

THEOSOPHY-SCIENCE GROUP

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EDITORIAL NOTES

This Newsletter is prepared by the Theosophy-Science Group in Australia for interested members of the Theosophical Society in Australia. The email version is also made available on request to members of the Theosophical Society in New Zealand and USA by the respective National bodies. Members in New Zealand should contact: john@theosophy.org.nz. Members in USA should contact questmag@theosmail.net. Recipients are welcome to share the Newsletter with friends but it must not be reproduced in any medium including on a website. However, permission is given for quoting of extracts or individual articles with due acknowledgment. Selected items appear from time to time on the website of the TS in Australia – austheos.org.au.

Comment Re Newsletter.

This Newsletter has been somewhat delayed for a number of reasons but it is hoped to continue, doing a little better. It was discussed and agreed that it would be better, if necessary, to have shorter Newsletters, rather than wait until there is enough material to fill a twelve page Newsletter as has become typical. It has long been policy to include over time, summaries of talks at Theosophy-Science Group seminars, prepared by the speakers. The Newsletter is widely circulated in three countries and is appreciated by those members interested in the common ground between Theosophy and Science.

I reiterate that it would assist greatly if those Australian members who currently receive this Newsletter by mail, but who have an email address, would send me their email address for future use. Note that the Newsletter is already Email only in USA and New Zealand.

It is hoped to continue the policy of including over time, summaries of seminar talks. I hope we can do this for the recent seminar. I would appreciate receiving summaries from the presenters concerned. As in the past, summaries may be either brief or extensive (up to six pages) and will be included over time as space permits.

Recent Theosophy-Science Seminar.

The seminar at Springbrook May 16-18 was, as usual, highly successful, with a full house. Victor Gostin did a splendid job as chief organiser and it was interesting to have some new recruits among the speakers, who gave very interesting presentations. For the interest of members in general, the programme is included toward the end of this Newsletter. It was decided to have another seminar in about 2 years, with the possibility of holding it later in the year, perhaps September or October. A decision needs to be made soon as bookings at Springbrook are, because of great demand, made well in advance. Victor Gostin will also explore the possibility of holding the next seminar at a venue near Adelaide in September 2009 for the benefit of members further South.

THEOSOPHY-SCIENCE SEMINAR IN AUCKLAND, NEW ZEALAND

Science and Spirit 21-23 October 2007

This well attended and very successful seminar was organised by Vice-President Murray Stentiford, with Victor Gostin from Australia as Principal Guest Speaker. Murray was in turn Principal Guest Speaker at our recent seminar at Springbrook

(Murray had attended some of our early seminars at The Manor, including one when we had Wallace Slater, who had been a prominent member of the famous English Science Group He was visiting the Manor for various seminars)

The following brief summary of the October seminar in New Zealand is reprinted, with permission, from *TheoSophia*, the magazine of the Theosophical Society in New Zealand: December 2007.

Igniting the Science–Spirit Synthesis

If ever there was a time when a bridge was needed between science and spirit, it is now. With global warming on everyone's mind, the need to understand what is happening in our societies, to our planet and in the universe is of critical importance.

Like humans, the Earth survives by being kept within a particular temperature range – ‘The Goldilocks Enigma’ of prominent scientist Paul Davies.

For some people it may seem a far stretch, between our universe, our planet Earth or Gaia, atoms, and Ageless Wisdom. But this interconnectedness came through during the weekend seminar.

Australian theosophist Victor Gostin, Hon Visiting Research Fellow in Geology and Geophysics, opened with a spectacularly illustrated discussion of the cosmic origins and planetary history of life on Earth, in a galactic context. He reminded us of our responsibilities as human beings to understand subjects such as the frontier science of astrobiology and Paul Davies' belief that life is the natural result of yet-to-be-discovered laws, and also that life does occur elsewhere.

Concepts were linked in clearly understandable references to Theosophical Society H P Blavatsky's (HPB'S) work *The Secret Doctrine*.

Canadian clinical psychologist and HPB enthusiast, Christopher Holmes, explored this relationship with the Ancient Wisdom in his presentation, *God, Science and the Secret Doctrine*. (also the title of one of his books). His zero point metaphysics and the holographic space of HPB combined in fascinating form with ‘heart doctrine’ and the origin of human consciousness.

And did the big bang occur as discussed by Vic Gostin, or can the evidence be interpreted as universal vibration? This was the hypothesis of Aucklander Ray Tomes in his ‘galaxy Red Shift’ concepts of cosmic light and sound wavelengths. New cosmic particles meeting others coming from other galaxies create waves and a shift of frequencies. It's not random he says.

Medical practitioner Dr Robin Kelly came right down to Earth with his healing concepts inherent in *The Human Antennae* – also the title of his book. But it was via space, through light, to the fabric of our souls. Practical science that works.

Science education advocate Dr Robert Anderson – ‘Dr Bob’ of Tauranga – sharpened our awareness on the last day with startling insights into the ethical and social extremes surrounding commercialisation and control in three converging fields. These are nano-technology (and nanotoxicology), biotechnology (gene control) and information technology (data and the manipulation of ‘bits’). Robert says patents in these areas are surging across industrial sectors sweeping up nature – living and non-living – with unthinkable potential future scenarios. It’s our responsibility to address these issues seriously and carefully he says.

Overall was the abiding concept of the interconnectedness of all matter – all life – Science and the Ageless Wisdom truly converging. Parts of the Seminar will feature in future issues of *TheoSophia*

***Science and the Akashic Field* by Ervin Laszlo, 2004**

BOOK REVIEW BY VICTOR GOSTIN

"Empirical science is the human endeavor that is most rigorously and systematically oriented toward finding the truth about the world, and testing its findings against observation and experience." So states philosopher and polymath Ervin Laszlo in describing his four decades of searching for meaning through science. Born in 1932, and enjoying his career as a successful concert pianist, in 1959 he began a systematic study into the cutting edge of modern science, covering the disciplines of quantum physics, astrophysics, biology, and psychology. He attended many university courses and gained the highest degree of the Sorbonne, followed by four Honorary Ph.D.s and numerous distinctions, including the Japan Peace Prize in 2001. He has lectured in Universities across America, Europe, and the Far East, and has authored over 74 books translated into 20 languages.

His book "Science and the Akashic Field", subtitled "An integral theory of everything" is a non-technical introduction to the *informed universe*, cornerstone of a scientific theory that should grow into a genuine theory of everything. Its essential features are that at the roots of reality there is an interconnecting, information-conserving and information-conveying cosmic field: the quantum/vacuum interaction, the zero-point energy field, or simply the Akashic or A-field.

In order to create the required "paradigm-shift", Laszlo first documents the puzzles or anomalies at the frontiers of diverse fields of enquiry, then shows that there are "unsuspected forms and levels of coherence that come to light in the physical world, in the living world, and in the world of mind and consciousness." After discussing research into theories of the quantum vacuum - the zero-point energy field that fills all of cosmic space, he shows how this could convey not only energy but also information.

The assertion that an information field underlies all things in the universe is in accord with many ancient philosophies, but it is a radical theory for conservative mainstream scientists. Laszlo explores the idea of such an "informed universe" and asks if "the universe itself

possesses some form of consciousness, a cosmic or divine root from which our consciousness has grown and with which it remains subtly connected."

In discussing the next evolution of human consciousness, Laszlo comments that the views of many cultures and wise teachers confirm a conscious evolution from the ego-bound to the communal and to the transpersonal. Transpersonal consciousness is open to more of the information that reaches the brain than the dominant consciousness of today. This could produce greater empathy among people, and a greater sensitivity to animals and the entire biosphere. Laszlo takes a further step in his exploration of the informed universe by focusing on cosmic consciousness as experienced through deep meditation. In the words of Ralph Abraham, professor of mathematics at Univ. California: "This important work unifies the realms of science and consciousness in a truly integral 'theory of everything'."

This reviewer believes that the A-field theory will remind readers of many aspects of the perennial philosophy and the ancient wisdom, but clothed and expressed in modern scientific terms. It is highly recommended to all libraries of metaphysics and theosophy.

The book ends with autobiographical notes describing the author's journey, and interesting relevant comments by a group of foremost scientists and thinkers. The updated theory is presented in Laszlo's 2006 publication "Science and the Re-enchantment of the Cosmos: the rise of the integral vision of reality", where half the book is devoted to commentaries by twelve leading thinkers.

Inner Traditions, Vermont
ISBN 1-59477-042-5

Portals: Opening Doorways to Other Realities Through the Senses
by Lynne Hume (2007);

BOOK REVIEW BY Rosanne DeBats

Portals looks at the techniques used to alter consciousness as practised by shamans, monks and other religious specialists. The book provides an anthropologically grounded perspective on the realities of human consciousness and mystical, spiritual and religious experience. Everyday reality that we perceive through our senses can be altered by using a variety of somatic stimuli to create a paradigm shift in perception: the result is movement through what is often described as a doorway or passage to access other realities. Hume explores the experience of these other realms of existence, and union with the divine or deeper levels of consciousness. She describes the practical techniques used to take people through the portals, the experiences people describe in these other realms, and the interpretations of these experiences within different cultural contexts. Here personal experience and perception are the basis of spiritual knowledge, rather than doctrine.

While recognizing that rituals and actions are often multi-modal, individual chapters are devoted to mandalas and visual symbols, sound including chanting and drumming, dance and movement, tactile experiences including pain and sex, smell and breath, and drugs used as entheogens. The result is a set of "sensory syntactics to what we might call the spiritual encounter."

Hume's deep knowledge of a wide range of cultures and historical epochs makes this a fascinating exploration of themes and commonalities in the varieties of ways used to gain knowledge in addition to intellect and reason. In different cultures and individuals the outcome is a feeling of oneness with the universe, or contact with an enlightened being, or the gaining of knowledge that is otherwise unattainable. Hume draws parallels between ancient and modern religious traditions, both Eastern and Western, and indigenous groups around the world. It is particularly satisfying to see aboriginal spirituality included and explored.

While commonality exists in the uses of the senses to move through the portal, there are differences between groups in the social construction of reality. Consciousness corresponds to subjectively experienced reality that is interpreted according to culturally defined concepts. While Western culture views experiences beyond the veil as part of an altered state of consciousness with uncertain reality, other cultures include experiences on both sides of the portal as part of a greater reality.

It is suggested that ethnologists and other researchers participate in the rituals of the people they study, and record and report on their experiences. Hume declares the "distanced rational observer" to be a myth, and believes that fieldworkers' emotional responses are essential to good ethnography. She quotes from anthropologists who have been willing to report on their ritual experiences, and the portals which they have entered. She encourages more researchers to engage in this personal way with the cultures they study. She calls for a less cognate, and more sensate treatment in order to better understand these important aspects of spiritual culture, which the Western view tends to overlook.

Hume's book is an engaging and sympathetic exploration of sensory paths to and experiences of altered states of consciousness. While academic in its use of references, its balance of description and interpretation as well as its rich connections makes it compelling reading and a sourcebook for exploring areas in greater depth.

Note on Lynne Hume.

Lynne Hume has a long history of research in contemporary spirituality and consciousness. She has a doctoral degree in Anthropology and has lectured in courses on anthropology of religion for over 20 years, specialising in cross-cultural research and new religious movements. Her publications include numerous articles in academic journals and encyclopedias: *Portals: Opening Doorways to Other Realities Through the Senses* (2007); *Ancestral Power: The Dreaming, Consciousness and Aboriginal Australians* (2002); *Witchcraft and Paganism in Australia* (1997); *Popular Spiritualities: The Politics of Contemporary Enchantment* (2006), co-edited with Kathleen McPhillips; and *Anthropologists in the Field: Cases in Participant Observation* (2004), co-edited with Jane Mulcock.

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PEOPLING OF THE EARTH

SUMMARY OF PART OF A TALK BY HUGH MURDOCH

Theosophy-Science Seminar; Springbrook, May 19 2006

Based on the subtitle- "The peopling of the World" in a book by

STEPHEN OPPENHEIMER entitled "OUT OF EDEN"

The story of the spread of our species Homo Sapiens across the Globe can be deduced from extensive studies of mitochondrial DNA from a large sample of individuals from all over the world. This technique was developed about 12 years ago. Mitochondria consist of a small organelle (with specific functions) in the outer or extra-nuclear region of the cell in all humans. However they are only passed on to the next generation through the female line (mother to daughter). Because of this they are much simpler than nuclear DNA for use in genetic studies of our history.. These studies have shown that 'the general heritage of modern humans can be derived from a core of 2,000 to 10,000 Africans who lived about 190,000 years ago. I will use a shorthand "k" for 'thousand years ago. Thus the above figure will be expressed as 190 k. The earliest archaeological remains are from about 160k, [but see footnote*]. All figures given are approximate.

Mutations in mitochondrial DNA are rare. The average time between mutations is approximately 10,000 generations. We all have between 7 and 15 mutations in our mitochondrial DNA from a common ancestor, known as "mitochondrial eve". There were of course many others alive at the time but their genetic line has petered out through failure to maintain a continuous line of female descent. There will be somewhere along the line of descent, a woman who has not produced at least one daughter who has survived to produce at least one daughter who has etc. etc. I hope you get the picture. Oppenheimer shows a sample diagram to explain this 'genetic drift.'

Samples of mitochondrial DNA from many thousands of people from all over the world have been used to build up an overall picture. Oppenheimer gives a detailed mutation diagram for a sample of such individuals. There have been subsequent parallel studies based on the Y chromosome which is unique to males, and these tell a similar overall story to that presented here.

Before proceeding with story, it is necessary to mention the importance of the major temperature cycles and the consequential changes in sea level which determine when migration is possible and what is believed to have happened. Oppenheimer points out that there are only two possible routes out of Africa for our early humans who arose in sub-Saharan Africa. These are to the north across where the Suez Canal now exists, or across the Southern mouth of the Red Sea at a time of very low sea level. Oppenheimer notes that the Northern route, which involves crossing the area of the Sahara Desert, is only possible in the rare times of especially high temperature when the desert becomes fertile and able, for a brief period, to support civilisation. Such a period occurred about 8k (remember this means 8,000 years ago). What is now desert blossomed into life and there were lakes, grassland etc. with human occupation and cattle grazing etc. The archaeological record tells the story. I tell it here because there is believed to have been a limited exit of early humans via this route during a similar temperature peak about 120k. There are archaeological remains in the Levant

(essentially the present troubled area of the Middle East), but no evidence of penetration any further.

At this point, it is necessary to mention the temperature cycles which determine the possibility of crossing the Red Sea with possible subsequent coastal migration. [Those only interested in the story of migration and not the rationale may skip the remainder of this paragraph and the next]. The two times of occurrence mentioned in the previous paragraph, 8k and 120k, are both occasions when the Earth was closer to the Sun than at any intervening period. The Earth's orbit about the Sun is an ellipse with the Sun at the focus, not at the centre. Astronomers know that the orbit rotates with a period of about 110k (that terminology again for 110,000 years). They call it 'precession of perihelion'. It is due to complicated interactions with the other planets. The important thing for us is that there are times when the Earth and the Sun are alternately closer or further apart. The two periods mentioned above (8k and 120k) were occasions when we were closest to the Sun. The mid point at about 65k is a time when Earth and Sun are furthest apart, leading to a particularly cold era and consequent large lowering of sea level.

There are also shorter minor temperature cycles of about of 22k determined by perihelion, the time of the year when the Earth is nearest to the Sun in its **annual** orbit. This cycle is responsible for the timing of the ice ages and interglacials. [For the aficionados, this cycle is determined by a combination of 1) the 26k temperature cycle of precession of the equinoxes, caused by the rotation of the Earth's polar axis about a fixed direction in space, and 2) a contribution from the rotation of the Earth's orbit mentioned earlier.]

THE COASTAL ROUTE FROM AFRICA TO AUSTRALIA

Returning now to the main story, Oppenheimer argues that the exit from Africa took place about 85k during a time of relatively low sea level in the Red Sea when persons could island hop across the southern exit of the Sea. All non-Africans today are descended from this group. There remain, however, many genetic lines within Africa.

Our ancestors are assumed to have beach-combed their way around the coastline of Southern Asia, India, Malaysia and the Indonesian islands all the way to Australia and New Guinea, living on shellfish, oysters etc, with occasional short journeys in primitive boats,. The sea level was, in fact, low all of the time from 80k to 65k, ranging from 40 metres to at least 100 metres below the present level at the mid-point of the major long term temperature cycle. (Further inland our ancestors would no doubt have encountered descendents of earlier species of homo such as Homo erectus who no doubt had crossed into Asia on many occasions. There are representative fossils in places such as Java and Peking).

The evidence is of course well under the sea today. However, there is evidence of beach-combing at a site on the shores of the Red Sea, giving plausibility to that particular assumption. There is one piece of evidence for the long route along the various coasts. At one point along the way there is in Malaysia circumstantial evidence in the form of modern human remains found at a deeper layer than the ash from the massive 74k eruption of the Toba volcano in Indonesia. This is consistent with passage that way of our migrants at an earlier date. The Toba eruption was vastly greater than any since then. Due to prevailing westerly winds, most of the ash fell over India, forming a thick layer which obliterated all life there and much of Pakistan. The area was later recolonised from both sides.

The most difficult leg to explain on Oppenheimer's supposed route is from Timor to Australia although he argues the distance at low sea level is no greater than for subsequent sea journeys by Polynesians. There is a site at Jimmim in the Northern Territory dated at 60k and another at a beach close to Arnhem Land rock shelters at 50 to 60k, together with other evidence suggesting entry to Northern Australia at 65 to 60k.

Oppenheimer also shows a map of a potential alternative route via Indonesian islands to the Western tip of New Guinea (now West Irian) and contemplates this as an alternative route, reaching Australia by land from New Guinea across what is now Torres Strait but was then dry land. He argues against this route saying there is no genetic evidence for a link between early Australians and New Guineans. However, this is controversial and there are others who disagree with him and who support this route.

EUROPE

Before the recent genetic studies it was assumed that so-called Cro-Magnon Man had traveled north from Africa to Europe and had been the precursors of modern Europeans. Oppenheimer says that as a European, he was somewhat embarrassed to have to admit that modern Europeans were in fact latecomers. They came in two separate waves from South Asia at climatically feasible times. Both migrations traveled between the Eastern shore of the Persian Gulf and the Zagreb mountain range. The first wave traveled 45-50k and continued to spread mainly throughout Southern Europe, with one branch going to North Africa. The second wave at 33k continued northerly past the Eastern shore of the Black Sea and then across Northern Europe

ASIA and AMERICA

The migrations throughout Asia are rather too complicated to discuss but there was certainly a line all the way up the East Coast to Russia.

America was the last major continent to be reached by Homo sapiens. Sea levels were low from 11k up to the peak of the last Ice Age at 22k and beyond. There was not only a land bridge from Russia to Alaska but this was just part of a substantial continent Beringia of 9,500 square miles in the North Atlantic which lasted several hundred years. Oppenheimer argues that humans entered America by land from Beringia in the lead up to the ice age. Their long distant origin was northern Asia but their homeland had for centuries been Beringia. This point of entry is widely accepted but others place it after the Ice Age. From here our early humans gradually migrated South reaching Central America about 13k and then moving on until they reached the Southern tip of South America.

***FOOTNOTE.**

Subsequent to Oppenheimer's book and to my talk, an article in *New Scientist*, 17 October, 2007, refers to an article in *Nature*, vol 433, p 733 by Ian McDougall and colleagues at the Australian National University, Canberra that "pushed our origin back, dating fossil remains found in 1967 at Omo Kibish in Ethiopia, to as long ago as 195,000 years." This is consistent with Oppenheimer's dating of 190k based on mitochondrial DNA.

THEOSOPHY-SCIENCE SEMINAR

PROGRAMME 2008

Friday May 16

MAIN THEME: The human phenomenon from different perspectives

Chair: David Allan (am); Victor Gostin (pm)

0800	Breakfast	
0915-0930	Victor Gostin	Introductions and attunement
0930-1045	VG	The cradle of humans and humanity in Africa
1045-1115	Morning tea	
1115-1230	Lynne Hume	Ways of seeing our world: a cross-cultural perspective
1300	LUNCH	
	Free time	Enjoy a tropical forest walk or just relax
1500-1530	Afternoon tea	
1530-1630	Rosanne DeBats	Mind and Brain: the science and mystery of consciousness
1645-1745	Murray Stentiford	Celestial sounds in stone (creative power of sound)
1800	DINNER	After dinner: Pay Barry Hora (Springbrook manager)
1930-2045	DVD & discussion	Interview with neuroscientist Jill Bolte Taylor on "Rebuilding your own mind"

Saturday May 17

THEME: Ethics, and extending the scope of science

Chair: Victor Gostin (am) ; Rosanne DeBats (pm)

0800	Breakfast	
0915-1030	Alek Kwitko	The problem with ethics
1045-1115	Morning tea	
1115-1230	Rosanne DeBats	Using scientific methodologies to explore the transpersonal
1300	LUNCH	
	Free time	Enjoy a tropical forest walk or just relax
1500-1530	Afternoon tea	
1530-1645	Hugh Murdoch	The mysterious number phi
1645-1745	David Allan	Astrophysics and metaphysics, hidden meanings in new discoveries
1800	DINNER	
1930-2045	Discussion	Global Consciousness - discussion led by M.Stentiford

Sunday May 18

Various science topics

Chair: Alek Kwitko

0800	Breakfast	
0915-1030	Chris Pangway	Interconnectiveness (esp. in analytical chemistry)
1045-1115	Morning tea	
1115-1230	Maikel Annalee	Theosophy in science
1300	LUNCH	
	Free time	Enjoy a tropical forest walk or just relax
1500-1530	Afternoon tea	
1530-1645	Murray Stentiford	Energy psychology (EFT & PFT processes)
1645-1715	Audrey Brimson	Peak experiences
1715-1745	Janet Blake	Short presentation
1800	DINNER	
1930-2045	Discussion	Review of Seminar & future plans

Regards to you all,

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