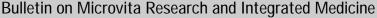
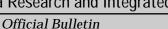
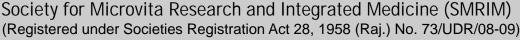


BOMRIM







Vol. 3

No. 1

www.microvitamedresearch.com

March, 2011

I Ei kndh; -----

ykgsdhgksyh&læydkfodYi&,frgkfldi;kx

o"kkålsgksyh ij læy dksdkV dj tykusdh ijEijk pyh vk jgh gå epkM+ds xjkfl; k vkj ni jsvkfnokl h ykskadsi qu%jki usrFkk iñlfr}kjk l pof) ir chtkalslæy itkfr usviusvfLrRo dkscpk; sj [kkA ijUrqle; dh xfr usl Hkh dksihNs < dsy fn; kA ykskauslæy dksdøy dkVk ijUrqcks k ughå iñlfr dh Hkh viuh l hek js[kk gå ifj.kke Lo#i vkt bl ikni itkfr ij lædV dsckny eåljk jgsgå l kl k; Vh Qky ekbØkokbVk fjl pl, .M bå/hxå/M efMl hu ½efje½læy lj{k.k vfHk; ku ikjEHk dj bl dslj{k.k dsifr tupruk tkxr dj jgh gå l kl k; Vh }kjk mn; ij eaifke ckj ogrrkj ij chtkalslæy dsikßkadksr\$ kj dj 'kgj vkj vkl ikl dsLFkkukaeayxkuk viusvki ea, \$rgkfl d dne g\$l kFk gh bl fn'kk eamn; ij dh igy Hkh gå bl h dk; l dksvkxsc<krsqq l kl k; Vh usbl o"kleokM+{kse eaifke ckj ykgsdh gksyh cukdj læy lj{k.k dh fn'kk ea, d vfHkuo rFkk, \$rgkfl d it kx fd; k gå

bl , \$rgkfl d iz, ksx dsrgr-vjfolln uxj] l tinjokl {ks= eal ey dh i kjEifjd gksyh dsctk; 17 QhV Åph yksgsdh gksyh ij pkjk ckskdj fof/k fo/kku }kjk tyk; k x; kA gkfydk ngu dsckn l jf{kr cpsHkDr i gykn dh vfoLej.kh; ?kVuk dk Toysr i n'klu fo'klk vkd"kl k dh ckr FkhA bl fodYi l sijEijk dsfuoklig dsl kFk gh R; kSjkj dh eny Hkkouk cuh jgh vkj l ey o{k dk l j{k.k Hkh gtvkA bl h dsl kFk , d ckj r\$ kj bl yksgsdh gksyh eao"klnj o"kl dke eavkusdk jkLrk Hkh [ksykA; fn tuekul bl fodYi dksfoLrr rkj ij Lohdkj dj ysrk gj tj kfd dbl txg gtvk gj vkj l kFk gh l ey dh dVkbldksjkddj u; sikSkkadksfodfl r djusesvkxsvkrk gj rksl ey l j{k.k dh fn'kk eaegRoi wkl miyfl/k gkshA ek= Hkkoukvkaeacgdj] ijEijkvkadsfuoklig dh ntykblnsdj fdl h Hkh ikni iztkfr ij bruk dgj cjik nsuk fd ml dk vfLrRo gh l ed v esvk tk, dgk; dh fo}rk gj ijEijkvkaeatdMedj l edh.klekufl drk ds l edfpr nk; jseaeut; dh LokFklyksvij rk ikni iztkfr dsl ejkj esfdl gn rd tk l drh gSbl dk mûkj l ey dsvykok vkj dkû nsl drk gj.

gkykfid I kd k; Vh dh LFkki uk o"kl 2008 eagh lijrql ey I j {k.k dscht rkso"kl 2006 eagh cksfn; sx; sFkA I kd k; Vh }kjk foxr i kp o"kkil spyk; stk jgsl ey I j {k.k vflk; ku dh vkp bruh rst gkspyh gåfd ykxkausbl fo"k; ij eliku djuk 'k# dj fn; k gå [kdkh dh ckr g\$fd I kd k; Vh usft I l ey I j {k.k vflk; ku dh 'k# vkr dh Fkh oks I ekpkj i = kadh I glkkfxrk I stu&ekul eai osk dj pplk gå vkusokyh fonen i h<\ vo'; gh i kni i itkfr dsegRo dks I e>xh vkj gj rjg I sml ds I j {k.k dh I j; oLFkk djxhA D; kid bl dh I j {kk eagh gekjh Hkkird] ekufl d vkj ekul k/; kfRed 'kilk pruk fufgr gå

eskM+dh, frgkfl d Hkme ij l kl k; Vh }kjk ykgsdh gksyh dk; g vflkuo i; ks viusvki eabfrgkl gksxkA Hkkoh ih<h viusi možtkadsmnkj.kh; dR; kaij xn×n~gksxhA iR; sd gksyh ij cgusokysl ey dsvkjl wFkesksvkj ml dsjDr i likaea [klkh dh l [kl ykfyek pedskhA v/; kRe dk }kjk [kgysk] thou uhjks jgsk] i; kbj.k 'kn) cuskl dhV irakkavkj i'kqif{k; kadksvkokl feysk] tho txr dY; k.k dsiFk ij vkxsc<skk vkj ekuo thou e/kme; qksmBskkA

& MkW , I -ds oekZ





JOURNEY OF SEMAL CONSERVATION MISSION

Year	Activity	Remarks
	Urgent need for conservation of silk cotton tree (Bombax ceiba) – A plant of	The first call for semal conservation to
	ethnomedicinal importance.	the scientific community of India.
	S.K. Verma, Vartika Jain, S.S. Katewa	
	Bulletin on Biological Sciences, 4(1): 81-84, 2006	NT 10 1 10 100
	Fibrinolysis enhancement by root powder of <i>Bombax ceiba</i> - A new property of an old tree.	New medicinal property discovered first time from the root.
2006	S.K.Verma, Vartika Jain, S.S. Katewa South Asian Journal of Preventive Cardiology, 10(4): 212-219, 2006	7
	l ey dh tM+djsgkV&vVld dh NVVh — Rajasthan Patrika, 15.7.2006	First press release regarding its new medicinal property in heart patients.
	Fibrinolysis enhancement by <i>Bombax ceiba</i> – A new property observed: Paper presented at XXIX All India Botanical conference of Indian Botanical Society from 9 th to 11 th October, 2006 held at Mohanlal Sukahdia University, Udaipur, Rajasthan.	Oral presentation by Dr. Vartika Jain
	Current status of <i>Bombax ceiba</i> (Indian Kapok) – An important multipurpose tree species: Paper presented at National Symposium on Emerging trends in Plant Biology,	Oral presentation by Dr. Vartika Jain
	Environment Protection and Biotechnology from 9 th to 11 th October, 2006 held at Mohanlal Sukahdia University, Udaipur.	
	A dogmatic tradition posing threat to <i>Bombax ceiba</i> - The Indian Red Kapok Tree.	The call for Semal conservation and its
	Vartika Jain, S.K. Verma, S.S. Katewa Medicinal Plant Conservation, 13: 12-15, 2007.	strategies to International community- The Medicinal Plants specialist group o IUCN species survival commission.
2007	Collection of seeds and development of Semal saplings at large scale May-June, 2007.	Historic step taken towards Semal plantation in Udaipur
	Holika-dahan and Exploitation of multipurpose <i>Bombax ceiba</i> .: Paper presented at 9 th Annual conference of Society of Science and Environment from 16 th to 17 th November, 2007 held at Department of Botany, Mohanlal Sukhadia University, Udaipur.	Oral presentation by Dr. Vartika Jain
	Silk Cotton tree in Flames and Fumes of Tradition.	Conservation strategies including iron
	S.K.Verma and Vartika Jain	pole to international community.
	PROUT, 19 (1): 18-19, 2008.	,
	[kRe gkus yxs ley ds iM ← Rajasthan Patrika 14.3.2008	2 nd Press release regarding increasing cutting during Holi and declining number of Semal trees
	glyh dh vflu en/l/kdrk no o{k&l ey S.K.Verma and Vartika Jain	Conservation strategies discussed
	Pratyush, 6(2): 14-15, 2008.	
	Potential Antihyperglycemic activity of <i>Bombax ceiba</i> in type 2 diabetes. S.K.Verma, Vartika Jain, S.S.Katewa	New medicinal property discovered first time from the root of Semal.
	International Journal of Pharmacolgy and Biological Sciences, 2(1): 79-86, 2008. Conservation call of Semal tree	A
2008	2 nd Diocese level seminar, AMPS at Jagriti, Udaipur 2.8.2008	Awareness lecture to spiritual community by Dr. Vartika Jain
	ley o{k lýk.k ij mn; iý dhigy	Press release to all local news papers –
	They our rights for the state of the state o	11.8.2008- plantation of Semal on mass scale; developed from seed – historical
		event.
	Conservation of Silk Cotton tree.	SMRIM led – developing plants from
	S.K. Verma and Vartika Jain PROUT, 19(8):22-23, 2008	seeds and transplanting on large scale i and around Udaipur.
	Semal awareness through BOMRIM , vol.1 (1): 2009.	First publication of Official newsletter of SMRIM
	Myths, traditions and fate of multipurpose <i>Bombax ceiba</i> –An appraisal.	Call for sustainable conservation
	Vartika Jain, S.K. Verma, S.S. Katewa Indian Journal of Traditional Knowledge, 8:638-644, 2009	strategies and awareness program to preserve Semal.
	i poVh	Spiritual importance of Semal plant
	S.K. Verma and Vartika Jain Bhakta Samaja, 8 (10): 4, 2009	stressed
	Antioxidant property of Bombax ceiba root – a well known traditional phyto-	Poster presentation by
2009	pharmaceutical.: Paper presented at International Conference on Advances in Free radicals, Antioxidants, Natural products and Radioprotectors (AFRR-09) and 8 th	Dr. Vartika Jain
	Annual conference of Society for Free Radical Research, India from 19 th to 21 st March,	
	2009 held at C.S.M. Medical University, Lucknow. "Bombax ceiba (Silk cotton tree)- An important tropical medicinal plant, under the axe of	Invited lecture by
	dogmatic tradition, heading towards extinction-needs urgent intervention". Dr. H. C.	Dr. S.K. Verma
	Saxena Memorial Oration of XX Annual Conference of Association of Physicians of India- Rajasthan Chapter (RAJAPICON- 2009), Udaipur, 14-15 th November, 2009	Zi. Din veilla

	Therapeutic validation of cardiovascular benefits of <i>Bombax ceiba</i> root in patients with	Poster presentation by
	ischemic heart disease.: Paper presented at International Conference on Advances in	Dr. Vartika Jain
	Free Radical Research: Natural products, Antioxidants and Radioprotectors (SFRR-	
	2010) and 9 th Annual meeting of Society of Free Radical Research, India at Nizam's	
	Medical Institute, Hyderabad, 11 th -13 th January, 2010.	
	Ph. D. thesis awarded to Dr. Vartika Jain by Mohanlal Sukhadia University, Udaipur	First Doctoral degree awarded for
	on Isolation of active principles and effect of crude drugs obtained from <i>Ipomoea digitata</i>	research on Semal tree and its
	Linn. and Bombax ceiba Linn. for their antioxidant property vis-à-vis endothelial	conservation
	dysfunction in human beings, 26.2.2010.	
	"Multipurpose spiritual Semal and its conservation":: Invited Lecture in "National Social	Invited lecture by
	Service Scheme camp" at Rajasthan College of Agriculture, Udaipur,	Dr. Vartika Jain
	March 6 th , 2010.	Di. Valtika Jaiii
	"Crying of Semal- a call for conservation".: Invited Lecture in "National Social Service	Invited lecture by
	Scheme camp" at College of Technology and Engineering, MPUAT, Udaipur,	Dr. Vartika Jain
	March 18 th , 2010.	
	/kaph; ifjoru & iknika ds thou pØ ij iHkko	Life cycle of Semal affected by pole
2010	Vartika Jain and Manju Mali	
-010		shift.
	BOMRIM, 2(1):2, 2010.	7
	gkyh dh ∨fku ealokgk ley ds∨k∤ w	Fate of semal – a clarion call for
	S.K. Verma	environmentalists
	Bhakta Samaja, 9 (3): 40-41, 2010.	
	"Uses of Semal tree and its conservation status": Invited Lecture in a "Yoga and	Invited lecture by
	Education Workshop" at Aravalli Institute of Management, Eklingpura, Udaipur,	Dr. Vartika Jain
	April 2 nd , 2010.	Di. vartika gain
	Apin 2 , 2010.	* 4. ** .
	"Panchwati - the place of positive microvita": Invited Lecture in a "Disasters	Invited lecture by
	Management Workshop" conducted by Department of Human Resources Development,	Dr. Vartika Jain
	Govt. of India at Lokmanya Tilak B. Ed. Teacher's Training College, Dabok,	
	June 4 th , 2010.	
	In vitro antimicrobial activity of root of Bombax ceiba- an ethnomedicinal plant.: Paper	Oral presentation by
	presented at International Conference on Folk and Herbal Medicine (ICFHM-2010)	Dr. Vartika Jain
	presented at international conference on Fork and Herbar Medicine (ICFTIM-2010)	Di. Valuka Jalii
	from 25 th to 27 th November, 2010 held at Department of Botany, Mohanlal Sukhadia	
	University, Udaipur, Rajasthan.	
	∨kjkk; nkrk l £y	First poem on Semal's medicinal
	Vartika Jain	properties
	Bappa Rawal, 2(2):2-4, 2010.	* *
	cgíšlh; l ey o{k	Description of multiple properties of
	Vartika Jain	Semal
		Semai
	Anuvrat, 56 (3):16-17, 2010.	
	no o(k l ey	Poetic description of different uses of
	Vartika Jain	Semal
	BOMRIM, 2(2):4, 2010.	
	Best Poster presentation on semal in International Conference on Folk and Herbal	Young Scientist Award to
	Medicine (ICFHM-2010) held at Department of Botany, Mohanlal Sukhadia University,	Dr. Vartika Jain
	Udaipur from 25-27 th November, 2010	~ 10 THE PRINT PRINT
	Bombax ceiba root powder- a herbal polypill for patients with increased cardiovascular	Onol mussamtat! !
		Oral presentation by
	risk. 4 th World Ayurveda Congress, Bengluru, 9 th -13 th December, 2010.	Dr. S. K. Verma
	Anabolic effect of <i>Bombax ceiba</i> root in idiopathic involuntary weight loss – a case study.	First scientific validation of anabolic
	S.K. Verma, Vartika Jain, S.S.Katewa	potential of semal root
	Journal of Herbal Medicine and Toxicology. 5(1):1-5, 2011.	•
	Free radical scavenging property of <i>Bombax ceiba</i> L. root.	New property of Semal root discovered
	Vartika Jain, S.K. Verma, S. S.Katewa, S.Anandjiwala, B. Singh	scientifically.
	Research Journal of Medicinal Plant. 5(4):462-470, 2011.	
	/kukked ekbØkokbVk Ei llu&cgqskh ey o{k	Description of multiple properties of
	Vartika Jain	Semal
	Bhakta Samaja, 56 (2):16-17. 2011.	
2011	"Semal: Multiple uses and conservation strategies":: Invited Lecture in "National Social	Invited lecture by
	Service Scheme camp" at Rajasthan College of Agriculture, Udaipur,	Dr. Vartika Jain
	March 14 th , 2011.	
	Semal conservation mission, awareness and alternative strategies – supported by media	First joint venture of SMRIM, media
	and Forest department	and other agencies started.
	Iron pole as an alternative to Semal tree- used practically by SMRIM in Holika-dahan on	First time implementation of alternative
	19.3.2011 at Arvind Nagar, Sunderwas	strategy, given by SMRIM for Semal
	17.3.2011 at ALVIIId Nagal, Suildel was	strategy, given by Sivikity for Sellial
		conservation

CO

Congratulations

Prof. Maheep Bhatnagar,

on becoming DEAN
University College of Sci

From : All SMRIM Members

University College of Science, Mohanlal Sukhadia University, Udaipur



The origin of physical and biological forms (Part-I)

I am all orders of being. The circling galaxy. The evolutionary intelligence. What is, and What isn't. -Rumi 1207-1253

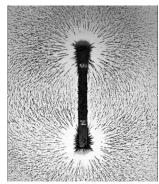
There is no such thing as a noun, only slow verbs.

-David Bohm1917-1992

Henk Sundara de Weijer Amsterdam, 27 Feb. 2011

1 - Bipolarity

Most likely you are reading this text while sitting in a chair. Like any physical object your chair will be made of some material. Now, a question may arise, 'What is a material?' A material is anything that is made of matter. Again: 'What is 'matter'? The most common definition is 'anything that takes up space and has mass". Also this definition cannot be final because now we need to find out what is 'mass'. A first definition, 'mass is that which resists to change' is not very clear and a next one "Mass is how much matter is in an object" is a circular definition. The definition of Carrithers and Grannis is more refined: "Ordinary matter is composed entirely of first generation particles, namely the u and d quarks, plus the electron and its neutrino.", but even here we need to put new question marks. Einstein, by proposing that mass $(M) = E:c^2$, made it clear that mass is a form of E. (E being energy and c the speed of light.) If we follow the same procedure by asking about the primordial material of abstract and Fig.1.1: Dipolarity in a bar magnet



mathematical objects, we will end up with even more ontological questions that belong to metaphysics. Is it not remarkable that even the subtlest definition describes the form, rather than the content? Yes, it is based upon the subtlest forms that at present can be observed and/or analysed, but also this definition looks much like 'architecture without meaning', rather than 'meaningful architecture'. Where is the 'content' in all these definitions?

From a materialist, reductionist point of view, with analytical, so fragmented knowledge, the given answers certainly are practical and can be used in equations and calculations. But will they remain satisfactory when we open our eyes, have a wider view on reality and include deep, real knowledge? You read this printed text -which is based upon ink, so matter- perceive it and you are conscious of its material existence, as well its intellectual content. What is the role and position of Consciousness in relation to the previous questions? Characteristic of physics is its practical approach. It accepts the ultimate basis of all matter to be Energy and considers expressed Consciousness as an epiphenomenon of and subordinate to matter. "Conventional explanations portray consciousness as an emergent property of classical computer-like activities in the brain's neural networks."2 Quantum physicists are also confronted with the existence of consciousness and try to deal with its position. "The establishment of Consciousness Studies as a field of study is a viable alternative to the current scientific paradigm. Upon reviewing the present day theories (stories) from physics; establishing an integrative study of consciousness may not be as preposterous as it first sounds- it may very well prove to be the only solution that can embrace the increasing complexity of our existence." Mystics on the other hand clearly express Consciousness as the ultimate base of reality. They put the stress exactly on the opposite side of the balance. Jadunath Sinha, the author of 'Indian Philosophy', described reality in this way: "I forgot myself, I forgot the world, I forgot God, a personal God. One engulfing Consciousness. It was not myself. One infinite Consciousness."

Energy and consciousness both can be viewed as subordinated to each other or as separate principles, but another possibility exists. Both Energy and Consciousness can be viewed as primordial, coordinated and intrinsic qualities of the universe, of life. Primordial elements are unique and singular. Two singular elements cannot be compared with anything but each other and as such the question of their definition cannot arise. Consciousness is consciousness and Energy is energy. Only comparing them with morphological experiences can discover the essence of their nature in the universe, in life, J.Z. Knight, an American spiritual teacher, clearly states that "Consciousness + Energy = Life" According to Shrii P.R. Sarkar "Shiva-shaktya'tmakam' Brahma"- God is the composite of Consciousness and Energy -. "A piece of paper has two sides. Although they are two for the sake of argument, they cannot be separated from the one paper entity. Removal of one side of the paper jeopardizes the existence of the other. So is the relation of Puru a [Consciousness] and Prakrti [Operative Principle] in the Cosmic Entity. None of them can stand without the other. That is why it is said that they are an inalienable concomitance." In these views the underlying principles of our universe are Consciousness and Energy. As a metaphor a bar magnet with its two poles can be used, one pole representing Consciousness, the other one Energy (Figure 1.1). In chemistry and physics this polarity is called dipolarity. Consciousness and Energy certainly occur here too, but are not restricted to them and can also be found in all biological situations, so it will be better to call the polarity of Consciousness and Energy 'bipolarity'. One may ask whether bipolarity is equal to dualism? Certainly not! Also according to Samkhya philosophy these two principles are "entirely different from each other. They have opposite characteristics". Still, they are not separate principles and moreover there is no reason why they, at any moment and in any position of the universe, would loose their complementarity and start competing with each other. They are innate components of the universe and naturally moments will develop in which each will have the most appropriate environment to come to full bloom. These expressions of each of the two components can only be optimal if they occur at completely separate instances, so not both at the same time, in the same place. The consequence is that when and where Energy gets full expression, in principle Consciousness will be dormant and vice versa. Not only that, expressions do not occur out of the blue sky, but gradually develop in a process of awakening from dormant to full unfolding.

This process of awakening is the process of evolution in which one extreme is the pole of Consciousness and the other one that of Energy. If we use a circle to represent the gradual enfoldment of both potentials, Consciousness can be drawn at the zenith, and Energy at the nadir (Figure 1.2). Here it is important to realize that in this drawing of the Cycle of Creation no time scale is included. It is qualitative rather than quantitative. Evolution in this approach is nothing but the gradual unfolding or expression of the two inborn characteristics of Nature, a very natural development. One could say that evolution, and the consequent creation of new forms, is not top-down,

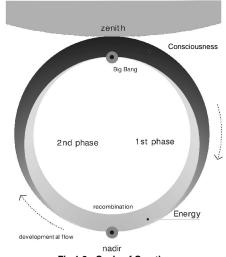


Fig.1.2: Cycle of Creation

but bottom up and not due to a direct action of the Supreme Noumenal Cause of the universe, but to the natural unfolding of the nature of Nature. It is the nature of Nature to realize ultimate and optimal expression of Consciousness on a micro scale. The act of creation rests upon the creativity that is fed by this inner urge and in the course of evolution closely acts in accordance with the actual potential of each situation. A movement towards the expression of consciousness, ultimately culminating in a conscious realization of Consciousness is what is inborn, rather than a movement towards a specific physical form. So, if somewhere else in the universe life exists, its local form may be quite different from ours, but still we will be able to understand its inner or expressed Consciousness.

2-Cosmology

2.1 THE FIRST OR EXTERNAL PHASE IN THE CYCLE OF CREATION.

Since the previous thoughts were quite metaphysical it is getting time to look for a relation with the insights of physics and the New Cosmology. According to this Cosmology about 13.7 billion years ago the universe began with a big explosion or implosion, the Big Bang, a term coined by Fred Hoyle9. What exactly happened in the first split of a second is not known and cannot be calculated, because during the first 10^{-43s} (so-called Planck time) the present laws of physics didn't apply yet. It is speculated that the original temperature was infinitely high and calculated that after 10⁻⁴³ second the temperature reached 10^{32K}. Soon the first subquarks, quarks, all baryonic particles, photons and electrons -which are leptons-, to be followed by protons and nucleons came into existence in a process called Big Bang Nucleosynthesis. Because of the immensely high temperature these particles had no individual identity. The hot plasma did not allow for individual, free particles and in fact they all acted as one mega particle. Due to inflation and consequent expansion, the universe cooled and after about 380.000 years the temperature had gone down to about 4000K. At this temperature photons were no longer bound to matter, decoupled and escaped in free space. Because of the escaping photons plasma no longer acted as a mega black body, the light in the universe was suddenly switched on. In Cosmology this moment, or better this era, is called the era of 'recombination'. Those were exciting times, because until then total darkness ruled the universe and all of a sudden light could be perceived. But although there was no individual to see this magical moment some individuality was flooded in the first light of the first dawn, protons and electrons were united into the hydrogen atoms. Though simple, their nucleons contain one proton united with one electron; they are the foundation of all other atoms. In the aftermath of this event the atoms He, Li, Be and B came to existence. Of all known matter in the universe 75% is Hydrogen and 24.9% Helium (Figure 1.3).

The first phase of the Cycle of Creation evolution takes place at Macro scale, which ends at the moment of recombination. After this moment the temperature of the universe continued to decrease and disorder, entropy increased. But in local situations temperatures rose and order, negative entropy, increased. Scientist doubt whether the universe ultimately will die a thermal death or not, but Shrii P.R. Sarkar is very clear: "Due to the ever-increasing progress and the resultant greater psychic clash in the vast cosmic body, the intensity of the mutative vibration increases. Hence, it is not possible for all parts of creation to have a uniform temperature or a simultaneous death. When the energy of the material structure gets concentrated in its centre due to extreme crudity jadásphota occurs. This releases vast amounts of energy within the universe thus maintaining the thermal disparity of the universe and the continued flow of the cosmic imagination. That is why the fear of some scientists that the universe will meet a thermal death is baseless. Partial thermal death may occur in part of the universe, but the total thermal death of the universe will never be a reality." of the universe will never be a reality.

2.2 BASIC MOMENTS IN THE FIRST OR EXTERNAL PHASE IN THE CYCLE OF CREATION. 11

The Universe became almost perfectly homogeneous and isotropic. Almost, because soon small fluctuations caused a certain amount of clustering that became the ground for the development of galaxies and super structures,

clouds of galaxies. The influence of gravity worked slowly, but constantly on the newly formed hydrogen and helium atoms, which contracted more and more until ultimately *stars* were born. While on a macro scale the average temperature of the universe went down, the temperature on this second level macro-scale again rose to extreme heights. When in a celestial body, a proto-star, with sufficient hydrogen - at least 8% of the mass of our Sun - is contracted its density increases and once the temperature in its core has raised enough, stellar nuclear synthesis starts. If this fusion of hydrogen into helium is sustained a star is born.

After about a billion years most of its pressure inside the central core becomes is supplied by degenerate electrons. Degenerate electrons are electrons in a super compressed state. As these electrons are forced within smaller volumes, their velocity increases and the pressure they create even more increases. Such a stellar object is called a white dwarf. The density in such a white dwarf reaches 10⁶ times the density of water. When the temperature in the core rises up to 107 K new nuclear reactions set in. Helium nuclei are fused into carbon-12. (Carefully note that only *nuclei* are fused. Temperature and pressure are immense and there is no chance that electrons get united yet with nucleons. In the same way as in the formation of hydrogen atoms these electrons will only be added when, after new explosions, the temperature has gone down to about 4000K. At this lower temperature the speed of electrons is low enough for a connection with the various nucleons to form complete atoms). A very small rise in temperature results in an enormous increase in the nuclear reaction rate. The core of the then red giant is transformed into a helium bomb. This tremendous outburst of helium energy, known as the helium flash, is so powerful that it heaves the core out of its state of degeneration and leads it to a more stable configuration. The consequent period will be much shorter than the previous one. Much more energy is released when hydrogen is released into helium than for instance carbon-12 nuclei are fused into helium. The temperature of the core has risen up to 5.107 degrees Kelvin and the structure of the red dwarf, as it now has been turned into, has undergone big changes. Inside the layer of carbon nuclear reactions will convert carbon- 12 into magnesium and consequently magnesium into oxygen and neon into silicon, sulfur and larger nuclei. Once the stage of iron has been reached in the innermost core of the star, it is unable to compress still more.

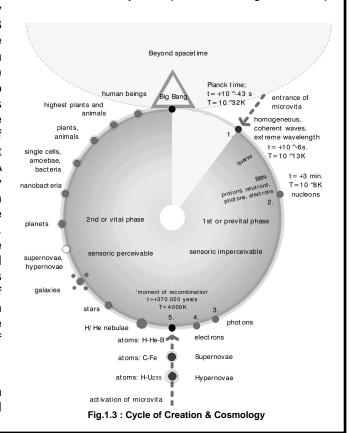
As soon as the density has gone as high as 10¹⁴ times the density of water and the temperature has reached 40x10⁷ degrees Kelvin the iron nuclei break up into helium nuclei and finally into protons and neutrons. The red giant then collapses and explodes into a supernova. (Negative evolution: see Figure 1.4) After the explosion of red giants so, after the temperature has gone down enough to allow electrons to be united with the nucleons, the universe contains the most essential elements to form life; hydrogen and oxygen for water, carbon and oxygen for future breathing, carbon for the seeds of life in protoplasm.

At the center of the supernova explosion, the dense core of neutrons may stay behind as a neutron star. In case the core is heavier than a few times the mass of the Sun, it may collapse into a black hole. But if the exploding star has enough mass it "explodes violently and is efficient at expelling stellar material, then no stellar remnant of any kind is left behind" In case the lowest-mass star only has 8% of the mass of the Sun it ultimately is not powerful enough to develop

into a red giant and after becoming a red dwarf ultimately shrinks into a white dwarf. If white dwarfs collect more than 1.38 solar-mass, the thermonuclear flame consumes much of the white dwarf in a few seconds, causing a type la supernova explosion that obliterates the star. 12 (Also negative evolution.) One of the situations in which this can happen is when two white dwarfs merge. The pressure is so high that in this process the nucleons of the heaviest elements are formed and after the explosion they become complete atoms by the addition of corresponding amounts of electrons.9 The very heaviest elements like uranium are born inside hypernovae. A hypernova contains more than 40 solar masses. They are very rare and in our solar system occur only five times in a million years. The internal pressure is so high that the nucleons of the heaviest elements are formed before the hypernova explodes. In all these situations Energy was fully present, while Consciousness remained dormant. At the cosmological moment of 'recombination', after explosions of white dwarfs and supernovae Energy reaches its most intense moments of expression. Although they occur at very different moments in the evolution of the universe, the formation of new atoms in the course of these explosions belong at the nadir of the Cycle of Creation.

Cycle of Creation, evolution and Darwinism

Since time is involved, this gradual development, from a state of pure energy at the 'moment' of the Big Bang into all



the chemical elements that we know, can be called "evolution". When the building stones of biological life have been formed evolution does not stop, but only when the temperature has gone down considerably. That is to say, life on our planet earth requires temperatures roughly between 0° and 100°C, although some extremophiles are able to live under more extreme circumstances. With "On the origin of species by Means of natural Selection or, the Preservation of Favored Races in the Struggle for life" Darwin (1809-1862) developed a systematic and consistent, new approach to evolution. He accepted life as a prerequisite and did not question or research its beginning. In a letter to Hooker he wrote: "It is merely rubbish to think at present about the origin of life. One could think as well about the origin of matter." The origin and nature of matter has been studied in the past 150 years and the question about the origin of life has become the biggest question in biology. For Darwinism, neo-Darwinism and biology evolution starts with life. It states that the evolution theory is about the origin of species; the origin of life needs to be discussed in another discipline. "Life is from life, is from life." is enough for it. Most certainly the time has come now to start thinking whether and how abiogenesis can be the start of life. To accept exogenesis, the idea that life took originated in other planets, is only a hindrance in ever finding a proper answer. The panspermia hypothesis states that the "seeds" of life exist all over the Universe and can be propagated

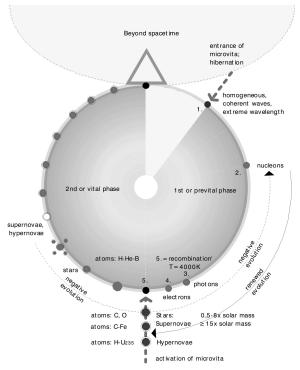
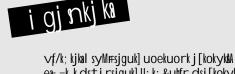


Fig.1.4: Atoms and Microvita at the nadir

through space from one location to another.¹³ This can be a more efficient proposition as long as it inspires us to start doing research, with or without Richard Dawkins.

References:

- B. Carithers, P. Grannis, 1995. "Discovery of the Top Quark". Beam Line (SLAC) 25 (3): 4–16. (http://www.slac.stanford.edu/pubs/beamline/pdf/95iii.pdf.)Fall 1995 -15 Feb. 2011
- 2. Hammeroff, Stuart MD, 15 Febr, 2011, (http://www.quantumconsciousness.org/presentations/whatisconsciousness.html)
- 3. Bancroft, Mark MA, -15 febr. 2011.
- (http://www.enspirepress.com/writings_on_consciousness/quantum_consciousness/) -18 Feb. 2011
- 4. Sinha, Jadunath., 1978. "Indian philosophy, volume I", p IX, 2nd ed. (Calcutta: Motilal Banarsidass Publishers).
- 5. Knight, J.Z., (http://www.associatedcontent.com/article/249218ramthas_school_of_enlightenment_consciousness.html?cat=4)-15 Feb. 2011.
- 6. Sarkar, Shrii P.R. ,1984. "Ananda Sutram", (Calcutta: AMPS).
- 7. Sinha, Jadunath. ,1978. "Indian philosophy, volume II", 2nd ed. ,31. (Calcutta: Motilal Banarsidass publishers).
- 8. Coles, Peter. 2001. "The Routledge companion to the New Cosmology". (London: Routledge)
- 9. http://big-bang-theory.com/ -20 Feb. 2011.
- 10. Sarkar. Shrii P.R., "The expansion of Microcosm" 1957, Muzaffarpur. (Electronic Edition 7.5)
- 11. Fred C. Adams and Gregory Laughlin, 1999. "The five stages of the universe". (New York: Touchstone).
- 12. http://en.wikipedia.org/wiki/White_dwarf; -20 Feb. 2011.
- 13. http://www.panspermia-theory.com/-21 Feb. 2011



& MkW Hkxorhil knfeJ ^^vrhr**

¼vkxjk½

ea = k.k.dstirsjguk] U; k; & uhfrdsj[kokykåA
ifjorlu gkusokyk g\$/kjk/kjh djoV yrhA
dksk/kapkadscny jgsg\$ I anš k tu&eu nrhA
I a reu I srirsjguk] /kel/kjk dsj[kokykåA

Vf/k; kjka------j[kokykåA
mlkki h Xy\$'k; j fi?kyr] I kxj vUr%vdgyk; s
ek\$! e pØ cnyusokyk] I c Hkaxksy cny tk; &
I keatL; cjrrsjguk] tho txrdsj[kokykåA

Vf/k; kjka------j[kokykåA
mllkj/kap Hkne/; ?knerk] mFky&i fiky gksh HkkjhA
mllur&vumlur thokaij] I adV g\$i ay; adkjhA
txf=rki dksgjrsjguk] I f"V pØ dsj[kokykåA

Vf/k; kjka-------j[kokykåA

WHAT IS MICROVITA?

Microvita: Micro-Small, Vita-Living

Definition: Entities or objects which come within the realm of both physicality and psychic expressions, which are smaller or subtler than atoms, electrons or protons; and in the psychic realm, may be subtler than ectoplasm or its extra-psychic coverage; endoplasm have been termed as "Microvita" (Singular-Microvitum) by Shri P. R. Sarkar.

Physicality: The position of microvita is just between ectoplasm and electron, but they are neither ectoplasm nor electron.

Categories:

A) Based on density or subtlety-

First : Coming within the scope of a highly developed microscope.

Second: Not coming within the scope of a perception but coming within the scope of perception as a result of their expression or actional vibration.

Third : Not coming within the scope of common perception but coming within the scope of a special type of perception which is actually the reflection of conception within the periphery of perception.

- B) Based on nature -
- 1. Positive
- 2. Negative
- 3. Neutral/Ordinary

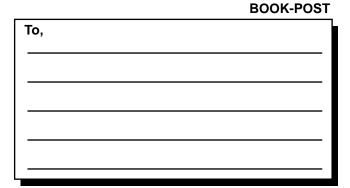
Movement:

- Move throughout the entire universe.
- Move unbarred, without caring for the atmospheric conditions.
- Move through a medium or media i.e. sound, form, figure, smell, tactuality or ideas.

Root cause of life:

Microvita create minds and bodies and also destroy minds and physical bodies. The root cause of life is not the unicellular protozoa or unit protoplasmic cell, but this unit microvitum.





From

Society for Microvita Research and Integrated Medicine (SMRIM) 28, Shivaji Nagar, UDAIPUR-313001 (Raj.) INDIA Mobile : 9414168910 E-mail : skvermaster@gmail.com, smrim08@gmail.com

AIMS AND OBJECTIVES OF SMRIM:

- 1. To propagate the knowledge and science of microvita by psycho-spiritual practice in individual and collective life.
- 2. To increase moral values, to generate scientific thinking, to remove dogma with the spread of knowledge of microvita at school, college and university levels.
- To initiate and inspire about research on Yogic, Vaedic, Naturopathic, Ayurvedic and Homoeopathic schools of medicine.
- 4. To incorporate faculty of Physics, Chemistry, Botany and Medicine for research on microvita and integrated medicine; including research on medicinal plants and Homoeopathic medicine.
- 5. To organize free medical camps in villages and cities involving specialists of different system of medicine.
- 6. To publish result of the research in national and international journals and interact with other people working in the field in and out of the country.
- To make judicious use of different systems of medicine and microvita for the treatment of diabetes, hypertension, heart diseases, cancer and diseases of modernera.
- 8. To establish laboratory and research centers for relentless research on microvita and integrated medicine for the welfare of entire humanity.

Who can join?

Any person interested in serving humanity through research on microvita and integrated medicine and abides rules and regulations of the society can become the member of the society.

Life Membership fee: Rs. 1500/- (Once)

Contact address : PRESIDENT

Society for Microvita Research and Integrated Medicine (SMRIM) 28, Shivaji Nagar, UDAIPUR-313001 (Raj.) INDIA Telephone: +91-9414168910, E-mail: skvermaster@gmail.com

"There should be extensive research work regarding this microvitum or these microvita. Our task is gigantic and we are to start our research work regarding these microvita immediately without any further delay, otherwise many problems in modern society will not be solved in a nice way".

Published by : Society for Microvita Research and Integrated Medicine (SMRIM), Udaipur (Raj.) INDIA

Editor in Chief : Dr. S.K. Verma Assoc. Editor : Dr. Vartika Jain