

RIG VEDA.

INTRODUCTION. 1. The first ten verses of the first mandala cover the entire contents of the Rig Veda in a condensed and logical manner. Each verse is a complete theorem in itself and contains a numerical solution to the mathematical theorem embodied in the descriptive phraseology.

2. The verses in the first mandala are the equivalent of chapter headings but contain at the same time a compact theoretical clue to the contents of each verse and later expanded in greater detail to treat the subject comprehensively.

3. While the Rig Veda is a comprehensive treatise in itself, it must be cross referred to the other three vedas. The four vedas together form a theoretical and practical framework on which the entire subject under consideration is structured. The model is an imitation of nature's process of interaction at all levels.

4. The process of igniting a combustible material with a magnifying glass using solar energy could be used as model to compartmentalize the four vedas into its appropriate sections. The sun's rays, gathered or organized or collected together as a first step becomes the equivalent of input resource organization. The Rig Veda contains the theoretical or information or intelligence (resource aspect) of any process leading to the production of a phenomenon. The sanskrit word for this process is "Dharana" and has no direct equivalent in English.

5. The magnifying glass signifies symbolically the environmental constraints put on the first aspect (of input resources), to make it follow the sequential steps in producing the phenomenon. The glass focuses the sun's rays and depicts the process of applying constraints on the input energy to bend it to a focal point. The structuring or controlling of resource inputs is the theme of the Yajur Veda. The sanskrit word "Dhyana" stands for this process of inducing environmental constraints and is synonymous with concentration in human thinking process.

6. The third step of triggering the process into action or result takes place through timing or synchronization. The explanation of the process has been done sequentially but all the steps are simultaneous and synchronous and this aspect must be kept in mind in understanding the rationale of vedic logic. Vedic science is totally and unequivocally committed to the processes in real time and the structuring of vedic theorems mirrors it. The Sama Veda enunciates the principles of timing or harmony or synchrony in triggering or initiating the process. This process also implies that synchronization gets the previous two stages close enough or equivalent to the stage of initiating and completing the process of triggering; in the present case it is the process of igniting the combustible material by focusing the sun's rays accurately and for the correct duration. All the actions leads to producing the equivalent conditions or in other words it produces the sun's energy level to raise the temperature and thereby ignite. The process of producing the conditions equivalent to the origin or source is "samadhi" and it involves the theory of equalisation that leads to state of rest or static condition. Further in this example the principle used is transfer of energy through resonance and forms the basis of yoga. "Yoga" is equalisation by resonance and will be dealt with in detail in a subsequent chapter.

7. The fourth aspect in our model is in obtaining the result or extracting the output due to the conditions set by the previous steps. For instance paper could be the medium to cause ignition but in order to do so it involves the gathering of the sun's rays, the focusing process, the adjustment of bringing the focused spot onto the paper at the correct level and for the correct duration when the ignition of paper is triggered. The resulting action takes place at a particular or critical moment due to the constraints put as a sequence of organizational effort and this is signified by the sanskrit term "samyama". The last Veda involved in elucidating the principles used is the "Atharva Veda". The Atharvan is split into two aspects; the main principle ascribed to Angiras covers the fundamental or basic field of matter which is not visible or detectable by

ordinary means and has been construed to be magical in nature. The secondary principle covering the manifested field of matter that is detectable and measurable is covered by the Atharvan and the author has the same name.

8. From the above it is evident that each veda by itself is not meaningful enough to enable the user of the vedas to be effective. The four vedas constitute a horizontal or parallel or "simultaneous" grid and the subjects under reference, the vertical or sequential part of the grid. In other words the user of the vedas must consult the relevant subject in ALL the four vedas. If the vedic processes have not been successful so far it has been mainly due to the lack of knowledge of the structure of the vedas. Here, the translators of vedic literature were primarily to blame. Under the awesome cloak of scholarship they mutilated the vedas using etymological technicalities as a tool beyond reproach to give new or nonsensical meanings when the subject matter proved to be beyond their power of understanding.

9. Why were the Vedas structured as a referential multigrad treatise? It is answered in detail in the opening four stanzas of the Atharva veda; however the principle was based on the inherent nature of man. Man's nature was governed by genetic types and these helped the transmission of only certain classes of information over the generations. The preferred genetic classes were found to be mainly of the following two types, namely introverts and extroverts but the demarcation was not so clear-cut. There were also introverted extroverts and extroverted introverts. In short there were four classes of people due to their genetic makeup; the intellectuals who were totally introverted in their outlook on life preferred to look within themselves for solving all problems. This class was diluted somewhat by a dose of extrovertism and produced a class of intellectuals who actively looked outside themselves for solutions to problems which again due to their intrinsic genetic quality, concerned with the environment around them. The complete extrovert avoided intellectualization totally and solved problems by physical interaction with his environment. The latter group was toned down a shade of intellectualism that produced a class of people who moderated physical effort with intellectual aids. Hence mankind was naturally divided into groups with strong genetic traits that instinctively strengthened him in classes of skills. These classes were called Brahmins, kshatriyas, vaisyas and kshudras. The meanings of the four terms were directly related to four types of classifications mentioned earlier. The Brahmins were naturally capable of theorising about the universal phenomenon and finding intellectual solutions that were strengthened genetically over the generations. The Rig veda became their domain. Rik means logic; the perfect tool of intellectualism and they became the guardians of scientific or logical thinking and its products were instinctively passed on from generation to generation by the silent but perfect carriers the genes. The vedas have survived only by the process described above; for there is proof that vedas are older than 20000 years. The Yajur veda dealt with organization of the environment and there were no better group than the kshatriyas, with their natural propensity in this direction, to take up this area of expertise. They not only became the organizers of yagnas but in time became the rulers or controllers of their environment as monarchs. The Sama vedic expertise were in the keeping the third group and the fourth group were naturally at

home dealing with pure physical aspects involving effort and manipulation. One must remember these classifications referred to a group at one hierarchical level and not a caste system as it ultimately turned out to be, mainly due to ignorance, by the majority, of the real purport of vedic theory. Fundamentally vedic science emphasized that there are different groups or classes of people due to genetic characteristics but at no point does it allow or support the theory that there are different levels of people. People are unique but democratically equal. Classification of two variables like i and o will produce by combination ii, io, oi, oo and is the basis of the so called caste system.

10. Nature's methods at being effective did not depend on whether its creations like human beings did or did not do a particular thing. It made sure that its plans were carried out by its real time planning sequence! For instance transfer of genetic information to later generations was ensured by creating a dubious and inexplicable feeling called sexual desire or love which has been extremely effective. Similarly classes or groups of ideas are transmitted effectively and

forcefully by the "caste" system to improve human endeavour to the required standards set by nature by process called group consciousness; that is caste ! All the four castes exist even today in the most sophisticated environment; take the scientists (brahmins), the politicians (kshatryas), the business and trading groups (vysyas) and the broad group of workers (kshudras).

Genetically and psychologically these groups exhibit distinctive skills that are not cross tradable.

11. It is amply evident from the foregoing, information or knowledge gained was converted into genetic memory by a distinctive process and transmitted through to future generations. The Atharva veda explains in detail the process involved in changing ones genes through an intensa meditative process, in the first four stanzas.

12. All physical processes followed the four steps of collection, organisation or focusing, triggering action and extracting or obtaining results. The steps in sanskrit are dharana, dhyana, samadhi and samyama. While these four steps applied to all type of actions or activities , researchers and scholars have identified it only with yoga and meditative practices. It is most unfortunate scholars have never realized that there is one unique sequence of action in all processes of manifestation, whether it is in striking a match , exploding a nuclear device, thinking or acting. Vedic rishis have indicated this important fact in the first ten slokas of the Rigveda. Further, research in science cannot be the domain of one class of people. The psychological outlook governed by genetic trends was an important factor in determining the success of such research. Researchers or rishis had to be from all the four categories namely pure theoreticians or abstract thinkers dealing with the domain of the unseen & undetectable matter; application oriented thinkers who could marry the practical reality to abstractly identified resources; specialists skilled in producing the means of conversion and lastly the producers. A modern parallel would be the Theoreticians, the laboratory experimenters, the production engineers and finally the construction manufacturing team. Even though the group could performing at an intellectual level, their psychological outlook and level of instinctive skills are entirely different. The important conclusion one must draw is that these four groups cannot be educated or trained ; they are born with these tendencies and they should be given the freedom and the means to excel and produce effective results and what is more they are self improving from generation to generation.

Now the first ten theorems will be enunciated in detail.

THE FIRST SLOKA OR THEOREM. 1. The first theorem is a cosmic energy principle, laying out the logical sequence and number value of the result of this theorem. In sanskrit : AGNIMILE PUROHITUM YAJNASYA DEVAMRITVAJAM HOTARAM RATNADHATAMAM. The holistic translation is as follows: (Through expansion) (from theorizing) (by triggering) (fundamental matter) (extraction of) (extraordinary output). Expanding ; By triggering the fundamental field of matter into expansion, the maximum output of energy can be obtained. By inference the triggering process must of necessity be less than that required for an output and brings in the concept of overunity energy production. Input less than output. The realm of the impossible in current scientific thinking. Is it really impossible ?. It depends on our concept of the universe. If we can accept the fact that the universe always existed and the dynamic state was the only state, then it is not difficult to see that we are only tapping an infinitesimal amount from an infinite ocean of energy that already exists and will always exist and therefore HAS to be FREE.

The sloka is a formula . Expansion of a volume involves an increase in the area and the radius is the controlling parameter in a spherical volume which is the predominant shape in a fundamental matter field. Triggering involves a time aspect that is of a relatively short duration. Putting these ideas into a mathematical framework we get (in a relative treatment at a fundamental level we ignore shape & form constants by representing say a volume for instance as a comparative dimension that is compared to unit volume of the same form):

$$\mathbf{RADIUS} \times \mathbf{AREA} = \mathbf{VOLUME} = \mathbf{R} \times \mathbf{R}^2 \quad (1)$$

By triggering we reduce time ,hence

$$\frac{\mathbf{RADIUS}}{\mathbf{TIME}} = \mathbf{VELOCITY} = \frac{\mathbf{LENGTH}}{\mathbf{TIME}} = \mathbf{V} = \frac{\mathbf{L}}{\mathbf{T}} = \frac{\mathbf{R}}{\mathbf{T}}$$

Rewriting: $\frac{R}{T} \times \frac{R^2}{T^2} = V^3$ Varying: $R \times V^2 = V^3 \times T$ (2)

From Newton's gravitational principle we get

$$\frac{GMm}{R^2} = \frac{mV^2}{R} \text{ -- simplifying: --} \dots GM = RV^2 \quad (3)$$

Hence $R \times V^2 = G \times M$ where G = Gravitational constant and M = mass .

$$\text{Mass} = R^3 \times \rho \quad \rho = \text{DENSITY}$$

Therefore : $R \times V^2 = G \times M = V^3 \times T = G \times R^3 \times \rho$ (4)

$$G = \frac{R \times V^2}{R^3 \times \rho} = \frac{V^2}{R^2 \times \rho} = \frac{1}{T^2 \times \rho} \quad (5)$$

Also $G = \frac{V^3 \times T}{R^3 \times \rho}$ OR $V^3 = \frac{G \times M}{T}$ OR $\frac{T}{G} = \frac{M}{V^3}$ (6)

$$T = \frac{G \times R^3 \times \rho}{V^3} = \frac{G \times M}{V^3} = \dots \text{OR} \dots \frac{\text{TIME}}{\text{CONSTANT}} = \frac{\text{MASS}}{\text{RATE - OF - CHANGE - VOLUME}}$$

Rewriting

$$V^3 = C^3 = \frac{G \times M}{T} = \text{MAXIMUM-RATE - EXPANSION} = \frac{\text{MASS} \times \text{CONSTANT}}{\text{TIME}}$$

or $\text{MASS} = \frac{C^3 \times T}{G}$ (7)

Where C = velocity of light . In other words mass is created when rate of space expansion exceeds the volume of a sphere of the radius of light per unit time.

Hence exhibition of mass IMPLIES EXPANSION RATE EXCEEDS VELOCITY OF LIGHT and therefore C should be seen and understood as volumetric charging rate of energy in space. The Rigveda gives the maximum transfer or charge rate in cubic dimensions!

The answer to this equation is given in numerical value as indicated below :

The number value is 3531286187845685862259655 = 3.53128×10^{25} CUBIC YDS. The units used in vedic times are equivalent to the modern yard. Hence the volume triggered into expansion in cubic meters is: (a meter is 1.0936 times a yard.)

$$3.53128 \times 10^{25} \div 1.0936^3 = 2.699956 \times 10^{25} \cdot \frac{m^3}{s} \quad \text{The velocity}$$

of light in meters / second := C = 2.998×10^8 The velocity light cubed =

$$(2.998 \times 10^8)^3 = 2.6946 \times 10^{25} \cdot \frac{m^3}{\text{sec}}$$

IS THIS EQUIVALENCE AN ACCIDENT?. The most astounding aspect is that the very first sloka is in fact a theorem and its number value is equal to velocity of light cubed. When

a radial expansion of space takes place exceeding the cubic displacement rate of light, then the radial wave exhibits or creates a lateral component through a transverse wave that is now identified as an electromagnetic wave. When this rate is exceeded the space exhibits mass or inertial characteristics. A force may produce acceleration that may result in a velocity greater than that of light but mass characteristics or inertia is exhibited proportionately to keep the velocity constant. Why should the velocity be constant ? Again there is a fundamental behavior in nature called a time constant and it will be dealt with in detail later.

Let us also introduce the modern concept of energy that is looked upon as something different from space and mass .

$$\text{MASS} = \frac{C^3 \times T}{G} \dots\dots\dots \text{AND} \dots \text{MASS} = \frac{\text{ENERGY}}{C^2}$$

By the Einstein mass energy relationship at a static level.

Therefore: $\frac{C^3 \times T}{G} = \frac{\text{ENERGY}}{C^2} \dots\dots\dots \text{OR} \dots\dots\dots \text{ENERGY} = \frac{C^5 \times T}{G}$ (8)

In gravitational physics involving blackholes the identified power level is :

$$\frac{E}{T} = \frac{C^5}{G} \tag{9}$$

The Newtonian and Einsteinian concepts were brought in as a first step to show the equivalence of Rigvedic logic to modern developments. Now the constant G will be derived from first principles!

A corollary of the first sloka indicates that any increment in triggering time must have a minimal increase (or decrease) of one unit. This is stated in sanskrit as follows:

" EK ADIKA PURVENA" that is one more than the previous, It is a statement indicating the relative nature of a change. Mathematically it can be expressed as an arithmetical series as follows: 1 + (1+1) + (1+1+1) or 1+2+3 etc. Hence in an expansive space configuration at any instant (or static moment) there would be a gradient established on the basis of "one more than the previous " and it could be summarized as follows, mathematically:

$$x = \frac{n + n^2}{2} \tag{10}$$

where x is the cumulative value of the gradient due to the increase by n integers.

If n = 1 then x = 1. In other words a gradient of less than one does not exist or it cannot be measured by the observer. However if n increases to 2

if.....n = 2.....then....x = $\frac{2 + 2^2}{2} = 3$ OR $\sum_n n = x$

Hence the effect of a triggering rate increase must follow the series 1,3,6,10,15 etc. or the sum of integer increase at the very fundamental level . There is no proof for this except through an impeccable logical process of thinking for the human observer, because his understanding of the universal process is only through codes called language or mathematics. Experiencing phenomenon ,on the other hand does not require UNDERSTANDING OR KNOWLEDGE OF DECODING. An illiterate person can experience phenomenon equally well but may not be able to communicate or deal with it in a rational manner.

The incremental rate is quantised and is not CONTINUOUS. The logic behind this behavior is that the so called static state is a special case of a synchronized dynamic state in which everything is moving or vibrating or changing at the same rate so that there is no MEASURABLE difference and even the apparently basic static state is also a state of synchronised movement, vibration or change. A gradient or potential difference is established by either adding or subtracting from the basic or fundamental state (which is not detectable because the measurable differential is too small or seems to be apparently SYNCHRONISED.) Hence a state of rest is a synchronised state in a dynamic

background. The rest mass is similarly synchronised within a certain location, boundary or region. The change from the rest or synchronised state involves an incremental rate of one over the previous rate at which the equilibrium was established. It means that if the static state of rest was achieved at gradient level of six then the next recognisable or measurable rate would be seven but it would contain all the previous rates of change too. As an example let us take a case where the static state was achieved at a rate of 10 units per unit time. Then an incremental change of 20 units per unit time is added, thereby achieving a peak of $20 + 10 = 30$. There will be gradient containing all the rates of change from 10 to 30 in incremental steps of one unit for each rising rate and the total density or number of changes would increase according to the quantised formula $n \times (n + 1) \times .5$ so that we have at 10 a density sum = 55 and at 30 = 465. An observer would notice the density increase would be $465 - 55 = 410$ even though he may or may not be aware of the base level density of 55. But if he investigates the rise in rate versus density he would find it proportional from a change rate of 10 and onwards but at 31 he would find that the density has suddenly plummeted to the level at 10!. This statement is not purely a mental or logical conjecture for it has actually happened in experimental physics under the heading of the "Ultra violet catastrophe" thereby proving that nature's behaviour follows a very rigorous logic. Max Planck eventually arrived at the above rationale after a long process of trial and error mathematics to arrive at his now famous thermal radiation density distribution principle.

Using the vedic principle we can arrive at the order of the level of changes that take place to give the gradient and the density. We substitute c for n in the formula $n \times (n+1) \times .5$ for the base level to give the base level which will be $4.494002015E+16$ and the maximum rate of change can only be the converse of $4.49E+16$ which when substituted into the same expression gives us an incremental gradient $1.1E+33$ and a metric unit density of $9.9E-34$ taking the velocity of light at $2.998E8$ as a standard yardstick.

REPHRASING:

From Sankhya we saw that at the fundamental level that a change only above a certain level was detectable and this level became the observer's yardstick. Changes below this unit level were not detectable, hence the observed phenomenon appeared static and at the very fundamental was defined as the observer's instant and also was deemed equal to the observer's unit of duration, and became the fundamental unit of time or a time constant that was a RELATIONAL unit. This fundamental unit then could be used as a universal yardstick BECAUSE IT WAS BASED ON AN OBSERVER DEFINED RELATIONSHIP and it was useful only to him. Applying "instantaneous" logic (mathematical), a complete set of theorems could be evolved by a simple and logical principle enunciated as follows: "One more than the previous." or the operation of addition in a relative environment. But there are two different sets of operations in this environment, the apparently static state and the dynamic condition and that is why the principle of one more than the previous is adopted. Since the increment by one to previous implied some

existing base there was no need for an absolute level that could be only zero. In a static state one more can be added to the previous and the increment would prove correct when tested practically. But in the case of a dynamic situation in a RELATIVE environment increment by addition would not do; because every STATE COEXISTIS WITH EVERY OTHER STATE, hence the increment has to be in the rate of change over the previous one existing and since all the states are in co-existence the process of summing up all the states would be multiplicative or the formula would be $(n(n+1))/2$. The principle of one more than the previous is not violated for we are adding the sum of sums like $1+2+3+4+5+6=21 = (6 \times (6+1))/2$. Therefore if the rate of change is constant, addition would do, but if the rate changes then the operation becomes multiplicative. Therefore in an environment in which the rate of change is not constant then a gradient of changes are established. Any object then having an inherent rate of change (it must have its own rate of change at a particular level because there is only one state and it is dynamic; as the static state is a special case of being equal

to the environment it is in) will have to translocate in order to reach a state equal to its own. This movement to reach equilibrium is the cause of gravitation at the very fundamental level and as such coexists with every state. Nuclear, electromagnetic, thermal, sound and other levels phenomenon are at the conglomerate level or one is nested in another and have a similar gradient of changes within each level, due to the same reason and defined by the same principle.