when this velocity is infinite w.r.t. one another otherwise who will increase the velocity? But increase of force by increasing distance is not acceptable to me at all. Without going into detail of this subject, we will notice (consider) that when whole worlds will get infinite distances, then how big bang of zero volume will form? If it will not form, then how creation will be there again? When scientists accept that cycle of creation and dissolution continues, then who will give this universe expanded in infinite, a shape of big bang again, so that new universe creates again.

Great Vaidic Philosopher Maharshi Dayanand Saraswati also accepts this that flow cycle of creation and annihilation is eternal process and this cycle will continue for infinite time. Then science, which assumes beginning of creation from zero volume, ends this in infinite volume, then how next explosion will take place. Creation will be from scattered worlds in infinite or someone will convert them in big bang by assembling? If someone will do, then who will do and how? Neither big bang theory, nor expanded universe theory can give the answer to this question.

Yes, I also admit that many explosions would have occurred here and there as I have already pointed out with Vaidic illustrations. Nonetheless it would not be wise to accept that would have taken place initially any one explosion occurred in origin of all later explosion and that also occurred in no space. If many explosions are considered cause of motion of all the worlds of this universe, then it may be acceptable. Sometimes this Question also comes in mind that why electrons revolve around the nucleus? How did they get motion first time? Is orbital velocity in electrons being decreased?

After considering all these questions, only presumption we can do is that some omnipotent consciousness only is doing all these, to know whom in ultimate form is outside the strength of human being. Yes, what corrections should be done in Hubble's law, this should be tried to know by those scientists, who observes directly by doing research continuously in laboratories.

(II) **Presumption hypotheses of existence of first radiation:-**

Scientists assume that radiation and matter started to be cold with the passage of time after big bang. That cold radiation should exist in the universe at present also. Dr. Narlikar ji says – “Gamow and his colleagues presumed that the radiation existed in initial 2-3 minutes, should now be scattered in cold form. The form of this radiation should be like black body radiation.”

(Science, (Human Being) and Universe)

Other foreign scientists say in this regard - “This radiation was discovered in 1965 by Arno Penzias and robert wilson of the bell laboratories in New jersey measurement of the intensity of the microwave back ground radiation in various directions show the radiation has a uniform intensity in all directions it, does not appear to come fro any particular source in the sky, but instead files the entire universe uniformly as would we expected for radiation that like wise filled the early universe.” (physics - Vol. II)

Honourable Dr. Nalika again writes in this regard-

“Budi and Richard of California are of the view that some difference is there in real spectrum and black body spectrum, existence of which is doubtful thinkable for the assumption of the universe created by big bang.

If creation of the universe took place from the big bang, then why explosion took place? By which method were different substances formed? The Principle of conservation of energy and matter dissipated on this occasion, but why? What was it that existed before this? Big bang theory has not been able to give the answer of such questions. Apart from this, there are many other problems too in this theory.”

(Science, Human Being and Universe)

Thus we find that above scientific view regarding this radiation is also full of contradictions. So it is not necessary to say more on this.

In this way, we saw that no solid base is there till now for both scientific theories of creation of the universe. Continuous research is going on. Then also Nevertheless the theory of big bang is more true and reasonable than the theory of steady state of universe. Yes, confinement of limitless quantity in no space and occurring of explosion at one place only, these two views cannot be considered as true.

That state was initial one, this also is never possible. Sometime the day will come, when some solid facts will be there. I highly regard very much of this great theory of science, which has understood the many secret mysteries of the nature and trying to understand.

### 3. **Vaidic Scientific and Philosophical View:-**

O.K., Let us now turn to second view, which is being in practice from the time of the existence of the human being on this earth. According to our Indian tradition progeny. Scholars of the world may say this as an exaggeration, but this is well-accepted fact that the Vedas are the oldest books of the world. We Vaidic Arya people are also of the view that the conscious, omnipotent and omniscient God, who created this universe, he himself had given the knowledge of this universe in the form of Ved to the first generation of human being. Later on this knowledge came before the world in the form of book. This knowledge is not for any country, class or sect, but as this universe is for all, the knowledge of the Veda is also for the welfare of all human beings. It is eternal and constant and unchangeable. And on the basis of these Veds, large number of literature has been produced by Vaidic hymn-singer visioner Rishis. Then we should definitely try to know that what is said by the creator of the world God and his perceptor Rishis regarding the creation of the universe?

Many Indian and foreign scholars and eminent and specialist scholars of modern science can comment on my above sentences, not only can disagree but also can protest but then also I will not be able to prove my above sentences, because this subject is not of this book. I will also not insist to consider all of the basic cause of the universe according to this view as true as it is. Also I will not try to heap those thoughts on scientists presenting them as direct proof, but I will try to present this view by examining and review, And I will propound to all the scientists, religious saints, and philosophers that science subject is not to be considered should

not be considered as it is, but the worldwide debate discussion should be there. Efforts should be made for experimental tests also, if possible.

(A) **Three causes of the universe:-**

This view present three causes of this world-

(1) **God:-**

This is that conscious, omnipotent, omniscient, omnipresent and immaterial power, which acts as creator in this creation process. This is eternal, perennial, unborn, everyyoung and immortal. This only is the master, ruler, preserver, obstrucater and destroyer of all the world. This has many names according to its many qualities and actions.

(2) **The Individual Soul:-**

This is conscious, little knowing, of little strength, Wearing holding many bodies but itself immaterial, everyyoung, immortal, eternal and perennial power. To benefit this only, God Creates this universe. The body see, hear, talk, smell, taste, move, think and feel the sense of touching only with the assistance of this power. When it comes out from the body, the body becomes senseless (material).

(3) **Nature (Prakriti):-**

This is basic causing material of the universe. This is the material for the creation of the universe, from which whole world is formed. As a goldsmith can make different types of ornaments only from gold. Howsoever efficient is a goldsmith can not make gold-ornaments without gold. Likewise, inspite of being omnipotent, omniscient, then also God can not create the universe without nature Material, cannot create existence from nothingness.

Moreover, this also should be taken into account that in howsoever amount the heaps of gold are there, but those heaps can not make even a small ornament without making by a goldsmith. Likewise, nature in the form of elementary matter is scattered in infinite space in infinite amount or is in

most dense state, that also can not form the universe without inspiration and guidance of conscious God. It will always require the inspiration, regulation and intelligence of the God. Modern science doesn't think over it and also it can not know this comes not in the field of science that how many basic causes are there of the universe? Who formed this, For whom and why this was formed, to know this is out of the limit of science. Science tries only to know that how this world is formed. We will try to know, only this regarding this question in this book that from which elementary senseless matter all this is formed of What was there before formation of the world?

Here our subject is not to prove the existence of God and the individual soul and describe their forms, but to describe the form of elementary matter in the form of nature only is our subject.

In Rigved 1/164/20

“Dwa suparna, sayuja sakhaya samanam vraksam”

By saying this existence of three God, soul and Nature is proved.

Likewise in Upnishad-

“Ajamekam Lohit shukla krishnam.....”

In Shwetashwar Upnishad 4/5 brief indication is given on realization and form of the three.

Here we will think on matter in form of nature only-

(B) **A grave sight on vaidic form of elementary matter –**

When this world was not in existence and when this world will end means whatever is formed, will destroy then in which state elementary matter exists, from which this world is formed?

In answer to this, the Veda said –

“Geerni bhuwanam tamasapgoorham.....”

Rigved 10/88/2

“Tam assettamasagooshmagre praketaam salilam.....”

Rigved 10/129/3

Means whole elementary matter was in completely dark and like swallowed (merged). That was likely to have confined the all things in itself without sign.

Bhagwan (Revered) Manu expressed the something in pretty beautiful, winsome words –

“Aseedidam tamobhootampragyatam lakshanam Apratarquam vigyeyam prasuptamiv sarvatah.”

Manusmriti 1/5

Means whole universe was in the form of total dissolution that time. It was surrounded by very much darkness, which was not known by any one, not knowable, without symptom or sign, not debatable and like sleeping from all sides.

**(I) Elementary matter is not very hot, but limitless cold, soundless and dark:-**

Conclusions of above thoughts are the following –

(1) An Elementary matter was surrounded by impenetrable darkness viz. means very high and limitless heat and light was not there that time, but limitless coldness and darkness was there. at not any other place and never, the coldness and darkness more than that, is possible. Here we are going just opposite to the state of very high temperature of science. If an existence of heat and light is considered that time, then their photon, will be in fast moving state science assumes-

Only few particles are stable such as the proton, electron, neutron, positron, photon, the rest are all unstable (Atomic and Nuclear physics page -901)

All Particles assumed by modern science as elementary particles, can not remain stable in rest state viz. they can not exist without motion. However this thing doesn't seem to be proved from above extract, still I think that possibly science assumes so, if not, then it must be taken into consideration.

We should understand the fact that this very much coldness is not the name of any special material but extreme scarcity of heat only is extreme very much coldness. The question, which was arising in big bang theory that how heat produced, can not arise here. This should be taken into account that hotness cannot be eternal because hotness is produced due to motion in definite particle. As much motion will be there in particles, temperature will increase more and more. When motion will cease off completely, then temperature also will become zero. This question also arises in big bang that how motion is produced first time. This question can not arise in this vaidic view. How ever motion and position rest are relative concepts and hotness coldness are also relative only, but motion or temperature, which we are dicussing here, are in absolute limit in the elementary state.

That elementary matter can not be compared with any other numb senseless material and also not any other numb material was existing that time. If we compare with conscious power of God, then he is without temperature and motion both. He is always completely absolute. Temperature is the feature of material (numb), not of the conscious. Motion is also in conscious, but due to omnipresence God doesn't acquire motion. Then even if we compare, motion in elementary matter with respect to God is also zero only. Vaidic view assumes that whole matter was signless that time viz. not any such external sign symptom was there, from which we can know that matter of any special form exists this time.

As in the presence of motion, moving object is guessed. In the presence of attractive and repulsive forces, existence of electricity magnetism etc. is guessed. Due to sound, source of sound is guessed. From sense of taste, material substance having that taste is identified. By touching sense, we know about touching object, hotness, hardness, coldness and softness. But above evidences tell that no such type of any symptom was there at that time. From which we can know that matter existed that time was having any property out of cold, hot, soft, hard, small, big, black, white or of any colour, motion, attractive or repulsive force, light, heavy, noise etc. Neither that form had been known by anybody, nor can be known.

**That matter is completely beyond expression viz. no arguments can be there regarding that.** Yes, whichever was formed from that, by seeing and knowing that only this can be guessed that there was something. From which this matter is formed or from authentic quotations or guess evidence, something can be presumed, can be known, to perceive that is never possible.

**That elementary matter, can never be experienced in the same form in laboratories.** All this doesn't mean that nothing was there viz. or only the space was there, very much scarcity was there, but matter present that time is compared as following.

According to Ved, that matter was hidden like this as if it was swallowed by anybody. As somebody swallows the gulp (bit, mouthful) of food, then swallowed food doesn't appear to us, but definitely matter exists that time also. without taking help of instruments, substance in side the stomach can neither be seen. Nor it can be tasted, nor can be identified by smell. Substance, which was having form, colour, taste, all the properties of that becomes invisible after swallowing.

**Likewise elementary matter in the form of nature can not be visualized by any means, also cannot be presumed by anything that time.** This comparison is of the Ved.

Now let us think about comparison of lord Manu. Manu Ji has used a special word for that, that word is – 'Prasuptamiv' This word is very important. If this one word will not be there, then total meaning would be dismissed. Then we had to accept not only the matter of zero volume but also the emptiness, but the word Prasuptamive has cut down the root of that illusive theory, which assumes the origin of beingness from nothingness. From Manu Ji's point of view, when any person is sleeping, with all his capacity, external actions are quenched. He cannot do any action inspite of being with the capacities of moving, speaking, smelling, tasting, eating, drinking, hearing, touching etc. All his acting power is in rest position. As soon as somebody awakes him, he is combined with all his qualities and actions. We don't make special efforts to capable him to move, speak, see, hear, but only awake him, then all hidden powers get activated. **Likewise elementary matter, inspite of being with its own properties, capabilities and symptoms, seem without these like**

**sleeping man.** That's why it is said here 'Alakshanam' and 'Apraketam', Avigyeya and Apragyat is said.

(II) **An Observation on the co-existence of Sat and Asat :-**  
Upnishadewriter said this as-

“Asad wa idamagra aaseeta tato via sadjayat” Taitrey Upnishad  
2/7

Means elementary matter that time was in Asat form that time and then Sat formed matter was created from that Asat. Here we cannot take this direct meaning of word Asat that not any matter was in existence that time because which really is Asat means nothingness, can never has existence and which substance is really sat means exists, can never be annihilated. Only that can be transformed. Upnishad writer has used the word 'Asat' with 'Idam' (this). 'Idam' (this) word is used for observable thing. Use of Idam (this) cannot be for indirect. Here it is not proper to take the meaning of "Idam" other than world. It means that the world, which is before us and in which we live, was not existing before means its beingness (existence) was not that time. Then from its non-existence sat viz. that came into existence. Considering these 'Sat' or 'Asat' as an independent word, we should not adopt this meaning that first elementary matter was absent and existence became there from that absence (nothingness) viz. the world created from absence (nothingness). We should remember

'Karnabhavatkaryabhavah'  
(1/2/1 Vaisheshik Darshan)

Means in the absence of cause, existence of work effect action can not be there.

The world was absent, from beingness of that can be there but in the absence of cause of the world, beingness of the world can not be there. same thing is said in Gita by Lord Shri Krishna-

'Nasato Vidyate Bhavo Nabhavo Vidyate Satah'  
Gita 2/6

In this way, 'Asat' of upnishad is different from 'Asat' of Gita. The word 'Asat' of Upnishad means that inspite of existing the matter previously it is not in the such form to represent its existence. From such type of that unrepresentable form 'Asat', having representable, knowable, experienceable symptoms, 'Sat' matter is produced. So we should be careful to understand the meaning of 'Sat' and 'Asat' words. The meaning, which is acceptable at any particular place, should be accepted that only. Above thing this is said in the other way by the Rishi of Chhandogya Upnishad considering verbal meaning principal as main –

“Sadeva Somyedamagra Aseet” 6/2/1

Means previously only Sat was there. It means that the matter presenting was such matter, which neither creates nor destroys. This whole universe is made up of that eternal unbegotton and imperishable inert matter. It is proved from this that matter particles, which exists that time, are elementary particles only. These particles are neither created nor destroyed (Really that state can't be the particle - state but use the word particle for general understanding.).

In this way it is clear that assumptions of these Rishis, which seem contradictory to each other, are actually not contradictory but complementary to each other. The basis of these assumptions is first hymn mantra of famous Nasadeeya Sukta invocation of Rigved –

“Nasadaseeno Sadaseettadaneem .....

Rigved 1/129/1

Means at the time of that Pralaya (dissolution state), neither 'Asat' nor 'Sat' was there viz. both were not there. Maharshi Dayanand tells its meaning – “Non-existence formed empty space also was not there and not the sat viz. Satva, Rajas and Tamas consisting Pradham was there. .

**Foot Note** The mean of satva, Rajas and Tamas will be explained at appropriate place in this book science but beyond science, it is possible in it means that elementary matter exists that time but it exists in such a form that can not be known and told. It seems that time as nothing is there. That matter was surrounding whole empty form space. If the existence of

elementary matter would not be there that time, then directly this could be said that only empty form empty space was existed in the form of 'Asat', but it was not said. Why concept of space was not there, **its reason is clear that elementary matter was filling whole empty space. special emptiness was not anywhere.**

**Nowhere special emptiness was there. that matter is neither in the** form of solid nor in the form of liquid, gas, plasma, or radiation, but often matter filling whole emptiness is in special unrepresentable state. Anybody someone may ask which type of matter it is! I ask that when any particle combines with its antiparticle, then where it goes after disappearing?

You will say that it converts in the form of photons. Then my question is that if any photon attains the rest state, then in which form it exists? I want to say that it is definitely impossible in this visible world of the field of philosophy. The matter does not destroy then where it goes by being unstable.

In the answer of this you can not tell any solid, liquid, gas, plasma or radiation. Some such type of situation you can consider of the non-existence of that Sat and Asat. Here 'Sat' doesn't mean by 'having existence', but here the meaning of 'Sat' is which can be directly observed by instruments in any way.

Likewise 'Asat' means complete deficiency, non-existence. In this way both of these are not there doesn't exist that time. That matter has its existence, properties remains because property can never be separated from property holder but they remain calm and inactive. If these would be active, then matter could be identified by those. But when properties are inactive, then to identify them is completely impossible. This state is completely unrepresentable, due to which it can not be known with modern scientific instruments because science can know only direct observable representable things, never the unrepresentable. If someone says that Photon can not remain in rest state. It always remains in moving state, then I ask that those who accept big bang, how can prove the existence of mobility in no space ( zero volume)? Those, who do not accept big bang, they also can not prove how the motion is eternal. It will be discussed in detail according to the context later on.

(III) **Universe created not from emptiness but from infinite volume –**

Now question arises where that limitless, cold, having very much Darkness, completely calm, inactive and unrepresentable matter exists.

This empty space has nowhere any beginning and and any end.

In which definite portion that elementary matter, which remains in above state, exists in this infinite space? Big Bang theory assumes that the matter was confined in zero volume, on which we raised many objections. Now let us try to understand what vaidic view says in this context? Ved gives its answer –

“Abhu tachchhayen apihitmaseet” Rigved 10/129/ 3

“Tirashcheeno viatato rashmi reshmadhah swidaseedupari swidaseet.” Rigved 10/129/5

Means in comparison to relative to God that negligible matter is **unrepresentable, scattered up and down and in the surroundings. ‘Vitata’ word means that matter was expanded – stretched. It was completely expanded and totally surrounding the whole space emptiness. Not any place was there, which were empty. Rareness and expansion more then which can never be possible.**

Here three adjectives are used for that causing matter. First one – ‘Abhu’, second one is –‘Tachchhaya’ and third one is – ‘Rashmi’. Swami Brahm Muniji has told the meaning of word ‘Abhu’ as expanded unrepresentable matter. Acharya Vaidyanath Ji Shastri has given its meaning nature. Vachaspatyam Kosh writer also by saying samantad bhavati Sa abhu (Aa+Bhu+Du) says it ‘Abhu’, which matter is presented everywhere and So unrepresentable matter is named by saying ‘Abhu’. On the other hand The word ‘Rashmi’ means – “Ashnute Vyapnoti” (unadi Kosh 4/47) means which present every where **Due to this, that elementary matter is not confined in zero space only like big bang but present everywhere. Not any place is there where it doesn’t**

**exist.** Swami Brahm Muni Ji has told the meaning of word 'Tachchaya' as 'negligence with respect to the God. Acharya Vaidyanath Ji Shastri has given its meaning 'causences'. Its meaning seems to me other than these two, which is a symbol of deep mystery.

I am of the view that 'Tachchaya' means – **Very much rare, which is not zero, but like zero. That is not empty space, but like very much emptiness, density of which can be said negligible. otherwise actual situation is this that time.** That density is zero. Now how that can be zero, it will be discussed further. Let us think over it from the modern scientific point of view.

(IV) **Some views on density of elementary matter in the state of dissolute :-**

First of all we should try to know that what is the density of this universe at present? Scientists this time assumes the mass of the whole known universe  $10^{55}$  kg. This value is given  $10^{53}$  kg on page 6 of physics vol-I. distance of one end of the universe from us is about  $10^{26}$  m. Let us assume that this is radius of universe, then volume of known universe

$$= \frac{4}{3} \times \pi \times (10^{26})^3 \text{ m}^3 = \text{about } 10^{78} \text{ m}^3$$

Then average density of known universe

$$= 10^{55}/10^{78} = 10^{-23} \text{ kg / m}^3$$

The same value of density is calculated by respected Dr. Jayant Vishnu Narlikar, which I have quoted before.

This density is negligible. At present density is very much at some places, while nearly empty space is there at some other places. If whole universe becomes of the same density everywhere by dispersion, then this density will be everywhere that time. If density of our earth would be this much, then volume of about 6 lakh earths by combining would form a mass of 1 kg. In this way, when whole universe will become such by dispersing, then empty space inspite of being filled with elementary matter can not be called as empty but that density is so small and the matter is in

so rarified form, that it can not be called as filled also. **That time neither this can be known that where the matter is filled viz. where the elementary particles are filled not this that where is some empty space this? This rareness is called 'Tachchhaya'. That matter can not be said as particle or form of quanta in modern language. That will be some different type of matter. In this way Ved has thrown light over that elementary matter that that matter is filled everywhere up, down, right, left in infinite space. That is filled every where uniformly.** That is not dense at some places and rare at some other places, but is filled completely uniform. It surrounds whole empty space by its rareness. It should be taken care of that density, which we are saying negligible here, is being said by assuming this equal to the average density of modern universe. **But it should be remembered that density is not negligible also only that time because in my view it seems as complete scarcity of mass is there in that matter that time. As means that property of mass also is in inactive position. Due to this mass is zero in practice, so mass of complete matter and density will be zero only in state of dissolution. As and when property mass active, immediately density also will generate.** My purpose was only very much dense, having infinite density and infinite mass, but is of zero density and very much rare.

(V) **Different forms of elementary matter :-**

Now let us think over some names of that elementary matter told by Lord shiva and others in Shanti parv and Anushasan parv of Mahabharat. Many names of that elementary matter have been discussed there, some of them are –

1. Prakriti 2. Vishwa 3. Yoni 4. Avidya 5. Saguna 6. Triguna 7. Surya 8. Chala 9. Nitya 10. Avyakta

Let us discuss there names in brief in our own manner :-

1. **Prakriti :-**

Meaning of this word is natural state. **Matter remains totally in its natural state that time. It remains in real and original state. That state only is the source of this universe, no other senseless**

**matter is there beyond that. It is nature of that elementary matter to remain in that same state. When this matter deforms, action of creation of the universe starts. Matter getting that natural state has not any type deformation attraction, repulsion, tension, motion etc. whichever particles etc. are there, all those are independent of each other, in equilibrium state, calm unturbulent and in complete rest state** complete scarcity of composite compound particles is there. All these particles are totally in same form. Restness and independency freedom more than this, in those micro particles is never possible at any other place. Here need not to dispute that what particle or quanta of wave is there that time? Today's science consider the behaviour of wave as particles and of particles as wave. In this way no greater difference is there between these two, but whichever matter presents in nature state, can not be compared with elementary particles as known by modern science. Really that state is not particle - state but that is completely similar state of that substance

2. **Vishwa :-**

This word means completeness viz. that matter is present in whole space. Whichever senseless matter is there in modern universe, that is included in all those. All matter are formed from that only. No such matter in the universe is like that, which formed without that matter and when it will actually dissolve, then all the things will merge in that or it will convert into that same form.

3. **Yoni:-**

This word has many meanings, like birth place, original place and reproductory reason cause etc. It means that elementary matter only is basic cause of creation of this world. **Where that elementary matter is dispersed in the state of destruction (actually dissolution), process of creation takes place at that same place. It is not the case that elementary matter starts to create universe by going outside from there like big bang.**

**The process of creation starts in that infinite space only by scattered matter itself filled in infinite space there, outside of that**

**neither anything forms there, nor anything destroys.** Due to this, it is called by known Yoni.

4. **Avidya :-**

According to context this word here means which can not be known viz. to know whom is not possible. Here many meanings can be acceptable for the word 'Avidya'.

- (a) Not knowable
- (b) Not usable
- (c) Not thinkable
- (d) Existence of which is not probable from properties viz. **which can not be known, existence of which can not be proved with its properties; which can not be thought and also human being can not use that matter in its life in that state** (If human being exists that time)

5. **Saguna:-**

That elementary matter is combined with its properties. Never complete scarcity of its properties is there. But definitely these properties are inactive in that state. **As soon as these properties appear, process of creation starts**, which will describe according to context in due course.

6. **Triguna:-**

How many properties that matter bear, explains from this word viz. **It has exactly three properties, not more than this and not less than this. Whatever properties other than these are observed in the world today either of senseless objects or of conscious animals is the result of these three properties.**

7. **Surya :-**

This word means which is cause of creation and motion of all. That matter only is the cause of all creation and due to its properties only that matter converts into different type of substances by getting different type of motions. All the substances of the world starts their motion from that elementary matter only and ceases to exist their motion in going that state.

8. **Chala :-**

**That elementary matter is called chala due to this reason because that matter only continuously converts into different type of substances by different type of combinations according to its properties and actions. It remains stationary at the time of dissolution.** But as soon as process of creation starts, that matter continuously moves by acquiring motion and continuous change takes place in its forms due to its movement. This movement ends only when destruction (dissolution) is there. **Destruction only means that matter becomes totally invisible viz. it can not be observed directly by any means.** This only names 'Nash'. **'Nash' doesn't means that scarcity nonbeingness,** it should be kept in mind. **Elementary properties of elementary matter which can be called as force, motion and mass in modern language, are in complete restfulness. This only is destruction, which is the name of original state only.**

9. **Nitya :-**

The word 'Nitya' means that that matter neither creates nor ends ever. It exists always, only its form changes.

10. **Avyakta:-**

General meaning of this is that we can not tell exactly how that matter is?

But the writer of the Mahabharat written by explaining the meaning of word 'Avyakta' - **which never creates, destroys, increases, decreases or becomes old, is called 'Avyakta'.**

(IV) **Elementary matter is completely conserved:-**

In this way the writer of Mahabharat has illuminated many important facts regarding elementary matter by the word 'Avyakta'. I have already written about its unborn quality.

Special thing here is-**that elementary matter doesn't increase or decrease. Big bang theory could not prove the matter energy**

**conservation but the writer of the Mahabharat has proved the conservation of matter energy etc. from this word only. Whether universe forms whether annihilation takes place, whether process of forming continues; no increase or decrease can be there in amount of that matter. That matter never becomes old.** Sun-like worlds, particles like atom etc. or particles named elementary particles by modern science will become old, will destroy, will form, but **that elementary matter will remain always the same. No differentiation of new or old will be there.** In this way, we find vaidic view totally contrary to modern view of modern science in many view sight, **As science will research, do further in the same direction, we hope this.**

(VII) **Lack of mass and energy in basic substance:-**

**The substance of that time can neither be called matter nor energy,** however that particular substance is different from both. It has neither light, temperature, motion nor inertia and .....  
. such special substance which is addressed as nature that is different and minutest from all known substances till now. We have discussed till now qualities or form of that substance. Now we attempt to discuss the form of that substance.

(C) **A Glance at basic substance :-**

Lord Shiva says about nature in Mahabharat:-

“Satwam Rajastamshcheti Prakritigun sambhawah Taih Srijatyakhilam Lokam Prikritistwatmjairgunaih.” Anu. Parv/ A.145

Hence nature has three qualities i.e. Satwa, Rajas and Tamas. Prakriti creates the whole universe by her these qualities in the control and direction of God, the almighty consciousness. Here three qualities are called as descendant of Prakriti (nature). It is evident by this that these qualities are called are of Prakriti only, not of any others. These are born, its does not mean there is scarcity of them in the Pralaya (dissolution state) but at that time these qualities are as calm as a sleeping person's powers are or in the seed being secrete the sprout is invisiable. In the language of philosophy the Prakriti is a matter and Satwa, Rajas and Tamas are its

three qualities. Qualities can never exist without quality holder. Due to this reason these three qualities always exist with Prakriti, this is vaidic philosophical view. As the process of creation starts in dissolution state, first of all only these qualities awake. So these are called as descendant of Prakriti. For them other one adjective is also used in the above mentioned shloka, is 'Sambhavah'

This means these appear but don't always activate or appear, they appear at same particular time. The word 'Iti' indicates that nature has only three qualities. They are-Satwa, Rajas and Tamas. If 'Cha' had been used in lieu of 'Iti' then nature would have so many meanings. Even then some one may imagine that there may be other qualities too which have not been explained. Only some main qualities have been discussed by Lord Shiva. But the word, 'Iti' has ended all possible imaginations. Even Ved has described nature with only three qualities.

"Tritasya dharya" Rigved 11/102/03

And

'Tridhatu' Rigved 1/154/4.

These two evidences prove that nature is the bearer of three virtues, neither less nor more but it is 'Trigun'. Now the question arises that how these virtues live with the basic substance at the time of the state of dissolution. Why are they inactive? What are the Satwa, Rajas and Tamas. we will discuss in the view of science. Here first of all we will try to understand the situation of those virtues during the state of dissolution.

Bhagwatkapil Rishi writes on this topic-

"Satwarajastmasam Samyavastha Prikritih"

Sankhya Darshan 1/61

**Hence the equilibrium of Satwa, Rajas, and Tamas is called nature. When these qualities are silent and inactive that state is nature** and when they are active then the same basic substance or material turns into creation. **Now we 'll discuss that what these virtues can be called in the language of modern science.** But before it we will discuss about the existence of these three are properties i.e. Satwa, Rajas and Tamas or these are the matter or particle in the language of philosophy.

1. **Form and description of Satwa, Rajas and Tamas:-  
Is Satwa etc. properties or particles ? :-**

Some scholars do not consider Satwa, Rajas and Tamas the virtues of nature but particle. They think that nature is formed by three types of particles. But its much. better to say that the whole universe has been formed by the help of these three particles. I do not agree with this view. If we consider Satwa, Rajas and Tamas as particles then what are the qualities of these particles? The scholars reply this question at once-

Prityapriti Vishadadyairgunanamanya Vaidharmyam.

Sankhya Darshan 11127

“Prakash Shilam Satwam Kriyashilam Rajah Sthitishilam Tamah etc gunah”

With the help of above mentioned sutra, in Yogdarshan Maharshi Vyas Bhashya 2/18. they describe the affection, detachment, dejection, lightness, gravityness, prakashsheelata (illumination), activeness and stability etc. as qualities of Satwa, Rajas and Tamas as etc. This view is opposite to the Vaidic principles as well as not logically correct. The Sutra which are presented to prove this concept they prove just opposite to this concept. Acharya of Sankhya Darshan Bhagwatpad Kapil Rishi writes –

By affection, detachment and dejection Satwa, Rajas and Tamas Virtues have mutual Vaidharmya (difference). Here the word virtue has not been used for affection, detachment and dejection but for Satwa, Rajas and Tamas. Similarly the above mentioned shlok or sutra of yogdarshan also reveals the same meaning. There virtue has been used for Satwa, Rajas and Tamas as etc gunah not for illumination and activeness . The people who consider Satwa, Rajas and Tamas to be particle then they are troubled by the question that if Satwa etc. is assumed to be virtue then what name will be given to affection etc. If these are virtue then how the satwa etc virtue can be dependence for affection in vaisheshik philosophy, Bhagwatpad Rishi Kanad believes that the dependence of virtue can only be matter never virtue. Then what will be the relation of affection between Satwa etc. Although nobody can show the Satwa etc. is the form of particle in any ‘Arsh Grantha’ (Vedic literature) even though either because of any confusion or prejudice not eager to accept to Satwa

etc. as virtue. On the basis of above description they call them virtue and tell many qualities of them. I ask that, how many qualities are there in Satwa etc? The above sutra describes its qualities even more than six.

In the basis of Mahabharat, any scholar may describe the qualities of Satwa are happiness, contentment, progress, memory peace etc and the qualities of Rajas are sorrow, incompleteness, intolerance etc lastly the qualities of Tamas may be described as idleness, sleep, laziness, darkness etc. If nature is the name of group of particles then nature can not be called Triguna or Tridhatu. It has many qualities, some will say it having six qualities and some it has multi qualities. Can this concept do Justice to the feelings of Arsh Granths' perhaps never. The proofs of the Vedas, the Mahabharat and philosophy will be false. We will have to ponder over that nature has been called Triguna everywhere neither Trikan Chaving three particles nor Bahuguna having many qualities.

If we don't understand what name should be given to affection etc. There is our fault. How can we ignore Ved and Arsh ancient Rishis (Scholars) thoughts and be proof ourselves? If somebody asks if Satwa, Rajas and Tamas are Virtues then what is Virtual particle? To which these qualities related? The answer is this that particle is that basic substance which is scattered over the whole sky in the form of minutest and undivided particles and known by many names like nature, Swadha, Avyakta and Tamas. In Rigved 9/23/2 these particles have been address as "Aayavah". These are ancient and eternal. Even Maharshi Dayanand Maharaj has written in the 12<sup>th</sup> Samullas of Satyarth Prakash that "Parmanu is not atom but minutest particle which never gets new and old.

In other words they remain in the same state, they are neither created nor destroyed. Nature is the name of the group of these particles. If we assume particle to satwa etc. and according to Rishi's definition particle is parmanu (minutest particle), then producing of particle, getting new and old is not possible. What meaning will be derived from Mahabharat kar's "Aatmajah" and "Sambhavah". However, sometimes the word nature has been used as adjective to the group of particle. The word nature indicates state and temperament or nature. **Foot note** - For the clarification of the form of basic material please see the appendix at last of this book.

When the group of particles gets the state of equilibrium and inactive then that state is called nature. This equilibrium and inactivity takes place because of the virtues of those particles that's why this is called the equilibrium of virtues. There is no meaning of the equilibrium of particles without the equilibrium of virtues. Nether is it possible. Any substance of the world gets activated because of its own qualities and in vigilance receted and gets idleness because of its own qualities' equiltrium. Some where the Satwa etc. are ealled as material cause, that is also because we can feel any matter by realizing only its qualities. It is factual in the subject of large and knowable then the same is applicable to unknowable and minutest similar state. That material is completely unperceptible, then how can it be named ? So there no wonder where those three qualities (Stawa, Rajas and Tamas) are called as basic material causes, By our own mis understanding we assume the equilibrium of three qualities as the equilibrium of particles are and assume the qualities as the particles.

In eighth chapter of Satyarth Prakash, Yred Rishi Dyanand writes-

Nature is the harmonious state of immortal qualities - Satwa, Rajas and Tamas' ..... Here also these are called qualities. Here it is proved that nature is the most superior micro state of the material which is holder of the equilibrium state of these three qualities.

In this context, Maharishi further writes.

“When there comes time of creation, then God collects there micro-particles. In its first state which is due to natural state of micro-particles. Here also natural form of particles is nor satwa etc.

Earlier mentioned quotation of Mahabharta which also we reveal the fact that Satwa etc. is natural quality or quality of nature. ‘Tritasya Dharaya’ is also stating that nature is acceptance of three qualities not ‘Trit’ of Satwa etc. is nature. Bearer and which thing is going be accepted can not be the same thing.

Cloth is always made of thread. Cloth can not be called as holder of thread. A water pot is made of clay but that can be called as holder. In

a sofa set, there are a few chairs and one table. Thin sofa set is a group not the holder of chairs and table. In their absence, we can not call them sofa set don't know why great intelligent people as they consider Satwa to be a particle because they do not find it written anywhere?

Some one will say quality does not depend on quality then how Satwa etc. can include qualities like affection, activeness, illumination etc? They should think that one quality is derived from other and this is accepted also in special intellect.

“Dravyadi Dravyantramarbhante gunashcha Gunantarm”  
(Vaisheshik Darshanam 1.1.10)

Or matter develop other matter and qualities devoleps other qualities. From this we can assume that Satwa etc. can reveal, affection and splendidness etc. It is thing of general understanding that we understand micro from macro examples and make all understand.

Indirect is also tried to be understood by direct things to explain truth, philosophers and Mahabhartakars have used other comparative macro and resultant qualities for identification of Satwa etc. they used relative things. We should not get confused that Satwa, Rajas and Tamas is a matter and affection etc. are their qualities. The thought of rishis about this is that where characters like love splendidness, hope etc. appear there only Satwa etc. is primary, where Activeness etc. are resent, there is primary passion of Rajas and where laziness, stupidints ligid etc. There primary thing Tamas. From this there is no obstacle in Rishi Kanad's principle that quality depends only on matter We should not consider that qualities do not develop from qualities but it means that at last, quality depends on matter only.

Now, we think that how this confusion is created that Satva Rajas and Tamas are not qualities but matter is particle.

For example-

(A) Main cause is that which is given above and thats solution in also given there, it means that if satwa etc. may be considered as qualities then what will be the relation of affection etc. with satwa etc?

(B) Satwa etc. is qualities, are which quality, and its solution is also given.

(C) Some where in scriptures, there is used such vocabulary which causes confusion that Satwa, Rajas and Tamas is not quality but particle etc. for is :- “(Satwa) Purity, (Rajas) middle, (Tamas) inertia are three things which together make a ‘sanghat’ (collection) whose name is nature” (8 chapter of Satyarth Prakash)

On this, any thinker can think that Meaning of word “Thing” can not let quality but this should be a particle. A group of these particles are called as nature. To assume such is their misconception. They do mistake in understanding the meaning of word “Thing”. To understand this fully or in details, it is essential to concentrate on many (Arsh) scriptures or Granth. Only with one word, we can not know its true meaning. It is surprising that collectively purity Satwa, Rajas and Tamas are called to be quality yet they disgrace with word “quality” where as here they try to give meaning to sel the word “Thing” to be particle.

The reason behind this is that it thought is created in their mind that Satwa or purity is not quality but particle. They dare say that in scriptures where ever the word quality comes, meaning is matter particle only. It is which type of rigidness? They should think about the word “thing”. This word can be used for many meanings which includes ‘existence’ and ‘real substance’. If Maharshi Kanad’s concept of thing may be assumed then it is found that he they accepts both matter and quality as existence. Then why should we mean ‘Thing’ as ‘matter’? Where as though many ways this is proved as quality not particle. If any one accepts the ‘particle; from my use of word ‘Substance’ they should see from formula 1.14 of vaisheshik darshan where matter and quality both are called substance along with Karma (activeness). Then should “Karma” be called as particle along with qualities? Now what is the meaning of sanghat (collection), this is considerable.

Here ‘sanghat’ word cannot be considered to meaning as collectively. Since from doing so the nature will be accidental and from such assumption this is not immortal cause but will be created itself. Then sanghat word is meaning should be accepted something else. This word is made up from root ‘han’ with prefix ‘sam’, of which meaning will be that in which there have vanished all three qualities completely or they are completely inactive or stable now. Here ‘purity, middle and inertia are

revealing that are indicators of qualities not particles. Being so much clear to create controversy over truth means disgrace of truth.

Are property and property bearer ever the same? Some intellectuals can think that there is no difference between quality and qualities holder or meritorious. It is network of words only. It is concept of use in practical. If someone says that apple is a sweet fruit.”

Here apple is meritorious or virtuous and sweet is its quality. I would like to say this too that apple is sour also. Then someone will say that except sourness and sweetness etc. what is apple? I will prefer to say that Apple is not synonym of sourness and sweetness only. There may be different tastes which are causes of chemical substances present in it. If there is more acid, it will be more sourer and If there is more carbohydrate (sugar), then will be more sweetness. Except both these qualities in apple, there may be more other characteristic also like colour, smell, touchness appearance etc. All these qualities collectively make identification of apple. Someone will say that Apple is made of many elements and compounds, ‘Due to this reason it appears to indicate that it is made up of many qualities. Every micro particle or matter can hold only one quality and matter and quality becomes are the same.

As sweetness is quality of carbohydrates (Sugar). Their sweetness or carbohydrates is the same thing? Carbohydrate is something except sweetness. Sweetness is its one quality and identification. Where there is concept of basic particle, there is only one quality. If it has many qualities then that particle is not basic particle. When there is only one quality in basic particle like Satwa etc. then that particles and quality becomes the same.

Therefore, there are 3 types of qualities in the world where there remains no difference b/w particle and quality. In this subject, first question is that Kanad Rishi considers God as a thing but not particle. God is basic thing. There can not be divisions. there only any one quality must have been in him but there is no such. There are many qualities like kindness, omnipotent and universal, omnipresent etc in God. It is not essential because of this that it is associated with one quality-basic and undivided substance? Let us assume, in root nature, it also happens then when their qualities were hidden. Then what were the forms of those particles? Were these

particles not same? Was there any difference? If not then how will their (Satwa, Rajas and Tamas) classification be on the basis of “purity”, “middleness” and “inertia”? Matter can not be vanished and can not sleep. Its inactiveness stability are relating the qualities. When person sleeps then also the shape is as in the same manner as in waked position. Only its qualities and activeness sleep. That body is not limited with qualities and activeness.

In this way when Satwa, Rajas and Tamas are in sleeping or in not existence then also the material is in existence in whatever form in the dissolution state. The existence of its in that state is called “Prakriti” and its activeness with its qualities is called creation or distortion.

#### **Nature of Triguns and comparison with Present science.**

1. Characteristics of ‘Satwa’ – Preeti (affection, love), Prakash-sheelata (illumination), laghutav (lightness), happiness etc.
2. Characteristics of ‘Rajas’ - Apret (dislike), activeness etc.
3. Characteristics of ‘Tamas’ - Vishad (dejection) neutrality, Jadatawa (inertia) etc.

Above properties and characteristics are macroscopic than satwa and others. And Satwa and others can be identified by the help of these, In nature process above all properties are not along with word meaning of ‘satavadi’ also demonstrate in micro nature.

1. Satwa :- capacity, life power, Pran, force, innate power etc.
2. Rajas:- Sanvega, this word comes from ‘Ranj’ which has so many meanings but here assimilating’ seems to be correct.
3. Tamas:- This word comes from ‘Tam’ whose appropriate meaning is to be wearied here

In this way affection, force or strength is recognised by ‘Satwa’ Rajas by being active and speedy and Tamas is recognised by mass. Here to accept that general meaning of affection is not appropriate.

Here it is clearly explained-

Satwa – Attraction etc force

Rajas – Mobility

Tamas – Mass or inertia

**In this way the equilibrium of force, motion and mass is called nature. This can not be compared cent percent to the modern science however force, motion and mass are considered basic quality by science on the other hand the Vaidic Philosophy considers the Satwa, Rajas, and Tamas the basic quality.** If any change takes place in the concept of force, motion and mass in the view of science, then we have to reconsider on this comparison.

If some one says, “Can we give the new direction to science on the basis of inconstant principles?” Are the Vaidic views not perfect. No this is not the case. The equilibrium of Satwa, Rajas and Tamas **will remain Vaidic nature.** Some difference may be there in the comparison. This problem of then arises while comparing the changing ideology to unchangeable ideology. If we don't compare, the science scholars of today can't understand anything about the Satwa etc. But it does not mean that by following the general principles of modern science try to find them in vedas. The comparison is not bad but compare with prejudice is not appropriate. We have tried to compare the force with Satwa by considering Vedic assumptions as a proof and constant. In my view this comparison seems equal. The claim of perfection is not mine is this. The meaning of the state of equilibrium is not being equal but the meaning of this is inner existence. Hence these qualities live inactive in the micro particles. These are introvert and have no impression out side. This never happens and can never happen moreover that state.

## **II From of elementary matter in brief :-**

- 1 In this way nature is the name of that group of substance which is the group of minutest and undivided particles.
2. The force attraction and distraction is always absent in these particles, in other words they are mutually completely inactive and free.
3. they are inactive and lie silently in their place.
4. mass is always inactive in them. Neither they can move nor they have capacity to oppose of moving them. This is noteworthy here that neither the modern science could know this situation nor can know this by the help of physical sources. **One thing more I want to clear here, that the state which has been called the group of particles again and again but it doesn't mean that the particles like atom, electron, or**

**quanta are there. We can not know about their form or shape at that time.** What is their size? We have used the word particle or matter place to place only in order to show the separation between guna (quality and matter). This difference in that situation and present situation is always to be kept in mind otherwise there may be any confusion.

**In my view the existence of the used word in the present language, the particle or wave has no existence of both spoken word. Substance is there but its particle or wave like nature is absent at that time.**

Maharshi Dayanand Saraswati, with the deep understanding of science writes in the 12<sup>th</sup> sumullas of “Satyarth Prakash” that, “parmanu (minutest particles) never gets old or new” whenever it is written in the Shrishtividya Prakaran of Rigvedadi Bhashya Bhoomika that even the parmanu (minutest partiele) were not there in the period of dissolution. It means that parmanu (minutest partiele) too create or destroy. Then is Satyarth Prakash false? Rishis are realist and, both the things have reality. Yes we are confused by the different meaning of the word parmanu. In ‘Satyarth Prakash’ the word parmanu stands for the smallest and Simillarized substance while in ‘Bhumika’ parmanu means a particular particle which is smaller but has a particular size. The particles of such size have no existence in the time of dissolution. In the chapter ‘Ved Vishay Vichar’ of Rigvedadi Bhashya Bhumika’ Rishi has given a very important explanation of parmanu. He writes that, ‘parmanu is that which can never be divided again. But this is a pure thing because that can be divided by knowledge, which can have circumference and breadth and can be divided into piece. It will go on cutting till rest it remains in uniformity. This is a matter of great astonishment that Rishi’s farsighted and penetrating vision gave the definition of parmanu when the science was in its infancy. **It means basic particle is prevailing every where at that time.** Keep in mind that round parmanu of Vaisheshik is the menutest particle of five mahabhoots (elements) which are named Prithivi, Jal, Agni, Vayu and Aakash in Vaisheshik Darshanam, What are these five mahabhoots, to explain it is not the subject of this book these particles are not of basic substance. To describe the basic substance nature’s form is not subject of

‘Vaisheshik Shashtra’\*[**Foot Note** - Please see the appendix in the last.].  
One may say that God too is also prevailing uniformly, then how two things can be prevailed together?

This question may arise in one’s mind that are we advancing towards where God only exists in the creation or the dissolution state not towards anything else material etc. I have met many professors of physics including Jitendra Shaha of England and Dean and professor Ram Chandran Nayyar of Trivendram university trying to prove to be false explanation with scientific logics in Ved Vigyan Satram (Bangore Aug. 04) I discussed with the both scientists and told them that it is not proved by Brahmsutra that there is no other thing in the creation except Brahma. I criticized this hypothesis in briefly in the beginning of my paper reading. After that I have requested to the professor who was speaking on the oneness hypothesis\* [**Foot Not** - Oneness hypothesis says that there is only one thing (Power) exist in the creation who is called ‘God’. There is no necessity of any other thing as material cause of individual souls in the creation.] and tried to clear my doubt but got no reply. The purpose of writing all this is that the minuteness of that state can’t be defined even by imaginary vision. Therefore lord Manu had to use these four adjectives-aprajyantam (unknown) Alakshalam (non-identified) Apratarkeyam (beyond reasoning) and avijyanyam (unknowable)

If at that time the particle like Electron or smaller even than that and of particular in size are there or then the wave like photon, that how could it be called the Avyacta (unknown), Alakshalam etc. The developed science of today is guessing the existence of those particles and their symptoms which have not been seen by any microscope till today and never can be seen is considered by scientists. On this topic I discussed with Dr. Jagdish Ji, Vyas of B.A.R.C., he too told that what to speak of these basic particles but the scientists have not seen the atom till now and neither can see. This can not be explained here due to some technical distress. He said that nothing can be seen said about the size of these particle.

These are solid particles or there is any vacuum or what is there is still unknown I make an appeal to the readers that I have disproved the

authenticity of particles which were called the basic particles, the shape of that is unknown, then how can the presence of solid particle that minuter than above-mentioned particles be possible. The greater thing is this that the group of those solid particles can not be called avyacta, Alakshanam, a Apratarkyam etc.

That can not be called wider too, because if the particles are there then there will be a gap so it can't be wider. If there were present the particles than there will be empty space among them, necessarily

Whereas Ved is pointing out it extensive by the word 'Rashmi' and Mahabharat from the word 'Vishwa'. If some one questions 'how can two extensive will be proved?' Then I question 'should we consider spirit as particle?' If not though within them Brahma is present, then how it can be considered the shape of spirit circular, cubical, cylenderical? Spirit is applicable in one instance only then shape is proved if not –then it has no limit. If no limit then it would not be applicable in one instance. Vedic philosopher will not accept that soul is not applicable for one instance only. Who will not do, they again appear to be in lined towards the monotheism which is contrary to Vedas thought and also contrary to reasonability in subject we can't say about the soul, then how can be it possible to say about the shape diffused of nature in minutest state? Once upon a time, an Arya scholar has written me that in our works, it appears that, probably it can be possible that like we should not use sentences but we should speak and write our words with confidence. I may request to such strong determined great persons that **where 'Manu' could not decide also that "It is so, It is as such" which Vedas itself said 'Apreket' means the explained with no characteristics, how can I, a little knowing definitely say that state was so. World famous scientist Sir Albert Einstein had to say that the most stupidity about the world is that it can be understood. This is all about the world in which we are living then what is the micro and former stage of that substance from which world is made.** Which scientist can completely know this? Due to this reason we say unexplainable to unexplainable then this is a true science and this is philosophy. To explain the unexplainable

thing can not be called science and philosophy. Yes, if anyone asked how would it be proved the difference in alive – live in unexplainable stage. The answer of this question is that the science will not prove this difference and this is not the subject of science but this is a subject of philosophy. And this can be proved from philosophical ideas and proofs and to prove this is not the purpose of this book, That why here. I am leaving this but I will certainly say that if we considered all things to be conscious that conscious will be considered as changeable which is not possible. Co-purpose of the world will not be clear. To agree with non living things and due to absence of consciousness (supreme power which can be called God etc.) and its self nature the creation of world will not start.

Science tries to know the answer of this question ‘what is this world?’ The answer of why is not science. Where the work of science ends, there philosophy does the work. I have written all in this clarification that no body should not accept the fundamental particles as the group of particles. Here and here have said particles’ group the reason behind this is only to show the difference of the matter from the word virtue or quality, I have to do through investigation for the absence of doubt. The word part and substance can be used in place of the word particle but normal prevalent word ‘particle’ has been used by assuming convenient. This is to be requested that none of the gentleman should give the wrong meaning of the words. Yes, it is sure, that as the equilibrium of that one similar fundamental material distort or disturb the monotony is also distort. After that condition the behaviour of the word particle can be experienced surely. But it should be remembered that it will not be accurate to compare that particles which produced on the spot with the particles which are considered as the fundamental particle in present. When occurs the state of the present fundamental particles? And what can we call them in Vaidic language? These are not the subjects of this book but here our main aim is to throw the light on the form of the fundamental acquisition. Because fundamental substance is unexplainable. Due to this reason, Detail of a little further part of that stage has been given in this book.

If any scholar gives reason that the virtue can not be separated from virtuous or meritorious then how can it be accepted that the deficiency

of qualities at that time. The answer of this question has been given by Manu with the help of the word 'Prasuptmiv'.

Suppose, some person is very powerful and a very good runner but at the time he keeps on sleeping, he cannot represent the power and the efficiency of running, he can't even move or shake at all. At that time of sleeping, the capacity of runner is not vanished but it is in a inactive stage. We can call this Vanish in practiced behaviour, but from the scriptural point. of view we will call this inactive.

In this way before the creation of the world every virtue remained inactive in all virtuous particles. Qualities were made active by God. In the Vedas, there is a famous name of nature is 'Swatha'.

"Aanidavatam Swadhaya tathekam....." Rigveda 10.129.2 means he (the nonvibrate or motionless God) exist with Swadha prakriti (Nature) in the dissolution state. Saying the Swadha is very meaningful from it the key of ununderstanding the process of creation can be gained.

### **III Electricity is eternal**

Meaning of the word is Swadha Swam dadhaliti Swadha' – means one who possesses "Swah". Now what is the 'swah' its answer is given by saints (Rishis) as – "Swarityasau (Dauh) Lokah" (Shatpath 8.7.4.5) "Anto vai Swah" (Aaitreya 5.2)

Hence, this Dauh means actually the electricity is 'Swah' electricity is itself which in sleeping in substance obtained in initial state. Meaning of the word 'Swah' is kept inside. The same result is obtained from this word also that in electric is sleeping in that state. In the same way properties of nature are remain inside , which is called being Antarmukhi and that they are with the help of those properties, characteristics or power nature has a tendency to work in God's motive, these all power and characteristics are present as kept inside and are slept.

Due to this reason, one of the names of nature is Swadha saint Dayanand in this explanation of Vedas divide electricity in two parts at many places.

1. Root electricity
2. Resultant electricity

Due to this reason in Rigveda 7/62/5 and 6/62/5 the electricity is assumed as eternal, aboriginal and continual

Electricity is assumed as eternal and prior

In 3/16 mantra of Yujurveda also electricity is assumed as old and . In this way electricity neither created nor destroyed again, this electricity is sleeping in dissolution (mahapralaja) state. This electric force is called as Satwa. Motion is also silent at that time.

#### **IV Is motion eternal and Infinite ?:-**

In Bhabha Nuclear Research centre Mumbai there is a senior scientist with whom I had discussed this topic. In opinion of him motion is never destroyed or silent it is infinite. It is neither originated nor destroyed on this issue I have different thoughts from him.

I believe that motion is inactive in dissolution (most initial) state and until the wakefulness of motion does't happen any activity of the creation when any body is in movable state then here are two reasons behind their motion. any eternal force and internal force. Motion produces from these two forces (energy). In the absence of one cause, the motion cannot be produced even if motion contains acceleration or does it. For that we should certainly need force or energy. Why does the motion exist in the starting? It should be accepted that if particles are movable then some force surely does work on the particles. If any scientist represents the laws of sir Isaac Newton and says that we need force only for the accelerated motion, not for the unaccelerated motion. For the content of this answer this is requested that laws of Newton is based on the needs of the external force not in the content of internal force. Anyone will say that both motion and position can be present in a thing.

The Sun is stationary w.r.t. to earth but movable w.r.t. to other stars. Here we should know about the content of revolving motion in the centre of galaxy of sun but not about the content of motion of in its orbit. Sitting passengers in train are in resting state relative to moving train but are moving w.r.t. ground. Two buses which are moving with same velocity are at rest w.r.t. each but both are moving w.r.t. platform. This way there is no absolute existence of state of motion. I asked that it is possible to make motion immortal or endless by using network of the words? If we think about the ideas then only this will be proved that everything is in motion w.r.t. space and that space is completely stationary. If we consider that space as special substance and consider it moving then supreme

element is always omnipresent and immobile. All are in motion w.r.t. that, that means position of every particle changes w.r.t. that. Then idea comes that position is natural state or motion? In those which have motion their functions momentum and momentum is one kind of energy. This energy is form of ability to do work then doing work is not natural but efforts can produce it. If any force keeps on acting and acting always it is not possible force however starts doing work.

**So the motion state however, It can not be immortal and endless.** That statement of friend scientist was that science has not seen that state where motion of all basic particles has stopped. However small may be but zero speed not observed and experienced. I request that such experience has yet not done then it is not surprising, **I suppose that such experience will not be possible.** Everywhere motion of zero speed is in that state when there is destruction (dissolution state) which we have explained earlier about that unexplainable state. Which we could not see and have not seen, that will never be possible, it is not important.

If with disagreement, some one says both force and motion are immortal then trading of combination and separation will also remain stationary while intervals comes. Change also occurs. **Which has excess or deficiency of something and in which the intervals come or can come, that can not be immortal and endless.** Then we have to consider universe stable but we have already disapproved this principle earlier. Always keep in mind that wherever force is applied on any system then that is not its natural position and **unnatural state position can not be immortal or eternal.**

**Completely natural, inactiveness can be immortal. If motion is considered immortal then why we assume the universe 10 million years old?** What was the form of its motion before its creation? What was its process and its effect? When the creation of the world started then what happened has the change in motion that creation's work has been started. It is not possible to answer these questions for those who consider motion as immortal.

It is reasonable due to this cause that motion is not immortal and endless.

**Question:-** you called electricity eternal weather considering it inactive state where as proved motion as inactive, it has been called producible and distroyable, why it is so? Is, Satwa (force) immortal and consider 'Rajas' (motion) as generated?

**Answer:-** It is correct that both are inactive form in dissolution state and there is not excess of deficiency, they also are present, there comes differences on basic of use of famous words. Electricity can be immortal but electric current can not be immortal. Therefore ability for motion can be immortal but motion can not be eternal. In practical if we see that when any object moves then it is called in kinetic energy when it causes to rest then its energy is called as potential energy. This energy is one but kinetic is changed into 'potential'. By this cause, motion gets stopped and the stationery state has come this potential energy converts in to kinetic energy on any inspiration again, in earlier position also it will be said that motion will be vanished and stopped completely flow is not every where. We identify electricity due to electric flow. There is not much difference literally. Because of this reason we called electricity eternal. That electricity may inactive or active, only 'electricity' is called upon every where. Yes, there may be difference that if one is said electricity then other is called electricity current but 'electric' word is involved in both, but therefore, "vanishing of electricity" is not called there is difference b/w both.

(V) **Very brief thought on compulsiveness of conscious power:-**

Now, we further discuss Super micro particles in whole space remain in stationary and similar position in that natural state and the electric force remains inactive.

In words of Veds -

"Amritani Tathasthau" Yujurveda 33/22 or **electric force remains in non-vanishable micro-particles but that remains in steady or equilibrium state.** If someone asks 'what is electricity?' Its answer, only request is that **electricity is special power of nature where force is called 'Satwa' quality.** Till now, science has not yet understood the concept of electricity. Science also says that electric charge is that quality by which attractive and repulsive forces originate why it happens and how

it happens, science could not explain. **We just say that electricity is that natural power which is fundamental base of whole natural force and processes etc. through its concept even God. The great power constructs. Holds and distroys the universe. It is the senseless, that why it is not controller but controlling but it is maximum micro power of nature.**

Now let us discuss that what change takes place in that equilibrium state and how, the process of creation of the universe begins.

Definitely the substance which could be asumed the group of extremely minutest particles remain in inactive and in equilibrium state. If their equilibrium state (dormant state) is disrupted by some means, process of creation can start. If we think about the structure of this world, we come to know that **“This universe is not the result of only energy force, motion and mass, it is not the action of extremely minute substances, but (an activity of) some conscious having extreme intelligence, heighest order of scientific attitude, well decided large scheme and some specific purpose reflected in it. The smallest creation in the world also is a large and complicated laboratory. Some supreme scientific power (is confined) in this large universe, which is ruling, and controlling everything. The whole system is going on only by his inspiration and direction. Force, motion and mass of the elementary matter in form of Prakriti, which are called satva, Rajas and Tamas respectively by Indian Vedic Philosophy, can form the universe by inspiration of some wisdom and conscious being, but it cannot establish its own rules.**

An engine and a steering of a vehicle can accelerate the motion simply and direction to a vehicle, but the mind of some conscious driver or the manufacturer scientist works behind that engine and the steering. Only that conscious being drives the vehicle independently. A vehicle can never be independent. Likewise all the elementary matter can act but remains dependent. An independent conscious being, the supreme inspirer and regulator is always needed for that. The same thing has been said by Bhagavatpad Vyas Maharaj -

‘Janmadyasya yatah’ Brahmasutra 1/1/2

'Pravriteshcha' Brahmasutra 2/2/2

That is **this world is created only by the inspiration of a omnipotent and omniscient, conscious being, because there is no tendency of doing anything automatically in original senseless matter. God only is the master and controller of all the activities.**

The Ved Said-

“Yoasyadhyakshah” Rigved 10/129/7

Viz. that God only acts as maker in forming this whole world. To discuss in detail on this subject is not our aim, so only a brief indication is given here.

In that calm and deep darkness-

“Kamastadagre Samavartat” Rigved 10/129/4

Means first of all a desire of creation of the universe wakes up in that conscious Brahma. His desire, knowledge, strength, (effort) all are natural. No actions are required for him to do all this. That only is such a power, in which all these are automatic. The something is said by Rishis – “Swabhavikee gyan bal kriya cha” Shwe tashwar upnishad 6/8

What does God do to disturb the Prakriti (equilibrium state), the Ved gave its answer-

“Yani treeni vrihanti yesham chaturtham viniyukta vacham”

Atharvaved 8/9/3

Means God appoints 'Vak' in those three properties (satva, Rajas and Tamas viz. (force, motion and mass). One should not accept the common meaning voice of this 'Vak'. One should not assume from this that God said Go, Form etc. and everything started to form, action started to take place. It is wrong. Then has the word 'Vak' any mysterious meaning? Yes. Lord Yagyavalkya tells meaning of word 'Vak' -

“Vagvai bhargah” shatapatha 10/3/4/10

It means 'bharga' (special type of spirit, only is 'Vak'. It means that the God activates, those properties, awakes them, make force, motion and mass active. One meaning of word 'Vak' is instruction also, it means the God instructs these three properties, appoint them in their own work. It means that as we wake up some sleeping person and appoint him for

same work, likewise these properties become active by inspiration of the God. **The properties, which were introvert in the equilibrium state, start their work becoming extrovert.** Some scholars raise objection on words introvert and extrovert. I say strongly that we should try to understand the hidden mean of the words. Protest for protest, without understanding the meaning of an author is not appropriate. These scholars will also accept this much that when the property's Prakriti (meritorious) is eternal, then how it could remain without dearth of its properties? Meaning (also can be these)? If the possessors of property holder is there, then its property will definitely be there. Then what type of situation can be said of those properties at that moment? The properties are there, but they are calm and dormant. Then if I have said it 'introvert', how it became untrue? If you use some other word or adjective, the meaning cannot be changed. I have already written that in 'Swadha', word 'swa' means self contained viz. introvert also. So I don't want any dispute on it. These properties are not of the God, but of the Prakriti, yet these are awakened by the God.

That's why the Ved said –

“Tasmin Prajapatau sarvani yani treeni” Atharvaved 10/7/40

That prajapati (The protector) God has three powers- Satwa, Rajas and Tamas. It never means that these properties are of the God. As a vehicle moves by its fuel and energy, but it is controlled by a driver, that's why it is said that the driver drives the vehicle. In the same way, the God being the creator and regulator, the Ved has called force, motion and mass as the God's power.

**(VII) The order of awakening of the electric force, motion and mass:-**

Now the question before us is that which property out of these three is created (awakened) first of all? **My view is that satva property viz. force is created first of all and immediately after appearing force, Rajas Viz. motion and Tamas viz. mass and inertia properties awake successively.** Today's science has some different assumption regarding the force. It assumes the reason of 5 known elementary forces is an exchange of any third particle between two particles. As it assumes the cause of gravitational force is an exchange of graviton, cause of electromagnetic force is an exchange of graviton, cause of strong nuclear

force is an exchange of meson etc. If it is assumed so, we have to accept the motion first and the creation of the force will be assumed from that only. But such assumption is not acceptable to me. I want to know in this regard why exchange (transport) of the third particle takes place between two objects? What is the basic reason of its exchange? Then we have to assume that some other chief elementary force is there, which throws out that particle from one particle and that combines with the second one. It continues to happen with each other and the force of attraction produces between these two from that event? **The reason of that attraction force is this exchange but reason of this exchange is also any unknown force.** Also we have to think that how the repulsion force will be explained from the principle of exchange? So only it is appropriate that we accept the awakening of elementary force first. **Actually five forces discovered at present cannot be termed as elementary forces. Still one objection is also there that when the state of particle was not there in at the initial state, then how (can be assumed) an exchange between them and creation of forces like mutual attraction etc. from that? Yes, origin of force can be assumed by some powerful conscious existence.** We are talking about the origin of satva (force), its awakening only is its origin. **Yes, this awakening can't be automatic in an unconscious (senseless) matter. For this definitely a (some) conscious omnipotent will be needed other than that matter.** If someone says that if a conscious being, which can awake the force, why can't generate the motion? I ask them why they have obstinacy for awakening the (Rajas) motion first? Then, how we will say satva as 'Pure' and Rajas as 'medium'? if the only intention is to make opposite assumption from a Rishi, then tell me that if you want to generate motion in (any) object, what you will do. Will not you give force to it? And will not that force only (not) be the cause of its motion? Likewise awakening of (satva) force only should be considered the first. If someone questions if the God creates motion like us by pushing? No, it is not possible for the omnipresent to behave as constrained in a limited space.

Here our purpose to present above citation (illustration) is only to prove the priority of the force. Motion and mass are not needed (in ) appearance of force. That's why Maharshi Dayanand and Lord Yask said

satva 'Shuddha' (pure). Rishi Dayanand said Rajas (middle) 'madhya' due to this because it produces in between. It seems from this that awakening of mass is possible only after origin of force and motion. It will be wrong to take this meaning from it that motion produces from force and mass produces is by motion, but all the three has independent existence, but the order of origin is this.

Today science assumes that the mass of moving particle increases and all the particles without motion become unstable viz. invisible, seems to be appropriate. **Which state photons, electrons, neutrinos particles etc. get without motion, is possibly unknown. It seems to me that similar situation to that forms takes place here.**

**Which force is produced first of all in the elementary matter, is difficult to say. It is not any force out of the above five forces known at present, but it is separate and independent force from all those.** I have given it the name electric force. If we observe deeply, then we come to know that **electricity has its role in all-gravitational force, electromagnetic force, weak interaction, strong nuclear force and force acting between quarks. Electricity only seems direct or indirect reason of all these forces.** Famous scientist sir Abhas Ji Mitra of BARC told me in this context at the time of discussion that all the forces are the same. Yes, it divides into many forces at some particular temperature. All convert into one force only at a very high temperature. I also said the same that initially satve (force), which is created, is the one only. Basic cause of all forces is electricity only. Due to this, I have said it 'electric force'. **One should not understand it electromagnetic force used in modern language.** It is not possible to determine the form of that force and **also I (don't) accept that very high temperature was there at that time** because if the temperature was there, then state cannot be the state of annihilation (dissolution). Such supreme hot state comes very later. This electricity has three forms negative, positive and neutral, but it seems that only neutral form appears that time. **This electricity has been stated by the word 'Agni' in Ved at many places.**

Regarding this it is said-

‘Yasmin deva vidathe madayante’  
Rigved 10/12/7

‘Yasmin deva manmani sancharanti’  
Rigved 10/12/8

Which means at the awakening of agni in the form of electricity, all divine powers become active by awakening.

Regarding this – at other place it has been said-  
“Dyauraseetpoorvachitti.....”  
Yajurved 23/54

“Sa jayat prathamah .....”  
Rigved 4/1/11

That is agnih (electricity), appears first of all. This electricity only is the cause of forces. In this way first of all only one force is produced in the elementary matter. It is said in Rigved 2/10/1

‘Agnih prathamah pitwev amritah vichetah’

Which means this ‘Agni’ in the form of electricity awakes first of all. **This electricity is protector of all, senseless and ever remaining power.** If someone questions this that how the God awakes force, how the dormant state of force is possible? How we can understand the inactiveness of motion? These are such questions, whose direct answer is never possible. It is always unrepresentable situation. It can not be understood by physical experiments. So we proceed further to it.

**After activating this force, activeness comes in Rajas property which means that motion and activity start in large assembly of the minutest particles present in the whole empty space. Mass is also produced with motion.** Almost all are familiar with the meaning of the word motion but very few except the scholars of science know the meaning of the word ‘mass’. Modern scientists give the definition of mass-

“Mass which is the property of a body that determines its resistance to change in its motion.”

Physics – Vol.I, Page-46

In other words mass is that property due to which any object opposes the change in its motion viz. that is, if it is in the state of rest, then it doesn't want to move and if it is moving, then it doesn't want to stop. If any external force tries to do so, then mass opposes that.

That's why external force is needed for change in state position or motion. I think that all the three properties i.e. force, mass and motion appear that time in all the elementary particles.

**(VIII) Origin of force, motion and mass in all the elementary minutest particles:-**

These particles are oldest and eternal- 'Aayavah pratnasah' Rigved 9/23/2 and the collective name set of these elementary particles is known as 'Prakriti. In annotation of this mantra, Acharya Vaidya Nath Ji Shastri has taken the meaning of the word ayuh as rapid paramanu and assumed them as old, but we have already shown before that motion is not eternal. In the Ved also somewhere along with agni, 'Vayu' is said eternal. Here meaning of eternal can be used for the time of a creation (time) also, it means as long as the universe remains, so long as vayu viz. mobility also remains. Here assuming the word 'Anadi' (eternal) as relative, not absolute is appropriate. In the above mantra if ayuh is considered as moving as vayu, then its oldness also will be relative only, not the absolute. If 'Prakriti' is the name of which elementary matter assembly, how that is? How that can be said as 'aayavah'? In this context, my view is that though Rishi Dayanand has possibly nowhere done annotation of this mantra, (but) on many places, the meaning the word 'ayuh' is done 'obtained' (prapt). The word 'Prapt' has clear meaning **that matter exists and also spreads every where**. Then a part of mantra 'aayavah pratnasa' means that elementary matter, which exists everywhere, is the oldest and eternal, Prakriti is the collective name of that matter.

It is remarkable to note that when properties appear, it's not like this that only satwa viz. force in some particles, or only motion (Rajas) in some others and only Tamas viz. mass appears in some, but all the three

appear in small or large amount in all the particles. Force like attraction etc. is dominant in the case of dominance of the satwe, a mobility is dominant in the case of dominance of the Rajas and mass is dominant in the case of dominance of the Tamas. Not any particle in this universe is such that has only force or motion or mass but all the three properties are present definitely in all the particles. Difference in quantity definitely remains.

It doesn't matter, scientists today consider some particles devoid of electric force and consider some massless. They will have to change their assumption, it's my firm view. Science assumes motion everywhere. Ved also says the same thing-

“Vayavayahi darshateme soma arankritah” Rigved 1/2/1

Maharshi Dayanand tells its meaning – Vayu is available to all, that which is knowable by seeing etc. and that 'vayu' only has splendid all incarnate substances. Here vayu doesn't mean air, but movingness is said vayu. All the substances are constructed due to this property of motion only and due to this motion only, all the worlds remain safe. Rishi Dayanand writes in annotation of this mantra that 'vayu' is surrounding each substance in as the form of its circumference. I am of the view that it is proving from this proves that each particle or the world of the universe is definitely moving in its circumference. It seems to me some thing like this from the above that due to motion of any particle or object in its circumference, a specific field is created around that circumference, due to which the behaviour of that particle or object is affected in many ways and it affects others also. To discuss more on this subject is irrelevant here. Here my aim is to tell this only that motion is everywhere. If there is no motion then the process of formation of the universe can't proceed further. Respectable Mitra Sahib wrote me in his letter in this regard-

“As far as photon is concerned, there is indeed no state of rest. And further when we use quantum mechanics, a vibration like property may be associated with everything including particles. And in this sense, the vedic view be correct.” (10.2.05)

If the property of motion ceases in the particles and the worlds of the universe, (immediately) the universe will convert into total annihilation by dissolving. Now if we consider the case of mass, I have already said

that all properties exist in all particles to some smaller or greater amount, then mass also exists definitely exists all the particles. Science will have to accept this gradually. If property of mass ceases in the particles of the universe, then momentum of fast moving particles will also become ineffective being zero, due to which almost all actions may be calm or ineffective.

Now these particles appear in different new forms by holding these three properties. That's why the author of Mahabharat said 'chala' in All-moving by its to prakriti in the 18<sup>th</sup> chapter of Shantiparva.

**(IX) Vedic words 'Rit' and 'Satya' are indicators of the motion and the force successively :-**

The Ved shows this process in some different way-Ritamcha satyamcha abheeddhattapaso addhyajayat – Rigved 10/190/1

It means the God has produced 'Rit' and 'Satya' from his infinite capability. Mainly Rit and Satya means laws of creation and the produced substances, but these are used for other meanings also in the Vedic literature. There is a use of the word Rit for Karma in Rigved 5-67-4, for 'Vayu' in Yajurved 19/76 and for 'agni' in Taittreya 2/1/11/1. otherwise also the word 'Rit' is formed from the root 'Ri' 'gatau', so meaning of the word 'Rit' seems movingness only. How ever the word 'Agni' is used for electricity at many places, but this also is formed from 'ag' 'gatau' root, so it is acceptable for the meaning of motion also. Object itself has relation with verb (action), so to make the meaning of word 'Rit' as move is quite relevant and proper. It is also noteworthy that when the meaning of 'Rit' is made to mean laws of creation (nature), it sounds this also that motion is named Rit, which produced in those elementary particles, is completely according to rules and is systematized arranged. It is not like this that all those particles come into moving state in disordered way. Not any type of creation process can proceed with such type of topsy-turvy motion. There are many meanings of 'Ri Gatau' root as-oscillation to be ready, to get excited to attack etc. out of which some meanings seem more appropriate. It indicates that motion in the beginning is of oscillating nature and of orienting further process. Those moving particles get ready for invading mutually by getting excited. That's why the word 'Rit' is used. In this way, many mysteries from the word 'Rit'. Likewise, the word 'Satya' has also

been used in the Ved for many meanings as- in Yajurved 19/3 for unending exact cause, 'Satya Samhita vai devah' – Aitrey 1/6 'Prana vai stayam' Shatapath 14/5/1/23.

If we think on all these, then that substance, is Satya' which is immortal, superlative and which gives motion to all by being present in the form of prana (full of life) and remains in all divine substances, That only is Satya. Such type of substance doesn't seem to be anything other than the electricity. **Due to this paramount property only, God creates, protects, holds and destroys the whole universe. If this electric force (all types of attraction and repulsion forces) ends (disappears, vahishes) for an instant only in the universe, then the whole universe will convert into the primordial elementary matter by being destroyed (annihilation). That's why, the Ved said-**

'Agni samhita oorja' Yajurved 3/22

Which means Agni exists in the form of electricity with all the substances having properties like velocity or strength etc. In Rigved it is said 'Vrisha' 'Prithupaja' viz. powerful and extensively strong. Electricity is addressed by the names 'Savitri' and 'Savita' in the Vedic literature. It means that whatever combination –detachment is taking place in this senseless world, whichever attraction, repulsion, holding – protection –is taking place, the foremost reason of that is electricity only. It is such a substance, due to which the God remains in contact with the other senseless matter. That's why electricity, one name of which is 'agni' also, is said 'divisprish' that means which is in touch of with the God. However electricity is the name of specific power of Prakriti, not of the God, but it is so subtle minute and spreaded that the God does every action through this only. Like the conscious soul conducts all functions by numb-body through numb micro-body; in the same way **God performs all its functions through the power in the form of electricity. One should remember that the God itself is omnipotent and omnipresent. He is the regulator of each substance due to being present everywhere, but his power does regulation only through numb electricity. It should be remembered that senseless electric power can do nothing without the power of God.** Even awakening power by for removing its dormant state is the God only, as any instrument works by some energy, but above

this energy, is some conscious person like a director and driver. Instruments, which we say automatic they also are manufactured and regulated by any human mind as well.

**(X) Co-ordination of attraction, movingness and repulsion:-**

This force does attraction, motion takes far, repulsion also takes place. Then, how the process of this formation of universe proceed? When that elementary matter is dispersed far away in the space in a very rarified state, then how the adjustment of the forces of attractive force and repulsive force or motion takes place, the Ved explains it thus 'Sa rajah parimathayat aayuvate' Rigved 9/77/2

Which means that God agitates all by reproaching the Rajas property churns all and combines those very minute elementary particles. It seems that force of attraction only is dominant force of repulsion is negligible in 'Satva' property. **Then we will have to accept that electricity does not here have two forms viz. positive and negative at that time, but these forms are produced after some time.** If we assume the creation from the zero volume, then dominance of repulsion force will be there but we have disproved already the origin from the zero volume. We assume the elementary matter spreading everywhere and not only assume this, but prove it with firmness. That scattered matter starts collecting by the creation of the attractive force. Due to this dominance of the attractive force is there in the beginning. The mantra, which we are discussing (Rigved 9.77.22), 'Rajoguna' may mean repulsive force also along with motion. Then the meaning will be that the God hides the repulsive force by the attraction force.

Two types of electricity positive and negative, which are termed by the name 'Haree' in Rigved 10.23.2, generate after that only.

**(XI) Origin of two forms of electricity:-**

After sometime when equilibrium state disrupts, then only these divisions take place. Rishis say 'Sa mithunamutpadayate rayim cha pranam cha'

Prashanopanishad 1.4

Which means that the God generates the pair of 'Rayi' and 'Prana'. These 'Prana' and 'Rayi' are indicators of positive and negative charges consecutively. These have been described in Rigved as 'Vrishabha' and 'Dhenu' also. Vrishabh and Prana are indicators of power and Rayi & Dhenu both are indicators of giving complement.

The View of the Vedic rishis in this context is 'Prano vai harih sa hi harati'

Kau 7/1

'Prano vai mitrah' Shatapath 6.5.1.5

Which means that Prana or Vrishabha is that, which accepts by attraction or bounds. In Prashanopanishad Aditya is called Prana and the chandra is said Rayi. For example

As positively charged nucleus bounds the negatively charged electron and when there is any electron shortless, then it attracts some other electron. In the same way vrishabha or Prana bounds Dhenu or Rayi. By saying Raterdanakarmanah', Rishi Acharya Yask called it . Rayi is dhana (money). Dhana is that only, which satisfies. It is the electron inside the atom that satisfies only, due to this, the negative charge is called 'Rayi' or 'Dhenu'. Someone may say that today scientists are imagining this also that there may be galaxy in the universe, which is completely formed from antimatter. Then the nucleus will be negatively charged and positively charged positrons will be revolving it. In such a case, how Rayi, or Dhenu and Prana, Vrishabha will be explained? First of all in this context my view is that existence of galaxy formed by antimatter is the subject of imagination at present. **Due to the fear of imaginations, process of research of truth can not be stopped.** Modern science also has started to accept in this context-

"As far as we know, the present universe contains no stars or galaxies made of antimatter"

Physics Vol.II page 1189

Let us suppose that this is proved some time that some galaxy or star is formed by antimatter only. Then also my request is that my insistence is not for the positive and the negative words but is for that property of charge, which is the cause of attractive or repulsive force. That which attracts, is called Vrishabha or Prana and that which is attracted, is called

Rayi or Dhenu. I want to clear one thing also that I have compared the nucleus and the electron with vrishabha or Prana and Dhenu or Rayi Consecutively, this comparison is only for an understanding. It should not be accepted in this form only.

**One other thing is this also that it is not appropriate to assume that there is no repulsive force in Vrishabha or Prana and no attractive force exists in Rayi or Dhenu. I have done these divisions on the basis of dominance only. Will scientists clear this thing is force of attraction in positive charge and force of repulsion in negative charge dominant?**

**(XII) Whole space is surrounded by the matter having electric charge:-**

In this way, the whole elementary matter of the universe acquires positive or negative charge, some of this remains neutral also. ‘Satva’ property (force) is dominant in positive charge, Rajas property motion is dominant in negative charge and Tamas property (mass) is dominant in neutral charge. Satva (force) is dominant in light particles, Rajas (motion) is dominant in fast moving particles and Tamas property is dominant in particles moving slowly and having large mass. The whole universe is filled with such an electrified substance. But its density which was quite zero in **the beginning now becomes of very little negligible density.** That substance exists everywhere in a very rarified state. The Ved says –

‘Pawamanasya Shushminah Vidyutah divi charanti’

Rigved 9.41.3

Which means that powers like electricity etc. of the God, who divines the world and gives paramount force, roam in space. The same has been said at an other place –drapsah’ [Rigved 10.17.11]

Which means some, full of electricity, creates the whole world. This universe is formed from this soma element gradually. How and in which order its creation took place, to discuss about this is not the subject of this book. **Yes, it is sure that we have not felt the necessity of big-bang assumption till now. Yes, all the facts found have been opposite to it only.**

**(XIII) Solution of a great (possible) doubt:-**

In the process of the presentation of the Vedic view presented till now, any scholar of science may raise this doubt that formation of big particles from small particles is called fusion and fusion is always possible at very high temperature only. In the above process, origin of temperature is not yet discussed, then how this process is proceeding further. My answer to this question is that first of all, which is called fusion, its process, has not started yet. When fusion is there, then we will definitely have accepted the origin of temperature. Secondly, temperature is required in fusion, so that particles can get sufficient and necessary motion for fusion. In my view, motion in the beginning is started only by God's inspiration. So whichever combination took place as yet, that took place only by that spiritual inspired motion, that's why temperature is not needed. If one does not accept this Spiritual Power, then many such questions will be raised, which can never be sloved. If the origin of temperature is considered compulsory, then how the photons, giving temperature, were formed, from where motion came in them to give its answer is not possible. So process of creation can not proceed even one step without accepting the inevitability of the divine power.

**(XIV) Final Request:-**

**At the end I propound to all the Vedic scholars, philosopher of this country and of the foreign and the eminent scientists of the world that this subject is extremely profound and exquisite.** When we go deep, it seems deeper and deeper. I do not say that my assumptions are quite authentic and proved but this subject needs deep and constant research, yes, I assume the Vedas as authentic book and self proved. I can't claim that I have understood the Vedas thoroughly and learnt modern science in every respect. **Both Vedic and modern sciences are like the great oceans and our mind is like a bucket. We will achieve as much as we labour. But it will be totally confusing to say that we can know every thing. Truth is perfect in itseft and man is always imperfect** but the research of truth must continue having given up our own prejudices and obstinacy. **The truth is only one cause which can**

**establish friendly relationship among the human beings of not only on this earth but with the whole universe. For the welfare of humanity, there is no other way in the univers but the continuous research for truth.**

Always a devotee of the truth

Acharya Agnivat Naishtik

**Associated context scrip ture :-** I heartily give regards to these writers, linguists

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