

# CONTENTS

## Editorial

10 Years with the Network – <i>David Lorimer</i>	3
--	---

## Articles

Is Lucid Dreaming Dangerous? – <i>Arthur Ellison</i>	4
Energy Monism: A Solution to the Mind-Problem that Connects Science and Spirituality – <i>Mark B. Woodhouse</i>	8
Chickens Don't Lie – <i>Peter Fenwick</i>	12
Exploration 27 – <i>Ronald Russell</i>	13
Jean Gebser's Contribution Toward a New Consciousness – <i>Georg Feuerstein</i>	16
Metaphysics of the Gene – <i>Artur Stern</i>	19
New Models in Science and Economics: the scope for mutual learning – <i>James Robertson</i>	21

## Reports

The Reach of The Imagination: an exploration of the work and influence of David Bohm – <i>John McMahon</i>	22
Life and Biological Form: International Working Conference – <i>Stephen Edelglass and Georg Maier</i>	24
Emotional Intelligence and Life Long Learning: Joint SMN/SEAL Conference – <i>Richard House</i>	26
The Eighth Continental Members' Meeting: Prague, October 1996 – <i>Paul Folca</i>	29
Tucson II: A Personal View – <i>Glenn Ennis</i>	31

## Correspondence

The Network Ethos Correspondence – The Non-equilibrium state of the Universe – The End of the Indeterminacy Principle – Creative context	33
---	----

## Personal Experience

Informal Work with Joe Nuzum – <i>Alexander Imich</i>	36
---	----

## Network News and Notices

## Members' News and Notices

## Members' Articles

## News and Notices

## Forthcoming Events

## Book Reviews

Science/Philosophy of Science	53
Medicine/Health	62
Religion and Philosophy	67
Psychology/Consciousness Studies	73
Ecology/Economics/Future Studies	81
General	86

## Books in Brief

Cover: Prague, The Loretto Church. *Photo: David Lorimer*

## Network Guidelines

### Mission Statement

To deepen understanding in science, medicine and education by fostering both rational and intuitive insights.

### Guidelines of Network Approach

#### *Open-mindedness*

- Bear in mind that good science is an open self-correcting system; no theory or set of insights is complete or perfect. There is no Network consensus view.
- Be ready to consider constructive criticism and to submit your work to rigorous examination.
- Be prepared to revise beliefs in the light of evidence and experience.
- Question your own assumptions and presuppositions.
- Maintain a broad frame of reference.
- Cultivate humility, honesty, humour.

#### *Rigour*

- Recognize that our views of reality are models.
- Be prepared to test your ideas.
- Try to define your terms clearly.

- Make it clear when you are voicing opinions and beliefs.
- Be able to state opposing viewpoints in argument.

#### *Care of Others*

- Have respect and empathy for others and be aware of their needs.
- Balance kindness and understanding with clarity and discernment.
- Be willing to listen and learn from others in the interests of trust and openness.
- Disagree sympathetically, sensitively and constructively.

### Meetings:

Internal meetings provide a 'safe house' for exploration and debate in an interdisciplinary setting. This facilitates the development of trust and friendship. External meetings require a combination of rigorous professional standards with sympathy, understanding and support.

The above guidelines can be applied to writing and lecturing.

## Notice to Contributors

All contributions should be sent to the Editor in one or more of the following formats, in order of preference:

1. By E-mail to 100114.1637@compuserve.com,
2. By post on 3½ in. Floppy Disk, AppleMac or IBM format, using your usual word-processor file format *plus* 'RTF' or 'TXT' or 'ASCII (noCR)' formats.  
Disks should be labelled with the file name and author's name; all other files should be deleted. If you are sending a disk, please send hard copy as well.
3. By Typewritten copy, which should be clean – no overtyping or hand correction; any last-minute alterations should be sent on a separate sheet. Text should be printed in black on one side of white paper. Laser, ink-jet or daisy-wheel output is preferred.

# 10 Years with the Network –

## Retrospect and Prospect

Soon after I was invited to join the Network in 1983, when I was teaching at Winchester College, I drove over to Ockley to meet George Blaker. He took me out to a local pub and mentioned in the course of lunch that I was just the kind of person he was looking for to take over the running of the Network! I was somewhat taken aback, but the idea grew on me and three years later I was collecting files and papers from his house and driving back to Gloucestershire to start work with my new electronic typewriter. At first, I received little mail and did not even need a secretary. We had no computer until 1988 and all records were kept on a card index file. There were just over 400 members and a number of associate members or friends who received the newsletter in return for a token subscription. Then, gradually, activity began to pick up. The 1987 May Lectures were attended by 150 people and we arranged a series of autumn lectures in an inaccessible part of St. Thomas's Hospital.

By the summer of 1989 we decided to hold an Annual Meeting and spent a couple of glorious days at Dartington Hall with some sixty members out of the total of 600. Since that time the membership has trebled and now stands at 1,800 in over fifty countries. We have experienced a considerable growth in international membership, which makes up nearly 40 per cent of the total. Since the election of Kevin Ashbridge in 1992, the Council has always had at least one representative from Continental Europe and bi-annual Continental Members' Meetings have been instituted as well as country groups in The Netherlands, Switzerland and Germany. In 1993 we took our Annual Meeting abroad for the first time, and again in 1996. The growth of membership has made local groups a viable proposition so we now have a dozen such groups operating all over the country with more in the process of forma-

tion. We also have a small number of interest groups meeting on a regular basis and whose activities are reported in the Network News and Notices section of the *Review*.

In 1992 we had the chance to take over the organization of the annual Mystics and Scientists conference which celebrates its 20th Anniversary next year. This led to a raising of our conference profile and the staging last year not only of the Mystics and Scientists conference, but also to a major meeting with Professor Ilya Prigogine, a conference in St. Petersburg and the first Beyond the Brain conference in Cambridge with the Institute of Noetic Sciences. This has helped establish our track record as conference organizers and has in turn led to the production of video and audio recordings now sold through our trading arm Wider Horizons, set up in 1995. Although our Wider Horizons course for young people is currently dormant, an increasing number of UK members are now giving lectures in schools through our Schools Scheme.

Another major recent development has been the establishment of our Web Page with the help of a grant and a great deal of hard work by Claudia Nielsen, Paul Filmore and Levente Toth. The office now has two main computers as well as the laptop on which I am writing this editorial in Edinburgh! Over the period, the newsletter has metamorphosed from 32 small pages to the 96 double column pages *Review* and we are indebted to John Miller for all the editorial work he has put in since 1993 to make the presentation and layout so professional. We are currently considering further changes for April 1997. One of the biggest differences in format is in the book review section, which has been steadily built up over the past few years; ten years ago there were perhaps half a dozen short reviews per issue whereas we now have up to forty main reviews plus nearly a hundred other shorter ones per issue!

All this points to the frequently cited information overload and has led to the current strategic review being undertaken by the Trustees and Council. As you can appreciate from the foregoing, the Network has come a long way in ten years and has now reached the stage when more forward planning and fund raising is necessary. As you will have seen from Diana Clift's editorial in the last issue, we realize the vital importance of the elusive Network ethos and will seek to nourish it in any future plans. It reflects the quality and atmosphere of exchange in our meetings which is so creative and which fosters the growth of understanding and friendship among members.

I look forward to the next ten years with a keen sense of anticipation and enthusiasm. We can now see the outlines of a new emerging world-view in science, medicine, education, philosophy, psychology, economics and many

other disciplines. The Network will continue to be a forum in which new ideas are developed and articulated. I see the main openings for our work as education in its broadest sense, involving consciousness studies and the interfaces between science, medicine and spirituality. The starting point of any enquiry has to be the nature of the human being and human life, since educational, social and political structures are based on implicit assumptions about life and consciousness. We are currently developing a proposal which will provide a coherent framework for our future research, networking, educational and resource projects and will be reporting to you in the next issue. By the time you receive this, the Network Office will have moved to Fife in Scotland as we begin a new phase in our development.

David Lorimer

## Is Lucid Dreaming Dangerous?

by Professor Emeritus Arthur Ellison DSc(Eng), CEng (Vice President of the Network)

Most members of the Network will be aware that we have in the Consciousness Group a sub-group studying lucid dreaming. They are doing this in what is surely the only sensible way to do so – not by discussion only but by endeavouring to experience it for themselves. (Most scientists when they wished to study such a psychological topic would look around for subjects. The Network appear to be agreed that this is not always a very intelligent or helpful way to investigate consciousness.) The Lucid Dreaming Group was started in September 1995 and at the time of writing (October 1996) numbers 28 members. The reasons for starting research on consciousness and for choosing lucid dreaming for the first problem were set out in an article in *Network* No. 60 (April 1996) pp. 27–30.

Briefly, many of us have read in books the traditional descriptions of other planes of consciousness, of subtle bodies and subtle energies, and have heard many lectures about them. Questions arising have never been clearly answerable except in terms of what is printed

in those same books, and answers often were contradicted by experimental results. The Network is a scientific body and ancient traditions are hardly acceptable to us as knowledge; and neither are the traditional views passed on by a teacher who got them from his teacher, also without scientific evidence for their truth. (Whether experience can be necessarily considered as knowledge in altered states of consciousness is mentioned later.)

Then we have many therapists and others who have wondered whether traditional methods of healing might be valuable for their patients. They also need real knowledge of certain unusual altered states of consciousness to be able to help their patients (in the way orthodox psychiatrists often cannot).

We have psychics in the Network who have first hand experience of some of the altered states of consciousness we wish to understand, but very often they are unable to answer satisfactorily the questions which naturally arise. (Their explanations will not stand up under the tests which a scientific member would wish

to apply to them.) A good example relates to healing using *prana* (sometimes called poetically and unscientifically 'energy') which often does not work or works somewhat ineffectively.

May I interject with a recent example. A youngish lady I was recently put into touch with by a knowledgeable friend was terribly worried by frequent out-of-body experiences (several a week). She had been to three different doctors in a large Health Centre in Glasgow (two of them psychiatrists) and not one had even heard of the experience: certainly they were not able to give her reassurance and informed help. They gave her in turn a course of vitamins, tablets having unpleasant side effects and, eventually, offered a brain scan. One of them said that he had to find a medical term for what was happening to her and asked about sleep paralysis and epilepsy – all of which he apparently knew how to handle: unfortunately she did not suffer from them! Eventually she gave up going to doctors and visited the local library where, to her great relief, she found a book on the out-of-body experience and eventually was put into touch with me. She had been seeking help for twelve years! Not only had all those doctors not heard of the out-of-body experience but they all thought she was ill. In my view, she is actually privileged. She is now taking part in my experiments to try to understand the experience more deeply.

She is not the first case I have come across regarding OOBES and I have lost count of the number of cases of the Old Hag syndrome ('someone sitting on me in the middle of the night so that I could not move a muscle, accompanied by a dreadful feeling of menace and danger'). This probably led to the stories of the incubus and the succubus. Few 'normal' psychiatrists appear to me to know of this state (even though the one mentioned above did) which the informed ones call sleep paralysis and for which (Peter Fenwick tells me) there is a treatment.

Scientists and medics in the Network often these days meet patients having problems which have not been covered in their university courses or professional journals. It is very

clear that what is needed is open minded objective scientific investigations of what is often called today altered states of consciousness. Charles Tart calls such work 'state-specific science'. It is, of course, not what Thomas Kühn calls 'normal science' (which I have heard some members of the Network call science); I would myself tend often to call normal science 'scientism'.

There is little need to say more by way of justification. This is a vast subject and extremely intractable, yet accurate and applicable knowledge of it is urgently needed by many suffering people and by their therapists who are trying to help them. So we have started by choosing to study the commonest altered state of consciousness, which we have all experienced many times: dreaming. The aim of the Group members will be to have lucid dreams, that is, dreams in which they are fully conscious that they are dreaming and are thus able to carry out experiments. Several members of the Group have so far had success and become lucid and when they are able to do this reasonably repeatably then we shall be in a position to start a number of fundamental experiments (perhaps the subject of a future article) which should throw a great deal of light into several extremely important areas.

Is this dangerous? I think it is generally agreed that this work needs doing. If intelligent scientifically trained professionals like most of us in the Network are not capable of conducting research of this kind with appropriate care and safeguards, then who is? And if we do not do it I suspect very few others will. As mentioned, we all dream every night without coming to any harm. Learning to become lucid is the first step to making it more useful and learning something about it.

LaBerge at Stanford University has been studying this topic (and others) for many years [1], and has had some 2,000 or so lucid dreams; an e-mail friend of mine who now works with him has had about 1,000. Neither has come to any harm, in fact they emphasize the enormous benefits. The same applies to many others who write to me: I have a fat file of experiences. It is a part of Tibetan *Tantra yoga*,

studied (not scientifically!) and considered fundamental and important in their investigations of consciousness for many centuries. I have myself had a small number of lucid dreams and (so far) two out of body experiences. I feel sure that Livingstone was warned in dire terms of the dangers of darkest Africa. Somebody has to do this exploring and it should surely be done by properly trained people taking proper care and attention and comparing their findings as they go. (So far after over a year and now with 28 members I have not heard of anyone coming to any harm.)

It was suggested by one or two members of the Network looking at what the lucid dreaming group was doing that the work should perhaps not be attempted without the provision of proper guidelines from people who were suitably experienced and qualified to give them. Sadly I know of no such people who could back up their claims of knowledge in this area with the exact details of the experiments they did, with their safeguards, and exactly what they experienced. (We all understand why it is unreasonable at this stage to ask for peer-reviewed papers!) If there are indeed dangers in such an elementary thing as lucid dreaming then we should like to know what they are. Vague generalities will not help us at all to avoid any dangers they think we might meet and will not help those of us who may be willing to meet any dangers, with appropriate care, in order to help those many patients and others who need our help.

Happily we are not venturing into completely unknown territory alone. A great deal is already scientifically known about lucid dreaming and we are a large group of Network members who will be able to help each other. And our type of experiment will be rather different from the type which might be carried out by the normal academic in a university laboratory. (There are a very few!) The sort of people who get into trouble with such psychic research are probably somewhat psychologically unstable already and certainly not trained professionals doing collaborative scientific research as we are.

From Peter Fenwick our chairman and a distinguished neuropsychiatrist, with whom I

discussed this research, I got the message Proceed with care, and good luck! There is a most important fact which appertains to research into altered states of consciousness, i.e., which is not operating to nearly the same degree in normal waking consciousness. That fact is that one's prior beliefs are of enormous importance. (Being taught by a guru or reading an occult book giving explanations is a self-validating procedure! The *chela* always finds that the guru is right!) If one goes into an altered state thinking that it is highly dangerous then one is quite likely to meet some of those imagined dangers. (At least regarding two, we know how to handle nightmares and sleep paralysis these days and wish the average GP did too!)

When I had my out of body experiences I found that I was in a preliminary cataleptic state. This was almost certainly in my case because the book I was following said so. Many others have had similar experiences without that state. The people who claim expertise in altered states of consciousness are often/usually psychics. I have had a lot of experience over the years of psychics warning me of various dangers! May I give one example of advice from a psychic. (Happily we have in the Network one or two very good psychics and I am not discussing them! Clearly they appreciate the value of good objective scientific research or they would not have joined the Network in the first place. Their first-hand advice is greatly appreciated by those of us who are not psychic or are only a very little psychic, like most of the population in general.)

Many years ago I belonged to another body studying occult teachings from a scientific point of view. That was the Theosophical Research Centre and in particular its Science Group. The first chairman was my old friend Dr Lester Smith FRS, and we had other distinguished scientific members also. I succeeded him as chairman and did my best to carry on his traditions for some years. He and almost all of those others sadly have since died (of old age, I hasten to add; not because of the dangers!). (The Second and Third Objects of the Theosophical Society relate to the open-minded study of comparative religion, philosophy

and science and the powers latent in man. The First Object relates to the universal brotherhood of humanity without any distinctions of any kind. Needless to say, Theosophy is not a set of beliefs but the Ancient Wisdom or Perennial Philosophy put forward for open minded consideration, and study and adoption if any of it seemed reasonable. This many members have been doing since the foundation in 1875.)

To come to the promised example and to cut a long story short, we had in the Science Group been reading a book written by a Theosophical psychic and her psychiatrist husband dealing with the so called Etheric (well known to Theosophists and healers) and in particular to her etheric vision of subjects and detection/observation by it of internal physiological conditions. We wished to try to understand this better and asked her to do some tests with us of etheric vision so that a scientific paper could be published on it. (We had already considerable experience of working with another very distinguished Theosophical psychic and had published the results.) This particular psychic said that she was very sensitive and could not possibly come up to noisy London to do work like that. We then suggested we come to her home in the country and do it there. After some time she said that she could not possibly work with us sceptical scientists (her fellow Theosophists very familiar with the teachings, i.e., the traditional views) present. We then devised an automatic apparatus so that she could do the psychic etheric vision work by herself at home and we would not be present and would not even know when she was doing it. The apparatus was arranged to keep the records internally. After further delay she told us that she just would not work with us.

I gave a lot of thought to that and it taught me many things about some psychics! (I have never had the least problem in getting friendly help and co-operation from the mediums at the Spiritualist Association of Great Britain and many other psychics, Theosophical and otherwise, and have learned and published a great deal as a result.) I think that the major problem in this particular case was that, as every psychic knows, psychic faculties vary day by day

and cannot just be switched on like a light. Also, some psychics who are perhaps not very powerful have a considerable reputation which they fear would be lost if their claims were actually tested. Of course an experienced researcher is well aware that psychic faculties vary with time and would not jump to such conclusions after only a few tests.

### *Spiritual Development*

The psychic powers are known as the *siddhis* in Sanskrit and are described in Patanjali's Yoga Aphorisms. They number, *inter alia*, the power to read others' minds (telepathy), the power to leave the body at will (out of body experience). (They also, it is claimed, include the power to enlarge and examine very small objects such as atoms. This is called using the magnifying power of the *ajna chakram* and led to occult chemistry but that's another story!) These powers are said to come naturally with spiritual development and the aspirant is warned not to be deflected by them from the spiritual path. They are not spiritual in any way, they are psychic.

Here in the West, it seems to me, we are working from a bottom upwards way (the way of occultism) and not a top downwards way (the way of mysticism). We are learning gradually about our consciousness in the scientific way and the spiritual motive in the Network is surely that we are doing it in order to help others who need our help.

Our own development runs alongside hopefully. We should not think, in my view mistakenly, that by studying consciousness scientifically we are in some way trying to short-circuit a natural process of spiritual development. This is surely compassionate science. Happily we shall find that, hopefully, by studying and experiencing lucid dreaming we shall discover that the state of our nocturnal dreams is parallel to our waking dreams. We might discover for ourselves our consensus trance in which nearly all of humanity spend their waking hours. Some of us might even be helped that way to wake up. If my understanding of *Tantra* is right, that is why they are so interested in it in Tibet and elsewhere. Charles Tart has writ-

ten a book about learning to wake up from our consensus trance. (*Waking Up*, Element Books, 1988.)

#### *Ethical Considerations*

In researching new areas we must be as sure as we can be that we are not venturing into dangerous and unknown places without reasonable guidelines or advising others to enter such areas. I am not worried about lucid dreaming for Network members in this regard. However, perhaps in the future we might need in the

Network an Ethical Committee to look independently, and from the basis of a wide ranging knowledge representing a number of disciplines, into what it is proposed by members to study, and to make recommendations. I (and a number of others) would be very much in favour of setting up quite soon such a committee by the Council.

#### *Reference*

1. LABERGE & RHEINGOLD, *Exploring the World of Lucid Dreaming*, Ballantine, 1990.

## Energy Monism: A Solution to the Mind-Problem that Connects Science and Spirituality

by Mark B. Woodhouse, Ph.D, Atlanta, GA, USA

**I**n the interests of greater scientific rigor, recent measurements of the subtle domains of consciousness (for example, in healing and psychokinesis) have been framed in the language of energy – usually of an electromagnetic variety. Thus, studies by Braud (*Subtle Energies*, vol. 2, No. 1) and Radin (*Subtle Energies* vol. 4, No. 1) suggest that something of an anomalous energetic nature can take place mainly (or merely) as the result of properly focused conscious intent. A recent critique by Larry Dossey in *Healing Words* urges that the non-local effects of consciousness in such contexts put it outside the domain of 'energy exchanges' and that attempts to frame consciousness as (just some form of) energy represent the last gasp of a dying Newtonian world-view.

Is consciousness merely some form of energy as currently described by the four forces? Or is it irreducible to any form of energy? There is plenty of talk about consciousness and about energy in New Paradigm contexts. But thus far, new paradigm theorizing appears not to have adequately put them together. The differences to which Dossey's critique draw our attention are *philosophical* and therefore cannot be resolved merely by more performing experiments. Of course, more scientific data must

anchor the direction of comprehensive theories of consciousness (both scientific and philosophical), but further progress in this debate will depend in part upon an analysis of the fundamental assumptions and conceptual linkages that frame the very possibility of such differences taking root. Here are the standard historical options:

1. Consciousness is non-physical; matter is physical (dualism).  
Strength: Intuitively plausible; depression, for example, seems *very* unlike the neural nets that occasion it.  
Weakness: How could something inherently non-spatial (mind) interact with something in space (brain)?
2. Only consciousness exists; matter *is* consciousness (idealism).  
Strength: Allows for a full-spectrum of consciousness, including transpersonal domains  
Weakness: But how could rocks be mere thoughts? Consciousness may well play some role in 'rockness' but there must be an energetic/material aspect, too.
3. Only physical matter/energy exists (materialism).  
Strength: Highly fruitful stimulus for the neurosciences.



Weakness: Appears unable to explain all of consciousness; reduces 1st-person points of view on experience to 3rd-person points of view.

4. Consciousness exists only as a non-efficacious by-product of neurochemical processes in the brain (epiphenomenalism).

Strength: Allows for phenomenal aspects of consciousness, such as throbbing pain.

Weakness: But keeps them out of the causal loop; what we feel or think has no effect whatsoever on how we behave.

For reasons too varied to explore here, these options are not attractive. Historically, all have been subjected to serious objections (briefly hinted at above) and each tends to compensate for the shortcomings of the other(s). In this article I propose a fifth alternative that I believe scientists and clinicians interested in the healing effects of consciousness and in the mind-body problem in general may find attractive. Before that, however, Dossey's concerns need to be addressed. I believe they are significant and even profound, but do not necessarily lead us in the direction he proposes.

Thesis-1: Dossey argues that, while we may have measured electromagnetic anomalies around healers, we have not measured *any* kind of energy travelling through space from healer to healee.

Response-1: The existence of energetic interactions is determined by what our instruments are capable of measuring. If healing energy signals a fifth force, as its anomalous effects suggest, it should not surprise us that our instruments have not yet detected what Dossey seeks. Healing energy may be only intermittently and non-locally *transduced* from a fifth force to energy of an electromagnetic or quantum variety.

Thesis-2: Energy-talk is incommensurable with the *non-local* effects of healing at a distance. For example, what does energy have to do with the fact that, say, Sarah prays over John, 3,000 miles away, and John's tumour miraculously disappears the next day? Consciousness, Dossey points out, is the more

relevant variable in this scenario, e.g. Sarah's intent and John's state of readiness.

Response-2: I interpret this as merely drawing attention to the fact that we can talk about consciousness (e.g. phenomenologically or in terms of neural net theory) in different ways and/or at different levels. However, this does not demonstrate a conflict between the two methods. Worth noting here is the fact that philosophers of an anti-materialist bent have long drawn attention to the fact that the properties of consciousness *per se* (i.e., as experienced) appear to be very unlike the properties of, say, neural excitation in one's brain. Dossey has not so much provided a strong argument for eliminating energy-talk in favour of consciousness-talk in healing contexts, but rather, shown very nicely *another* interesting arena where the traditional mind-body problem has taken root. I think that Dossey may also have traded on an ambiguity in the concepts of non-locality and simultaneity in the Bell literature, prompting him to conclude that there must not be any *causal*, and hence no energetic, mediation in healing at a distance. To be sure, if we had evidence for literally *instantaneous* healing at a distance, energy talk would be more problematic, because a medium of transmission would be unnecessary. Thus far, we don't, although so-called 'backward causation' from the future does raise some parallel issues when a dramatic improvement *precedes* the healing or prayer work. Even here, however, writers who defend the idea of backward causation speak in terms of 'reversing perturbations' in the space-time continuum (field) – which still sounds like energy-talk.

Thesis-3: Energy-talk in healing contexts implies a *dualistic* contrast with consciousness. It also suggests Newtonian cause-and-effect relations, and is furthermore incompatible with quantum physics and major non-dualistic spiritual traditions. (There are, of course, four distinct claims here.)

Response-3: Quantum physics is a different (non-Newtonian) way of talking about energy, but it still invokes energy. Furthermore, energy talk is compatible with the spiritual traditions of the Perennial Philosophy, but needs to

be acknowledged at the appropriate levels in the Great Chain of Being, as Ken Wilber and others have pointed out. Moreover, Dossey himself seems not to have made much progress over classical dualism, his rejection of it notwithstanding. Presumably he believes that both consciousness and (physical) energy exist. He tells us that the former *is not* the latter, but does not explain how they fit together in an overarching paradigm. If Dossey were clairvoyant and could observe an etheric healer pull 'yucky stuff' from a client, what else could he call it but 'energy' (of some type or other)? Or when he views the art in Barbara Brennan's *Hands of Light*, what could he think is going on, if not something of an energetic nature?

I propose that we can address Dossey's concerns and incorporate the relevant experimental literature by adopting a double-aspect theory which does not attempt to reduce either energy or consciousness to the other, and avoids the excesses of both dualism and the Newtonian legacy. It is also consistent with non-dualistic spiritual traditions. The full label for this position is a 'Transcendental Monism of Dual-Aspected Energy-consciousness' but for reasons of obvious linguistic economy I shall rely upon the more cryptic 'Energy Monism.'

According to Energy Monism, energy and consciousness are aspects of each other. Energy is the 'outside' of consciousness and consciousness is the 'inside' of energy throughout the universe, from atoms to angels (or as far as one's ontology allows one to go). Insides and outsides are determined by *perspective*. For example, a clairvoyant healer may externally 'see' a client's emotional pain around the heart chakra as coloured energy. The client, of course experiences this inwardly *as*, say, despair. This is a dualism of perspective, not of fundamental stuff; each *is* the other, but as experienced from a different perspective. 'Sending energy' to the healee would be tantamount to activating a ripple in consciousness. Current inability to measure such a transmission, on this account, would constitute a limitation of perspective, not of ontology. We cannot 'see' thoughts and feelings in a person's brain

either, but this needn't preclude Energy Monism from interpreting subtle phase shifts in quantum interactions in the brain as reflecting an 'outer dimensional edge' of the corresponding thoughts and feelings.

Energy Monism would have us think of atoms, for example, as having a conscious aspect. So long as we don't impose assumptions about *human* consciousness upon the atom, however, and think instead of minute *degrees* of consciousness, corresponding to its outer objective aspect of minute vibrating energy, I see nothing inherently implausible with this implication. The alternative, that of ascertaining where in the Great Chain of Being consciousness 'stops,' confronts the challenge of arbitrariness. If you think that primates have it, for example, but that rocks do not, then what about amoebae? Where does one objectively draw the line?

With further elaboration, Energy Monism can explain how both science and spiritual practice fit comfortably in the context of a single paradigm. The non-dual Source of some spiritual traditions (which transcends all perspectives) is said to express itself energetically (outwardly) on different levels in the Great Chain of Being (matter being the densest form of energy), even as the spiritual adept inwardly accesses higher transpersonal bands of consciousness. The scientist and the sage move both in different directions in a hierarchy of perspectives and on different 'sides' of the dimensionless plane that seems to separate their concerns.

In Taoism, for example, it is held that both Yin and Yang are complementary aspects of each other (each containing seeds of its complement) and that both are expressions of the unspeakable TAO. In comparison, we can say that energy and consciousness are aspects of each other and that each, from a complementary perspective – subjectivity and objectivity, or inner and outer – is an expression of a Source that transcends all distinctions. Classical Vedic thought, specifically Samkhya-Yoga, also builds a double-aspect theory into its ontology – *chitishakti* (conscious-stuff) and *pranashakti* (energy-stuff), where both 'chiti' and 'prana' are both aspects of *shakti*.

Let me further elaborate upon my proposal by answering a critical objection and drawing some contrasts. It is sometimes argued, for example, that talk about 'energy' only makes sense in the context of the four forces. Therefore, if there are phenomena in nature that go beyond these forces (as suggested by the data of parapsychology and transpersonal psychology), they must belong to consciousness – not to energy. I find this restriction a bit arbitrary and potentially incoherent. The reason is that many of the properties of energy used to characterize it on purely physical levels of the Great Chain of Being may be also found in transpersonal domains. Thus, whether from sages, psychics, or near-death experiencers, we hear of the 'power of consciousness', 'higher frequencies of consciousness', 'waves of consciousness', or the 'movement of consciousness'. These phrases are more than just metaphorical transplants of energy-talk into consciousness talk. They are by people who experience consciousness in these ways. Why, then, can we not talk about higher realms of consciousness as having correspondingly higher energetic aspects? Swamis Rama and Muktananda, for example, have spoken straightaway of these realms as involving *higher energies*.

Having responded to this objection, I now must issue a cautionary note.

For all the talk about higher and lower frequencies in tandem with ordinary and altered states of consciousness can make it seem as if I am saying that consciousness just *is* a higher or more complex energetic wave form, as contrasted with matter which is of a lower or less complex form. Crudely put, consciousness is higher vibrations, matter is lower vibrations, and they are both just different forms or levels of energy. This is reductionism all over again, although the ability to run the frequency talk all the way up to transpersonal domains makes it seem like a very liberal and even anti-reductionist point of view.

This is not the position of Energy Monism. Consciousness isn't just a different level or wave form of vibrating energy; it is the 'inside' of energy – the pole of interiority per-

fectly understandable to every person who has had a subjective experience of any kind. It manifests itself energetically, but is not reducible to those manifestations, whether behavioural, quantum-coherent, or neurological. The way my depression *feels* to me can never be captured by reference to how it *looks* (energetically or physically) to you. Were I to have a mystical experience, a clairvoyant observing this with interdimensional sight would no doubt see something rare and powerful – an energetic bonanza! But that would still be taking up an external perspective on an internal experience not reducible, although intimately connected, to it – as intimately as the sides of a two-dimensional plane.

Consciousness thus has higher and lower aspects all the way up and down the Great Chain of Being. The same is true of energy. But the distinction between inner and outer aspects of the Great Chain can never be reduced to one between higher and lower frequencies – or to simpler and more complex levels or organization. A comprehensive solution to the mind-body problem that connects science and spirituality must take both polarities, the inner/outer and the higher/lower (or simple/complex) into account.

Because of its sweeping nature, it is impossible to argue directly for this proposal in the sense of performing some crucial experiment from which it would be entailed. But if it 1. avoids weaknesses of classical mind-body theories, 2. provides a plausible model of how energy and consciousness actually can fit together in a single model (other than just affirming that they both exist), 3. is consistent with experimental literature of healing as well as the larger concerns of the cognitive and neurosciences, 4. is furthermore consistent with the axial spiritual traditions, and 5. takes Dossey's important concerns into account, then we might reasonably conclude that Energy Monism deserves a hearing.

Energy Monism appears to model an effective bridge not only between energy and consciousness, but also between the larger concerns of both science and spirituality. For reasons having more to do with historical cir-

cumstance than with philosophical necessity, the sage and the scientist have moved in different directions within the Great Chain of Being. What I hope to have made plausible is the idea that, when they happen to pass each other, whether in ordinary or non-ordinary realms, it is from two inherently different perspectives on one and the same road – not two roads!

*Mark Woodhouse is Associate Professor of Philosophy at Georgia State University in Atlanta, where he teaches courses in Metaphysics, Eastern thought, Consciousness Studies, and the New Paradigm literature. This article is derived from his recently published Paradigm Wars (North Atlantic Books), which offers an extensive analysis of a broad spectrum of current transformational challenges. Tel: +1 (404) 651 2277.*

## Chickens Don't Lie

by Peter Fenwick, London UK

**D**r. René Peoch is a parapsychologist working at Foundation ODIER in Nantes, who has spent the last 15 years studying animal psychokinesis and telepathy using chicks and rabbits. At a recent conference in Portugal, he reported several experiments derived from eight years of work, which would have passed the boggle-threshold of most of the scientists present had the data not looked so good.

The first experiment reported demonstrated the psychokinetic ability of young chicks. A mechanical robot was programmed to receive a code from a random number generator inside it, which instructed it to make random movements. It was put in an experimental area in which chickens were about to hatch. On hatching, the chicks imprinted on the robot and treated it as their 'mother', following it in its random walk. After three days of living with the randomly moving robot the chicks were taken away and in their absence the movements of the robot were recalibrated to show that it was still moving randomly. A chick was then reintroduced to the experimental area in a cage so that it was able to see the robot, but not follow it. It was observed that the movements of the robot become less random; it spent more time close to the chick than it did elsewhere in the area. It seemed that the chick was able to influence directly the random number generator of the robot so that the robot moved nearer to it – i.e., the sequence of numbers generated was no longer random.

In a second generation of robots, the instructions for the movements of the robot

were generated by a computer away from the experimental area. This made no difference to the chick's influence on the robot, which still spent more time with the chick. Chicks which had not been imprinted did not show this effect, so an 'empathic' relationship between chick and robot is necessary for the effect to occur.

Dr. Peoch also reported work with rabbits and robots. A rabbit placed in a cage beside a randomly moving robot becomes frightened. The robot then spends more time in the area furthest away from the rabbit's cage. It was as if the rabbit was able to change the random number codes so that they were no longer random and the robot made more movements away from the rabbit. Even more fascinating was an experiment where the rabbit, once it was familiar with the robot, was starved for two days. Food was then placed on top of the robot and the rabbit this time influenced the robot to make more movements towards the rabbit and spend more time near the rabbit's cage. Dr. Peoch also showed that human subjects too could influence the robot, altering the random number generator of the robot by parapsychological means in a statistically significant way. Clearly the ability of animals to affect a randomly moving robot is not limited to one species only.

Telepathy between rabbits also appears possible. Two young rabbit kittens who were litter mates and had been brought up together for six months were put into separate rooms. A blood pressure transducer was placed on an ear

of each rabbit. If one rabbit was frightened so that its blood pressure fell, a similar fall was seen in its sibling. However, if the two rabbits were not siblings and had not been brought up together, the effect did not occur. Telepathy only occurred if the rabbits had a close 'empathic' connection.

Finally Dr Peoch suggested that time in parapsychological experiments is different from everyday time. Six months before the experiment took place, a computer generated a long string of random code to move a robot randomly. This string of code was not examined, but stored on disc. The experiment was then carried out 6 months later using the first half of this code to control the robot. The subject influenced the robot to come towards him, thus breaking the random pattern of the code. When the code was examined, the first half of the code, used in the parapsychological experiment, was now non-random and showed more codes for moving the robot towards the subject. The second half of the stored code, which had not been used in the experiment, still

showed a random pattern. It was as if the computer 'knew', when it was generating the codes, that the first half codes were going to be used in a parapsychological experiment and were to be generated in a non-random fashion, whereas the second half of the codes were to be used as a control and were to remain random. Clearly this contradicts the rules of causality and time as we understand them. It was interesting to watch the expressions of disbelief on the faces of the traditional brain scientists, whose credo is that the effects of all brain processes are confined within the skull.

The effects are strong, and the question of cheating by the subjects (always raised to discount parapsychological effects) appeared to be ruled out. Chickens don't cheat. Can we explain them? One explanation for these effects is that there is an underlying psychic field, the nature of which has yet to be defined. For links to be established through this field there must be some empathic factor. What is clear is that if this work is confirmed then interconnectedness of mind would be a reality.

## Exploration 27

by Ronald Russell, New Galloway, Scotland

**R**obert Monroe, who died in March 1995, was one of the leading modern explorers into human consciousness. He is perhaps best-known for his widely selling books, *Journeys Out Of the Body*, *Far Journeys* and *Ultimate Journeys* which together provide the fullest and most detailed accounts of the out-of-body experience to date. He also founded a non-profit educational and research organization, The Monroe Institutes of Faber, Virginia, which for more than thirty years has investigated, quietly and without publicity, the 'further reaches' of human consciousness.

Monroe developed an auditory guidance technology process patented as Hemi-Sync (short for Hemispheric Synchronization), using blends and sequences of very low frequency sounds. This technology appears to encourage portions of the electrical brain-wave patterns in the left and right cortical hemi-

spheres to become synchronized. By varying the frequencies, patterns indicative of different states of consciousness may be brought into being. Recorded on audio tapes with a verbal accompaniment or musical overlay, this process according to its users has proved to have a multitude of possibilities. Certain frequency combinations, it seems, can send the listener to sleep; others appear to aid concentration, increase receptivity, deepen relaxation, improve mental performance or help to access intuition. Hemi-Sync taped exercises are now used throughout the USA and in many other countries, including Canada, France, Germany, Spain, Poland, Slovakia, the Czech Republic, Denmark, South Africa, Australia and Japan. They are also available in the UK.

Monroe himself preferred to concentrate on giving as many people as possible the opportunity to explore and develop their own con-

consciousness through a variety of courses and exercises, rather than seeking to have his process validated by orthodox scientific methods. However, over the years his work attracted a growing number of scientists, doctors, psychologists and other professionals, many of whom incorporated Hemi-Sync into their own practices. Recent laboratory research using computerized equipment that analyses electrical brainwave patterns revealed by EEGs has illustrated how the sound sequences affect the electrical activity of the brain. This has led to a greater refinement of the process consequent on an increased understanding of how it actually works. Papers are now in preparation which should bring awareness of the possibilities of this technology to a wider scientific population for, as Professor Arthur Ellison says, 'Consciousness is now respectable and on the international scientific stage'.

Fascinated as he was by the exploration of human consciousness, Monroe developed what he called a 'consciousness continuum', a kind of table which sought to describe the various phases in and out of which consciousness could move. To communicate these he devised a simple terminology of 'focus levels', to which he gave numbers that, he hoped, could not be interpreted with any religious or superstitious significance. These numbers are spaced out to give a very rough indication of the degree of difference between states and also to leave room, as it were, for subsequent discoveries. For example, Focus 1 is everyday awareness; Focus 10 is a state where the cerebral vortices generally operate in synchronization – when the body is 'asleep' and the mind awake and alert. Focus 12 is 'a state of expanded awareness' and Focus 15 a state where linear time does not enter into your awareness. Focus 21 marks 'the edge of physical reality', and for many years that was where this exploration into consciousness came to a halt.

However, Monroe was not convinced that consciousness was extinguished when the physical body died. He was persuaded by his own experiences that not only did it survive physical death but it was capable of communicating with consciousnesses still housed – if only temporarily – in living bodies. Moreover

those 'living' consciousnesses could themselves transcend the physical death barrier and, to put it simply, return to tell the tale. This formed the basis of his 'Lifeline' programme, where participants were enabled to move into part of that uncharted territory beyond physical life, which he signposted as Focus 22 to 27. They might make contact with whomever they found there and provide assistance if needed. 'Uncharted territory', however, is a misnomer; territory is clearly not the right word and Monroe provided his own chart which others could adapt in accordance with their own experiences. Monroe called this region 'There', as opposed to 'Here', which is an appropriately neutral term.

A few months before he died, Monroe designed one further expedition into these far reaches. He called this 'Exploration 27'. At the time of writing, about one hundred people have travelled along this guided route, reporting what they have observed and felt. Their recorded experiences and those of future participants will form material for a research project which may demonstrate some degree of uniformity of perception as to what resides 'out There'. As all those taking this journey listen to the same exercise at the same time of day on the same day of the week there should be enough compatibility to solve some of the problems that can arise in this type of study.

What is this 27 which is being explored? Monroe, writing in *Ultimate Journey*, describes it as 'an artificial synthesis created by human minds, a way station designed to ease the trauma and shock of the transition out of physical reality. It takes on the form of various earth environments in order to be acceptable to the enormously wide variety of newcomers.' He himself visualizes it as resembling a park, with lawns, trees, walks and elegant buildings here and there, each housing some important facility where 'visitors' may gather knowledge, information and ideas. Some who have had a near-death experience may recognize it as a sort of reception centre which they have briefly glimpsed before returning. Others may interpret it in accordance with their own cultural or experiential background in ways with which they are comfortable.

Many of us may find Monroe's concept difficult to grasp. But if – like members of the SMN Consciousness Research Group – you set out to *explore* consciousness, rather than seek to analyse or explain it, you may discover for yourself this area where the living and the dead are able to communicate. You may simply say 'it is all in your mind' – or wherever you consider consciousness to reside. True; where else could it be? Yet if it is not only in your mind but, in some shape or form, in the minds of hundreds, thousands, millions of other human beings, does this not give it a form or semblance of reality which at least merits further exploration?

As the phased sound signals lead you into Focus 27 you are invited to explore what this state has to offer. It is, however, not simply a solo mission. It would seem that during the process a shared consciousness begins to develop. The twenty or so participants in a week-long course at The Monroe Institute, although listening in isolation, frequently report seeing and communicating with each other. This communication is unplanned and unintentional, and sometimes involves individuals who have so far not even spoken to each other. Yet it appears to happen, time and time again.

The exploration does not end at 27. It continues with the aid of further phased sound signals to what Monroe calls 34/35. Again, this is largely a shared adventure in that while each person interprets in his or her own way, there is a widespread sense of being accompanied by other identifiable participants in the course. Many people discover in 34/35 a strong, even compelling, sense of unity, of oneness, not only with other people but with the whole of creation, the entire Universe. This is recognizable as a profound mystical experience but in a context entirely of its own.

The sound signals that accompany this journey are no more than training wheels. They help you to move into various phases or stages of consciousness and to maintain you there for a period of time – thirty minutes or more. Once you are accustomed to the nature of the experience, you may be able to feel your way into what phase or stage you wish with-

out the aid of the sounds. Countless people may recall having experienced the feeling of oneness with creation that seems to be characteristic of 34/35. Yet for most this was a fleeting moment, a sudden glimpse of something enormously significant, full of meaning, but no sooner apprehended than gone. Supported by the sounds, however, this moment is extended, the glimpse lengthens into a prolonged period of observation, the experience fills all the senses, lifts the spirit and holds it high. You do not return unchanged.

There are other means of exploring consciousness and perhaps arriving at what may be regarded as transcendent experiences. Profound meditative practice, hypnotic suggestion, psychotropic drugs – these are just examples. Monroe's method, now continued by his successors, works quickly, has no side-effects, no subliminal messages, no dependence on a guru or belief system and comparatively little expense. But how far does it help us to understand consciousness itself, and what significance does it have for those seeking to explain consciousness in scientific or materialistic terms? This 'shared consciousness' that is so convincing at the time and so emotionally and spiritually moving – what does this tell us about the mind of man, and to what uses can it be put? Perhaps Network members can suggest some answers.

#### References

- RUSSELL, RONALD (ed.) *Using the Whole Brain*, Hampton Roads Publishers, Charlottesville, Virginia
- MONROE, ROBERT A. *Journeys Out of the Body*, Doubleday & Co
- *Far Journeys*
- *Ultimate Journey*
- TART, CHARLES T., *Open Mind, Discriminating Mind*, Harper Collins
- PEARCE, JOSEPH CHILTON, *Evolution's End*, Harper Collins
- ATWATER, F. HOLMES, *The Monroe Institute's Hemi-Sync Process: a Theoretical Perspective*, The Monroe Institute, 62 Roberts Mountain Rd., Faber, VA 22938.

## Jean Gebser's Contribution Toward a New Consciousness

by Georg Feuerstein, Ph.D., Lower Lake, CA, USA

It has become almost banal to state that we live in decisive times, at the brink of a historical chasm. On the one side, we have the apostles of doom who, rightly, point to our growing ecological deficit, overpopulation, world-wide political instability, and not least the ever-present threat of nuclear war. On the other side, we have the optimists who tell us of a new millennium that will bring harmony, peace, and love to our blue planet.

Both camps cite their evidence. Much of it is convincing, and much is a matter of interpretation and subjective preference. At any rate, as extreme positions, neither the pessimistic view nor the romantic 'New Age' ideology is convincing. The former view typically leads, if not to resignation, then to piecemeal scientific tinkering with the natural and socio-political environment, which is apt to aggravate the situation rather than remedy it. The latter position characteristically presumes that if only we think all is well, then all will be well—a rather naive credo that invites a twinky lotus-eating attitude that calls for true believers rather than mature, self-critical, informed, and responsible persons.

What is clearly needed is a realistic response to the present-day global crisis—a response that takes into account the great seriousness of our problems without getting overwhelmed by it all, and that simultaneously appreciates the fact that what we are facing today is primarily a *crisis of consciousness*. As such it is a crisis that affects and concerns us individually and collectively and that demands both individual and collective measures.

This is where the work of the Swiss cultural philosopher Jean Gebser (1905–1973) can make a profound contribution. I consider him to be one of our century's most versatile, deep, and daring thinkers. By boldly asking the 'big' existential questions and by taking a breathtaking panoramic view of human existence, Gebser succeeded in furnishing us with

revolutionary insights into our present situation.

Gebser's monumental work on the evolution of human consciousness was first published in Germany under the title *Ursprung und Gegenwart* (Origin and Present) in the early 1950s. Then, in 1985, Ohio University Press published the long-awaited English version of Gebser's magnum opus, entitled *The Ever-Present Origin*. Since then Gebser's work has received increasing attention in American intellectual circles, though it is still virtually unknown in England and other English-speaking countries.

Gebser's ingenious psycho-historical model grew out of an intuitive flash he had as far back as 1932, in which he came to understand that the massive changes that the Western world has been witnessing since the beginning of the twentieth century are manifestations of a fundamental shift in our cognitive style. He read that breakthrough as a shift toward what he later called the a-rational consciousness (as opposed to 'irrational'). A large part of his subsequent labours was devoted to fleshing out that holistic glimpse, both by going back into our past and by looking more closely at the remarkable developments of the present.

Proceeding as a cultural phenomenologist, Gebser was able to identify four major configurations of consciousness in our collective past (and present):

1. The mental structure of consciousness, as the name suggests, is the domain of *mens*, the thinking mind, of reasoning in its various forms. It is a cognitive style, or paradigm, that operates on the principle of duality, of either/or. It implies a conscious subject that experiences itself as standing apart from the objects, or contents, of awareness. According to Gebser and other historians, this style of cognition is a relative latecomer in the noetic evolution of humankind. It made its appearance around



the middle of the first millennium BC – what the German philosopher and psychiatrist Karl Jaspers called ‘the axial age’. Only with the European Renaissance do we see the seedlings of a new rationality that is at once more egocentric (perspectively fixed) and demythologizing – the kind of rationality that has led us into the cul-de-sac of the nuclear arms race and the ecological devastation of our planet.

2. Representing a degree of consciousness (and of subjectivity) that is less focused and more diffuse than the mental structure is the mythical structure of consciousness. It is a cognitive style that operates with polarity rather than duality, and unfolds through symbol rather than calculus, myth rather than hypothesis, feeling or intuition rather than abstract thinking, and value-creation rather than fact-finding, as well as interpersonal sensitivity rather than intrapersonal (egoic) dialogue or conflict. It is the type of consciousness that has been and still is responsible for the world’s immense variety of religious traditions, art, and literature.
3. A still more diffuse (pre-egoic) awareness is represented by the magical structure of consciousness. It operates on the principle of identity, as it is expressed in analogical ‘thinking’. This is the kind of mental activity that, through a gut-level (archetypal) response, relates apparently disjointed elements into a whole – but a whole that does not necessarily make sense from a rational, logical point of view. We see this style of cognition in action in the marvellous hunting scenes depicted in the stone-age cave paintings. These early artistic depictions are signposts of a primitive hunting ritual: They anticipate the death of the animal to be slain, its heart pierced by an infallible (because magically guided) spear or arrow.
4. The simplest and earliest identifiable cognitive style is that of the archaic structure of consciousness. It has the least degree of self-awareness, and is almost completely instinctual. Historically, it predates the Neanderthals and Cro-Magnons. If the mental structure can (by magical analogy) be compared to the waking state, the mythical

structure to the dream state, and the magical structure to sleep, the archaic structure of consciousness is comparable to deep sleep. It is, as Gebser put it (somewhat controversially), closest to the ever-present Origin. Indeed, we may postulate that it shares certain features of the transspatial/transtemporal origin, such as synchronicity.

Whereas certain parapsychological phenomena, such as telepathy, can be explained as pertaining to the magical structure of consciousness, precognition appears to be rooted in the archaic structure. Apart from formal considerations that necessitate the postulation of this primitive structure of consciousness, Gebser also cites some cultural evidence.

Each structure represents a distinct frame of reference, or unconscious paradigm, within which the world is interpreted. An earlier generation of anthropologists distinguished between a logical and a prelogical mentality. This was a simplistic distinction that deservedly courted criticism and also suffered from a great deal of misunderstanding. Gebser’s differentiation into an archaic, a magical, a mythical, and a mental structure of consciousness is appealing because it actually does justice to the complex data about premodern mentalities, and it also makes sense from the perspective of the psychology of the individual. For instance, Sigrid Knecht (1965) has used it to explain the phenomenon of ‘mouthlessness’ in primitive magical contexts. I myself (1976) have applied it extensively to the Indic civilization, where it helped me to better understand the spiritual (yogic) traditions. What is more, the German psychotherapist Gustav Richard Heyer (1958), has used Gebser’s model to better understand the constitutive processes of the modern psyche. For, as Gebser saw very clearly, history is alive in us (and, in a certain sense, is living us): In our individual unfolding, each of us recapitulates the evolutionary journey of the human race. This is a correlative theorem to the old biological law that ontogenesis is a recapitulation of phylogenesis.

Our civilization, enamoured of the apparent successes of science and technology, has for the past three hundred years celebrated ratio, or rationality. Gebser, airing the feelings of some

of the best minds of our age, has debunked this naïve view. For him, ratio is the straitjacket into which the mind is forced when it fails to be motivated or awed by anything larger than itself.

Thus, in Gebser's model, the rational consciousness is not hailed as the culmination of the evolution of the human cognitive system. On the contrary, Gebser regards the rational consciousness (which should not be confused with logical thought) as the deficient form of the mental structure (which is inherently balanced). What he means by 'rational' is best exemplified in the pseudo-philosophy of scientism, that is, the ideological exploitation of the scientific method, applied in areas that lie outside the competence of science (such as metaphysics or ethics). Gebser does not reject reason and logic *per se*. He only criticizes, and criticizes severely, heartless, self-divisive, and atomistic reasoning – the kind of rationality that continues to be the source of a great deal of human misery and the violation of the ecological system. For Gebser, the attitude of rationalism – in this sense – is an evolutionary dead end.

Gebser's work has a strong historical-evolutionary component, but he has always emphasized that the various structures of consciousness are not merely a matter of the past. Rather they are co-constituents, essential features, of our modern consciousness. That is to say, we are as much mental beings as we are archaic, magical, and mythical beings. This is an important insight that has great practical relevance.

In my book *Structures of Consciousness*, I have described our everyday consciousness as a 'play' of these structures. Or at least, this is how we can consciously relate to them. They are, however, always at interplay with each other. Thus, every single day our consciousness completes a cycle of movement through the diverse states of consciousness – from waking to dreaming (or reverie), to sleep, and finally to deep sleep. But, more importantly, throughout the day, we thematize the four structures in interaction with others, or in response to our environment. The fact is that we spend far less time than we like to think in the mental structure of consciousness. Instead,

for much of our time we live out of less focused states of awareness, as Gurdjieff, among others, has reminded us. It can be a useful exercise to consider approximately how much of our day we are actually consciously present, and to what degree.

When we examine our ordinary daily experiences closely enough, we find that the accompanying awareness undergoes changes in quality. Different experiences are, or can be, associated with different cognitive styles. When we listen spellbound to music, the qualities of the magical structure of consciousness come to the fore. When we tell a story, it is the mythical structure that becomes dominant in us. When the 'earth moves' for us when we make love and ecstatic sensations drown our self-awareness, then the archaic structure is our temporary residence.

Gebser's model opens up great possibilities for self-knowledge. What it shows us, among other things, is that the consciousness of the scientists – as a human being engaged in a specialized activity – is a composite of cognitive styles. The mental – 'rational' operations, which are considered the scientist's daily bread, occur against a backdrop of a variety of cognitive styles or structures. Yet, in order to do his or her intellectual work, the 'typical' scientist thematize the mental structure of consciousness to the exclusion of the other structures, thereby denying the larger part of his or her own nature. But this, sadly enough, appears to be true of the majority of people everywhere. Many have not even met the challenge of the mental structure of consciousness yet, but live in regressive flight from the full-fledged egoic consciousness and will, allowing authority figures – the corporation, the state, the welfare system, the media, the psychiatrist, or the guru – to make their life choices for them.

Before the egoic-mental consciousness can be transcended, it must first be incarnated in full. The a-rational consciousness, which Gebser saw as constellating itself in our century, calls for great self-knowledge and responsibility. It is not 'appropriated' automatically like a consumer article. In order for it to become effective in our lives, we must become trans-

parent to ourselves. Thus the next evolutionary step that humanity is challenged to take is a very personal one.

#### *Bibliographic References*

- FEUERSTEIN, GEORG. *Structures of Consciousness*. Lower Lake, Calif.: Integral Publishing, 1987, repr. 1996. The only book-length introduction and critique of Gebser's work.
- . *Wholeness or Transcendence?* Burdett, NY: Larson Publications, 1992. Applies Gebser's model to the Indic civilization.
- GEBSER, JEAN. *The Ever-Present Origin*. Transl. by Noel Barstad with Algis Mickunas. Athens, Ohio: Ohio University Press, 1985. Paperback edition, 1986.
- HEYER, GUSTAV RICHARD. *Der Organismus der Seele*. Munich: Kindler Verlag, 1958. (In German)
- KNECHT, SIGRID. 'The Phenomenon of

Mouthlessness from the Point of View of Human History and Its Relation to the Auditory and Visual World of Experience', in *Transparente Welt*, edited by Günter Schulz. Bern, Switzerland/Stuttgart, West Germany: Hans Huber, 1965. pp. 178–208. (The essay is in German.)

WILBER, KEN. *Up From Eden*. Garden City, NY: Anchor Press/Doubleday, 1981. An evolutionary model drawing significantly on Gebser's work.

NOTE: Jean Gebser's 600 page *The Ever-Present Origin* and Georg Feuerstein's *Structures of Consciousness* can be obtained from Integral Publishing, PO Box 1030, Lower Lake, CA 95457, USA. The prices are \$14.95 and \$29.95 respectively, plus shipping by surface mail (\$3.50 and \$2.75 respectively) both within the USA and overseas by Book Rate (surface).

## Metaphysics of the Gene

by Artur Stern, Ph.D., M.Sc.Med., DVM, BION, Institute for Bioelectromagnetics and New Biology, Celovska 264, 1000 Ljubljana, Slovenia

**I**n Mendel's view factors of heredity (since 1909 to be called genes) seemed to be metaphysical entities (I use the word metaphysical for labelling something that is beyond the physical realm). Namely, no physical underlying substance was suggested by him. Even before his manuscripts were rediscovered, however, speculations had begun about the material essence of heredity being located on chromosomes. Subsequent research finally lead into what was considered the breakthrough of the century – the model of the double helix of DNA, which resolved the enigma of heredity at the molecular level. The analytical research into the genome has been ceaselessly proceeding ever since and is right now at one of its summits, labelled by the notion of the Human Genome Project.

Everything concerning the gene now seems to be a matter of particularities, and so chemical and physical that there should not be any question of metaphysics about it. Yet there is

one essential feature of the gene that evades comprehension through chemical analysis; in fact it is its essential feature: heredity. The problem is very simplistic: nothing within the material world of pure chemistry can really explain why a piece of matter would need to reproduce and thus create another piece of matter, which has nothing physical in common with the original piece.

One possible answer could be that the presence of the new piece gives the first one more chance to survive, since they might be more efficient together. Yet this is still no explanation of why this duplication started in the first place; it is just a *post hoc* justification of it. There are further explanations for it, ranging from pure chance (i.e., it might have not occurred at all, but it somehow just did) [1] to self-organization (which introduces certain kind of necessity of its occurrence) [2] – but nothing so far has explained the intrinsic need and the physical drive within matter to make it

reproduce itself into something ontologically distinct. This distinctness, however, is a very relative notion – it just means that the two molecules are not the same; but they are still equal. They carry the same information. But if information is all there is to account for heredity, since matter is obviously not capable of it, we are left with the fact that it is just information that really reproduces; that is really the factor of heredity. If matter is only a carrier of information and if information is not a physical notion, the gene must be metaphysical.

A similar kind of trouble is also hidden within the notion of genetic relatedness. Two genetic replicas may be even physically equal, yet that does still not make them genetically related to each other. What counts is their being identical by descent [3]. And there is the problem: what is the ontological basis of this being identical by descent? Obviously – it follows from the statement above – matter is not a proper answer. Even information of two equal replicas does not seem to differ in any kind, whether they are just of identical sequence of nucleotides or truly identical by descent. Of course the distinction between the two cases might be defined within the notion of information itself, which would then automatically imply their inherent difference. Yet even this machination would not change the fact that the notion of being identical by descent is based on entirely metaphysical grounds, now speaking both in my primary, as well as in a Popperian, sense – where metaphysical means something beyond the reach of science.

There are also some conceptual difficulties with information itself. First, it is discontinuous – if a part of it changes (i.e., mutates), there may not remain any meaningful continuity between

the original and the mutated information. To overcome this trouble a concept of dynamic information has been introduced [4]. A further problem with information is that so far we have been regarding it mostly as nothing but a blueprint, and thus having no power of moving physical matter around. This can be overcome by combining thermodynamics and electromagnetic theory of matter into viewing information as not being separate from energy [5].

On the other hand it is also true that the main source of energy in living beings lies within chemical bonds of matter – and this fact in turn leads to the conclusion that matter, energy and information are in fact inseparable when we speak about entities of living matter, such as gene. This conclusion is, technically speaking, of course within the realm of physics. However, it is as yet quite difficult to understand this inseparability of the three concepts as distinct as matter, energy and information, in terms of common-sense thinking; and therefore it remains, functionally speaking, rather metaphysical itself.

#### References

1. MONOD, J. *Chance and Necessity: an essay on the natural philosophy of modern biology* (Alfred A. Knopf, New York, 1971).
2. KAUFFMAN, S. A. *The Origins of Order* (OUP, New York, Oxford, 1993).
3. FISHER, R. A. *The Genetical Theory of Natural Selection* (Clarendon Press, Oxford, 1930).
4. JERMAN I. 'Continuity of living entities according to traditional and quantum biology', *Acta Analytica*, 1996 (forthcoming).
5. HO M-W. *The Rainbow and the Worm* (World Scientific, Singapore, 1993), p. 96.

Science is not just a collection of laws, a catalogue of unrelated facts. It is a creation of the human mind, with its freely invented ideas and concepts. Physical theories try to form a picture of reality and to establish its connection with the wide world of sense impressions. Thus the only justification for our mental structures is whether and in what way our theories form such a link.

Albert Einstein

## New Models in Science and Economics: the scope for mutual learning

by James Robertson MA, Oxford, UK

*James Robertson has been asked by the European Commission to report on the emergence of an alternative economic approach to sustainable development in Europe, on the basis of recent alternative initiatives, studies and publications. Here he outlines one aspect on which he would like to be able to recommend follow-up. He thinks some members of the Network might be interested, and he would welcome comments and suggestions.*

Since the middle 1980s a world-wide movement for a new economics has come into existence which aims to transform today's conventional patterns of economic activity and thought into a new economics of person, society and planet. How will the conceptual underpinning of the new economics (and politics) influence and be influenced by post-modern developments in science and philosophy?

Newtonian physics no longer provides the dominant model for science. Systems theory, the study of interactive processes, the morphogenetic and developmental theories of the biological sciences, and mathematical theories about chaos and turbulence, are more typical of today's scientific frontiers. It is beginning to be accepted that scientists are not and never could be value-free observers, and that they cannot be altogether detached from the world which they observe. Scientists belong to the particular society in which they happen to live, and the questions they ask are greatly influenced by social, economic and cultural factors. More attention is now being given to experiential types of knowledge and understanding, acquired not by external observation but by direct participation in the processes about which knowledge and understanding are sought. In the economic and social spheres, this takes the form of participatory study and research. This cannot be divorced from ethical and political issues. The new knowledge it brings cannot be dissociated from action, nor its epistemology from its ethics.

Crucial aspects of contemporary science, including medicine, are about:

- the role of information and codes and decision rules in systems of every kind;
- patterns of energy flow and energy use;
- processes of structural change;
- interactive relations between systems and subsystems;
- factors determining whether a system is efficient, well-functioning, or inefficient, malfunctioning and unhealthy;
- relations between the measurable and the unmeasurable, quantity and quality, matter and mind; and
- the role of ethics in science.

All these have their analogues in economic processes. Economic life is increasingly concerned with information, as well as with material commodities and products. The advent of electronic money reminds us that money is basically a scoring system. It provides information about people's entitlements and obligations. Money is an information system for regulating economic activities, transactions and relationships. Looked at another way, flows and stocks of money reflect and determine flows and stocks of economic energy. Laws, regulations, management procedures and corporate cultures embody decision rules which help to shape economic behaviour. Altering them in the hope of reshaping economic behaviour has been compared with the alteration of genetic codes in biotechnology.

In economics, increasing attention is now being given to relations between – on the one hand – the unquantified, informal, non-monetized sphere of economic activity in which goods and services are directly used by the producer and the producer's family and friends, and – on the other hand – the quantified, formal, monetized sphere in which goods and services are produced for exchange. This parallels the growing attention being given to relations between complementary and allopathic medi-

cine. 'Barefoot' economists, who participate in the economic activity they are studying, may be compared with physicists whose observations affect the behaviour of the particles they are observing. The dual mechanism of cancer growth in biological systems – the formation of cancer cells accompanied by the weakening of the immune system – has analogues, such as the spread of crime, in the economic and social sphere. An approach to agriculture which emphasizes pesticides, and to health which emphasizes allopathic medicine, is analogous to an approach to crime which emphasizes police and courts and prisons.

Can analogies such as those be explored scientifically in depth, or are they just metaphorical parallels? Is it possible to establish whether the same or similar structural and (where appropriate) topological and mathematical pat-

terns are found, on the one hand in particular physical and biological functions and malfunctions, and on the other in particular economic and social functions and malfunctions? Do the links between information and energy provide a basis for modelling comparable behaviour in biological and economic systems?

Might it be possible to show, for example, similar patterns in the development of some cancers as in certain unhealthy developments in the economic sphere – such as overdevelopment of Third World cities or of financial flows and financial institutions in the global and national economy? Might this provide insights of practical value in both the economic and the medical sphere?

This is a potentially important topic. Might some members of the Network be interested in taking it up?



## REPORTS

### The Reach of The Imagination:

an exploration of the work and influence of David Bohm

Report by John McMahon

**T**his two day conference in March, 1996 in Edinburgh was organized by the Interalia Centre.\* It is impossible to do justice to the richness of its content. Also, at least one thousand words would be needed to attempt any adequate summary of many of the individual presentations. Thus all that can be given is a broad outline, attempting to show how the presentations relate to the work of David Bohm.

Topics covered included physics, art, philosophy, Native American Science, Bohm and Krishnamurti, dialogue and a parody on the narrowness of some scientists. There were two videos, a film and two photographic presenta-

tions. The actual presentations of many speakers showed little correlation to their printed abstracts. This often indicates dissipation of energy (fragmentation), but at this particular meeting it tended to reveal an ability to respond, connect and resonate with the need of the moment.

Two physicists – BASIL RILEY and CHRIS ISHAM – led us straight into the quantum world. As quantum theory, quantum gravity and the implicate order were discussed such concepts as pre-space times decoherence and Boolean manifolds tended to boggle the minds of non specialist listeners. These opening talks,

\* Interalia is an organization which addresses the problem of the Art/Science divide through innovative conferences, lectures and workshops.

plus a video of Bohm being interviewed at the Niels Bohr Institute in USA, underlined two themes – the observer/observed and problems associated with being at the edge of the current world view – that tended to recur throughout the conference. As Bohm said ‘all world views are limited and need to be questioned’. A third more implicit theme, but brought to the borderline of consciousness by Basil Hiley (and later PAAVO PYLKKANEN) was to do with active information – to quote Bohm: ‘Active information is foreign to classical physics ... the activity of information contributes to the quality of substances’.

The presentation by DANAH ZOHAR, discussing the edge as the meeting point between the new physics of the twentieth century and today’s cultural shift towards increasingly rapid change and complexity, was for many, one of the highlights of the conference.

We have the physics that our culture gives us. The present paradigm shift was contrasted with classical physics, particularly concerning the affects on self, moral life, creativity and spirituality.

DAVID PEAT compared the radical new order that Cézanne wanted in painting to Bohm’s struggle to achieve a new order, as distinct from just ideas, in physics. Both men struggled to go beyond the Cartesian view of standing outside the world and looking at it. Just as Cézanne was constantly deconstructing, so did Bohm struggle to find a new order for matter, mind, movement—an implicate order with each point an aspect of the whole and the whole a global order created by responding to the inscape of each object.

ANISH KAPOOR spoke about deep resonance, ‘the edge between what we know and what we don’t know is what it is all about’, was his own resonance with the edge of a hole which he had created in stone. An actor, JACK KLAFF, displayed similar qualities to Rory Greener in a speech accepting the Nobel Prize for keeping science unsullied by art. He ridiculed the ever increasing compartmentalization of knowledge.

Photographic presentations were given by SUSAN DERGES and MARK EDWARDS and the film *Flow of Earth* by ANDY GOLDSWORTHY was shown. By alternating between rapidly

moving and fixed images Susan Derges showed great skill in representing nature and culture as a creative and dynamic process, rather than as separate and predetermined existences unaffected by human consciousness. For Mark Edwards photography is a language ‘and like all languages we have to read between the lines’. His remarkable photographs, taken all over the world, confront our war with nature. These images, encapsulating the elements that make up human relationship to the natural world, dramatically reveal that ‘the more technology we have the less we participate with each other and nature’.

In his book *Wholeness and the Implicate Order*, Bohm had argued for a new sort of language, one based upon processes and activity, transformation and change, rather than on the interaction of stable objects. Bohm called this hypothetical language the ‘rheomode’. It is based primarily on verbs and on grammatical structures deriving from verbs. But when Bohm wrote of that concept he had not known that such a language had been developed by the ancestors of the Algonquian peoples. Also what to Bohm had been major breakthroughs in human thought – quantum theory, relativity, his implicate order and rheomode – were part of the everyday life and speech of the Blackfoot and some other peoples.

The talk ‘Coming-to-knowing’ given by LEROY LITTLE BEAR (a Blackfoot) clearly demonstrates the enormous influence language has on our seeing and thinking. Below are some quotations from Leroy illustrating how the Blackfoot ‘already talk with rheomode’:

Our language is process/action, whereas English is a language for many things. Thus it produces particles, separation, division ... as a result of language our thinking is very different ... The earth, our environment is not a thing, it is a constant flux. We are in it. We cannot stand on the outside of the cosmos expecting it to tell us how it really works ... constant flux starts to say that everything is related (physics may say non-locality) ... to know a little about that regular pattern I must be alive and everything out there is also alive. We try to find new knowledge by tapping into other animate

objects – animal, plants, rocks. If I have spirit (or energy waves) then everything out there has spirit. Time and space are part of this constant flux ... all these things make for a world view, a world view that David Bohm was searching for. It is really the language that poses the problems.

In a wide ranging talk entitled 'Bohm's philosophical thought' PAAVO PYLKKANEN mentioned some of the ideas he and Bohm were discussing together shortly before Bohm's death. Paavo also suggested that apparent discrepancies in Bohm's thought regarding some philosophical issues actually reflects an underlying discrepancy between science and philosophy.

COLIN FOSTER gave fascinating insights into the relationship between Krishnamurti and Bohm. Krishnamurti came to wholeness through his insights into the psychological world, 'thus when they came together they were talking about the same thing'. All the crises and disorder in the world are due to ignorance of our own processes of thought. We

are aware of thought content but not process.

They attempted to convey the totality of life, wholeness, but they felt this could only be, when the confusion in thought was cleared up. In the very act of looking at what is going on in thought there is a psychological quietness in which something new and holistic can appear.

The need to pay close attention to the processes of thought seemed a natural doorway into Bohm's views on group dialogue: 'the key-start is dialogue. That way the people in different groups can dialogue and really share their meanings'. As DON FACTOR remarked, 'what we think comes to us through the culture. Dialogue involves personal, cultural and cosmic realms'. And LEE NICHOL reported on dialogue from his own experience – suspension, proprioception is very different from any problem solving approach and thought proprioception also involves body.

The conference concluded with some moving personal reflections by SARAL BOHM.

## Life and Biological Form

International Working Conference Saratoga Springs, New York, USA

Report by Stephen Edelglass, Chestnut Ridge, New York  
and Georg Maier, Dornach, Switzerland

'Ours is a science of qualities, not quantities, and is therefore a Goethean science' says Brian Goodwin, as quoted in Roger Lewin's book *Complexity; Life At the Edge of Chaos*. 'But ours is a Goethean science', thought several readers of the book who are developing and practising a phenomena-based scientific methodology. A forum was planned on the subject Life and Biological Form in order that morphologists, complexity theorists and phenomenologists could meet to discuss their various approaches. Invited participants had in common a concern for organism. Sponsored by The Science and Mathematics Association for Research and Teaching, of Chestnut Ridge, NY, the meeting was held at the Spring Hill Waldorf School in Saratoga Springs NY on June 25–30, 1996.

When participants met it became evident that everyone present considered the reigning biological paradigm, in which form and function is attributed solely to effects governed by genes, to be inadequate. Citing comparative studies of plant structure as well as experimental methods, DONALD KAPLAN (UC Berkeley) showed that a plant's morphology is not even a product of cell division but the result of differential growth of organs [1]. The emergence of such differential growth forms is what BRIAN GOODWIN (Open University, UK) generates using a model of dynamical processes in plants that develop complex shapes without cell partitions [2]. Here physical considerations are instrumental in gaining an understanding of examples of plant formation. In fact, PAUL GREEN (Stanford University) showed that continuum mechanics is all that is necessary to understand many morphological examples [3].



These instances show that the formation of organisms is limited to certain types simply by physical principles. Brian Goodwin pointed out the important implication that such limitations will have to be recognized within the context of biological technology.

STUART KAUFFMAN (Sante Fe Institute) was concerned with stability and evolvability, but from a chemical point of view [4]. He discussed the origin of life on the basis of emergence out of collectively autocatalytic sets of diverse mixtures of organic substance. Here complexity theory of life at the edge of chaos was introduced as a kind of kinetics of chemical diversity.

JOCHEN BOCKEMÜHL (Forschungsinstitut am Goetheanum) showed how to observe plants so that it becomes evident how form is an expression of a merging of the plant type with the situation in which it has grown [5]. This was richly illustrated with plant materials and Jochen Bockemühl's oil pastels made for the purpose of awakening to landscape. Bockemühl stressed the necessity of using careful observation and awareness of the observer's intentions to find specific modes of thought appropriate for grasping the appearances at hand. This is what was demonstrated by RON BRADY (Ramapo College, NJ) in his discussion of the role of *intentionality* in phenomenizing sense data. He showed that in order to have perceptions it is necessary to bring conceptual relations to the sensible report that organize perceptions to whole entities. His radical point is that in this way structures of a scene become apparent during the observation itself. Becoming aware of this leads to an alertness to the conceptual content in phenomena. STEPHEN EDELGLASS (Green Meadow Waldorf School, Chestnut Ridge, NY) and GEORG MAIER (Forschungsinstitut am Goetheanum) used observation of the reflection phenomena in a pond as an example in which consciousness of such awareness could be practised [6]. This resulted in a *model-free* mathematical law of reflection. Edelglass also showed how the fundamental elements of the world view of classical physics, such as moving objects in space, depend on conceptualizations based solely on experience of the four senses that tell us about the phe-

nomena that are our own bodies. The implication is that human beings must be part of the described world rather than detached from it.

According to phenomena-based methodology the explanation of nature consists in finding relations appropriate to what has been observed. The relations give the conditions necessary for the phenomenon to appear. However, our education has usually left us with a quite different expectation as to explanation in science. The scientist constructs pictures of mechanisms which are then treated as explanatory. However, it is impossible to observe these mechanisms in the process of causation. They are used merely to gain relations that are vindicated by experience on the level of the phenomena themselves. Such models, however, draw a curtain between the human knower and the appearances. Phenomena-based science seeks to dispense with these pseudophenomenal models, e.g. genes. Newtonian mechanics, on the other hand, is an example of such a science where explanations consist of concepts relating directly to observation.

Perhaps the most impressive phenomenon in the life of plants is the life cycle which encompasses both the establishment of forms in space (leaf and flower, etc.) in a first phase and their consequent dissolution (decay of leaf and flower, etc.) in a later phase. Understanding form out of the constraints of the physical world was distinguished as the 'easy problem'. Molecular genetics offers an explanation for the appearance of a new generation. But although these offer a general mechanism they do not really offer a viable solution to the hard problem of quality. This cannot really be understood in terms of amino acid sequences. The 'hard problem' calls for a 'top down' understanding – or, even better, an 'inner to outer understanding' – of the particular type from the vantage point of nature as a whole.

#### References

1. KAPLAN, D. and Hagemann, H., *The Relation of Cell and Organism in Vascular Plants*. Bioscience 41, No. 10, 693–703, 1991.
2. GOODWIN, B., *How the Leopard Changed its*

- Spots; The Evolution of Complexity*. New York: Charles Scribner's Sons, 1994.
3. GREEN, P. 'Phyllotactic Patterns: A Biophysical Mechanism for their Origin'. *Annals of Botany* 77: 515-527, 1996.
  4. KAUFFMAN, S., *At Home in the Universe: The Search for the Laws of Self-Organization and Complexity*. New York: OUP, 1995.
  5. BOCKEMÜHL, J., *Awakening to Landscape*. Dornach: Forschungsinstitut am Goetheanum, 1992
  6. EDELGLASS, S., MAIER, G., GEBERT, H., AND DAVY, J., *Matter and Mind; Imaginative Participation in Science*. Hudson, N.Y.: Lindisfarne Press/ Edinburgh: Floris Press, 1992. (2nd edn. to be published by Lindisfarne Press as *The Marriage of Sense and Thought*, Spring 1997)

## Emotional Intelligence and Life Long Learning

A Conference organized jointly by the SMN and the Society for Effective Affective Learning (SEAL), Colet House, London. October 1996

Report by Richard House

This, the first collaborative event staged by the Network and SEAL, focused on the highly topical theme of 'emotional intelligence' (following Daniel Goleman's book of the same title – see *Network* 61, pp. 78-80), which, following Peter Salovey, encompasses human capacities in five domains: knowing one's own emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships (see Goleman's *El*, pp. 43-44). For those unacquainted with SEAL, it exists (to quote from its own journal) 'to encourage networking of individuals, teachers and trainers interested in exploring the dynamics of learning in any domain and the continual search for more effective approaches. It ... recognizes the importance of affective as well as cognitive approaches, right as well as left hemisphere attributes'. SEAL encourages learning methods which integrate emotion, body and spirit with intellect, and which empower individuals to discover their own learning potential; and it aims to transform the attitudes to learning which are prevalent in educational institutions and in society more generally. It seems highly fitting that SEAL and the SMN should liaise in this way, as the values that underpin the Network are surely very close to the

hearts of most if not all SEAL members and supporters.

I will first review the day's proceedings, and then explore the organizational form taken by the event, raising in the process some key questions about how we might create structures or 'spaces' that maximize rather than inhibit the expression and development of 'emotional intelligence'.

### On Content

MIKE EALES (Chair of SEAL) led the first session ('EI, adult learning and conference design'), which set the organizational tone for the event. He stressed the importance of explicitly recognizing the relational, experiential and emotional aspects of the learning experience. Mike went on to set out the main principles of SEAL's conference design process, including the privileging of inter-personal communication and sharing rather than a didactic, alienating form of discourse, and an explicit focusing on participants' emotional processes – all informed by the precept that 'not all learning is content'.

A small 'home-group' structure gave all participants (some 200 in all) the space, periodically at times throughout the day, to share their

personal responses to what was an extremely stimulating series of talks.

PETER FENWICK, Chair of the SMN Council and consultant neuropsychiatrist at the Maudsley, spoke on 'EI and individual destinies: the neurological perspective'. He gave us a breathless tour of the evolution of the brain and of (human) consciousness, drawing heavily on important work by Maclean (Harvard) on the limbic system's relationship with behaviour. He approvingly quoted Maclean's view that 'The limbic cortex generates free-floating affective feelings, conveying a sense of what is real, true and important', and that it also 'accounts for the feelings of conviction which we attach to our beliefs, regardless of whether they are true or false'.

I was left with no sense of whether brain processes or structures are the cause or the effect of human experience – or indeed whether it is even meaningful to talk in such mechanistic linear-causal terms in this area. There was also the abiding impression that the (mysterious?) leap from the physical to the spiritual and mystical needs far more filling out than Peter was able to provide in his talk – a crucial question which, no doubt, he will be very aware of.

Readers may well have seen PAUL ROBERTSON's recent Channel 4 television series on Music and Neurology. Paul, a Visiting Professor of Music and Psychiatry at Kingston University, spoke on 'EI and music: implications for individual and group learning'. Paul touched on the central role of *movement* in the emotions, musical composition, and how music provides a medium for emotional communication and connection that other forms of discourse or expression cannot achieve in the same way. This was clearly illustrated by cases where highly gifted brain-impaired 'savants' are able to use music as a complete language of communication when brain impairment or damage precludes other, more 'normal' modes of communications. Music, then, seems to be an absolutely key aspect of any full articulation of EI.

Perhaps the most moving part of the whole day's proceedings came at the end of Paul's talk, when he played a tape with excerpts of a five-year old's progress through music thera-

py. The observable transformation in the child and the dramatic healing potential of music was quite remarkable to witness, and many tears flowed in the conference hall during this extraordinarily moving testimony to the healing power of music.

After lunch, GUY CLAXTON (Visiting Professor of Education, University of Bristol) spoke on 'EI and preparing the young to design their future: an educational perspective'. Guy raced breathlessly through a critique of our current educational system, stressing how we are moving from a culture of automaticity to one of responsibility-taking – which in turn necessitates that we create an educational system which helps people to become self-determining in creating their own futures at all levels. He then focused on a conception of intelligence ('Intelligence 3') as 'knowing what to do when you don't know what to do', stressing in particular the role of *resilience*, i.e., having the emotional stability to exhibit 'grace under pressure' (Hemingway), and the capacity to stay with uncertainty (cf. Chapter 6 of Goleman's *EA*). Guy also stressed the importance of honouring the role of space in the learning process, and of developing *reflectivity* – or a meta-cognitive awareness of one's own learning process. For him, the *process* of learning (or learning about learning) is largely ignored within the educational system.

Jungian analyst ANNE BARING spoke on 'EI and the recovery of the soul: a psychological perspective'. She emphasized the importance of rediscovering our instinctual nature, which is in turn the root of our emotional intelligence and the flowering of our imagination. Anne said memorably that 'the reconnection of the mind with the soul is the longest stride we have to take...' in the evolution of consciousness. Where the emotional or creative imagination is blocked, it turns into what Erich Fromm called 'malignant regression'. Repression of our instinctual nature has been the leitmotiv running through the rise of human 'civilization', which has gone hand in hand with a pathological need to control the environment – leading in turn to a double alienation from nature. For Anne we are still unconscious victims of our archaic genetic memories: for emo-

tional trauma resonates with primitive genetic memories as well as with 'wounded-child' distress. On this view, the common victim/persecutor dynamic so prevalent in human relationship is rooted in our archaic genetic histories and not merely in our individual and unique developmental histories.

The imagination has huge potential to heal, as it can reach down into and transform archaic memories (interestingly, Anne criticized Goleman's book for neglecting the 'language and poetry of the imagination'). So it is therefore vital that we cultivate a dialogue and empathic relationship with our instinctual animal souls. In this way we can secure the necessary *re-enchantment of everyday life* (Thomas Moore), and give our children the space to develop a healthy imaginative relationship with life. Anne ended with an enchanting fairy tale which beautifully and fully articulated the essence of her engaging and inspiring talk.

Finally, at the end of the day there was a useful plenary session in which resources and initiatives were described. I was particularly struck by DAVID BRADSHAW's (Royal Society of Arts) characterization of the educational system as one which should be *informing*, but which is instead more about *performing*, and is even *deforming*.

#### *On organizational Form and Process*

For me the conference proved that it is possible for a large group of people (about 200 in this case) to gather together and successfully create a truly relational, interactive and participatory experience that minimizes the alienating hierarchical values and associated practices that typify virtually all large conferences. As something of a veteran of many a large, set-piece

psychoanalytic conference, I have repeatedly been frustrated by the defensive, stultifying form taken by such events. Some four years ago the now Chair of SEAL, Mike Eales, had the crucial insight that the organizational *form* of the SEAL conference was jarringly inconsistent with the very ideas about experiential learning and educational cultures that SEAL espouses and pioneers.

Yet while the organizational structure of this event was indeed a breath of fresh air, I still had some important reservations. During the day, presenter Guy Claxton made the forceful point that *space* and *slowness* are often a crucial aspect of any truly organic, properly grounded and embodied learning process.

To what extent, did the conference design facilitate or inhibit an environment consonant with EI? The whole point of EI is surely to shift the emphasis away from the conscious, cognitive, ego-level and towards the emotional, intuitive, soul-level of beingness (cf. what Goleman calls 'psychology's overemphasis on cognition' (*EI*, p. 40). But *talking about* EI can so easily itself lapse into an over-cognitive, overly rational form of discourse, which is precisely what EI is trying to move beyond! In turn this suggests the need to move towards an *even more radical* form of conference design than that offered at this wonderful event – one which explicitly seeks to create a learning environment that encourages and maximizes the opportunity for EI to emerge organically in the unfolding event. (David Wasdell's Meridian Matrix model provides one existing framework for such a departure.)

Note: the proceedings were tape-recorded, and will be available to purchase from the SMN.

---

#### Alexander Imich. Work with Joe Nuzum. References (*from p. 37*)

- SCHWARZ, B.E. (1985). 'Observations on Presumed "Spontaneous Combustion": Experiments with Joe Nuzum, paragnost', *International Journal of Psychosomatics*, 32, 3–21.  
 SCHWARZ, B.E. (1994). 'Presumed case of telekinesis', *International Journal of Psychosomatics*, 41, 95–8.  
 SCHWARZ, B.E. (1995). 'Presumed paranormal linkage of rings', *Journal of Fortean Research Center*, special issue, pp. 1–32.

## The Eighth Continental Members' Meeting – Kostelec Castle, Prague, Czech Republic 25–27 October 1996

Report by Paul Folca

Kostelec Castle lies to the east of Prague, half an hour's drive from the outskirts. The castle, first recorded in the tenth century and still displaying in the remnants of its dual moat its initial military function, was rebuilt as a domestic palace in the 16th Century and is now used in part by the Agricultural Faculty of the University. Some recent restoration is evident, but most of its extensive bulk is currently unused. It stands in fairly level, cultivated countryside in the village of Kostelec nad Orlicí which has a distinctly traditional character, with its cobbled streets and old buildings, and is entered across the disused moat from the main street. The theme of the meeting was Reconciliation: Inner/Outer, Private/Public, East/West. In the light of its history, both recent and distant, and geographically, the Czech Republic was a fitting venue. The taxi driver's movements, despite being seen in the dark from the rear of the taxi, as he declared his country's recent release from tyranny had expressed joy and relief. Tyranny of the human spirit in its protean manifestations, inner and outer, is always near and one hopes that the more strident, dehumanizing aspects and values of contemporary Western culture would not prevail too much in filling the vacancy now existing as his country emerges from another painful epoch.

Our hosts were ALEXANDRE GRIGORIANZ of Prague and the Director of the Network, DAVID LORIMER. Of the twenty-nine participants, eleven were from the Czech Republic; others came from Slovakia, Germany, the Ukraine, France and the UK. We arrived on the Friday, many in the evening, to converge on the large upper room of a village tavern set aside for us for supper, as on each succeeding evening. As usual the importance of individual exchanges and meetings on this and many other occasions throughout the weekend was evident, and this opportunity was extended by the sharing of rooms in the castle.

Presentations, beginning on Saturday and received in simultaneous translation in Czech

and English, ranged widely, but despite the breadth of the theme of the meeting, it was not always possible to detect a clear link between the two.

DR. EDUARD TOMAS, a widely respected Czech spiritual teacher, persecuted by Nazis and communists in turn, encapsulated this theme in 'Inner and Outer Peace'. He spoke of man's gradual sinking from the spiritual to the physical and losing awareness of the former. People from a selfishly outward orientation are becoming more antagonistic and competitive. The ensuing dissatisfaction drives man back to his origins within, – 'the only safe place' – whence spiritual development and healing of the self occurs. The universal being is waiting for this and the cosmic mind will always respond if asked. Many modes of spiritual practice, such as yoga and meditation exist for this progression, but conventional religion may not suffice. Dr. Tomas read a letter from his wife written to the meeting, similarly addressing its theme.

In 'Geopathic Stress as a negative factor in Work Environments' ANDREJ SANDOR of the Research Institute for Animal Production addressed the theme of disharmony between proposed electromagnetic disturbances of the land and living and inanimate processes. The underlying disturbance is considered electromagnetic in nature, and sites are identified by dowsing and observation of animal behaviour. The Research Institute is endeavouring to study methods of identification and means of rectification of such sites by formal objective methods. Their effects include poor crop and animal growth, and a high incidence of both illness among employees and mechanical failure of equipment. The electromagnetic field of the site is said to be rectifiable by means of equipment described as a resonator, and change in animal and crop growth used to monitor its effect. Incompletely resolved discussion took place of the biological controlling of experiments and of the physical principles of the resonator.

DR. MICHAEL SCHREIBER\* in 'Planar representation of High Dimensional Distributions by Fractal Portfolios' described the use of a planar rectilinear matrix to present information reflecting differences and distinctions. The method can be expanded by increasing linear subdivision of the matrix, perhaps indefinitely to encompass increasingly complex data. It can be used to test the validity of assertions and in its more extended form to interpret and evaluate conflicts, distinctions and categories within the data, its essential value. Used in resolving financial and commercial problems, Dr Schreiber now wishes to apply the method in the medical and scientific field and would be interested to hear from Network members accordingly.

DR. WOLFRAM SCHLESKE expounded a natural way of meditation by regular movement combined with regular breathing in 'Walking Meditation and the Ecology of the Heart'. By controlled, light, regular repeated movement with regulated breathing in walking or easy running the meditative state often reported by marathon runners can be achieved. This and other methods of meditation provide a means of stepping back from the self and detachment from adverse feelings or dominant thoughts which may then be observed rather than endured or suppressed. This 'ecology of the heart' provides a potent personal means of dealing with stress. In the ensuing workshop we practised running meditation on the grass.

Describing his approach to healing MICHEL CARAYON in 'Curing Chronic and Incurable Illness' stated he believed he transmitted a spiritual healing energy which he had no power to control: 'the patient cures himself'. Recovery was described in numerous cases of major and notionally incurable disease. In a short introductory film what appeared to be blood stained tissue began to appear in a pair of hands held over the abdomen of a supine patient, without incision or the use of surgical instruments. M. Carayon stated the hands were his own and he has now ceased to use this mode of therapy.

Discussion of a demonstration by DIANA CLIFT of crop circle photographs completed Saturdays presentations.

A series of recitation and songs, mostly folk songs, followed the evening meal in the upper room of the tavern. This was spontaneous and unrehearsed and truly delightful. Almost all of the company contributed in turn and the songs ranged from Scotland to the Ukraine, forming a deep conciliatory link from the remoter past across the more recent, to the present. Many danced for several hours after the songs.

The optional meditation on Sunday morning was poorly attended, at least partly if not wholly due to confusion about the overnight time change. After breakfast DAVID LORIMER spoke about 'The Nature of Interfaces: Inner/Outer, Subject/Object, Private/Public'. A distinction was drawn between duality and dualism by reference to the principle of complementarity, embodied in the Yin/Yang symbol. In duality contrary qualities co-exist, the point of balance moving towards or away from either orientation. The principle of Dualism, in which contrary qualities are deemed to be detached with separate opposing existence has most notably in the past five years or so become increasingly supplanted by that of dualism in which recognition of complementarity is leading to a 'participatory world view'. Acknowledgement of this principle demands constant review of those assumptions and pre-suppositions which are thus inextricably linked to evidence, explanation and logic in the formulation of ideas, particularly since they impose a 'boggle threshold' on acceptance of reality.

TONY PRITCHETT played a video he made on a visit to an Italian sect living in seclusion, showing their distinctive art and architecture. DR. TALIVALDIS KALNINS presentation was entitled 'Mathematical Models of the Geopathic Zone and Dowser as a Measuring Instrument'. The mathematical model comprised a precise map of responses by different dowsers over the same area, showing much variation. His work also corroborated observa-

\* E-mail: michael.schreiber@wu-wien.ac.at

WebSite: <http://www.wu.wien.ac.at/usr/absatz/schreiber/>

tions in the USA that muscular contractions in the arm and hand preceded movement of the dowsing rod.

DIANA CLIFT referred to growing failings of our economic system, reflected in the international trend of increasing underemployment, insecure employment and differential between rich and poor. In 'Towards Sustainable Human Society' she described LETS (Local Exchange Trading Systems) a system of barter independent of conventional currency. Exchange of goods and services between individuals occurs at values agreed by the parties in units of a notional local currency (no notes or coins exist). All participants must offer some service. The system is international, expanding and actively encouraged by some governments. Apart from utilizing the enormous communal pool of skills and energy, rendered inert by the failure of the current economic system, LETS is of profound value on the human level, in terms of scale, promotion of community sense, self value for the unemployed and humanizing of commercial relationships.

DR. VALERY POKANEVICH (Ukraine) Director of the Kiev Medical Institute described the founding of his state institute to pursue research into traditional folk medicine and its integration with contemporary ortho-

dox medical practice, possible since the recent abolition of the totalitarian regime which proscribed the former.

A widely varying project to guide the development of a large area of land in Moravia which is an important source of water supply was the theme of 'Water and Life Project', presented by THOMAS BÜSCH, DR. ALEC OULTON, and JAROSLAV KABELKA. This holistic approach addresses the difficulty of reconciling competing aspects of intended change – environmental, conservationist, social, economic, industrial, agricultural and aesthetic. It was agreed at the brief business meeting that a Czech section of the Network would be established and that these contributors would form a nucleus.

ALEXANDRE GRIGORIANZ, our host, in 'Observations on Holotropic Breathwork' referred to his experiences in the state of altered consciousness that can be induced by hypo and hyperventilation. As developed in the work of Grof these may include deepened perception of current existence and images of early life, prenatal and previous lives. The latter may reflect the relative nature of moral perceptions.

In conclusion JEAN THOMPSON explained the basic principles of cranio-sacral therapy, in a detailed address and workshop.

## Tucson II: A Personal View

from Glenn Ennis, Boulder, Colorado, USA

So when people say they want to focus on the nature of nothingness, is it really nothing? I mean, if its nothing why would you want to do it? Why would it be interesting at all?

The interdisciplinary conference, 'Toward a Science of Consciousness', was held in Tucson, Arizona on April 8–13, 1996. Like any good conference, much of the action takes place in the halls and lobbies, in the cafeterias, and on the sidewalks as we walk to and from the meeting areas. It was on just such a walk that the above questions were raised.

The Tucson conference provided many opportunities to learn about theories of consciousness, presented from a wide variety of

perspectives. As the scientific program content is likely to be well-discussed elsewhere, my purpose here is to share a personal view that I believe is likely to carry meaning for the members of the Scientific and Medical Network.

To me, one of the most significant reasons for attending the Tucson II conference and interdisciplinary conferences of this nature is to enjoy an open, safe space atmosphere where anyone can raise thorny questions. Most of us recognize that we are not experts apart from our own disciplines. Wide-open discussions help us to understand each other's points of view. The physicist who asked me the question about nothingness did so only after establish-

ing his level of comfort, yet that was easy to do at this conference. He was a physicist and I was a physicist so we had that in common. I had more than twenty years of meditation experience so he concluded that I might have something to say. Most importantly, he felt safe to ask. He knew he wouldn't be ridiculed for asking. I had the feeling that he had been sitting on this question for a very, very long time. I told him that, for me, there really is something there. It is the essence of my sense of self. When I focus my attention within, it is my best self that emerges. There is a me that is deeper than the thoughts that I have. That if anyone really wants to know themselves in this way it is an effort that they will have to make for themselves. I can say that from my experience it is worth doing. I could not help noticing that this was not an everyday conversation.

I have been asked to comment on Tucson II as compared to Tucson I, held two years ago. The growth over the two years has been remarkable. Tucson I was a real coming out event. For the first time many of us felt that we could speak openly, if hesitantly, about mystical and paranormal experiences that we have had. Most impressive to me was the fact that over 300 people with academic, institutional, and financial clout wanted to understand consciousness. No longer were they content to be pushed aside or scorned. No longer were they willing to stand idly by while their questions about consciousness were labelled taboo. I distinctly remember the exquisite pain of one researcher describing his findings, walking the tightrope of not overstating his interpretation while refusing to be silent on the clear implications of his experimental data. I came away from that conference wondering what my niche would be, how I could contribute to this effort.

By contrast, at Tucson II this freedom of expression was well established. Attended by over 1,000 investigators and presenters, the interdisciplinary reach was much broader. Plenary sessions were added for parapsychology, phenomenology, and transpersonal psychology. A considerable number of concurrent sessions were added as well. While these led to a somewhat more rough and tumble atmosphere, the environment of safety and genuine

engagement usually prevailed. Much was said at the conference with regard to understanding and learning about consciousness from both the first-person and third-person perspectives. In retrospect I must say that it is critically important that we not be unduly influenced by single, first-person accounts however forcefully they are put forward. Regardless of whether these accounts are full of faith or are sceptical we will make the most rapid progress if we use collections of first-person accounts as a basis for third-person investigations rather than assuming that one individuals first-person account should carry the day.

I believe that it is important for us to realize at this point how much we do not understand about consciousness and how we live with it. Admitting what we do not know and framing questions into scientific form are at the heart of the investigative process. The support of open-minded colleagues is a most effective means for inducing collaboration and speeding the process of discovery. As to what was not present at Tucson II, I would say that some attention to the applied areas of psychotherapy and experiential learning would be welcome. One approach would be joint presentations by a panel of psychotherapists representing different methodologies. It would be extremely interesting to have a Gestalt therapist, a Jungian, and others present their methodologies and engage in some discussion for the benefit of an interdisciplinary audience. A second addition that might be useful would be the availability of on-the-spot training, an experiential boutique if you will, that could be used to acquaint people with simple relaxation and visualization practices in a safe environment. I would encourage organizers of other conferences to consider these additions for their own program schedules.

In closing, let me say that opening scientific proceedings to the public helps to educate our society with regard to the actual state of contemporary science and helps stem the tide of misinformation that reaches public audiences every day. With this in mind, I hope that I will see you at Tucson III in April of 1998 where we will continue to explore and discover the nature of consciousness in an open, supportive environment.



## CORRESPONDENCE

### The Network Ethos Correspondence

—from *Diana Clift, 93 Peperharrow Rd.,  
Godalming GU7 2PN.*

In the last issue of the Review, I wrote a personal view of the Network Ethos to stimulate discussion on this topic. I suggested that the Network Ethos arises from the Network guidelines (open-mindedness, rigour and responsibility). It incorporates the values implicit in good science (humility, honesty, egalitarianism, wonder and optimism), but also includes empathy, balance and respect for other species. I suggested that the Network Ethos provides a moral 'bottom line' which should avoid the 'Seven Deadly Sins' (divisiveness, certainty, hierarchy, patriarchy, prejudice, anthropocentrism and pessimism) which I see as pervasive tendencies in the human psyche, particularly common in religions.

I have had plenty of mail (electronic and conventional) in response to this and, thanks to PAUL FILMORE and LEVENTE TOTH at Plymouth University we now have an e-mail discussion group on this topic. If you are interested in joining, the details are to be found below.

Many of the respondents claimed that Science too is subject to the pitfalls I outline. In an article provocatively entitled 'Can Science sin?', NICHOLAS SPICER suggested that what is considered Science and what is considered Myth are culturally determined: 'The Book of Genesis was the science of the day in which it was written... At this stage, science now explains natural things, religion continues with the diminished role of transcendental exegesis. And as a new science replaces the present one and the present religion is usurped by old science, so the present religion steps down the ladder and is seen as a myth' GRAHAM WILSON, KURT DRESSLER and others also felt that Science was just as subject to these failings and it was unfair 'to compare bad religion with good science'.

However, MICHAEL BROWN and MAX PAYNE emphasized that Science is not just another belief system. It is something quite different. Michael felt the above comments were an

attack on science and made a passionate plea: 'I thought the SMN was about offering fellowship to scientists and medics who wish to look at science in the framework of expanded paradigms... I cannot get enthusiastic about responding to anti-scientists who join the organization to attack science from within'. Max points out that the essence of science is quite different from belief as science is always open to change in the light of observation and experience 'The spirit of Scientific enquiry is a combination of self-critical openness, exacting rigour and creative boldness. It seeks the truth which is true for all honest observers'.

GEORGE HENSON suggested that the 'Seven Deadly Sins' are 'pathologies and pitfalls to which corporate bodies are prone when they rely on top down power structures' and points out that religions which avoid this power structure, such as Sufis, Mahayana Buddhists and Quakers, tend to avoid the 'Deadly Sins'.

KURT DRESSLER and BERTRAND WEISSENBACH supported religious belief. Bertrand said 'Deference to persons elected and inspired by divine power may not be a deadly sin. Of course we have to check carefully in every case'. That of course, is the problem! Kurt felt we were moving towards a reconciliation of science and religion 'As we reach more and more maturity we realize that the sharp boundary between scientific knowledge and religious truth existed but in our minds ... in the foundation of our faith is now the very truth which lies at the basis of our existence and of this whole wonderful (puzzling) universe...'

JULIAN CANDY and DORIS JONES criticized my flippant remarks about the distinguishing features of Network people as lacking in the balance that I maintain is an essential feature of the Ethos, especially my final comment 'In short, Network people must be pretty well perfect – but we know that don't we'. Julian was aware that I was joking, but expressed unease at the underlying emphasis on the 'Apollonian ideal to the exclusion of the Dionysian' and quotes from Chris Clarke's review of the last May dialogue on Participatory Reality, when he says of Jean Hardy's contribution 'The jour-

ney into wholeness is about incorporating darkness, where the greatest danger is that of avoiding the journey through being unwilling to face the darkness'.

CHRIS CLARKE and BRIAN JOSEPHSON both warned that the Network could itself become a quasi-religion.

My thanks to everybody who has contributed to this discussion and to the council members and others who raised the issue of the Network Ethos and helped me to think about it. My aim was not to set in stone the Network Articles of Faith to be recited every morning ... but rather to encourage members to think about this themselves. I have found all the reflection and discussion personally very helpful, but I appreciate a remark of Kurt Dressler's: 'I hope I didn't make myself clear – Clarity is the enemy of Truth.'

I think this is also true of Certainty. But I believe it is important when the Network is expanding so rapidly that it should keep its Ethos under constant review. I recommend that local groups discuss this and anyone who would like to join the internet discussion group may do so by sending an e-mail with just the word, ADD to: [ethos.smn-request@cis.plym.ac.uk](mailto:ethos.smn-request@cis.plym.ac.uk) The address for circulating correspondence is: [ethos.smn@cis.plym.ac.uk](mailto:ethos.smn@cis.plym.ac.uk)

### The Non-equilibrium state of the Universe

—from: Alexander V. Frolov, E-mail: [alex@frolov.spb.ru](mailto:alex@frolov.spb.ru)

In the review by Professor Ilya Prigogine of the book by Paul Davies *About Time – Einstein's Unfinished Revolution* some interesting trends in modern scientific research are disclosed. Investigations into the nature of time are today more applied than theoretical. In St. Petersburg, Russia there were three international conferences this year: 17–22 June 'New Ideas in Natural Sciences', 16–21 Sept., 'Space, Time and Gravitation', 22–23 Sept., 'Space, Time, Motion'. The first was a self-organized meeting of inventors and scientists working on real antigravitation technologies, time control experiments, free energy and over-unity sys-

tems. The second was interesting as a broad discussion on the de Broglie wave problem, headed by Olof Sunden and organized by 'NIIREC' Co. The third conference was a high level cosmological discussion. A review of many reports leads to the conclusion that attempts to create the unified theory can lead to really useful practical results if the 'meta-universe' by Prigogine includes negative time also. In this case the 'arrow of time' is only part of reality. Some speakers developed the 3-dimensional time structure concept and it is also the situation for open systems as a whole.

The 'Non-equilibrium state' is connected with part of time structure (of two or three time arrows). In sum, the common time rate is zero and it is the equilibrium state. A Universe of positive time must be balanced by a Universe of negative time and this is the condition of the conservation law.

The question of time and non-equilibrium is the question of free energy that is possible in open systems as hidden inflow of energy from outside environment. If some local system is considered as open in time (closed in space) this means that inflow of energy into the system is possible along another 'time arrow'. So, many-arrowed time structures (minimum two arrows of 'negative time' and 'positive time') allow the possibility of free energy systems which don't require any fuel for power production.

It is clear that two or more non-equilibrium state systems can be created from one equilibrium state. Both systems are sources of power and in sum the systems don't require any energy input.

### The End of the Indeterminacy Principle

—from Richard Bryant-Jefferies, 2 Harts Gdns, Guildford, GU2 6QA. Tel: 01483 32153

I have been reading the latest (April) issue and the paper on the Indeterminacy Principle set me wondering about something which I would like to share, and I would be interested in discussing with members.

I am a counsellor and in my work with clients I am seeking to enter their world in order to

open up a genuine relationship as human beings. Now, I find myself at times caught between entering the 'here and now' world of the client and, in so doing, losing sight of the sense of *process*. At other times I am participating in the process but may then lose sight of the client's *presence* as an individual person. Is this an aspect of the same principle applied to human interactions on a consciousness level? I can locate them, but not their movement, or I can locate their movement, but not them!

I am aware of the mind's natural affinity with dividing and separating out experiences. Something in me acknowledges that in my work with clients process and presence are interconnected, possibly providing subtly different reflections of a singular reality. I believe that I am both process and presence and I wonder whether to experience them together requires more than my mind can be sensitive to. Perhaps the two are united in experience through some mysterious quality of the heart nature? Can we dare, therefore, to consider the idea of a 'science of the heart' to complement the 'science of the mind' which currently dominates the human struggle towards knowledge?

I am no scientist so I cannot write as a scientist. I guess I lean towards the mystic membership of the Network. I write out of my personal experience which I am learning to trust as an accurate means of ascertaining my truth. I choose my words with great care!

I welcome comments and responses from Network members, and in particular a more strictly 'scientific' perspective on this kind of experience.

## Creative context

—from Tony Penny, 31 Gilbey Rd., London SW17 0QQ

There are differences between scientific and aesthetic creativity; the most obvious is that science aims at rationality and art aims at aesthetic sensibility. There may be corresponding differences in personality between artists and scientists, which I won't follow in this short piece. My thesis is that there are correspondences at a pre-verbal pre-rational level

between artistic and scientific creativity. I originally thought that it was not possible to test the processes and products of creativity because each one is unique. I think I was mistaken.

The correspondences I am referring to are those between an ancient Egyptian wall painting and a cubist painting by Picasso, between a mediaeval love song by Martin Codax and an aria by Mozart or a Beatles song, or between a Maori war dance and Riverdance. I am suggesting that these correspondences obtain whatever style they are expressed in, and they are basic to the origination of the various dances, pictures, sculptures, pieces of music and poems. I am also suggesting the sources of rational ideas, whether of discovery or invention, come from the same correspondences.

The first correspondence is of context. I think it is natural for people in a relaxed state to experience situations as a whole, with a pattern of relationships within the whole. A good picture sets a whole context of its own within its boundaries, usually a frame in our society. Within the boundaries there will be internal relationships, correspondences of placement, proportion, rhythms, repeating shapes, flows, contrasts, inversions. The painter who painted the good picture will not have consciously thought of putting this rhythm here and that pair of repeating shapes there and there. In getting his picture 'right' these basic elements will happen. They are, I think, expressions of very deep human conditions.

If my explanation is right, then I think it would also be right to say that Western intellectual thinking has moved away from the basic correspondences I am talking about; but that human minds are always trying to return to the holistic position; that 'having an idea' involves a return to a type of relationship mediated by the sort of element I have mentioned in connection with painting. Perhaps one of the functions of sleep is to return people to a holistic frame of mind.

For example, I am suggesting that moving in a circle is one very basic pattern in dancing, and that Kekulé's dream of a snake swallowing its tale-leading to the idea of the benzene ring-comes from the same mental level. The same might be said of Krebs's researches, leading

respectively to the conceptions of the urea cycle and the citrate cycle.

Repeating themes and shapes are very characteristic of art forms. I suggest that James Watson's discovery that finally cracked the genetic code is homologous on a deep mental level. He wrote (in *The Double Helix*, page 153): 'Suddenly I became aware that an adenine-thymine pair held together by two hydrogen

bonds was identical in shape to a guanine-cytosine pair held together by at least two hydrogen bonds. All the hydrogen bonds seem to form naturally; no fudging was required to make the two types of base pairs identical in shape.'

These two examples are only tasters and the idea I am proposing is hypothetical; but I think that it is testable. Which is more than I originally thought.



## PERSONAL EXPERIENCE

### Informal Work with Joe Nuzum

by Alexander Imich, 305 West End Avenue New York, NY 10023

Ostensible psychokinetic phenomena, with the exception of the Geller effect, are today exceedingly rare in the Western society. I have learned from a friend, Dr. Berthold Schwarz, of the exceptional macro-PK abilities of Joe Nuzum. Schwarz, an MD, has been studying for many years several psychics producing full size PK phenomena. Though he is a member of PA, his work is not well known to the parapsychological community since he is not publishing in the main parapsychological periodicals. In the 1994 issue of *International Journal for Psychosomatics* Schwarz describes Nuzum's phenomena as so spectacular that they rival the legendary events of D.D. Home. Joe Nuzum, an ex-foundry worker 38 years old, is also master of martial arts. He is giving successful public performances of his paranormal capacities.

The New York experiments with Joe took place on November 17–18, 1995. On November 17 at 7 p.m., members of PA: Stephen Braude, Michaleen Maher, and Joan McMahon together with three camcorder operators entered the large room rented from the Sacred Sacrament School, at 147 West 70th Street, New York, NY 10023. Their task was to prepare the room, the implements to be used, and to set the photographic equipment for the forthcoming session. Joe with his wife Sandra

and I entered the room one hour later. Joe did not like the place, was hesitant to start the experiments but was persuaded at least to try.

Joe proposed that several dollar bills of varying denomination be placed haphazardly on a collapsible wooden table, property of Joe, and covered with the inverted glass aquarium tank. Joe announced that he will levitate the bills and made them stick to the bottom – now the ceiling – of the aquarium. Despite Joe's prolonged effort the bills did not change their position. No other tests were attempted at this evening which was terminated after three hours. I decided that next day the experiments will be held in a different location.

On November 18 at 7 p.m. all present during the previous evening, except one camcorder operator, were gathered in the living room of suite 1408 Hotel Esplanade, 305 West End Avenue, New York, NY 10023. Because Joe likes music to be played during his performances, Sandra was operating the record player located about 10 feet away from Joe. A crystal handle of a hat pin supplied by Joe was glued to the top of the same table that was used the previous day, and a dollar bill at its centre of gravity was placed on the pin. This construction resembled a large compass, the bill being the compass needle. The entire device

was covered with the reversed glass aquarium tank. To prevent movement of the bill by air currents the junction between the tank and the table was taped with a 2 in. wide tape. To check how tight is this seal we were blowing and fanning air; the bill remained immobile.

The bill did not move during the first 10 minutes of Joe's intensive (judging from his facial expression and the position of the body) efforts. Then, it started revolving and made several turns clock- and counter-clockwise. The revolutions were simultaneously video-recorded by two operators. After the end of this test and before dismantling the arrangement, we repeated, without success, our efforts to change the position of the bill by blowing and fanning air.

After a break, Joe bent to approximately 75° one stainless steel spoon by rubbing it and applying some force, though not large enough to execute the deformation. The spoon, trade name 'Continental Pride,' made in China, was purchased on the previous day by myself and was not, prior to the experiment, in any physical contact with Joe. This ended the second evening.

I knew that after a public performance, which serves for him as a warm-up, Joe likes to create more events for people with whom he is in friendly relation. At such time he is able to produce more spectacular phenomena. On November 18, this was exactly the case.

After the end of the session, Joe, Sandra and I went to my apartment. There, Joe placed on the table one of my stainless steel forks weighing 31 g. He held his hand about 15 in. above the fork and after approximately half minute the fork made several about 60° wide clock- and counter-clockwise movements. This lasted for approximately half a minute.

Next, Joe asked me to hold between two fingers of my outstretched hand a dollar bill. I took from my pocket a \$10 bill and held it by its shorter edge so that the bill was hanging loosely in the air. Joe, from a distance of at least 4 feet, made few stabbing movements with his dagger and asked to inspect the bill. The bill had two cuts; one 1 in., and the other  $\frac{1}{2}$  in. long. Both cuts had the appearance of being made with a thin and sharp instrument. With a razor blade I was able to replicate this type of cut.

On November 17, Joe told me that the next day he will produce an unusual event. He proposed that I conceive a three digit number, write it down on a piece of paper, crumple the paper, burn it, discard the ashes and memorize the number. When I was writing the number on the tiny piece of paper, Joe was on the other side of room and could not possibly see what I have written.

Next, Joe asked me to think of the three digit number conceived on the previous day. He then took from my library shelf a volume of Gray's *Anatomy*, opened it and asked me to read the page number. The number of the page was 354 and this was the number I conceived. Joe then asked me to close the book, to place it on the table and to cover it with the inverted aquarium tank. Next, he took from his pocket a tiny  $2\frac{1}{2} \times 4\frac{1}{2}$  in. brown paper self-sealing envelope, handed it to me and asked to inspect its content. I have found the envelope empty, after which Joe asked to seal the envelope, to place it on the palm of my hand and to cover it with the palm of the other hand. He then went to action, palms put together and held close to his chest in typical prayer position. After a while, I do not recall exactly how long, he asked to open my palms, to take the envelope, to cut it and to inspect the content. A torn piece of paper was in the envelope. Joe asked then to take from under the aquarium tank the volume of Gray's *Anatomy* and to open it on page 354. The lower corner of this page was missing. The torn piece of paper in the envelope was precisely fitting the tear of page 354. The event was a combination of ESP with a complex psychokinesis that involved tearing of the page corner from a closed book, transportation of the torn piece through the glass of the aquarium or through the top of the table, transportation of this piece through my closed palms and through the paper of the envelope. This event ended the evening.

Joe Nuzum is one of the very few known and available for research psychics capable of producing macro PK phenomena. I plan to continue experiments with him in the second half of 1996.

*References – please see p. 28.*

## NETWORK NEWS AND NOTICES

### News from the Office

The move to Scotland will have taken place by the time you read this. We said farewell to our secretary MONIKA GROSCH, who has been with the Network since May 1994. She has found a new job with CompAir in High Wycombe and we are most grateful to her for all the hard work she put in on behalf of the Network. During the year, MURIEL ANDREWS has been helping with general administration and PETER KAASEN with accounts and conferences. He has also helped us develop our conference database. Member DOUG FLOWER has been coming in on a regular basis, helping especially with our covenant reclaims.

We have appointed Monika's successor, who will start in January. She is MARION BAILLIE, who has been the office administrator of the Association for International Cancer Research. We are also very lucky to have secured the services of Dr. KEVIN ASHBRIDGE for 1997. Kevin will be known to most readers as a former Council Member who co-ordinated the Continental Meetings and wrote the introductory Guide to Computer Communication, which has now sold over 250 copies. He is moving from Germany to Fife and will be working in the office, partly on conferences and partly on projects to develop the outreach of the Network.

### The Web Page

We are enclosing a separate sheet giving details of the web page. We are keen to attract younger university members who use the web a great deal, so do pass on our URL to them. Our thanks are due to CLAUDIA NIELSEN for the tremendous amount of work she has put into constructing the page. Also to Dr. PAUL FILMORE and his assistant at the University of Plymouth, LEVENTE TOTH. It is possible to order books, videos and tapes from the web. It is also possible to join the Network through our electronic application form – so far we have only received half a dozen membership submissions this way, but this will no doubt expand in due course.

### News of Network Events

Our two major events of the autumn – The Emotional Intelligence and Placebo conferences – were each attended by over 200 people. You will find a report of the first one elsewhere in this issue and the second will be reported in our next issue. Meanwhile tapes are available from both conferences and details can be obtained from Philip Royall, 13 Piccadilly Mill, Lower Street, Stroud GL5 2HT. Tel/Fax: 01453 766411. We also had a talk from Professor KEITH WARD about his new book *God,*

*Chance and Necessity*, which has received a certain amount of publicity in the press. A review by Dr. JOHN POLKINGHORNE can be found in the Review section. In December, Dr. MARIO VARVOGLIS made his way over from Paris (not via the Chunnel, unfortunately) to present his new CD-ROM on parapsychology, reviewed by Dr. KEVIN ASHBRIDGE under Members' News and Notices. The evening was co-hosted with the Society for Psychical Research and was sadly a technical disaster owing to the wrong settings reducing the screen size and not enabling Mario to exit from the programme as the button was off the screen. Further well-intentioned ministrations from experts only succeeded in removing the screen altogether, but Mario valiantly persisted and his explanations were very well received. Tapes of these two evening events are also available.

### News from Local Groups

We are implementing a change of policy in local group reports. From now on we will simply print news of past and forthcoming events and then make fuller reports available to local members when we send out details of forthcoming meetings. In this way we think that local members will be kept more in touch with what is going on, while anyone wanting a report of a particular meeting can send in to the office.

*Switzerland – Janine Murray on 0041 61 931 4041*

24 November, *Effects of Energy on Living Systems*, with Dr. Heinz Schuerch and Dr. Max Sutter of Swiss Society for Biophysical Border Research.

*Germany – Marcus Schmiede, Waltraud Wagner on +49 5641 1732*

24-26 January, at Schloß Weißenstein, *Quantum and Implicate Order – can they be harmonized? Structure and Frequency of Crystals and Organic Connections – Their Significance and Effect. What is the role of dimensionless numbers and thought in these areas?*

*The South-West – Alan Jewsbury on 01803 782521 or John Cosh on 01803 863939*

5th October at Bogan House, Totnes. Including the speakers there were 31 people present. Our two speakers were Ann and Roy Procter on 'Healing Sick Houses'. The speakers for the next meeting at Bogan House in Totnes on April 19th 1997 will be Professor Arthur Ellison, and Norman Smith. Arthur will tell us of his investigations into consciousness and cover lucid dreaming, distant view-

ing, out of body experiences, etc. Norman will talk about his investigations into mediumship.

*Bristol – Richard Hellen on 01453 548724 or Sally Lawson on 0117 924 8694*

The Bristol Group has continued to meet on the second Wednesday of the month at Sally Lawson's house starting at 7:30 for 8:00 p.m. and generally ending at around 10:30. There is a core of members who attend regularly, with occasional visits from other members and guests. The topics covered have been many and varied, but in an attempt to bring useful focus to the Group and to maintain momentum between the meetings, the vehicle of a common reading list has emerged whereby members of the Group can commend books for collective consideration. The list is presently short, but will no doubt enlarge with time. We have also come to the view that our meetings should be a balance of intellect with feeling and to that end conscious emphasis is placed on allowing space for the emotive and intuitive voice alongside the friendly opposition of intellect. We also encourage 'practicals' as well as the theoretical sessions and taking advantage of a kind offer we recently enjoyed the experience of dowsing. Another aspect of the way we work is to try to seed small special interest groups should a topic or issue be of particular interest to a limited number of our group. Some of our meetings are documented. Contact Richard Hellen if you'd like to see some of these accounts.

*Guildford – Diana Clift on 01483 417922*

18th September, *Physics, Consciousness and Spirituality*, by Professor Chris Clarke.  
27th November, *The Reality of the Paranormal*, by Professor Arthur Ellison.  
Forthcoming:  
22nd January, *Some Ventures into Fringe Science*, by Dr. Roger Taylor.

*Wessex – Julian Candy on 01703 844149 or David Berry on 01425 473336*

27th September, *Reality through the Looking-Glass*, by Professor Chris Clarke.  
30th November, *Discussion on Synchronicity*.

*Sussex – John Cole on 01903 767027*

27th July, *Music and Healing*, with Professor Jonathan Harvey and Peter Rendel.  
23rd November, *Making Emotions Intelligible*, by Dr. Larry Culliford.

*Yorkshire – Mike Brown on 01423 879038 or Max Payne on 0114 230 4194*

21st September, joint meeting with the Chilterns Group: David Lorimer spoke about prospects for the Network. The main theme was *Aspects of Electromagnetic Radiation*, with Anne Silk, Elaine Choake, Mike Rogers and Rodney Hale.  
14th December, *Music and the Person*, by Olive Dewhurst.

*West London – Clive Hicks on 0181 997 7974 or Anushka Jordan on 0181 578 4431*

September, *Genius Loci – the Spirit of Place is still heard*, by Anne silk  
October, *Creation*, by Dr. Jean Hardy  
13 November, *Animal Intuition*, by Dr. Rupert Sheldrake.  
7 December, *Christmas Party*.  
Forthcoming:  
8 January, *Seven Rules for the Guidance of Genius*, by Dr. Colin Hamer.  
12 February, *Jung's Relevance Here and Now*, by Beata Bishop and Nicholas Spicer.  
12 March: Dr. Natalie Tobert

*North London – contact the Office*

31st July, *Chartres Cathedral*, an illustrated talk by Clive Hicks.  
25th September, *The Mandala of the Soul*, by Dr. Habiba Cooke.  
27th November, *The Ancestral Energy Stream and Fairy Tales*, by Dr. Dennis Scott.

*Cambridge – Hazel Guest on 01223 369146 or John Roberts on 01954 782032*

21st July, *A Journey through the Archetypes of the Soul*, by Dr. Varda Hasselmann.  
7th October, *The Nature of Light in Mystical and Near-Death Experience*, by David Lorimer.

*Oxford – contact the Office*

4th September, *The Science of Consciousness – why we need a new physical world-view*, by Professor Sir Roger Penrose, FRS.  
10th December, *Thresholds of Consciousness: Ancient Egypt and the Soul of the West*, by Jeremy Naydler.

*Chilterns – Doug Flower on 01494 783993*

18th October, *Polarity Therapy*, by Dr. Ann Roden.  
29th November, *Experiences in Paranormal Exploration*, with Stephen Ross.

### Consciousness Research Group

The group met at the end of September to consider 'Ethics and Consciousness'. The day was facilitated by Joan Walton and Charmian Wylde. It was felt that we should be examining our own interest and motivation in the field. If reality is in fact participatory, then the quality of one's consciousness is significant. A round-robin of words associated with ethics produced some intriguing words which later became themes during the day – harmony, cosmic order, sensitivity, integration, respect, honesty, love expressed now, appropriate. MAX PAYNE gave a philosophical overview of ethics, defining it as the study of reasons we give ourselves for accepting certain rules of behaviour. He saw the two main bases as cosmic harmony and authority, and outlined his understanding of the Golden Rule. We then used a fictional account of a mid-life crisis to discuss a number of possible paths towards the expansion of consciousness: hypnosis, lucid dreams, drugs or natural means. These possibilities were discussed in small groups and then fed back in a plenary. We concluded that the real goal of this process of the refinement of consciousness is wisdom, which has a social dimension and requires what one member called 'gathered honesty'. The December meeting will be on meditation, and will be reported in the next issue. For 1997 dates, see the inside cover.

### Science and Esoteric Knowledge Group

The group's bibliography has sold well and is still available to readers who missed it last time round for £2.50 post free. It can also be found on the home page. We have continued our current work on self-image and identity with HERTHA LARIVE and Professor PETER STEWART's developing paper on principles and laws applied to science and metaphysics. Meetings will continue in London next year and an addition to our present activities will be a systematic exploration of Ken Wilber's book *A Brief History of Everything*, reviewed in the last issue. Members wishing to attend this group or receive papers should contact the office.

### Complementary Medicine Group

There have been two meetings over the autumn, both at All Hallows House in the City. At the first, Dr. VIC HENNY gave a very comprehensive talk entitled 'Looking at Complementary Therapies from an Operational Viewpoint'. Using Larry Dossey's scheme of Eras I, II and III in medicine (conventional, mind-body and non-local), he reviewed the uneven progress in their path towards incorporation into operational health and wellness. He argued that complementary therapies represent an important

step on the road to a better understanding of well-being, and that they can form part of certain structured operational delivery programmes and organized applied research and development efforts. He sees a key role emerging for an integrated science of consciousness as applied to health. Readers interested in knowing more should contact Vic at 106 Cheyne Walk, London SW10 0DG.

The second meeting was addressed by DORIS JONES on the important theme of 'Our Toxic Environment'. She provided an up to the minute report on health hazards associated with pesticides, especially organophosphates (OPs), and their possible connections with Gulf War Syndrome, Chronic Fatigue Syndrome (CFS), BSE and Multiple Chemical Sensitivities (MCS). All of this is political dynamite, with the British government fighting rearguard actions on a number of fronts. It transpires that Lord Zuckerman warned of the potentially devastating effects of OPs as far back as 1951, but little official attention was paid either then or since. Two points emerged from our discussion: the difficulty of conclusively establishing a cause-effect relationship with so many factors to consider; and the industry pressure towards redefining MCS and attempting to have it classified – as in the official view of ME – as psychological rather than physical in origin. Recent work suggests that 'neural sensitization' may account for a partial overlap of CFS and MCS, and that metabolites may form the molecular basis for CFS. The 16 pages of papers and references can be ordered in the normal way (see Members' Articles) and further information can be obtained from Doris at 176 Perth Road, Ilford, Essex IF2 6DZ.

### Psychotherapy and Spirituality Group

A preliminary meeting was held on December 4th at the home of Dr. Stanley and Stephanie Jacobs and attended by Hertha Larive, Dr. Alan Sanderson, Nicholas Spicer and Rev. Simon House. A paper (6 pp., which can be ordered in the normal way) by Stanley Jacobs was circulated in advance. The main agenda of the evening was formulation of the themes which might be investigated by such a group.

The following emerged: 1. The need to broaden the framework of psychology and psychiatry and to revise the concept of pathology which currently includes aspects of mystical experience and crises of spiritual growth 2. To investigate causes of pathology beyond the normal models, and specifically the possible role of pre- and peri-natal experience, entities and the interface between the visible and invisible worlds 3. to discuss the implications of a new view of death for medicine in general and psychiatry



in particular 4. To consider the role of the therapist in so far as it has taken over some of the functions of religion 5. To look into the role of the ego in the light of negative understandings by many spiritual groups 6. To consider the emerging role of the Feminine and its devaluation in spiritualities which have traditionally been dominated by a masculine outlook 7. To discuss ways of handling the mentally ill and alternatives to sectioning 8. To consider factors which might help prevent mental disturbance 9. To look into the psychology of relationships and parenting, which underlies many issues and which also has far-reaching educational implications 10. The effect of the biochemistry of food on behaviour as studied in environmental medicine and

11. The psychology of ethics and values as reflected in esoteric writings.

It was decided that the group would hold a number of evening and day meetings, with one evening meeting to take place in early March and a day meeting on Sunday April 27th which would look at the first two questions outlined above. Some of the topics might be taken up by local groups as well. There will be a panel on psychotherapy and spirituality at the Cambridge meeting and we will initiate a discussion on the topic through our web server. We will compile a list of those we think are interested on our database, who will then receive news of meetings and discussions. Let us know if you would like to be included.



## MEMBERS' NEWS AND NOTICES

### Ian Gordon-Brown – an Appreciation

*Francis Kinsman writes:* Ian Gordon-Brown died, peacefully in his sleep, on 6th October 1996. For those of us who knew and loved him, and especially those who were privileged to have been trained by him and counselled by him, his loss is a rite of passage.

In 1973, he and his close colleague, Barbara Somers, founded the Centre for Transpersonal Psychology, and in 1977 the two of them established the Centre's training facility, providing a diaspora of professional counsellors of the humanistic psychological persuasion, who must between them have given solace, comfort and self-awareness to tens of thousands over the subsequent years. Previously, he had been Secretary of the Lucis Trust, celebrating the work of Alice Bailey; subsequently in 1995 he became President of EUROTAS (European Transpersonal Association), with a 12-nation membership.

Educated at Bryanston and Cambridge, and born on St Valentine's Day, 1925, he was initially an industrial psychologist. His grasp of down-to-earth business matters never left him, and he was a sterling supporter of the Business Network in its early and formative years. He could also be the most delicately insistent of counsellors, extracting the very deepest of memories from a client while leaving him or her relieved, grateful and absolutely safe.

One thus has a picture of a wholly rounded and complete man – utterly masculine, and yet one with his anima totally happy and fulfilled. To think of him is to conjure up a beaming smile. I can do no better

than to quote Barbara Somers's own loving commentary:

Such a big man leaves a big space, which is now being filled by hundreds of tributes, all speaking of his warmth, humour, wisdom, clarity and incisiveness. He did not suffer fools gladly, and said so. He loved deeply, and said so. Life and death had no fears for him. He was totally himself.

His release from life was supreme. Having led a workshop on one of his major themes – Initiation – he spent the evening singing to Mozart in his fine bass baritone. He went to sleep, and in the small hours his noble heart simply stopped beating.

His work goes on. The next offering from the Centre is a workshop entitled 'Creating Our Sacred Space'. Nothing could be more appropriate.

### Dr. Mario Varvoglis & Dr. Christine Hardy – PSI Explorer CD-ROM

*Kevin Ashbridge writes:* French members Mario Varvoglis and Christine Hardy have produced a multimedia CD-ROM on psychical research, entitled *PSI Explorer*. This highly-recommended computer software introduces the history, research results and major players in the field, brought together in a complete multimedia experience of video and sound clips, articles with references, and stunning visual graphics and photos.

Aimed primarily at non-professionals, the CD-ROM nevertheless presents a balanced view of the evidence and theories in PSI Research. The informa-

tion is presented in a series of virtual rooms – The Lab, Test Room, Forum, Sphere, The Gate, and The Library – all accessible from the central space, called The Crystal. Each room explores PSI in different ways and the user moves around or interacts with the room's contents simply by clicking with the mouse.

The Lab presents videos, animations, text and photos of the major parapsychology experiments, from ESP cards in the 1930s to the computer-controlled experiments of the 1990s. One can also replay a number of telepathy or remote viewing trials conducted at four of the most famous parapsychology research labs. The Library is the place where you can read about the history of PSI research and contemporary parapsychology, including such interesting tidbits as real-life experiences and applications in business, police investigations and archaeology. In the Forum, current debates about the nature of psychic phenomena are presented in two distinct environments: the 'caverns of the psyche' where models of the mind are discussed, and 'under the starry sky of physis' which explores models inspired by a comprehensive theory of matter.

The remaining three rooms – Test Room, Sphere, and The Gate – help the user to explore and test their own psychic ability by playing games of telepathy, clairvoyance and precognition. The player attempts to interact and influence their computer, similar to the professional investigations using computer random number generators. In the telepathy test, users additionally may test themselves alone, or with another person acting as a 'sender'.

For PSI professionals, *PSI Explorer* should not be dismissed as merely a game. The comprehensive notes and annotated articles and videos make it a useful reference volume, particularly for introducing others to your interest in PSI. For the rest of us, this software is a wonderful introduction to an intriguing subject presented in a highly-entertaining and accessible manner.

The CD-ROM is available in French and English versions for Windows 3.1, Windows 95 and Mac OS (Macintosh) computers. Your computer must have a CD-ROM drive, sound output and a colour monitor. Contact Mario Varvoglis, Tel: +33 1 69 04 10 83, Fax: +33 1 69 04 40 82, E-mail: 100420.1451@compuserve.com Web Site: <http://www.psi-explorer.ilias.com>

### **Prof. Ravi Ravindra – Science & Spirituality Course**

Ravi Ravindra is hosting a Templeton award-winning course, entitled 'Mystical consciousness and modern science and the Sacred'. Class time will be devoted to an understanding of the many levels of

human consciousness from a non-sectarian spiritual and global perspective. Some of the presuppositions of scientific enquiry will be looked at in the light of the large spectrum of consciousness, asking: What light can be thrown on mystical consciousness by modern scientific discoveries? The course will assume that both science and spirituality are of utmost significance to every human being and to the human culture in general and focus on the best and the highest aspirations of the scientists and the religious teachers. Each student will be asked to choose for a detailed study an acknowledged spiritual sage and an important scientist in order to gain a clear appreciation of the relationship between spirituality and science in a living human being rather than abstractions. The hope of the instructor is that students will gain some insight into the intensely engaging and passionate activities of spiritual search as well as scientific research, their differences and divergent tendencies as well as the possibility of their reconciliation in an individual whose mind and heart have been enlarged by scientific and spiritual insights.

Contact: Prof. Ravi Ravindra, 12 Pottery Lane, Halifax NS., Canada B3P2P5. Tel: +1 (902) 477 1874, Fax: +1 (902) 479 1070, E-mail: [ravi.ravindra@dal.ca](mailto:ravi.ravindra@dal.ca)

### **Dr. Alec Oulton Water Group**

*Alec writes:* Emerging from discussion at the recent SMN meeting in Prague, the possibility of forming a special interest group devoted to water issues was raised. There is undoubtedly a plethora of data and expertise already available in this area but the Network might perform a valuable role in bringing various themes together under one roof. Such themes include study of the nature of water; already a theme of a past Mystics and Scientists conference, potentially this could form a basis for on-going discussion. Second is the relation of water to societies and their economies. Central Moravia, the eastern part of the Czech Republic, for example is also the location of ancient waterways which flow eventually into the Baltic, North and Black Seas. A project presented at the conference and aimed at protection of these waterways has as its additional goal, the development of sustainable life styles in associated villages. This project has already found interested water experts and groups from England and it can in time envisage the possibility of combining ethical business, eco-philosophy, eco-tourism and the development of central Europe. A wider range of technologies may be required in the future and all of this might interest some network members. Further, these kinds of schemes offer the chance for unusual, educational holidays at reasonable cost.

The wetlands of NE Poland, the primaeval forests on the Polish side of the High Tatras and the ski slopes on the Slovak side, are all examples of exchange possibilities. Related to ethical business connections is the number of water technologies and devices on the market. The group might function to both distribute and evaluate such devices as the Grandeur Water Unit. Third, whether we are talking about the polluted Baltic, the devastated Aral sea or the desperate shortage in Southern Africa, water is a major global issue facing the planet as we approach the millennium. At Tichy Potok in Slovakia for instance, several villages are threatened with extinction if a massive unnecessary dam, partially financed by a British investment bank, goes ahead. The local alternative costs one tenth of the cost and is based on restoring ground water levels using ecological principles which are globally accepted. The network is not a political pressure group but its dedication to consciousness development implies a greater responsibility for the whole on the part of those who are more awake. A water group might participate in global water related events/organizations such as the Stockholm Symposium on Water and play a part in turning local protest such as that at Tichy Potok into a world forum, possibly at United Nations level. The first step is an invitation to register your interest. In the beginning it would seem wiser to keep the organization simple and fairly informal.

#### **Michel Carayon – Healing and Naturopathic Work on Cancer**

Michel presented his work at the recent Prague meeting. He currently spends half his time in France and half abroad. Sixty per cent of his patients have cancer and are treated through naturopathy as well as psychological and spiritual methods. On principle, he rarely acts directly on the symptoms, but rather on the psychological causes in helping the body to detoxify and to find clean cells balanced in energy which will bring about a self-cure of the body. In his own words, he treats rather than cures, so that the best results come from the more motivated patients; he sees illness as an opportunity for the expansion of consciousness. The most subtle treatment is through spiritual energy which he regards as coming through him; he uses a damp cotton wool ball as an instrument, but the essential medium is this spiritual energy which is intelligent in the sense of knowing exactly what to do. Michel's recent papers contain outlines of his successful treatment of a number of patients, for instance a 46-year-old Hungarian woman diagnosed in February 1995 with liver cirrhosis and chronic hepatitis, at which point she was close to death. By November 1995 she

had undergone 12 energy interventions plus macrobiotics and naturopathy. By May 1996 she was declared to have made a complete recovery. Readers wishing to know more can contact Michel at Les Granges, 38440 Moidieu-Detourbe, France. Fax: +33 4 74 58 10 70. E-mail: 106251.504@compuserve.com and URL: [http://ourworld.compuserve.com/homepages/MICHEL\\_CARAYON/](http://ourworld.compuserve.com/homepages/MICHEL_CARAYON/)

#### **Anne Marmenout – Evolution: What Next?**

This three-part meditation on the nature of evolution traces the origins of organic life, then looks at emerging patterns of process and organization called the seven stages of the creation force; the third part recaps these seven stages and applies them to human beings within the context of current evolutionary possibilities. It is we who can choose to align ourselves with the seven aspects or not as we approach a higher turn of the spiral. Applied to human behaviour, they are causative of 1. abundance 2. choice, selection, inclusion/exclusion 3. marriage, binding, blending, interweaving 4. multiplicity, chain formation 5. function, individuality, specificity, fixing 6. connection, interaction 7. order, holding. Details from Anne at PO Box 235, B-2610 Wilrijk, Belgium. E-mail: 100343.2227@compuserve.com

#### **Dr. Georg Feuerstein – Yoga Research Center**

Georg has recently founded this Center with four main objectives: 1. to conduct and promote literary and comparative research on Yoga 2. to serve as a clearing house for medical, psychological and other scientific data on Yoga 3. to educate the public about all aspects of the Yoga tradition through a newsletter, talks, courses and symposia, and 4. to collaborate with other organizations of similar purpose and orientation. The first offering will be a correspondence course on Classical Yoga, to be followed by similar courses on Hatha- and Tantra-Yoga. Publication of Yoga World will begin in 1997. Details: YRC, PO Box 1386, Lower Lake, CA 95457, USA. Email: [yogarsrch@aol.com](mailto:yogarsrch@aol.com)

#### **David Fideler – Kosmos Newsletter**

David has produced the first issue of a newsletter of cosmology, philosophy, myth and culture. He has written the lead editorial on 'Ecologic', the fact of an unbroken continuity between humanity, the Earth and the greater Universe. The issue also includes Mikhail Gorbachev's address to the State of the World Forum in 1995. His corresponding journal is

*Alexandria*, which has a web site at <http://www.cosmopolis.com>

### Marie Galbraith – UFO Briefing Documents: The Best Available Evidence

This 170-page briefing document compiled by Don Berliner with Marie Galbraith and Antonio Huneens is aimed at informing leaders of the world's governments, scientific communities and press about the reality and serious nature of UFOs. Eighteen major UFO cases are carefully documented and illustrate some of the most intriguing features of UFOs, including military radar tracking and landings which left physical traces. Quotations are given from leading military and government officials, astronauts and scientists from seventeen countries. The report urges a reduction in government secrecy now that the Cold War is over. The executive summary outlines the case in twenty pages. As a novice in this field, I found the evidence worth taking seriously. Further information: The UFO Research Coalition, Box 277, Mt Rainier, MD 20712, USA. Fax: +1 (703) 684 6032.

### Professor Richard Tarnas – *The Passion of the Western Mind*

The UK edition of Rick's classic book was published in the UK in July this year and was the book of the month at Blackwell's in Oxford. It was reviewed by Anne Baring in the December 1994 issue of *Network*. Rick and Stanislov Grof will be teaching a course on 'Cosmology and Consciousness' at Schumacher College in July. Further details from Schumacher on the leaflet enclosed with this mailing. Copies of the book can be ordered from the office for £12 including p & p. Cheques to Wider Horizons.

### Bob Cripps – Imaging the Aura

*Bob writes:* in August 1995 a workable and reliable system for imaging the aura was finally achieved. The important points are: 1. The energy field (aura) around things is a physical reality; 2. no 'special'

attributes are required to be able to see the aura; 3. It will be possible for this system to be widely used; 4. The aura is highly individual; 5. The aura does reflect the level of physical and emotional well-being. It is possible to devise a sketch of the aura around the hand which is a composite of several images. It is hoped that this will be the subject of an article in the April issue of *Network*. In the meantime, interested readers can contact Bob at Old School House, Knock, Point, Isle of Lewis, Scotland HS2 0BW.

### Rhea White – Exceptional Human Experience Network

The Exceptional Human Experience Network (EHEN) is interested in exceptional experiences and learning more about those to help people to realize their human potential. EHEs can be initiated by spontaneous anomalous experiences of the psychic, mystical, encounter, and death-related types. The general aim of the EHE is to study the full range of EHEs, find or develop ways of understanding and working with them, draw generalizations based on them, and disseminate this information to members, scholars, and the general public. The EHEN's journal, *Exceptional Human Experience*, contains articles on conceptions of exceptional human experience that are outgrowths of EHEs themselves.

### Dr. Michel Bercot – *Le Corps Energetique de l'Homme*

Following his successful conferences in Paris under the above title, Michel has launched a quarterly bulletin of the same name with the thought that integrating the energetic body is a way of rediscovering the soul of things and beings. The bulk of the publication consists of informative articles on approaches to subtle anatomy and applications relating to particular conditions, for instance cancer. The July 1996 issue contains an extensive article on the 'vitality body'. French-speaking readers will find this a stimulating read. Sample copies are 20FF and can be obtained from 152 rue de Saussure, F-75017 Paris. Fax: +33 1 40 53 94 95.



Life is what is happening when you're making other plans.

John Lennon

## MEMBERS' ARTICLES

The following Members' articles are available at 15p per sheet + 30p postage per five sheets. Small UK orders are best paid in stamps; overseas Members can add the appropriate amount to subscriptions or pay by credit card. PLEASE CONTINUE TO SEND ARTICLES FOR THIS NETWORKING SCHEME. THOSE SENT ON DISK CAN BE POSTED ON OUR WEB PAGE.

## Science

*Mathematical Model of the Dowser's Work* – T. Kalnins and R. Krisbergs (8 pp.). The paper proposes and analyses a mathematical model to represent the art of the dowser. 150 scientists and students in Utah University, USA were tested and key parameters assessed. Their reaction to various response intensities from the source being investigated were observed, and factors affected performance studied. The paper concludes that the phenomenon of dowsing is complicated and that further careful work needs doing.

*Gentle Introduction to Quantum Biology* – Roger Taylor (26 pp.). This paper was inspired by the author's reading of a book entitled *What is Life?* by Erwin Schrödinger. The paper explores the fundamental effect he believes that Quantum Theory work has about our understanding of Life. Roger is anxious to have feedback as he is considering expanding the paper into a short book.

*Hypothesis on Fields, Information Structures and Communications in Nature* – by Volker Jonas (14 pp.). This paper describes the natural morphogenetic fields proposed by Rupert Sheldrake, and describes experiments the author has conducted to support evidence for the existence of such fields. He also offers comments on Sheldrake's *Seven experiments that could Change the World*.

*Fermat's Last Theorem, its significance to Electrical Science* – Harold Aspden (8 pp.). This paper shows how Fermat's Last Theorem has implications for unifying gravitation and magnetism, and also on the nature of electricity.

## Medicine/Health

*The Impact of Alternative Medicine on our views of Health* – Stephen Fulder (4 pp.). The paper attempts to define what health is, and the effect of alternative medicines on our view of health.

*Natural Health and Healthy Nature: the Neo-Hippocratic Revolution in Alternative Medicine* – Stephen Fulder (8 pp.). This paper describes the revolution in our view of health as a result of the increasing acceptance of the role of Alternative Medicine as part of overall therapy.

*Free Radicals and Disease: the Toxaemia Hypothesis* – Roger Newman Turner (9 pp.). The paper compares the views of some of the foremost propo-

nents of toxaemia theories with modern knowledge of the role of oxidative compounds (free radicals) in the aetiology of disease and suggests that advances in understanding of free radical biochemistry may lend more credibility to toxaemia as a significant factor in functional medicine.

*Human Health and Toxic Chemicals: Report on the 1996 Green Network International Conference* – Doris Jones (11 pp.). This paper reviews the conference as a whole and selects particular highlights stressing the extent of the problem, and the inappropriateness of some present medical treatments.

*Perfectly Organized Chaos* – Chris Low (7 pp.). Describes the use of Chaos Theory, which allows for the complexity, uncertainty and ambiguity of subtle energy, to model and map out on a computer screen the properties of *qi*, the Chinese energy force.

*Time Lining: a way to spend less time in therapy* – Dale Beckett (4 pp.). The paper describes, with a detailed case history, the use of Time Lining as a therapeutic technique, in which the way the patient organizes his perception of time is established. By working with the patient's imagination this Time Line can then be used to relieve their distress.

*Diet and Physical Degeneration of Children*, by James R. Witchalls (5 pp. from *International J. Environmental Studies*). Argues that many common diseases of childhood are brought about by the progressive and extensive substitution of whole foods, locally produced, by manufactured foodstuffs containing refined flour and high sucrose levels.

*Acetylcholine and Hallucinations: Disease-Related compared to Drug-Induced Alterations to Human Consciousness* – E.K. Perry and R.H. Perry (10 pp., from *Brain and Cognition*, 28, 240–58 (1995)). Suggests that muscarinic receptor activation in the cortex is involved in confining the contents of the discrete self-reported conscious 'stream'. Also a letter (2 pp. from *Int. J. of Geriatric Psychiatry*) proposing possible non-local interactions between conscious awareness and neurotransmitter signalling.

*Reiki: Esoteric Therapy of Quantum Interaction*, by Luca Barberis (9 pp., also available by e-mail). A paper presented at the first International Conference on Anthropology and the History of

Health and Disease. An informed discussion of energy processes at a sub-atomic level as potentially related to healing.

*Fractal Geometry: a new approach to the management of chronic pain* – Jan Kryspin (3 pp.) The paper describes briefly the need in considering chronic pain to go beyond Euclidean and Riemannian geometries into fractal geometry, and then discusses its relevance to the management of chronic pain.

*Massage* – N. Sasikumar (3 pp.) This short paper comments on the position of Ayurvedic massage in the world today.

### Philosophy/Religion

*Free Will in the light of Neuropsychiatry* – Sean Spence (24 pp.) This is an article in the June 1996 edition of the *Philosophy, Psychiatry and Psychology Journal*. The paper discusses the notion of free will, and maintains that it must essentially be non-conscious. Conscious free will is incompatible with the evidence of neuroscience.

*Consciousness as a Challenge to the Epistemology and Methodology of Science and Medicine* – Willis Harman and Marilyn Schlitz (13 pp., presented at a symposium in Tokyo in November). Analyses puzzles that pose a problem to accepted epistemology, the metaphysical foundations of modern science and suggests a new approach to scientific epistemology.

*Consciousness and Creation* – Victor Oubridge (14 pp., also available on the Web Site). A comprehensive account of the author's view of consciousness which draws on Douglas Fawcett and considers modes of consciousness, regulation and control, consciousness and space, the psi-field, multiple universes and memory.

*A Metaphysician's Impressions of St. Petersburg conference on new ideas in Natural Sciences.* – An Observant Pilgrim (8 pp.). A lyrical account of this conference which considers its inner significance as well its outer content.

### Parapsychology

*They laughed at Galileo too* – Dean Radin (5 pp.). This paper is an article from the *New York Times* on the work and experiences of Dean Radin who is Director of the Consciousness Research Lab. at Nevada University in Las Vegas.

### Psychology

*The Pencolour System* – Emil Moller (3 pp.). A new model for behavioural analysis and interpretation based on attributing a colour to functional energy centres. The psychological blueprint is based on the five core processes of analytical thinking, result-oriented action, instinctive sensing, emotional empathizing and creative thinking.

### General

*Ecology of the Information Environment – New Paths to Future Civilization.* – Evgueni Faidych (6 pp.). Analyses the destruction and chaos in the information environment and proposes that ancient sites and mantra practices, for example, were designed to exert influence of informational character on the planetary biosphere and collective unconscious; a modern equivalent might be the use of fractal geometric patterns.

*The Universal Pastry Cutter* – Jim Lyons (8 pp.). This paper discusses a universal geometry for creating the various crop circle patterns observed.

*Gravitation plus Cavitation = Salvation* – Jim Lyons (9 pp.). The idea of zero-point energy is explored to account for many phenomena, and particularly for crop circles. Zero point energy is the very real energy that remains in a system when all known forms of energy have been removed, e.g. a vacuum cooled to an absolute zero temperature.

*Formation Numeronics* – Jim Lyons (13 pp.). This paper looks at the various numbers associated with Crop Circles.



Let her and Falsehood grapple; who ever knew Truth put to the worse, in a free and open encounter.

It is not impossible that [Truth] may have more shapes than one.

John Milton

## NEWS AND NOTICES

### Polanyi Society –

#### Special Issue of *Tradition & Discovery*

The Polanyi Society, an international group established for those interested in the thought of philosopher Michael Polanyi, has produced a special issue of their periodical *Tradition & Discovery* (Issue XXII, No. 1) presenting a guide to his collected papers at the Department of Special Collections, University of Chicago Library. The periodical is available as part of a membership subscription. Further information: Phil Mullins, General Editor – Tradition & Discovery, Missouri Western State College, St. Joseph, MO 64507, USA. Tel: +1 (816) 271 5987. E-mail: mullins@griffon.mwsc.edu The Polanyi Society also supports an electronic discussion group, which you may join by sending an e-mail message to owner-polanyi@sbu.edu

#### Upcoming RCCM Initiatives

A new programme of day-long research training seminars for practitioners and college lecturers from the Research Council for Complementary Medicine is available during the first quarter of 1997. Two different areas of training are being offered: 'Research in complementary medicine' introduces practitioners new to the field to the methods and strategies for research in this area. 'Developing research education' is the second in a series of training days for senior college lecturers and principals for encouraging interest in and managing complementary research within their institutions. Further information from: RCCM, 60 Great Ormond Street, London WC1N 3JF. Tel: 0171 833 8897. E-mail: rccm@gn.apc.org

#### Periodical for Ethical Issues

The multi-disciplinary, quarterly journal, *Science and Engineering Ethics*, dedicated to exploring ethical issues of direct concern to scientists and engineers is entering its third year of publication. The wide scope of the journal examines ethical issues in professional education, research and practice, ranging from genetic engineering and robotics to the impact of the media and the sustainability of the environment. The journal has a policy of publishing issues devoted to a single relevant topic. Review copies and further information from: Merilyn Spier, Publishing Manager, Opragen Publications, PO Box 54, Guildford, Surrey GU1 2YF, England. Tel/Fax: +44 1483 560074.

### Health Psychology

Published quarterly, the *Journal of Health Psychology* aims to provide an international forum for topical issues in the emerging field of Health Psychology. The journal publishes research and theoretical articles, commentaries and book reviews of a discipline that draws its expertise from clinical psychology, social psychology, medicine, public health, and health communication. Further information from: David Marks, Health Research Centre, Middlesex University, Queensway, Enfield, Middlesex EN3 4SF, UK. Tel/Fax: +44 181 362 5558. E-mail: david78@mdx.ac.uk

### The UK Alternative and Complementary Health Compendium

This recently published informative and comprehensive guide to alternative and complementary health practices and initiatives is a useful resource for practitioners and patients alike. Introductory articles set the scene, then there is an A-Z of common ailments and suggested lines of treatment, which can be cross-referred to the main body of the book, 50 essays by specialists in the fields accompanied by resource addresses and booklists. One potential source of confusion is the mixture of official announcements and advertising. The book can be ordered directly from Millennium Profiles, 4 Bersted Mews, Bersted Street, Bognor Regis, W Sussex PO22 9RR. Tel: 01243 820030. Fax: 01243 823180. Price £15.99 plus p & p.

### Your MS for Elizabeth Puttick?

Elizabeth Puttick is now working as a literary agent for general non-fiction with a special interest in: religion and spirituality; psychology and personal development; health; new science and popular science; social and environmental issues; women's studies. She was previously editorial director of Thorsons, the MindBodySpirit imprint of HarperCollins, Publishers. Here she built up the Eastern religions list with books by the Dalai Lama, Thich Nhat Hanh and major Western Buddhists, and also established the pre-eminent list in Western and traditional spirituality. As well as a number of popular best-sellers, she published many leading-edge titles including *The Memory of Water* by Michel Schiff. Her unrivalled knowledge of these areas of publishing is based in over 20 years of personal interest and practice within the Human Potential Movement and various spiritual traditions, as well as academic research including a doctorate in the sociology of religion. She is also an experienced writer who has had two books published.

Having experienced both sides of the fence, she is able to offer informed and sympathetic support to authors. Proposals on all the above-mentioned subjects are welcome. Commission is 10 per cent home, 20 per cent overseas. Please initially telephone or send a synopsis with author information and sample text, plus an SAE to: 5 Lillian Road, London SW13 9JG. Tel 0181 287 9420. Fax 0181 286 3226. E-mail: 100445.2121@compuserve.com

### Feminist Perspectives

*Feminist Economics* is a journal founded to provide an open forum for dialogue and debate about feminist economic perspectives. Publishing peer-reviewed contributions from a range of intellectual traditions, the journal's ultimate aim is to improve the living conditions for all children, women and men. Both specialists in the field and other who would like to know what is going on will find the journal of interest. For sample copies of the journal and further information, contact Debby Shaw, Routledge Subscriptions, ITPS Ltd, Cheriton House, North Way, Andover SP10 5BE, UK. Tel: +44 1264 342713, Fax: +44 1264 342807. E-mail: debby.shaw@itps.co.uk

### Cultural discussion on-line and off

The 'Institute for Cultural Renewal and Design' promotes cultural development that incorporate the values of environmental sustainability and diversity, non-authoritarian spirituality and reverence for life, as well as linking economic activity and basic human needs. Discussions are published either in the MuseLetter or in the interactive, on-line sister publication, *Cultural Dialogue Journal*. By expressing views via an internet-based exchange, the CDJ ensures the rapid publication and delivery of discussion threads. To subscribe to the MuseLetter, contact Richard Heinburg, 1433 Olivet Road, Santa Rosa CA 95401, USA. To subscribe to the CDJ, send e-mail to KenLeb@aol.com

The 'Center for the Evolution of Culture' takes a spiritual perspective to cultural change. They run a program of seminars in California that explore the dimensions of cultural change. You can place yourself on their mailing list by contacting: Foundation for Global Community, 222 High Street, Palo Alto, CA 94301, USA. Tel +1 (415) 328 7756. Fax: +1 (415) 328 7785. Visit their web site at: <http://www.globalcommunity.org>

### The Skeptic's Dictionary

*The Skeptic's Dictionary*, 'wherein are defined occult, paranormal, supernatural and pseudoscientific

terms, with references whereby readers may arm themselves against the forces of unreason, with occasional biased comments by the author' was compiled by Bob Carroll, a declared atheist, especially for the Internet, where it may be browsed and whence it may be downloaded. The author also invites correspondence. SMN Members may not agree with many of his opinions, but they will nevertheless be of interest, since they cover nearly every subject the Network has ever dealt with. Reading it is an exercise in being 'willing to listen and learn from others'; understanding it may help readers better to express their own views. The Skeptic's Dictionary can be found at <http://dcn.davis.ca.us/~btcarrol/skeptic/dictcont.html>

### Science and Survival

Two independent organizations have been set up for conducting science in the spiritual realm. The 'Survival Joint Research Committee Trust' conducts a number of experiments designed to test the possibility of post-mortem survival, mediumship and non-conscious perception. For further information, contact: The Secretary, SJRCT, 47 Mayfield Road, Hornsey, London N8 9LL, UK. Tel: +44 181 348 9181.

The 'New Spiritual Science Foundation' researches and catalogues physical phenomena, such as psychic photography, as evidence for life after death. Well over 80 different types of physical evidence have been produced. The Foundation discusses such evidence in their bulletin *The Spiritual Scientist*. Orders for the periodical and further information can be obtained from: The Spiritual Science Foundation, Street Farmhouse, Scole, Diss, Norfolk IP21 4DR, UK. Tel: +44 1379 741839.

### Psychical Research Essay Prize

The 'Academy of Religion and Psychical Research' hosts conferences at which academically-significant presentations combining aspects of both psychical research and religion are given. These presentations are later available as cassette recordings. The Academy also sponsors an annual competition that offers a cash prize to the best paper on an announced subject. For 1997, the subject is 'The mind/body question in science and world religions.' Details for membership, conference programs and competition entry can be obtained from: The Academy of Religion and Psychical Research, PO. Box 614, Bloomfield, CT 06002-0614, USA. Tel: +1 (860) 242 4593.



### Visionary Leadership

The 'Center for Visionary Leadership' is a Washington, DC-based training and consulting centre that helps individuals and organizations develop inner resources for effective leadership. Headed by Gordon Davidson and Corinne McLaughlin, authors of the book *Spiritual Politics*, the Centre now produces a regular newsletter entitled *Visionary Voices*, providing seminar notices, articles, and discussions. Membership details, subscriptions to the newsletter and additional information can be obtained from: The Center for Visionary Leadership, 3408 Wisconsin Ave. NW., Suite 200, Washington, DC. 20016, USA. Tel: +1- 202 237 2800. E-mail: cvldc@netrail.net Visit their web site at: <http://www.inusa.com/visionary>

Members Desmond Berghofer and Geraldine Schwartz publish *The Visioneer*, a newsletter of positive news and inspiring projects which emerged from Desmond's novel which visualizes potential changes which can occur in our world. As he puts it: the task is at hand: to build a vision of the future to which we would all like to travel. Details: Creative Learning International, 503-1505 West 2nd Ave, Vancouver, BC., Canada V6H 3Y4. Fax: +1 (604) 734 9723.

### Personal Spirituality

A US-centric magazine, *Convergence*, is available for subscription. The magazine is published five times per year and contains a broad cross-section of articles that cover personal and spiritual growth through to holistic health. The publishers also produce cassettes, videos and books from relevant conferences and workshops. For information, contact: Convergence, One Sanborn Road, Concord, NH 03301, USA. Tel: +1 (603) 225 3720.

The 'Centre for Creation Spirituality' is a London-based organization for an applied spirituality that spans science, the creative arts and religion. They publish *InterChange: Journal of Creation Spirituality* three times per year, as well a comprehensive catalogue of books and taped lectures. Contact: Association of Creation Spirituality, St. James's Church, 197 Piccadilly, London W1V 0LL, UK. Tel: Ingrid Hankin on +44 171 287 2741.

The 'Positive Spirit Network' is a non-profit making concern with an aim to provide peace and harmony for humankind through personal and social spiritual development. They act as a link between numerous holistic-minded groups via a quarterly newsletter. For full details, write to: Positive Spirit, PO Box 1297, Halstead, Essex CO9 2LW, UK.

### Environmentalists' Corner

The 'Forum for the Future,' an environmental economic and educational organization have just published the first issue of *Green Futures*, a bi-monthly periodical that covers key aspects of environmental and economic sustainability. Innovative features include reports of inspirational 'best practice' projects and articles written by the Forum's corporate partners. Subscription information can be obtained from: Green Futures, 227a City Road, London EC1V 1JT, UK. Tel: +44- 171 251 6070. Fax: +44 171 251-6268.

'Zenergy Corporation' was formed to commercialize revolutionary technologies that positively transform the environment through a process of global licensing strategies, leadership training and support for government development programs. Contact: Zenergy Corporation, 390 South Robins Way, Chandler, AZ 85225, USA. Tel: +1 (602) 814 7865. Fax: +1 602 821 0697. E-mail: [info@zenenergy.com](mailto:info@zenenergy.com)

The 'Planetary Aid Network' is a grass-roots organization that explores ways to do more to help the planet. Their agenda includes concern over governmental directions and propaganda. For further details of their discussion groups and conferences, contact Roger Hill, 5 Ash Grove, Greaves, Lancaster, LA 1 4UH, UK. Tel +44 1524 382373.

'Arts for Nature' publish a newsletter on an alliance between conservationists and artists for stimulating a positive awareness and reverence for Nature. They recently organized their 1996 gala as a 75th birthday celebration for their patron HRH The Duke of Edinburgh. Current events and information can be obtained by writing to: Arts for Nature, 86 St. George's Square, London SW1 5QX, UK.

'Project NatureConnect' have a pre-publication edition of *Reconnecting with Nature: a hands-on synthesis of ecology and psychology* available, which you can order by e-mail from [nature@pacificrim.net](mailto:nature@pacificrim.net) Courses and degree programs in eco-psychology have also been offered and further information is available by contacting that e-mail address. Finally, you can join the NatureConnect mailing list by sending the e-mail message 'info natureconnect' to [natureconnect-request@lists.mindspring.com](mailto:natureconnect-request@lists.mindspring.com)

*Radioactive Times* is the newsletter of the Low-Level Radiation Campaign containing a variety of reports from groups opposing the hazards of low-level radiation. Samples from 9 North Road, Builth Wells, LD2 3BU. Tel: 01982 552502.

### Daisyworld

Kevin Ashbridge writes: Less comprehensive than *PSI Explorer*, but no less intriguing, is the comput-

er programme *Daisyworld* by Green Ocean Software. Daisyworld is an imaginary planet, similar to the Earth and orbiting a star similar to the Sun at the same orbital distance. Its environment is represented by a temperature-varying climate and the planet's star increases in stellar luminosity from 55% to 120% of the Sun's current value. This covers a period too cold for life, to one where life can be sustained, to too hot. The self-regulation built into Daisyworld extends the life-sustaining period during which it is populated by three trophic species of daisies, rabbits and foxes. The user can choose from eight different scenarios of varying parameters and the results are plotted as simple graphical charts. This approach allows the investigation of an evolutionary model where the evolution of the organisms and their physical environment are tightly coupled. The authors claim their primary aim in the initial modelling was to show the climatic self-regulation of the system. The stabilizing influence of environmental feedback thus enabled exploration of community ecology with an emphasis on biodiversity and species richness. The set of models in this visualization are intended to demonstrate the various aspects of this research.

The software runs on DOS computers and is available from: Green Books, Foxhole, Dartington, Totnes, Devon TQ9 6EB, UK. Tel: +44 1803 863260, Fax: +44 1803 863843.

### Aromatherapy

The *Aromatherapy Quarterly* has just published its 50th issue. This authoritative magazine covers all aspects of aromatherapy and essential oils, including clinical and therapeutic issues, conference and book reviews, as well as interviews with leaders in the field. Subscription information can be obtained from: Aromatherapy Quarterly, 5 Ranelagh Ave, London SW13 0BY, UK. Fax: +44 181 392 1691, or in the USA: PO Box 421, Inverness, CA 94937-0421. Tel/Fax: +1 (415) 663 9519.

### More Life on Mars?

A pre-publication edition of *Mound Configurations on the Matrian Cydonia Plain* has been produced by its authors Prof. H.W. Crater and Prof. S.V. McDaniel. This technical report is an analysis of NASA's Viking spacecraft data on the geometric pattern formed by the 'mounds' in Cydonia on Mars. The null hypothesis that these formations are due to random known geological processes is not supported. Further information can be obtained by writing to Prof. Stanley V. McDaniel, 1005 W. College Ave. #273, Santa Rosa, CA 95401, USA. Readers interested in receiving a complimentary copy of the UK Mars Network bulletin, *Mars Results*, can do so by contacting CompAres Ltd., PO Box 1814, Buckingham MK18 3ZZ, UK.



## FORTHCOMING EVENTS

### Moscow Conference:

**The special states of consciousness of the person. Experimental and theoretical researches in parapsychology**

The conference is held in Moscow from April 16 to April 18, 1997. Themes will be:

1. The special states of consciousness. Methods of its research, formation and control.
2. Experimental research of psi-phenomena (clairvoyance, telepathy, prosopagnosia, telekinesis, poltergeist and other).
3. Theoretical problems of parapsychology.
4. Medical parapsychology: non-traditional diagnostics and treatment, indications and contra-indications, remote consequences.

The fee for the participants of the Conference is \$150. Claims for participation at the Conference and theses of reports, theses orders for additional services should be sent not later than March 1, 1997. Details: Leonid L. Vasilyev Fund of parapsychology, PO Box. 54, 125124, Moscow, Russia. Tel./Fax +7 (095) 470 8602. E-mail: A.Lee@relcom.ru

### Embodying Change – SEAL International Conference

This major event will take place from 3–6 April at the University of Bath and will consider the challenge of 'walking the talk', narrowing the gap between what we believe we are and how we are

received by others. It will stress the importance of developing emotional intelligence and the use of our innate musical skills. Speakers include Paul Robertson, Mike Eales, Carla Hannaford, Robert Langs, David Wasdell and Barbara Meister-Vitale. Details: SEAL, PO Box 26, Ipswich, Suffolk IP1 2QG. Tel: 01473 289818.

### Events at Dartington Hall

- 14–16 February – Member Professor Brian Goodwin on *Chaos, Complexity and Creativity*.
- 28 February–2 March – Dr. Paul Robertson on *The Art and Science of the Musical Mind*.
- 14–16 March – Professor Ursula King on *Christian Mystics, Past and Present*.
- 9–13 April – 22 Annual Conference, *Time and Timelessness* with Dr. Peter Fenwick and James Hillman

Further information: Brenda Blewitt, Dartington Hall Programme, Dartington Hall, Totnes, Devon TQ9 6EL. Tel: 01803 865551.

### Analytical Psychology Club Lectures

- 16 January – *Experiments on the Extended Mind*, with Dr. Rupert Sheldrake.
- 20 March – *The Old Wise Woman: The Fairytale of the Goose Girl at the Well*, with Carmen Reynal.
- 15 May – *Various Ways of Being Inferior*, with James Jarrett.

8–10 p.m., Essex Palace Church, 112 Essex Palace Gdns, Kensington, London W8.

### Paul Robertson Seminars

Following his highly successful Channel 4 TV series 'Music and the Mind', Paul Robertson draws on his 25 years' experience as leader of the prestigious Medici quartet and research into the neurology and science of musical response. Illustrated by film, music and performance, these workshops are designed to allow any interested participant an active insight into their innate creative musicality. Issues covered include music and healing, musical structure and the gestures of emotion, music and accelerated learning. Venues include Colet House, London, on February 8, The Spity, London on March 18, Gloucestershire on February 15 and April 19. Details from Colin Dunbar, 3 Alderside Walk, Egham, Surrey TW20 0LX. Tel: 01784 434537.

### Hazel Guest – Personality Integration and the Self

Over the weekend of 15–16 March, Hazel will run a transpersonal workshop at Newnham College,

Cambridge. It is designed to be the equivalent of Workshop I of the Centre for Transpersonal Perspectives in London, and will introduce the basic principles and methods of Transpersonal Psychology, including creative work with symbols, inner dialogue, gestalt work and guided fantasy. Topics include: the distinction between the Self and Ego, sub-personalities, maps of the psyche, the growth process and the breakthrough experience. The fee of £65 includes tea and coffee but not lunch. Further details: Hazel Guest, 44 Beaufort Place, Thompson's Lane, Cambridge CB5 8AG. Tel: 01223 369148.

### Dr. Christine Page – The Spirit in Practice

Christine is presenting an exciting and innovative course for practitioners exploring the spiritual dimension behind health and disease seen as a vital ingredient in the creation of optimal well-being. The six-month part-time certified course includes: the mind-body connection, the influence of the chakras and subtle energies, visualization and voice dialogue techniques, the concept of illness as an opportunity, the use of sound and colour to enhance healing, intuition in practice. Starting dates February 1997, with courses in London, Leicester and Harrogate. Details Tel/Fax: 01494 681317.

### Roy and Ann Procter – Accessing Your Intuition via Dowsing

Roy and Ann are planning to run more of their popular Saturday workshops in 1997. Their ongoing series includes *Dowsing for Healing People*. They also do healing work where geopathic stress seems to be a factor in dis-ease and gave a talk about this to the Devon and Cornwall group recently. Most of this work is done at a distance. Enquiries to them at Coombe Quarry, Keinton Mandeville, Nor Somerton, Somerset TA11 6DQ. Tel/Fax: 01458 223215.

### Jung's Relationship to Oriental Mystical Traditions

The title of a conference to be held on March 15 in London with speakers Members Dr. Leon Schlamm on *The Dreamlike World of India* and Dr. Roger Woolger on *Jung, Meditation and the Self*. The conference is sponsored by the Guild of Pastoral Psychology and the Department of Theology and Religious Studies at the University of Kent, from where further details can be obtained at Darwin College, Canterbury. Tel: 01227 764000.

### Eckhart Society Conference

A day conference on *Pain Control and Spirituality* will be held on Saturday 15 February with speakers Carol Horrigan and Richard Woods OP. The Society promotes the understanding and appreciation of Eckhart's writings and their importance in Christian thought and practice and a contribution to inter-religious dialogue. Details from the Secretary, Eckhart Society, Summa, 22 Tippings Lane, Woodley, Reading, Berks R5 4RK.

### Study Society Open Meetings

Forthcoming meetings at Colet House, 151 Talgarth Road, London W14.

- Thursday 23 January, 8.15 p.m., readings of William Anderson's poems and extracts from his latest book, *The Face of Glory*.
- Sunday 2 March, Open Meeting, 12 noon followed by picnic lunch and discussion groups from 2–2.45 p.m. Subject to be announced.
- Thursday 24 April, 8.15 p.m., *Spirit of Consciousness*, by Dr. Peter Fenwick.

Please phone Colet House (0181 748 9338) if you would like to attend any of the above.

### World Goodwill Lectures – 6.30 p.m. at Charing Cross Hotel

- February 7, *The Challenge of Being a Parent in the 1990s*, with Sheila Munor
- March 10, *Towards a New Politics* (speaker to be announced)
- April 7, *Meditation in Prisons*, with Sister Elaine MacInnes

- May 7, *Social Responsibility in the Business Environment*, with Simon Zadek.

### Lectures at the College of Psychic Studies

Tuesdays at 7 p.m., 16 Queensberry Place, London SW7

- February 11, *Reinventing Ourselves: The Challenges of Entering the New Millennium*, with Member Dr. Serge Beddington-Behrens
- February 25, *Addiction Forum*, with Member Dr. Brenda Davies, Charles Duff and Brenda Daniel
- March 11, *Facing the Shadow*, with Member Beata Bishop
- March 25, *Keeper of Genesis: Quest for the Hidden Human Legacy*, with Graham Hancock and Robert Bauval

The extensive full programme is available from the College.

### Workshop: Journey of Self Acceptance

A workshop/retreat is being organized in early May 1997 by Member Estelle Spike. Using story-telling, group interaction, visualization, breath and sound work, healing and the creation of a 'photographic mandala', participants will be involved in an on-going creative process to become more available and accepting of their own feelings, thoughts, awarenesses and intuitive knowledge. Full board and workshop will be £200. The venue is the Convento de San Francisco, Mertola, Portugal.

Contact Estelle at Rua das Giestas 9, Varzea de Sintra, 2710 Sintra, Portugal. Tel: +351 1 923 1096. Fax: +351 1 456 4573.



The corn was orient and immortal wheat which never should be reaped nor was ever sown. I thought it has stood from everlasting to everlasting ... But all things abided eternally in their proper places. Eternity was manifest in the light of day and something infinite behind everything appeared which talked with my expectation and moved my desire. The City seemed to stand in Eden or to be built in Heaven. The streets were mine, the temple was mine, their clothes and gold were mine as much as their sparkling eyes, fair skins and ruddy faces. The skies were mine and so were the sun and moon and stars, and all the world was mine and I the only spectator and enjoyer of it.

Thomas Traherne (1637–74)

## BOOK REVIEWS (by the Editor unless otherwise stated)

### Science/Philosophy of Science

---

#### Biophotonen: das Licht in unseren Zellen

by MARCO BISCHOF

Verlag Zweitausendeins, 1995. 521 pp., ISBN 3-86150-095-7

---

#### The Biophoton Field – moving principle between body and mind?

Review by Drs. Ole & Suzette van Hauen-Drucker

This book is written in German, and so far it is only being translated into Russian and Chinese. The reader would have to have some knowledge within the New Paradigm of science or be an open, curious and patient person with some academic background in order to get to the end. On the other hand the book is a must for any leading edge scientist or researcher or alternative specialist who wants a scientific overview, and seeks to understand the variety of theories or possible explanations for a part of reality which has just begun to be measured – the interface between the material world and virtual reality.

What is energy, i.e., healing energy; what does it do; where does it come from? Is the relationship between energy and light a different manifestation of the same principle? Doctors and therapists working with alternative medicine will be able to gather valuable information from this book. However, the language is not easily accessible unless one is familiar with the scientific terminologies of physics, mathematics, biology, biochemistry etc., even though there is a comprehensive and informative glossary at the back of the book.

We consider the book a work of reference with regard to the New Paradigm of science and philosophy in general and specifically with regard to the exciting area of biophoton research. Biophotons are quanta of light radiating from living cells. The author manages to include many scientists and writers, who may have paved the way for Fritz-Albert Popp, the father of the biophoton theory, as well as for others. Gustav Theodor Fechner (1801–87) physicist and philosopher and many more present and past famous or forgotten or misunder-

stood geniuses are brought into the context of light and living organisms.

However, the hero of the book remains: Fritz-Albert Popp. Since the author heard for the first time about Popp in 1976, he has spent much time analysing and understanding his theories. The subtitle of the book 'The light in our cells' is a quote from the Russian medical researcher Gurwitsch, who claimed in 1922 that every single cell in the body emits light. Popp's biophoton theory can be seen as the scientific explanation – and proof – for this claim.

We could feel tempted to cite the titles of the various chapters of the book – all thirty-eight of them! The titles themselves are like a New Paradigm supermarket – it's almost too much, but taken bit by bit and placed in relation to one's worldview context, the book contributes to the exciting Paradigm shift which is coming into bloom at the start of the 21st century. We will only cite a few of the chapter headings in the hope that German speaking Network members will hurry up and buy the book. In the first part of the book the author covers the history of concepts like life energy, bioelectricity and older aether-like concepts. The connection between bioelectricity and biophotons is according to Popp obvious, and there is a 200-year-old tradition regarding the influence of electromagnetic forces on biological phenomena. It is now called electrobiology. Much like organisms can absorb and store electromagnetism (and send it out again transforming themselves and the environment in the process), so Popp claims to have shown that cells, via their DNA, have the ability to store biophoton energy – light – and send it out again in a coherent form like a laser beam. The metaphor of living organisms as light-transformer/laser beam-creators is certainly a very powerful and exciting one.

Part 2 of the book is in particular dedicated to Gurwitsch, who laid the groundwork for the

biophoton theory of cell radiation. One chapter deals with the very important influence from Ilya Prigogine (dissipative structures) and Frölich (coherence theory) on Popp's work. This chapter is very well written and certainly these theories are indispensable when trying to understand living organisms and their relationship with the environment.

Part 3 is called Foundations. Amongst the chapter headings you will find: 'Ecology and the Physiology of Light', 'Living Organisms store Light', 'DNA: Spiral Molecule and Light Storage' and 'The Biophoton Field as Morphogenetic Field'.

Sheldrake does not consider his morphogenetic fields material, physical fields, but rather a kind of theosophical Steiner-like Akashic Records or Platonic archetypes: Behind every archetype, be it a thought, act, or a material object, is a corresponding field pattern, which is not by nature electromagnetic. This pattern exists beyond time and space. Every time it unfolds and manifests itself, the stronger becomes the morphogenetic resonance and the easier it will be to unfold.

Part 4 is called 'Applications' and covers a major part of the New Paradigm within medicine. A few examples of chapter headings:

'Illness and Health' (subtitle: Health as a Coherent Condition, Levels of Illness). 'Regulatory Means and Types of Illness' (subtitle: Yin and Yang types of illness). 'Cancer: Loss of Coherence and the Ability to Store Light'. 'Homoeopathy as the leading track of modern medicine'. 'Water research and Biological Activity'. 'Bioelectronic Diagnosis' (Subtitles: Bioelectronic according to Vincent, The Basis of Acupuncture, Kirlian Photography, Whole-Body Biophoton Diagnostic, to name but a few).

We find it appropriate to draw attention to Vincent's bioelectronic test as a precise and valuable way to monitor the development in chronic degenerative disease and cancer.

Part 4 is dedicated to the practical implication of biophotons within medicine. In the future biophoton research will no doubt play an important role as a tool to explore the transformation of energy and as an aid in establishing more accurate diagnoses in medicine. We

will witness an expansion in the use of biophoton screening tests within industrial analysis of quality, and within the very important area of side effects of drugs and pollution from pesticides and toxic chemicals from the environment. It is, however, difficult to visualize the use of biophoton technique as a simple and inexpensive measurement in general medical practice. Possibly one of the most decisive factors for the survival of the human race will be the quality of water. Already many chronic illnesses including cancer are due partly to pesticides and heavy metal and other industrial pollution of the drinking water. Here the biophoton screening test of the water would be of immense value.

We find the author's use of the yin-yang terms one of the weak spots of the book. It seems that he, like Popp, in general adheres to the Chinese definitions of the terms; however today just as many scientists, philosophers, doctors and therapists apply the Japanese tradition of the yin-yang principle. We don't think any of the two traditions, or the Rudolph Steiner version, is relevant for the New Paradigm within the sciences. In order to use those terms one must as a minimum define the yin-yang relationship of such words as: negative/positive electromagnetism, chaos/order, expansion/contraction, alkaline/acid, conductivity/resistance, reduction/oxidation, parasympathetic/sympathetic nervous system, implicate/explicate order, and explain what kind of context forms the basis for the interpretation of an age old tradition. At a higher level of understanding it may be irrelevant if the two principles are reversed, but when we are at the philosophical and even more so the scientific level of understanding such definitions are important.

Part 4 covers most of the alternative therapies used today, which are normally considered to have an electromagnetic background, for instance EAV, Mora, electro-acupuncture according to Voll, magnetotherapy, and some even include homoeopathy and healing. Seen in the context of the biophoton theory the effects of those treatments become even more understandable. Many questions within biology and biochemistry are still left unanswered. The

empirical and clinical tradition based on the relation between specific frequencies/wavelengths/colours and organs/systems/feelings of the body would be obvious targets for future research.

The biological effects of and relationship with various areas of the electromagnetic spectrum are dealt with in an accessible form, one of these fields being the biophoton field, which is given more space and by the author seen as a key to the understanding of reality.

Even though the biophoton research focuses on the visible spectrum of cell radiation within the ultraviolet and infrared area of the electromagnetic spectrum, the implications of this research reaches far into the biology of living organisms and beyond, into the realm of the mind and spirituality. Since the biophoton field is an electromagnetic field it cannot directly be compared to the esoteric auric field. However, much depends on the definition of the word 'aura', and some would claim that the seeming difference between auras and biophoton fields is due to nomenclature and lack of integration between biology and spirituality. There is a thousand-year-long tradition for seeing auras and relating them to the spectrum of light. The biophoton theory may be one of the links between spiritual and esoteric empiricism and the New Paradigm science.

The author describes the theory of biophotons as a synthesis of various developments within physics and biology which is coherent, with acknowledged laws and experiments within these fields, and as a theory which suggests a valid model of life processes. The biophoton fields are at the top of the hierarchy of regulatory levels of reality, the other levels of the electromagnetic fields just being closer to the so-called material world. So even though electromagnetic fields can form and regulate atoms, molecules, cells, organs, bodies and even groups of organisms to the degree of evolution, we now know that the biophoton field is behind or beyond the field of electromagnetism. And, one might ask, what is beyond the biophoton field, and so on?

Part five is dedicated to this delicate question. Numerous modern physicists and their theories presuppose the existence of a 'ground'

or level of reality behind the measurable particle level and behind the electromagnetic fields of reality. Scientists and philosophers throughout the ages have named this ground in very different ways, from vacuum or Aether to scalar wave field or Implicate Order. So the vacuum is not without energy or frequencies, but the time factor may certainly be of a different kind. The author refers to the physicist Jordan Malcap, who claims that the part of the human aura which cannot be measured is probably part of the vacuum field. He also thinks that it is possible to influence part of the vacuum (the aura part closest to living organisms and structures) by consciousness, and that seeing auras is a type of unfolding of the light from the implicate vacuum.

The history of the theory of scalar wave fields as promoted by the physicist Thomas Bearden is a further development of Nikola Tesla's Aether concept. The scalar wave is, according to Bearden, involved in biophoton and radioactive emission. He believes that each electromagnetic wave consists of scalar wave components and as such they may be transformed into materialistic structures. The scalar waves may also be influenced by the psyche and consciousness. The scalar waves themselves influence the flow of time and space.

The author goes on to explain the exciting theories of John Wheeler, of the elusive quantum foam that unfolds and enfolds back into the not-at-all empty vacuum. The dance between the particles and the field, the process of quantum fluctuations, is like the movement of the waves under the quantum foam. At the level of quantum foam the space-time dimensions are irrelevant. The web of time-space is torn, which leads to an immediate connection between regions, beings and phenomena otherwise widely removed from each other. Wheeler uses the term 'worm-holes' for these connecting canals through the quantum foam existing in a sort of transdimensional realm.

Space here does not allow us to go into all the worldviews described in this book. Besides Popp we find the description of two other outstanding persons very interesting: David Bohm and Burkard Heim.

Most *Network* readers will be familiar with the works of David Bohm. Considering the small space, the résumé of giants and would-be Nobel Prize-winners like Bohm is fair, and gives a good introduction to their theories. A few examples: Wheeler (quantum foam), Bearden (scalar wave field), Dubrow (biogravitation), Dirac (neutrino ocean), De Broglie (subquantum medium) and Reich (Orgone energy).

Part five ends on the note of 'photons as the moving principle between matter and mind (consciousness) – maybe even to the level of Mind'. The author gives a short overview of the physicist-philosophers who in some way or other consider consciousness to be related to the wave aspect (the unmeasurable part of photons and light) or to some potential behind the wave function, which for instance in the case of Burkhard Heim is called the sixth dimension. His fifth and sixth dimensions correspond to Bohm's Implicate Order. Heim talks about a Transdynamic and Translevel where the Transdynamic corresponds to Bohm's Holomovement. According to Heim the gravitational field is a field of information and pre-structure. We get the impression that the gravitational field carries the imaginary or maybe intuitive (not spiritual) energy, whereas the photons can switch back and forth between the Translevel and space-time, and so some of the time they seem more real than the 'mysterious' gravitational field. The photons seem to be (in Bohm's terminology) a means to a dia-

logue between the explicate and the implicate world.

The Janus face of light, being measurable and invisible at the same time, could be the vehicle between spirituality and the material world, and the word 'light' appears again and again in the esoteric traditions, in the eternal philosophies and in numerous oriental religions.

From photons to molecules we see a scale from uncertainty (Heisenberg) to increasing determinability – presumably the spirituality is beyond the uncertainty. Inherent in the determinability is the principle of positive entropy, whereas the principle of negative entropy and Prigogine's dissipative structures (Order out of Chaos) entails a potential freedom within the teleological matrix of the Universe. Dissipative structures could even be seen as a primitive kind of consciousness (Jantsch quote about Prigogine).

At the end of this impressive and comprehensive book the author sums up the validity of the biophoton theory and mentions which parts of the theory are scientifically proven, which are likely to be relevant, and which are speculation.

We find the book enlightening and recommendable. It provides scientific foundation for the developing New Paradigm within the sciences. The book is a treasure of information and details, rich in illustrations, and the glossary contains definitions of concepts normally difficult to define. This book was awarded the SMN Book Prize in 1995 – an obvious choice.

---

## Beyond Space and Time

by DEWEY B. LARSON

North Pacific, 1995. 374 pp., \$29.95, ISBN 0-913138-12-6

---

Review by Professor Frank H. Meyer  
and Otto H. Schmitt

**D**ewey B. Larson reports in *Beyond Space and Time* how humankind is hurt both in science and religion much more by what we know that isn't so than by what we don't know.

The author's inquiry discloses that arbitrary assumptions of the profession of ancient and modern physicists have led them to misrepresent the physical realm as the continu-

ous or infinitely divisible whole of all natural existence, including the sole origin and being of the whole realm of humankind. In this model of Nature the whole of humankind becomes merely a small, entirely finite, incidental, even accidental, unessential, and purposeless *part* of a realm of matter and energy, enveloped by a four-dimensional space-time continuum. Unquantized motion unrelated to space-time, continuous or infinitely divisible,



has been the principal error of knowing what is *not* so, shared by Aristotle, Newton and Einstein.

*Beyond Space and Time* is Larson's masterful revaluation of metaphysics, following and depending on his successful revaluation and unification of the science of physics. Larson extrapolated his fundamental reciprocal postulate relating space and time to *motion* as the two multiplicatively inverse aspects of all motion from the well established fact that the measure of motion is speed, the scalar magnitude of this relation between space and time. The physical realm is evidently a *universe of motion*, rather than of matter, existing in three dimensions and in discrete units. By reason of the reciprocal relation between space and time, each individual unit of motion is a relation between one unit of space and one unit of time, a motion at *unit speed* (the speed of light).

In the context of the reciprocal system of theory, the relation of the human realm to the physical realm changes appreciatively. The realm inhabited by humankind is *infinitely* greater than the entirely *finite* and quantized physical realm. The physical realm is an essential, but relatively small part of the human realm. Besides the two physical sectors, the material and cosmic ('anti-matter') sectors, the human realm includes an infinitely divisible or *continuous third non-physical sector*.

With his discovery of the existence of this non-physical sector of the human realm, Dewey Larson's metaphysics vindicates the great moral and religious objective with which the United States of America began in 1776: democracy, predicated on the voluntary acknowledgement of the human equality of worth of the proper parts of humankind, all women and all men. 'Equitable treatment of all is undoubtedly part of the Sector 3 code.' This religion was first voiced in 'A Declaration by the representatives of the United States of America in general Congress assembled', probably authored by Thomas Paine.

The existence of humankind's too often overlooked Sector 3, according to Larson, also upholds the religion of persons like Thomas Paine, Benjamin Franklin as well as Paul Dirac, while not ruling in the resurrection of

the body, does not rule out the continuation beyond space and time in Sector 3 of human life after death and which intuitively death to be so natural, necessary and universal that it cannot be designed as an evil to humankind. According to Larson, evil exists only in the physical sectors of the human realm; not at all in the Third Sector, which exists for the good purpose and end of all ethical humankind.

It is the non-physical Sector 3 that constitutes the ethical human realm an infinite continuous whole of natural existence in distinction from the quantized or finitely divisible physical realms, from which infinity is excluded. The human Sector 3 is not simply or readily visible or audible or tangible. It includes the meanings of all words and numbers, but not words themselves nor numerals. Humankind as a whole can and does learn about the being of our non-physical Sector 3 of existence by virtue of our native ability to create and reproduce adequate *physical* entities to represent *non-physical* entities as well as physical entities: meanings by words, numbers by numerals, rights by ethics and religion.

Ultimate human worth is not finite and therefore cannot be estimated with money, the conventional measure of commodity and other finite material values; when this is done, it is a throwback to the days of chattel slavery in the USA and elsewhere & when. Humankind as a whole and in its proper parts, the private man and the private woman, can and do participate in the infinitude of ultimate human worth *only* by way of our inhabiting the Third Sector of the human realm.

The *proper parts* of the infinite whole of humankind are ourselves, all women and all men. When counting an infinite whole, Thomas Paine and Georg Cantor have taught us to identify the proper part to establish that the whole is infinite and not finite. If such a whole is infinite and countable, then the whole is counted by setting it equal to the proper part. Human equality means each private ethical person is inherently equal in human worth to the whole of humankind and since entities equal to the same entity are equal to each other, all women as well as all men are in non-physical human worth created infinitely independent and equal, as perhaps discovered by

Jesus Josephson and reaffirmed by Thomas Paine in the Declaration of Independence. *Persons are the most precious of all human wealth on earth.* The total human worth of the whole of humankind, the dead, the presently living and the yet to be born, is infinitely greater than the total market value of all the commodities presently in the global market. The proper parts of the infinite whole of humankind are our spaceless and ageless non-physical selves – our human spirits, if you like.

From our equal creation we derive rights nowadays called human rights, inherent and unalienable, among which are the Preservation of Life and Liberty.

The future of human rights on Earth relates to how humankind *practises* the human rights we profess. A primary attitudinal change

among all humankind on earth now is required for the future of human rights to be brighter. The change has to be composed of a rational rejection of the materialist bromide that all men are by nature only finite physical dust and *unequal* in *all* respects, while women are less equal together with the voluntary informed acknowledgement and positive affirmation that the human equality proposition, after all, is accurately true.

*Readers wishing further information about Dewey Larson's work should write to The International Society of Unified Science, c/o Prof. Frank Meyer, 1103 15th Ave SE, Minneapolis, MN 55414, USA. Email: meyer078@maroon.tc.umn.edu The web site can be found at <http://infox.eunet.cz/interpres/sr/isus/index.htm>*

---

## 'The Interconnected Universe' – Conceptual Foundations of Transdisciplinary Unified Theory

by ERVIN LASZLO

World Scientific 166 pp. (price not given)

Review by Max Payne (SMN)

**T**his is an important book. It is important for what it says; it is even more important for the way it says it. Laszlo seeks to unify sub-atomic physics, cosmology, biological evolution, consciousness, matter, and life after death, all in one unified evolutionary field theory. He insists this is not an exercise in philosophical speculation, still less is it an assertion of dogmatic theology. If it is metaphysics, then it is only in the sense that it rests on physics, even if it goes beyond it. If the physics goes, the 'meta' goes with it. Not only physics, but biology, psychology and politics also are all knit together in Laszlo's total field theory. Everything is connected somehow in reality. Human knowledge must seek the same interconnectedness. This book offers a grand philosophical synthesis which is open to, and invites, empirical refutation at every point.

Laszlo's starting point is the quantum vacuum. It is a commonplace of modern quantum theory that virtual particles of energy are constantly zipping in and out of existence. For an infinitesimal fraction of time an overdraft of

positive or negative energy takes place, and a virtual particle appears. A moment later the overdraft is cancelled out, and the zero level of energy is restored. Here too the extremes of the nature of the universe, and sub-structure of the atom meet. The standard theory of the 'Big Bang' is that this whole universe originated in a zero point quantum fluctuation which became unbalanced, and did not return to equilibrium. This whole cosmos is the excess of particles which somehow did not return to cancel out the equivalent number of twin anti-particles. It remains to add that the hypothesis of the quantum vacuum is not only something from the wilder shores of theoretical physics; it is not merely an idea required to balance some mathematical equations. It is a necessary explanation of empirically observable effects.

In Laszlo's interpretation the quantum vacuum produces an information-rich holographic field, the Zero-point Field (ZPF). The physical universe emerges out from this. Mysticism East and West has had the common vision of the void from which creation is made manifest. In Christian mysticism the nothingness which

is also the plenum of everything is the Godhead which stands behind the Trinitarian Personal God. Hindu mysticism shifts the balance more to the impersonal One. Mahayana Buddhism moves even further towards negativity and total impersonality of the Void. Laszlo's position is still further along the road to impersonality. For him creation does not appear through the fiat of a personal God. He uses Prigogine's thermodynamics to argue that it is the fundamental nature of energy to dissipate entropy into organization. The ZPF skews random fluctuations in the direction of coherence, and hence order. This effect explains various quantum phenomena including non-locality. It is also the assumption upon which Laszlo builds the rest of his interconnected universe. The fundamental constants of this universe are extremely finely balanced. The odds against such a balance appearing at one go by random chance are something over 1 in  $10^{60}$ . This is the problem of the Anthropic Principle. But with energy emerging from an information rich ZPF, the skew towards coherence ensures an evolving sequence of universes with increasing structural order. Ours is merely the latest in the series.

The same principle applies to biological evolution. The ZPF unites in one information rich field all the cells in an individual, and all the

individuals in a species. Through this feedback evolution proceeds towards greater complexity without the guidance of a Divine hand. This gives a new twist to a Lamarckian evolutionary biology. Within the ZPF field the germ cells are involved in reciprocal interaction with the rest of the body. The individual in turn is involved with the whole species. The rapidity of biological evolution on a geological time scale fits with this, as does Sheldrake's morphogenetic fields. Lastly the concept of the ZPF yields a new way of looking at the mind I brain problem. According to Laszlo the mind and brain are two aspects of unity which emerges from the ZPF. The non-locality of consciousness follows from this. Memory does not reside in particular neurones but is a process of retrieval from a non-temporal information field. Telepathy follows as a necessary reality.

The quantum vacuum, consecutive cyclic universes and the non-locality of consciousness are all fashionable or emerging concepts on the frontiers of physics, astronomy and psychology. Laszlo weaves them together in an exciting way. If, in the future, they all become the official assumptions of orthodox science, then this will be an epoch making book. If they are all disproved and discarded, then this work falls into limbo. This is exactly as Laszlo would wish.

---

## Goethe on Science

edited by JEREMY NAYDLER

Floris Books, 1996, 141 pp., £9.99 p/b. ISBN 0-86315-237-6

## New Eyes for Plants

by MARGARET COLQUHOUN (SMN) and AXEL EWALD

Hawthorn Press, 1996, 198 pp., (see enclosed leaflet) ISBN 1-869890-85-X

**R**ecent years have seen increasing activity in the field of Goethean science, to which study these two books are important additions. Jeremy Naydler points out that, from a Goethean standpoint, our modern ecological crisis is a crisis of our relationship to nature; or, in Fritjof Capra's phrase 'a crisis of perception'. Goethe remarks that 'in observing the cosmic structure from its broadest expanse down to its minutest parts, we cannot escape the impression that underlying the whole is the idea that

God is operative in Nature and Nature in God. Intuition, observation and contemplation lead us closer to those mysteries' (p. 99). If these three faculties are necessary for an adequate apprehension of truth, then observation on its own is likely to prove insufficient. Intuition can perhaps guide our interpretation, while contemplation can infuse our observation with wonder. What is the difference between the eye of the scientist and that of the artist or poet? For Goethe, they are one, and he contends that

none of our faculties should be excluded from scientific activity. He thus advocates a participatory methodology whereby inner and outer processes mirror each other. His perception itself is a thinking and his thinking a perception, so that 'every new object, clearly seen, opens up a new organ of perception within us'.

Goethe did not confine himself to surface observation but rather sought to understand what was dynamically at work within natural processes: quality and quantity are understood as two poles of material existence; he warns, though, that 'number and measurement in all their baldness destroy form and banish the spirit of living contemplation'. He would like to see a 'delicate (*zart*) empiricism'. Such a phrase can certainly be applied to the delightful book by the biologist Margaret Colquhoun and the sculptor Axel Ewald. In his introduction, Brian Goodwin writes of a 'new way of practising science as art that avoids the anaesthesia of a purely objective study of nature by including aesthetic experience or feeling and willing activity as primary, conscious components of our understanding'. He adds that 'the impulse engendered by this workbook to participate by looking at, drawing and experiencing the plants that surround us is irresistible'.

My experience of reading the book was just this: I had not drawn anything by pencil for nearly thirty years and found myself sketching

a bud and looking at its phase in the life cycle of the whole tree. The book begins with the notion of ends and beginnings, seeds and skeletons, starting its journey in the winter, when potential for life is dormant. The early spring awakening runs through the forms of the snowdrop – the charcoal and pencil drawings are wonderfully expressive and simple – giving one a sense of the unfurling rhythm of the whole process. The same goes for the horse chestnut and the beech leaf, each of which are depicted in their various phases. Drawing these from life and then from memory enables one to internalize this flow. In the Summer section we look at the leaf and flower sequences and consider the nature of polarity and transformation (light and dark). We then move on to the fruiting of autumn, the emblem of dying and becoming. This sequence is followed in the withering of the chestnut leaf and we are encouraged to experience the polarity of spring and autumn in our souls. The book is true to its title: it truly does give us new eyes for plants. The combination of exquisite line drawings and sensitive text is indeed irresistible, so I would advise you to order a copy of the book on the enclosed leaflet! You will find that Jeremy Naydler's book is the perfect complement in giving the historical background to this approach in Goethe's own words.

---

## Cold Fusion: The Scientific Fiasco of the Century

by JOHN R. HUIZENGA  
OUP. £8.99. ISBN 0-19-8558

Review by Richard Milton (SMN)

Last year a film was broadcast on Television Networks on both sides of the Atlantic called *Too Close To The Sun*, a film that examined the intense controversy surrounding the discovery by professors Martin Fleischmann and Stanley Pons of the much disputed phenomenon of 'cold fusion' – the claimed production of excess energy at room temperature from precious metals immersed in heavy water.

The film included interviews to camera with experts on both sides of the question. Halfway through, the film showed an interview subject

who is a distinguished senior American physicist from an equally distinguished American research institution – nothing unexpected or controversial about that. But in this case, because of the subject matter, the scientist chose to appear *in silhouette*, his identity disguised from the public.

Remember, this was not CrimeWatch but a science programme. He was no Mafia bag man; he was a scientist who was concerned that if his identity was publicly revealed, and if the institution that employed him discovered that he had been spending research funds on a forbid-

den subject like cold fusion, then his funding might be in jeopardy and even his tenure.

Sadly, his fears were fully justified by recent events. Dr John O'Bockris, Professor of Chemistry at Texas A & M University was threatened with dismissal merely for researching the subject of cold fusion.

It is against this climate of scientific fundamentalism that one must read this book by Dr Huizenga, the scientist who chaired the US Government's Energy Research Advisory Board set up to investigate cold fusion and who, more than any other scientist was responsible for the discrediting of cold fusion research.

Dr Huizenga is professor emeritus of physics and chemistry at the University of Rochester, New York. The book's subtitle – 'Scientific fiasco of the century' – is an early clue to which side of the debate he is on.

The book is a detailed and well-researched account of the events that followed Fleischmann and Pons's announcement in March 1989, the subsequent claims of replication by some researchers and claims of failure to replicate by others. Finally it details the formation of the Government Advisory Board, its deliberations and its conclusion: that 'the present evidence for the discovery of a new nuclear process termed cold fusion is not persuasive'.

The main reasons for reaching this conclusion, says professor Huizenga, are the absence of expected 'nuclear ash' from the process and the failure to replicate. The author adds chapters enlarging on his theory that the affair was

a case of 'pathological science' where scientists delude themselves and that the press played a major role in falsely raising people's expectations.

Probably the greatest defect of this book is simply that its pronouncements have been overtaken by events. Within months of its publication, institutions such as Los Alamos National Laboratory, Oak Ridge National Laboratory, Osaka and Hokkaido Universities, and NTT (the world's biggest private R and D labs) had all published papers confirming the phenomenon. The European Patents Agency had granted Fleischmann and Pons the primary patent on cold fusion, after long deliberation. To top it all, cold fusion cells for research purposes were being offered commercially through advertisements in magazines such as *Infinite Energy*.

One baffling question remains: why should some of the world's most distinguished and gifted scientists set their faces so determinedly against what appears to be a fascinating new discovery and one that might even prove capable of providing mankind with plentiful cheap, safe energy?

A possible clue lies in the fact that the presumed nuclear processes that are being observed are taking place at ordinary ambient temperatures. If these processes can occur in a test tube then it seems likely that they can and do take place in the human body. This is scary territory. Metabolic nuclear fusion? Energy centres in the body? Alchemical transmutation? Spontaneous human combustion? Help, Mum! I'm feeling faint.



As long as science is the search for truth it will be the rational critical discussion between competing theories, and the rational critical discussion of revolutionary theories.

Sir Karl Popper

---

## Medicine/Health

---

### Healing Research: holistic energy medicine and spirituality

by DR DAN BENOR

München, Helix, 1994. ISBN 3-927930-22-9

---

Review by Dr Max Mackay-James

**T**his is a troublesome book both to read and to evaluate. The introduction recommends a non-linear approach to reading by skimming, selection of areas of interest from the index and cross-referencing. For Dr Benor admits it to be a complex area; 'the intricate and intimate interaction we each have – with each other and with the cosmos – through subtle energies of our bodies which appear to be focused by our conscious and unconscious minds'.

This is the second of four volumes of Dr Benor's study on healing research, and the approach attempts to be both comprehensive and scholarly. The four volume project links a summary of the current research on psi healing (Volume 1), to research on spiritual dimensions of healing (Volume 3), and then discusses the range of theories for psi healing (Volume 4). It is certainly a serious and even-handed review based on a wide use of the available literature. It is also backed throughout by an excellent Bibliography and extensive footnotes inter-linking with other sections in the total work and expanding particular points in the main text.

This volume on subtle energies is divided into four sections. The first section deals with self-healing practices mainly from the psychological and psychosomatic perspective but also introduces psycho-neuro-immunology into the discussion. The second section explores energy medicine (or 'vibrational medicine'). The third section deals with fields and forces around the body, and the last with nature's fields and forces which may influence the human organism. Clearly, there is much here that will interest any medical practitioner conventional or otherwise looking beyond the current boundaries of clinical practice. The work will also be of interest to a wider readership, and the information is presented so far as possible in a non-technical and jargon-free manner

with a deliberate view to it being accessible to the non-expert.

Why then is the book 'troublesome'? The answer must lie in the same area as why I am not using this volume as the regular source of reference, which I thought I would when I first obtained it. So why after several attempts to read one section or another has the book lain unopened on my shelves for so many months (to the despair of the long-suffering SMN editor)? Troublesome indeed...

Finally the kindly SMN editor's patience wore thin and a deadline was issued for a review. Something had to be done about this 'troublesome' book... As the deadline closed, doubts continued to swirl around my head.

Then suddenly, *deus ex machina*, help arrives in the form of an article in the *British Medical Journal*. The *BMJ* has just instituted in October 1996 a new series on 'Information in Practice'. I thoroughly recommend that it is added to regular medical literature search updates by the SMN readership.

The inaugurating article in this series is SMITH R. 'What clinical information do doctors need?' *BMJ* 1996 313 1062–68. It is calculated that doctors use some 2 million pieces of information to manage patients, and that the doubling time of biomedical knowledge is currently in the region of 19 years. The area of healing research is obviously part of this general phenomenon of information growth, and Benor's work is clearly intended to fill the major information management gap. Two main types of problem arise with all this information in judging whether it is truly useful. Firstly, textbooks, journals and other existing information tools are frequently poorly designed. Secondly, the information provided is not adequate to answer the actual questions that arise in clinical practice.

The answer to the design problem suggested in the *BMJ* article is to use a formula by Shaughnessy (see SHAUGHNESSY AF, SLAWSON

DC, BENNETT JH. 'Becoming an information master: a guidebook to the medical information jungle'. *J Fam. Pract.* 1994; 39: 489–99). The formula is as follows:

$$\text{Usefulness of Medical Info.} = \frac{\text{Relevance} \times \text{Validity}}{\text{Work to Access}}$$

Smith continues in the *BMJ*

The relevance of any information is based on the frequency of your exposure to the problem being addressed and the type of evidence being presented. Validity is the likelihood of the information being true, and the work to access the information is the time and effort spent extracting the information. The ideal information source will be directly relevant, contain valid information, and be accessed with a minimal amount of work.

i.e., Usefulness of Medical Info.

$$= \frac{\text{Relevance high} \times \text{Validity high}}{\text{Work to Access low}}$$

The opinion expressed in the *BMJ* article is that most current sources of information are not actually useful when assessed in this way. So examining Benor's work in this light, what is revealed? The 'relevance' of the healing research project is certainly high. Every clinical encounter involves an aspiration to restore health, and frequently the problem encountered by practitioners is how to assess the effectiveness of the clinical relationship in healing or malting whole, and then to plan purposefully to develop this side of the relationship.

The 'validity' of this volume is however only moderate. Whenever possible references to significant trials or research findings are given, but of necessity much of Benor's account is a simple uncritical description of one type of method of mobilizing subtle energies or another. The effort to collate, and systemize is well-nigh Herculean, but the validity of the task performed still remains open to question. Certain sections suffer from being overcondensed, whereas others are skimpy and selective. The discussion on Placebo Effects in particular hardly does justice to the enormous literature in this area, nor the current development of ideas and applications. When seeking for comparable sources of medical information

of high 'validity', collections of systematic reviews (such as the Cochrane Library) or systematic journal reviews within the growing discipline of 'evidence based medicine' come to mind. Such comparisons are perhaps harsh in the sense that this is perhaps one of the first attempts to deal with the topic in a systematic manner and therefore not so much can be expected from it. But Benor has set out his stall as a serious scholarly attempt to deal with the available literature on healing research, and it must be judged by the 'gold standards' currently available or being developed within the science of information management.

Finally, what about the 'work' part of the formula? Unfortunately this is where the book really falls. It may sound trivial or a plain subjective irrelevance, but the design and lay-out of the book itself is a major drawback to its use. The pages are printed in double columns, which make the simple physical act of reading slow and inefficient. Boxes containing inspiring quotes are merely a distraction, and darkened blocks of direct quotation are easily confused with the main text. It all makes for incredibly hard work.

So the overall assessment is:

Usefulness of Med Info

$$= \frac{\text{Relevance high} \times \text{Validity moderate}}{\text{Work to Access high}}$$

There are further issues to raise concerning the second main problem described above (that is, the problem which arises if the information provided is not adequate to answer the actual questions that arise in clinical practice). In the context of healing research, several different ways of asking questions are available. There may be a question about the effectiveness of curing of disease as 'seen' by identifiable pathology (e.g. cancer cells). There may be a question about the curing of an energetic illness as 'seen' by a skilled practitioner. Or is the question simply about the removal of the experience of misery as 'seen' by the patient? Or is the question one of transcendence? Benor is alive to all these possibilities, and how the information available to answer a question put in one way may not be useful to answer a parallel question put in another way. He provides a

memorable cartoon illustration of two men walking together in conversation. The one says, 'Some doctors have doubts about the healing power of the mind'. The other replies, 'Some minds have doubts about the healing power of doctors!'

This is ultimately what makes this volume so 'troublesome'. For the nature of this problem is indeed a potentially energy-sapping doubt. The boundaries of Benor's language and the questions on which he is seeking to give information are not clear. Here there is the purely scientific medical review, there a historical account set against a kind of utopian ideal of health, and the whole interspersed with lyrical elements to raise consciousness. There is overall an absence of a strong story-line. When one does not know what kind of quest we are on, the questions which arise tend to cancel out each other. Focus is lost and the terminologies seem to blur together. It may be that Volume 4 will successfully clarify the situation, and resolve the problem. For if we cannot rely on the nature of the information we are being given, it is no longer useful.

This volume on 'subtle energies' remains an important contribution to our sources of information in this difficult area, and SMN readers may conclude that the above criticisms are

unnecessarily severe. But I suspect that Benor would not wish for it any other way. The deficiencies in current information sources are at the heart of the failure of healing practices to be assimilated into everyday medical practice. So the information 'tool' which Benor has provided in *Healing Research* is a starting-point. The further development of other information 'tools' may transform the situation and even how we do medicine. A collaborative method between healthcare professional is beginning to take shape. The potential is there through existing technology (and is already being pursued by the SMN). Hence my strong recommendation is to follow the new *BMJ* 'Information in Practice' section. More excitingly, the information 'tools' are also available for direct use by patients with the result that another collaboration method may arise, fundamentally shifting the doctor-patient relationship towards an equal partnership and loosening the control which the healthcare professional presently exerts. In the context of healing research, this specifically opens the potential for healing within the clinical setting, backed by the information 'tools' to which relevant questions may be directed by either doctor or patient.

---

## The Cancer Solution

by DR R E WILLNER

1994, Peltec Publishing Co. 4400 N. Federal Highway, Suite 210, Boca Raton, FL-34731 USA.

307pp. \$23.95, p/b

---

### Review by Dr John Cosh

After some 20 years of practising as a conventional physician, the author turned to an intensive study of unconventional medical treatments with particular reference to cancer. The motivation for this change was the death of his wife as a result of a cerebral tumour. For this she had been unsuccessfully treated with surgery and radiotherapy, both of which he came to regard as unnecessary and mutilating.

He fiercely criticizes what he sees as the 'cancer establishment' in the USA and indeed internationally. This he believes to be con-

trolled by the giant pharmaceutical companies whose commercial power influences the cancer research institutes and the publishers of major medical journals. Through them the practice of physicians and surgeons is influenced, unknown to themselves: they are 'blinkered' by the selective promotion of research and of costly and damaging drugs, which are vastly profitable to their manufacturers, while the possible virtues of simpler, more innocent natural remedies are neglected. The Food and Drugs Administration (FDA) plays its part by insisting on stringent proof of safety and efficacy for



new drugs, aware that the cost of formal double blind trials means that such testing can only be financed by the big drug companies. Since nobody will make much profit out of simpler and cheaper remedies, their merits go untested and they are consequently unproved.

The book gives brief accounts of a large number of unorthodox cancer remedies, e.g. intravenous ozone, chelation therapy, laetrile, electromagnetic therapy, Hoxsey and Gerson regimes. Less controversial recommendations are for linseed oil as a major source of essential fatty acids, herbal remedies, enzymes and dietary supplements with a number of vitamins and minerals. His advice on preventative measures against cancer is good and is the best part of the book. But the implied approval for many controversial remedies is unconvincing. It must be said that the expert scientific advisory body set up by Congress, the Office of Technological Assessment (OTA), published a carefully researched report in 1990 on 'Unconventional Cancer Treatments'. Many of the remedies given in this book were included in the OTA's review and were found unproven and sometimes potentially harmful.

As for the fulminations against the 'cancer establishment' and its methods (all chemotherapy is an 'abomination') the strident tones detract from the message and raise more than a hint of paranoia. After all, he writes of

the USA: could such criticisms apply here? Well, we have had Martin Walker's *Dirty Medicine*, and however much we may jib at his attitude to the Wellcome Foundation he has made a number of uncomfortable observations about some medical events, notably on the biased report about the Bristol Cancer Help Centre.

Our medical establishment today is certainly more tolerant than it was of unconventional therapies – as long as they are not harmful, and can be seen as complementing conventional treatment and not as alternative to it. No doctor here is liable to have his surgery raided because he practises homoeopathy, or works with a healer, as has happened in the USA.

So, this is a helpful and informative book on cancer prevention. On cancer treatment it lists an astonishing number of alternative therapies, many of which are of dubious value. But if you do want to know who provides them, and where, a full list of names and addresses is given in the appendix.

PS: The September 1996 issue of the *Scientific American* is a special issue devoted to 'What you need to know about cancer' It carries over 20 authoritative and informative articles on all aspects of cancer, including a brief section on alternative treatments. This, surely, is not a journal that is in the pocket of the drug companies!

---

## Transpersonal Medicine

by G. FRANK LAWLIS. Foreword by LARRY DOSSEY (SMN).  
Shambhala, 1996, 245 pp., \$23.00 h/b. ISBN 0-87773-988-9

**I**n his foreword to this book Larry Dossey comments that the ultimate goal of transpersonal medicine is realizing one's inherent completeness and divinity, and that any medicine that does not honour and engage the transpersonal dimensions of human experience is limited and incomplete. The author believes that we stand at a major turning point of medical history when there is widespread acknowledgement that the mechanistic approach to healing is not enough, because it

neglects the emotional and spiritual needs of those who are ill. He hopes to 'transform the mechanistic view through incorporating and infusing the spiritual and emotional components of healing. In this context transpersonal medicine transcends the limits of the biological, historical, cultural and personal self and taps into 'a vast intelligence and compassion that encompasses the entire universe'; it addresses questions of meaning and connectedness and understands disease as a tear in the

fabric of an individual's connection with the universe and community. As with the Brennan view, this seems to apply more to illnesses which have an obvious psychosomatic component rather than the major infectious epidemic of the past.

The first part addresses therapies which go beyond the self in horizontal space and the second with 'vertical space'. He begins with ritual, moving on to transpersonal imagery and healing, followed by 'resonance', episodes where a deep connection is made between therapist and patient which seems to galvanize the self-healing capacity. The chapter on ritual contains practical suggestions as well as a theoretical outline explaining the stages of awakening, severance, transition and return. Rituals can help people connect with the deeper patterns of their life experience and have occasionally produced dramatic healings. At the end of each chapter is an interview with a leading figure in the field like Dean Ornish, Larry and Barbara Dossey, Jeanne Achterberg (the author's wife) and Carl Simonton.

In a chapter on imagery he describes a case of a banker who successfully used images of the various cells as janitors, personnel managers, audit-trainers and bank tellers trying to bal-

ance the books. Intervention imagery is distinguished from diagnostic and predictive imagery and a list of questions to ask about problems is appended. There follows a chapter on 'co-consciousness', the art of using latent personality structures to deal with threatening situations. Throughout the book, Lawlis provides references to scientific studies which back up his assertions and writes in a way which colleagues in psychology and medicine will find congenial.

The last part looks at death and transition, humour, pain and a specific example of ritual healing. Forgiveness emerges as a key factor in relation to the dying process and there are some good jokes and stories in the section on humour. The case study in ritual healing engages all the existential issues raised by the book as does the epilogue, where the author describes his own heart attack in the week in which he completed the final revision of the book. This gave him the chance to walk his talk by trying out many of the techniques he had written about. What moved him most was the love and support he received from friends and family, which leads him to reflect that love is the major constructive force in the world and the essence of transpersonal medicine.

---

## Prayer is Good Medicine

by LARRY DOSSEY (SMN)

HarperCollins, 1996, 247 pp., \$20.00 h/b. ISBN 0-06-251423-7

---

**I**n this sequel to *Healing Words* Larry Dossey addresses some common concerns about and implications of harnessing the healing power of prayer which have arisen as a result of the success of his earlier book. He remarks that 'prayer experiments level the praying field. They show that prayer is a universal phenomenon belonging to every faith and creed, and these studies, therefore, affirm tolerance' (p. 19). This was the start of one of the problems he describes – the fact that fundamentalists were outraged by the suggestions that non-Christian prayer might work!

In Part Two Dossey addresses a number of other controversial issues, such as prayer

seducing people away from 'real' therapies, that it gives 'false hope', that one should not pray for someone without their consent. His answers are straightforward: he advocates a 'both-and' approach and reverses the argument by pointing out, in the first place, that 80,000 patients a year in the USA alone die as a result of iatrogenic conditions and that it is well documented that hopelessness kills, while hope heals. As for patients' attitudes, a recent survey reported that 50 per cent of hospitalized patients not only wanted their doctors to pray for them but with them! He concludes that we need greater sacralization not legalization of medicine.

The third part looks more closely at the nature of prayer, which Dossey defines as an attitude of the heart, a matter of being rather than doing. He adds a beautiful prayer of his own at this point. The key factor in the effectiveness of prayer seems to be love, compassion, empathy, deep caring. Correspondingly, negative effects seem to follow the negative use of mental energy. The well-known Spindrift studies are cited with the interesting postulation of an 'ordering force' similar in intent to the non-directed injunction – Thy Will be done. The

result is balance rather than a definite outcome one way or the other. An appendix contains a useful resource list. The higher profile of prayer studies is part of the revolution in mind-body medicine and consciousness research which will, I believe, give us a much clearer idea of the role of the mind in health and disease. It will also result in a change of clinical practice and a more explicit acknowledgement of the spiritual dimension without sacrificing the benefits of existing modalities. Books such as these are in the vanguard of this transformation.



## Religion and Philosophy

### God, Chance and Necessity

by KEITH WARD

Oneworld, 212 pp., £9.99 ISBN 1-85168-118-7

Review by John Polkinghorne FRS  
(SMN)

*Reprinted with permission from the Times Higher Education Supplement.*

A popular misconception remains that somehow or other science and religion are in mortal combat. This misapprehension is fostered by the media attention given to certain scientists who combine clear and elegant accounts of their discipline with denunciatory, and often rather ignorant, remarks about religion. There are of course a good number of scientists who readily combine religious belief with scientific practice, but our writings attract less attention. In between lies what I believe to be the majority of scientists who neither dismiss religion out of hand nor yet feel able to embrace any particular faith tradition, often fearing (wrongly in my view) that this would involve some kind of intellectual suicide. In actual fact, religion has its reasons just as science does, but they are of a somewhat different kind.

Into this fray there now enters the Regius

Professor of Divinity at Oxford, Keith Ward. He is a philosophical theologian rather than a scientist, but that does not disqualify him since at the heart of the case presented by writers such as Peter Atkins and Richard Dawkins lies the slide from physics to metaphysics, seeking illegitimately to annex the authority of science to the antireligious pronouncements of the authors. When we are assured that the only residual significance to be found in the process of the world is genetic survival, we know that it is not his knowledge of genetics which has told Dawkins that this is so, since science as science has imposed upon itself the self-denying ordinance of eschewing issues of purposeful meaning altogether. (Incidentally, it is interesting that reductionists always tend to give a little extra value to their own level in the pyramid of science. An elementary particle physicist might consider genes to be just complex collections of quarks, gluons and electrons.)

Ward presents a witty, clear and probing critique of the atheist reductionists. Their treatment of religion shows no dispassionate

analysis, but a virulent contempt which can only be termed as prejudice.' Many fallacies lie at the heart of their presentations.

One such is the fallacy, identified long ago by A. N. Whitehead, of 'misplaced concreteness', the error of mistaking a theory for the reality of which it furnishes an approximate description. This mistake leads Atkins to the monstrous implausibility of saying that 'physical reality is mathematics and mathematics is physical reality'. Another error is the pathetic fallacy of ascribing human emotions to nonhuman entities, egregiously exemplified by Dawkins's rhetorical use of the phrase 'the selfish gene'. A fallacy of Ward's own naming is that of 'cosmic promiscuity', the claim that if the universe is big enough and if you wait long enough, anything can happen and so nothing, however fruitful it may seem, is surprising or significant. On the contrary, it would have been possible for the world to be caught up in a limited and repetitive loop of eternal returns. Abuse of language can also lead to error. A quantum vacuum is a structured and active medium and if our universe emerged from it that was certainly not out of 'nothing' as theologians understand it.

Ward's counterattack on atheism is based on insisting on a generous and adequate understanding of reality and of our access to it. Science's approach to knowledge is not the procrustean bed on which all other searches for truth and understanding have to be made to lie. The power of predictability and testing which science possesses gives it its formidable authority in its own domain but it is not a rational necessity to insist on this particular kind of method once one moves outside that narrow realm of impersonal experience. Our knowledge of persons and of God is to be found in other ways.

God is not a tentative hypothesis which one should always be seeking to test to destruction by actively seeking for counter-evidence. That is rather like saying that a good marriage is best achieved by always seeking evidence of infidelity.

Reductionists exclude by mere assertion what should be welcomed as signs of the multilayered richness of reality. They seem heedless of

the implausibilities involved in this narrow construal. To treat genes as the sole source of significance is 'just like saying that the important goal of cooking is the production of recipes'. The cakes themselves are unintended by products of the recipes. An important clue to the world in which we live is the existence of beauty in it. To explain the mystery of music by appealing to its survival value 'requires a very high standard of story-telling or myth-making ability'. The conscious experience of perceiving a patch of pink cannot simply be reduced to the entirely different phenomenon of the activity of neural networks. In Ward's view, consciousness 'is a mystery which biology can never solve, because it is not a biological mystery'. With the dawning of consciousness, values and purposes emerged as a new dimension of reality.

Added to an adequate and even-handed account of the rich variety of our encounter with the world, there must be an appropriate apprehension of how to make sense of such fruitful diversity. Ward is committed to the principle of sufficient reason, the search for a total understanding of experience. He thinks that belief in the existence of God provides the best basis for achieving this goal. The alternative, proposed by David Hume in the 18th century, of starting with the brute fact of the physical world will not do, for it makes consciousness, purpose and value unintelligible 'happy accidents' of a fundamentally material process. Belief in God the Creator ties together in a satisfying way the multilevelled character of our experience. The rational beauty that science discerns in the pattern of the physical world is indeed the perception of the rational will and mind of its Creator. Our experiences of beauty are made intelligible as a participation in the divine joy in the value of creation. Our ethical intuitions – for it is highly significant that the world is the arena of moral decision – are intuitions of the Creator's good and perfect will. There is also the further layer of the human experience of encounter with the transcendent and the sacred. Ward defends the validity of direct religious experience: 'Belief in God is an immediate and natural interpretation of experience as communicating an underlying

personal reality, which is like us in some fundamental respects'. We are to understand this as indeed an encounter with the divine presence.

All explanation and understanding have to start from some unexplained ground on which the subsequent development of the argument can rest. For Ward, our value-laden world is most naturally understood as the expression of the will of a personal Agent. He subscribes to a modified form of St Anselm's ontological argument for the existence of the divine being than which no greater can be conceived: 'God is the only reality which, in being supremely intelligible or comprehensible to itself, explains itself.

Perhaps the greatest difficulty faced by theistic belief is the problem of evil. Does a world of disease and disaster and human cruelty really look like the creation of an all-powerful and benevolent God? The last chapter of this book is devoted to a brief discussion of the issue of suffering. Ward rightly sees that science has something mildly helpful to say to theology in this area. The more we understand the physical world, the more it seems like a package deal. Its processes interlock in the patterns that they

generate and they cannot be disentangled so as to retain the good and eliminate the bad. The same processes of cellular mutation which have driven the great history of evolution will also cause some cells to become cancerous. The presence of malignancy is not just a piece of divine incompetence or callousness; it is the necessary cost of a greater whole. No candid religious believer could claim that this insight eliminates the problem of evil but it is of some help in understanding it.

This is a lively and important book. Ward rightly says that 'theism does not compete with science, but it does with materialism'. Materialism is a contentious metaphysical position which is here subjected to fair and discerning criticism. Very often, in television programmes and the like, Richard Dawkins chooses to present the religious point of view to which he is opposed through showing clips of remarks made by simpleminded creationists and fundamentalists. That is as disingenuous as it would be to present science through clips of remarks made by cranky inventors of perpetual motion machines. The debate between theism and materialism is of the highest significance and Keith Ward has made a worthy con-

## Christian Doctrine in the Light of Michael Polanyi's Theory of Personal Knowledge – A Personalist Theology

(Toronto Studies in Theology, Vol 66)

BY JOAN CREWDSON

Edwin Mellen Press, Lampeter, 1994, pp. xi + 445. ISBN 0-7734-9150-3

Review by Rev John Kerr

Michael Polanyi (1891–1976) was one of this century's genuine polymaths, a man of tremendous integrity and breadth of competence and, as it happens, one of my intellectual heroes. In the First World War he served as a doctor in the Hungarian Army. He then carried out research in physical chemistry, first at the Kaiser Wilhelm Institut in Berlin and then as Professor of Physical Chemistry at Manchester University (he was elected FRS in 1944). In 1948 his interest in problems in social philosophy and epistemology led the University of Manchester to establish a Chair

in Social Studies for him. Polanyi had great respect for the potential of the international scientific community as a model of a free society motivated by love of truth and pursuing it within a self-disciplined framework of professional excellence. Belief in truth as a transcendent reality ultimately worth pursuing was seen as a fundamentally religious commitment and the emphasis on the service of truth by submitting to its standards was an expression of a proper humility which ought to characterize science and the community which professes this profound form of human achievement. Polanyi wrote to defend the freedom of the sci-

entific community against doctrinaire reductionism: his theory of personal knowledge (the title of perhaps his greatest book) is more than a philosophy of science, it is a compelling theory of what it is to be a human being. Joan Crewdson's scholarly and fascinating study shows that it is also a theory capable of effectively exploring and clarifying the doctrinal concepts of Christian theology.

God and the created order form a single, personal order of reality with evolution, in some sense, as a creative dialogue in which things come to be in response to an Environment that is always there, though always beyond, and forever making new and surprising disclosures to expanding consciousness as creaturely capacity to know the Other increases.

Among the attractions of Polanyi's thought is his approach to the unity of the knower and the known, subject and object, self and the world and his conviction that meanings, values, relationships and moral commitment are integral to scientific knowledge.

Joan Crewdson, herself a former Research Fellow in Sir Alister Hardy's Religious Experience Research Unit in Oxford is right in understanding theological method too as being grounded in personal being. She develops Polanyi's idea that explanatory systems are hierarchical with the theological, in a broad sense, as the most ultimate and inclusive. This follows Polanyi's two types of explanatory principle; one causal and explanatory of the physical functioning of mechanisms, the other teleological and explanatory of the functioning of parts in relation to the achievements of the whole. This double causality is particularly observable in human behaviour with its measure of contingent freedom and rationality. There is a dialectic which operates between experience and theory, between frame and focus, which applies to scientific apprehension of the world and our knowledge of God. 'God is the object of religious consciousness, experienced existentially, though knowledge of him is mediated through circumstances and things that belong in this world'. (p. 115)

The theological exploration of a model of dialectical interaction between knower and

known goes back through Heidegger, Whitehead, Hegel, Leibnitz, Nicholas of Cusa, John Scotus Erigena (of whom it has been claimed that he 'was the greatest Celtic philosopher who ever lived') to Plotinus. The history of this tradition has been charted by Professor John Macquarrie at Oxford, one of Joan Crewdson's several highly-qualified theological advisors. Dialectical theology 'best avoids the one-sided effects of doing theology only from below (the method of natural theology) or only from above (the method of revealed theology). The former works from God's immanence in the world and the latter from his transcendence from the world. God is not half-immanent and half-transcendent but fully both'. (p. 114)

Joan Crewdson has taken the trouble to consult professional theologians of considerable stature in her research and exposition of the doctrinal material in this substantial and scholarly study (among her mentors were Bishops David Jenkins and Rowan Williams and Professors John Macquarrie and Basil Mitchell). The happy result is a competent, well-written analysis which enjoys the advantage of being extremely clearly reasoned in remarkably attractive prose. The usual scholarly apparatus of thorough footnotes, a useful index and a bibliography are features of Crewdson's study.

This is a good moment for Polanyi's thought to be represented: most scientists no longer believe in science as the objective, impersonally empirical process that positivism would have had us believe. The necessity of elements of skill and personal judgement are part of all forms of knowing. Despite advances in medicine and cosmology, triumphalist scientism is less and less tenable as the public view of the scientific contribution to human knowledge. Perhaps the pendulum has swung so far towards the merely subjective and immanent that the quest of realist science for verisimilitude, if not the attainment of a truth which transcends the individual has become lost sight of: Polanyi's thought provides a corrective here too.

It was Eric Gill who wrote, 'Man is matter and spirit, both real and both good.' What Joan Crewdson has done and for which we in the

Scientific and Medical Network must be extremely grateful, is to show how the personalist philosophy of Michael Polanyi gives the 'both-and' metaphysic we need to make a theis-

tic view of reality credible and the scientific enterprise humanly worthwhile. This is an excellent book, a genuine labour of love and a delight to read and reflect upon.

## Everyman Revived – the common sense of Michael Polanyi

by DRUSILLA SCOTT

Eerdmans, Grand Rapids, Michigan & Cambridge UK, 1995, pp. v + 215, p/b ISBN 0-8028-4079-5

Review by Rev John Kerr

This edition of Lady Scott's introduction to the writings of the polymath Michael Polanyi, whom she knew well in Oxford, is simply a reprint of her 1985 edition with an added foreword by Leslie Newbigin. While one is very pleased to see this interesting work available again after a time out of print, much has happened in our culture and much has been written to change the way in which even scientists view science. While Polanyi's ideas, often difficult to comprehend, still need a guide and an interpreter for many readers, the application of his criticism of the reductionist programme of science needs to be reworked and extended.

Lady Scott's book is based upon what an earlier literary age would call a 'conceit': the mediaeval mystery play *Everyman* provides a framework with which to approach Polanyi's writings. *Everyman*, in this age of scientific materialism, is reduced to scientific categories which systematically eliminate the value of the subject and the realm of direct human experience (aesthetic, moral and so on) and leave the human despairing, nihilistic and unable to feel responsible for his or her actions; rather like *Everyman* when all his 'friends' have deserted him at the end, in other words. Michael Polanyi's philosophy is presented, rather polemically, as a corrective to such emptying of the context of human life.

There are indeed many aspects of Polanyi's thought which challenge the old scientism: as a first-class scientist, his exploration of the role of discovery in research is both notably clear and draws authentically from his profound experience of scientific creativity. Neither Popper nor, earlier, Bertrand Russell offered an adequate account of this first step in hypothesis formulation. Polanyi's ideas on tacit know-

ing and the role of the skill of the scientist as subject are worth careful reinvestigation.

He was surely right in his suggestion that there are also skills of religious knowing in which the meanings of religion are known through participation in a community which are paralleled by similar modes of knowing in the scientific community. He had an attractive vision of the wholeness of knowledge which permeated his writings. In later life, Polanyi seemed to be rather more reticent in his assertions about religious knowing and begin to separate science from imaginative truth. Scott is surely correct in noting that in *Meaning*, written in 1975 with Harry Prosch, '...there is much emphasis on metaphor, myth and symbol, less on a reality that is reached through such symbols...'. Nevertheless, 'The assumption that the world has some meaning, which is linked to our calling, as the only morally responsible beings in the world, is an example of the supernatural aspect of experience which Christian interpretations of the universe explore and develop'. Religion for Polanyi was a tacit integration of clues to a higher level meaning in a universe which consists all through of a hierarchy of levels. Despite Polanyi's acuity of vision, there are still many writing now who would dismiss his project of holding together the whole of the diverse human enterprise of knowing as valueless.

Polanyi died in 1976, the very year Richard Dawkins's *The Selfish Gene* appeared. This controversial book is only just mentioned in Drusilla Scott's text but none of Dawkins's later writings is considered, nor any of those of Mary Midgley or Tom Sorrell against scientism nor Peter Atkins and Lewis Wolpert for it. Indeed, there is no reference to any book written later than 1982 despite the lively con-

tinuing scholarly debate which has changed the landscape against which we must evaluate Polanyi's pioneering studies.

Michael Polanyi's own adversaries were the exponents of the positivist scientism of the nineteen thirties and forties: Soviet scientism in particular appalled him with its narrow approval of only the applied science which could assist the Five Year Plans for the economic transformation of Stalinist Russia. Bukharin, then a leading theorist for the communism, declared that 'pure science was a mor-

bid symptom of a class society; under socialism the conception of science pursued for its own sake would disappear, for the interests of scientists would spontaneously turn to the problems of the current five year plan'. This sort of crudely banalistic thinking still occurs in the world and Polanyi's recognition that it sounds the death-knell of science is still urgently valid but it is a view reflected nowadays in the research funding policies of the government of the United Kingdom rather than the now-defunct Soviet Union.

## The Widening Breach – Evolutionism in the Mirror of Cosmology

by WHITTALL N. PERRY

Quinta Essentia, 1995, 109 pp., no price given, p/b. ISBN 1-870196-13-9

This short book by the author-editor of the monumental *Treasury of Traditional Wisdom* provides a metaphysical backdrop for the current fascination with consciousness. The thesis is that the pole 'subject' is the missing link in modern thought, that the notion of object is inseparable from it as part of a polarity, and that 'the objective pole can never be anything except a mirror of the subjective'. The subject-object polarity can be understood as a representation of the primordial differentiation. The book contains a penetrating analysis of different kinds of polarities and traces the rise of atomism to nominalism of William of Ockham in the fourteenth century. His view amounts to an assertion of the rights of the object and marks a phase in the gradual disengagement from the subject which entails a loss

of contact with our inner centre. The widening breach referred to by the author is perhaps beginning to narrow again as the subjective makes a comeback in the form of consciousness studies, but few will be aware of the historical currents in which we find ourselves. He calls for the development of an integral vision which will reinstate the metaphysical priority of the subject and put objects in their rightful place. The most important corollary of this view is its challenge to the assumption that mind arises from matter (the active subject from the passive object) in the course of evolution. The argument is interesting as far as it goes, but has yet to be systematically applied to the kind of new thinking in evolution advanced by Brian Goodwin, Stuart Kauffman and Fritjof Capra.



The philosopher has no objection to a physicist's beliefs so long as they are not advanced in the form of a philosophy.

Michael Polanyi



---

Psychology/Consciousness Studies

---

**Beyond Technique – Psychotherapy for the 21st Century**

by LAWRENCE LESHAN

Jason Aronson Inc. 1996, 188 pp. \$26.95 h/b, ISBN 1-56821-550-9

---

Review by Dr. Andrew Powell

This is a book which will either infuriate or delight psychotherapists, according to their point of view. The basic exposition is LeShan's powerful invective against dogma of any one kind which claims to lay bare the workings of the human mind. Psychoanalysis and behaviourism are equally culpable, as also are popular spiritual anodynes for human health and happiness.

Is LeShan just another iconoclast taking a side-swipe at our attempts to construct a theory of mind? By no means, because he shows intelligently and thoughtfully how models and metaphors of mind begin by illuminating and then obscuring our understanding. The process is extraordinarily seductive, for what starts on a modest theory soon acquires a conflation of factors, historical, social, technological, and soon the desire to explain everything by way of the theory becomes irresistible. The subtle self-aggrandizement which it affords, and which gives rise to assumptions, prejudices and even ideologies, leads to a crude and fundamental error *in which the part comes to be mistaken for the whole*. The hapless patient then falls victim to the well intentioned therapist, who fails to perceive the tyranny of his own ideas, interpretations and interventions.

What is to be done? Are we all doomed to flounder in a morass of half-baked ideas? Not at all, says LeShan. What is required on the part of the therapist is a good education (the theoretical knowledge base must be both broad and deep), humility and insightfulness (best acquired through a thorough personal therapy), genuine love for the patient (in the sense of wishing for what is truly in that person's best interest) and the recognition that life is to be lived with an abiding sense of optimism and purpose, a joyous quest for meaning and truth which surmounts all adversity however great and which the therapist cannot help bring to life in his patient unless he has it in himself.

In discussing the ethics of the therapeutic stance, LeShan emphasizes that the therapist cannot and should not disown values intrinsic to his own mode of being. This includes such things as refraining from abuse of any kind, especially concerning power and sexuality, aiming to be truthful at all times and being aware of one's own limitations both conscious and unconscious. (LeShan regards lifelong supervision of one's own clinical work as a necessity.) The therapist can never know what will be the right outcome for his patient, nor should he take it on himself to decide. Further, LeShan points out that there is a dual task, to cure and to heal, and these are not the same. Cure has its roots in medicine, healing is of the soul and does not preclude death. The therapist's task is to be profoundly open to the individual need and desire for self-actualizing in his patient and to assist this process with all the knowledge at the therapist's disposal. It calls for going *with* the patient so long as the therapist's own ethical values are not violated in doing so.

This reviewer could find fault with a number of LeShan's assertions, and feels compelled to mention just two. LeShan's understanding of the term 'wounded healer' comes across as distinctly superficial. More than this, he is downright dismissive of people who have experience of guidance from discarnate sources. At the same time, LeShan comes over as a vigorous champion of common-sense and compassion, existential but not pessimistic, humanistic but not political and spiritual without being sanctimonious. The book is punctuated with memorable aphorisms, some of them as old as the hills, and it makes a provocative yet playful read. By the end of it, the reader can be excused for feeling he has got to know LeShan quite well, such is the nature of LeShan's open and engaging manner. Not every reader will want to deepen the acquaintance but this too is in the spirit of LeShan's relativist viewpoint – take it if it helps, drop it if it doesn't. LeShan advises

us that if you cannot love your patient, don't think you are going to be able to help him, except to advise who else he might go to see. No one person, however distinguished, nor his ideas however liberal, holds the Truth. Don't make the mistake of searching for a therapist

who has the answers, be content with one who helps you ask the right questions of yourself and who holds your hand while you yourself come up with those hard-to-face answers. Then your individuality will have been respected and your own truth affirmed.

---

## Understanding the Self

edited by RICHARD STEVENS

London, Sage Publications, 1996. 376 pp., no price given, p/b. ISBN 0- 7619-5040-0

---

Review by Dr. Max Velmans

**W**ho am I? Am I a soul entrapped in a body, or am I a bit of material 'stuff' which somehow produces consciousness once it attains a certain level of complexity, and ultimately evolves self-consciousness under the pressures of natural selection? *Understanding the Self* is an innovative, multi-author text designed for third-level social psychology students at the Open University, which addresses this ancient question from the many and sometimes conflicting perspectives of contemporary psychological theory and research. Individual chapters are devoted to different aspects of who we might think ourselves to be.

From one point of view we are embodied selves, and identify who we are in terms of bodily characteristics – our sex, shape, inherited capacities etc. The effects of our bodies and brains on how our selves manifest in the world are unquestionably dramatic. For example, in a macabre version of the sleeping beauty fairy tale, patients with encephalitis lethargica undergo a form of 'petrification' which can persist over many years. Patients are literally 'trapped' in their bodies. But with the administration of L-dopa, this can be (at least temporarily) reversed. In 'split-brain' patients the corpus callosum which connects left and right hemispheres is sectioned to control epileptic seizures. Lacking its primary communication channel, the left brain no longer knows what the right brain is doing. Both halves of the brain nevertheless appear able to support (very different) conscious experience, resulting in two dissociated conscious 'selves' apparently co-existing in one brain.

But we are also experiencing selves, and there are many ways of investigating, knowing, or changing one's experience that do not rely on psychopharmacology, the surgeon's knife or other invasive, physical techniques. Experience can be subjectively investigated, described, analysed, and altered (for example, through the use of imagery, hypnosis, meditation, and so on). There are also complex interactions of cognition with experience. From this rich mix we somehow have to decide which experiences have to do with 'who we are' and which relate to things other than ourselves. Inevitably, this involves interpretations of the data, and so the 'self' is, in a sense, an interpreted self. Nor do we exist in isolation. Our being and knowing are embedded in social and cultural contexts which define our roles, our aspirations and limits, and what we think we ought to be. More subtly, these contexts, through language, provide the interpretive frameworks within which we make judgements about others or ourselves. Within these frameworks we construct a multilayered web of stories which explain, justify and give meaning to our relationships and life. Because such stories about ourselves could not exist without an embedding society to give them meaning we are, in a sense, distributed selves. Our conscious self is also supported and energized by our unconscious self. Within psychodynamic theory this is thought of as primal, irrational, and a powerful motivator of all that we are and do. It contains residues of our earliest childhood experiences, including anxieties, taboos, yearnings, contradictions, defences, and ideals. These flavour all of our subsequent experienced lives; they are the source of our deepest desires, terrors and dreams.

As the authors note, the self in the modern world is, necessarily, all of these things. Unusually, for a text of this kind, the authors also attempt at least the beginnings of a synthesis. How can the 'self' be all these things? How can one begin to relate insights from fields as diverse as biology, cognitive psychology, psychodynamics, and phenomenology? Their approach is decidedly post-modern. No single level of analysis or discourse is privileged. The value of any explanatory approach needs to be assessed in the context of what it seeks to achieve. Overall, the clarity of the book is exemplary, ideal for students and newcomers to the subject alike. Each chapter introduces where it is going, goes there, summarizes

where it has been, and suggests sources for further reading. Clinical, literary, anecdotal and experimental findings to intrigue readers are scattered throughout the text and there are many little thought experiments (about the nature of one's own self), making it easy to relate the theory and experiments to one's own experience. Perhaps my highest accolade is to confess that I am adopting this book, intended for social psychology students, for my 'Theoretical Issues in Psychology' course. But after reading it cover to cover, do I know who I am? Well, that depends on whether my self is just the sum total of the collection of stories that I tell myself about it. And I'm not sure that I'm sure about that!

---

## Synchronicity, Science and Soul-Making

by VICTOR MANSFIELD

Open Court, 1995, 260 pp., no price given, p/b – ISBN 0-8126-9304-3

---

Victor Mansfield is Professor of Physics and Astronomy at Colgate University and has had a long-standing interest in Jungian psychology and Buddhist philosophy. Here he weaves these three strands together in a masterly synthesis which suggests that 'synchronicity is soul-making in action'. Since Jung first advanced the idea of synchronicity as meaningful acausality in his famous essay, the idea has gained popular currency but has rarely been subjected to the kind of creative and critical analysis found in this book. Its format of interweaving remarkable 'synchronistic interludes' in the text makes sure that living experience balances the theoretical framework developed.

Perhaps the central pervading idea is the correlation of inner psychological states with outer events which suggests that our hard and fast distinction between inner and outer is artificial. It is important to realize, though, that the inner does not actually cause the outer – the author distinguishes synchronicity from the paranormal and warns against the hubris of the ego over-interpreting trivial events as 'manifestations' – but rather that their conjunction is orchestrated by the self (in the Jungian sense) whose principal concern is indi-

viduation. It is nevertheless a fruitful thought that synchronistic events are episodes in the soul-making process.

The author traces the development of the modern world-view which splits off the inner from the outer from Dante through Galileo leading to a full denial of the reality of any subjective principle. This swing from towards the objective has now reached its limit and the pendulum is beginning to turn round, so that we must now be on the lookout for a compensating excess of subjectivity! This leads him into considering space, time and acausality (distinguished from chance) in quantum mechanics, where he speaks congenially of a participatory universe and analyses non-locality in physics.

The next strand is Middle Way Buddhism where emptiness represents the lack of any independent existence. The context of the whole gives rise to relationships between the parts, so that objects are understood as 'none other than dependency relationships and names (p. 142); correspondingly, impermanent phenomena are temporary sets of relations, an insight which is related to Einstein's relativity reference frame. This position is echoed in the thinking of Paul Brunton, whose mentalistic philosophy is further developed along Jungian

lines by the author: 'the problem of how we can know a mind-independent world is a false problem, since neither the functioning mind nor the known objects have independent existence' (p. 178). A (knowable) mind-independent world is therefore understood as an illusory projection: the trick is that 'when the mind objectifies its world, it necessarily leaves itself out of the picture, since its very nature is unobjectifiable' (p. 198). The corollary of this move is that 'science's exclusive commitment to the objective mode makes the deeper nature of mind inaccessible to it', hence the need for a new approach to a science of consciousness and what might be termed 'a recovery of the soul'. Only at this stage is such an enterprise possible, though, because the objective phase enables the separation and differentiation of identity.

The final chapters present a systematic philosophy of synchronicity and analyse the differences between Jungian active imagination and Buddhist meditation techniques. Both aim towards an overcoming of the ideology of separateness which arose from the belief in independently existing entities corresponding to classical physics. Quantum entanglement is philosophically more accommodating to the principle of synchronicity and mentalism and is shown to provide a comprehensive understanding of the four key issues raised by synchronicity of meaning, acausality, space-time transcendence and unity. Mansfield has written an engaging book in the tradition of the Tao of Physics and one which makes compelling reading as a formulation of the participatory world-view.

---

## Books on Consciousness Studies

---

A Composite Review by the Editor

The last few years have seen a major expansion of interest in consciousness studies and conferences on the topic spring up all over the world. The largest conventions have been the two meetings in Tucson. The abstracts are available through the *Journal of Consciousness Studies*\*. Browsing through the contents conveys a good impression of the sheer scope of endeavour in this field, with over 500 entries grouped under philosophy, neuroscience, cognitive science and psychology, physics and mathematics, biology, experiential approaches, anomalies of consciousness, humanities, culture and society.

Imprint are also the publishers of the massive *Conscious Experience*, ed. THOMAS METZINGER 1995, 564 pp., \$28 p/b, \$4. It begins with an excellent overview from the editor and proceeds to sections on conceptual foundations, sceptical accounts, consciousness and the physical world, the knowledge argument, qualia, consciousness and higher order states, information processing and neurobio-

logical approaches and artificial consciousness; at the end is a 50-page selected bibliography of works from 1970-95 for anyone who can manage a bit more reading. The presentation is enhanced by editorial introductions to each of the sections. It is made clear in the introduction that the problem of consciousness is also a problem of self-knowledge which invites first- as well as third-person perspective, although there is as yet little agreement on how to proceed. Anomalous experiences which might widen the view are not featured in this volume, but the editor takes the view that primitive scientism which bulldozes the subtlety and depth of our conscious experience is an evasion of the real problems. He sets out the 'problem landscape' by listing a catalogue of questions and approaches which are taken up later in the volume in the cross-section of articles printed. The book is a good overview of the science and philosophy and is most appropriate for those who already have some grounding in the field.

---

\* Imprint Academic, PO Box 1, Thorverton, Exeter EX5 5YX. E-mail: [sandra@imprint.co.uk](mailto:sandra@imprint.co.uk)  
Web site: <http://www.zynet.co.uk/imprint>

***The Science of Consciousness: psychological, neuropsychological and clinical reviews***, ed. MAX VELMANS (SMN), Routledge, 1996, 207 pp., £12.99 p/b, gives a more accessible overview of the field. Recognizing the psychology as a discipline should study experience as well as behaviour, Max Velmans provides a lucid account of the areas covered in the volume as well as an account of his own reflexive theory of consciousness. In an essay on consciousness, memory and learning, Gardiner observes that gross distinctions between conscious and unconscious learning are giving way to finer ones involving states of awareness which need input from first-person accounts. Baars and McGovern run through an interesting gamut of metaphors for consciousness and propose a 'supermetaphor' using aspects of threshold, searchlight, iceberg, novelty and executive notions, concluding that consciousness seems to have access to multiple, independent knowledge sources. In response to the binding problem, Libet puts forward a field theory of consciousness which has causal ability to affect or alter neuronal function. Two clinical papers – on somatic consequences of consciousness and the placebo response – throw light on this question of the causal efficacy of consciousness. The first introduces psychosomatics and reviews studies of meditation, imagery and biofeedback where intentionality clearly plays a key role; the second, by Patrick Wall, shows that conscious perception can be dominated by expectations which conflict with sense data. He disposes of a number of prevalent myths before treating the various classes of explanation advanced and showing that the brain is radically changed to a new state in the placebo response.

***New Directions in Cognitive Science***, ed. PAAVO PYLKKÄNEN and PAULI PYLKKÖ, Finnish Artificial Intelligence Society, 1995, 401 pp., no price given, p/b, is the proceedings of a conference held in Lapland in 1995. The papers are of varying length and depth and fall into the following categories: overview, quantum theory and cognitive science, neuroscience, consciousness and phi-

losophy, standard cognitive science and its critique, postmodern views. Among the most interesting papers are those by Basil Hiley developing Bohm's concept of active information and Elizabeth Valentine on a framework for exploring non-conceptualized experience. ***Consciousness***, ed. MARTIN DAVIES and GLYN W. HUMPHREYS, Blackwell, 1993, 311 pp., £14.99 p/b, is a well referenced introductory textbook to the science, philosophy and psychology of consciousness. The editors discuss the 'explanatory elusiveness' of phenomenal consciousness and provide concise summaries of the arguments advanced. They wonder if further neuroscientific investigation of consciousness will leave us with a 'terminally residual mystery' and reject Dennett's explaining away of the problem of qualia. Suitable for students and in-depth readers. ***The Enigma of the Mind***, by SERGIO MORAVIA, Cambridge, 1995, 319 pp. £12.95 p/b, is a technical philosophical survey of the theoretical options on the mind-body problem in 20th century philosophy. He tours physicalism, the identity theory, eliminativism, functionalism, the linguistic turn and mentalism before advancing his own theory of the mind as a complex of pragmatic and linguistic acts through which human beings express themselves.

***Stairway to the Mind***, by ALWYN SCOTT, Springer-Verlag, 1995, 229 pp. no price given, h/b, uses the metaphor of stairs or a ladder to explore the different levels of analysis in a science of consciousness. Scott has a broad academic background and experience which helps him range from physics through chemistry to the nervous system and the anatomy of the brain. He writes clearly and raises the major theoretical issues. There follows a very good summary survey of brain-mind theory from William James to David Chalmers which I think is fair to those described. He then moves on the culture, anthropology and evolution before considering the theoretical possibilities. He points out that materialists do not face the implications of the facts of paranormal phenomena, although he does not comment further. He himself argues for a hierarchical or

emergent dualism, suggesting that it may emerge from several levels of the mental hyperstructure in a non-reductive manner. Engaging and informative, this book can be recommended to expert and neophyte alike.

Finally, *Questions of Consciousness*, ed. ANTHONY P. COHEN and NIGEL RAPPORT, Routledge, 1995, 244 pp., £14.95, marks a sea change in the attitude of social anthropology to questions of consciousness although it does not go further than a sophisticated philosophical materialism in its premises. In their introduction the editors point out that consciousness has been largely taken for granted in their field within a framework of historical materialism or embeddedness in specific cultures and societies. They ask about the reciprocal nature of the encounter between the anthropologists' consciousness and those of the people whom they study: the latter must now be seen as intentional, interpreting, imaginative, conscious agents just like the former! They concisely sketch out the leading explanatory contenders and marvel at the previously received wisdom in the field that consciousness could be assumed to be merely derivable from public manifestations of culture and behaviour. One can see the parallel to behaviourism here and the urge to move beyond a purely third-

person narrative: from collective consciousness to consciousness within collectivity. The essays cover diverse themes such as childhood, novels, dreams, trance and healing, sorcery, multiple personality and, rather unexpectedly, bureaucrats in the European Commission! There is quite a difference between their self-image and the stereotypes purveyed in the media, but the issue of creating 'European consciousness' or identity is taken very seriously.

The book does open up some promising avenues for the transpersonal but the connections with the depths of subjective experience have yet to be made. There is still a gulf between the researches of Grof and book such as the one by Lawlis reviewed in the medicine section and the traditional detachment of academe. One would have thought that the necessary involvement and sensitivity of anthropologists might provide a fruitful meeting point, especially when they seem to be becoming more self-aware within their own discipline. One final general observation: as Ken Wilber might remark, the depth dimension is absent from virtually all the above volumes, but it is early days and there are signs of scientists opening up to first-person exploration as a complement to third-person objective detachment. This is after all a crucial area of work for the Network.

---

## A Stranger in Paradise

by JULIE CHIMES

Bloomsbury, 1995, 310 pp., £16.99 h/b. ISBN 0-7475-2300-2, £6.99 p/b ISBN 0-7475-2644-3

## Beyond the Light

by P.M.H. ATWATER

Thorsons, 1995, 273 pp., £7.99 p/b. ISBN 1-85538-510-4

## At Peace in the Light

by DANNION BRINKLEY

Piatkus, 1995, 208 pp., £8.99 p/b. ISBN 0-7499-1581-1

'The destiny of every particle of consciousness is to reveal the One within'. This quotation from the extraordinary book by Julie Chimes could apply to a number of recent books on near-death experiences. In an age which has lost much of its faith in the more traditional sources of revelation, people are never-

theless hungry for meaning. Many near-death experiencers play the role of shaman with the messages they bring back from the invisible about the significance of life. Julie Chimes' story makes searing reading, but it is told with a deft humour and in a racy style which carries the breathtaking narrative along. It begins

with an uncanny piece of advice apparently coming from a seance with her grandfather. The context of the attempt on her life is a self-awareness course gone wrong, attended, among others by the author, her doctor boyfriend and Helen, a paranoid schizophrenic woman who launches a frenzied attack on Julie with a knife. This horrendous event is described from two vantage points – one within the body and the other beyond, where she begins to have an inkling of the underlying oneness of consciousness and the fact that her essential self cannot be killed.

Miraculously, she staggers out onto the road where most onlookers make off in the opposite direction, but she is finally rescued and her boyfriend turns up and gets her to the hospital in time, in spite of various petty regulations which nearly cause a fatal delay. One especially effective technique in the book is the composition of a number of letters to people directly or indirectly involved in her case, for instance the surgery team. They constitute a statement about her own awareness during the episode ('Just because my eyes are closed does not mean I am deaf!') and advice to the same people who may be involved in similar events in the future. Then, unexpectedly, she begins to receive messages from her 'mentor' – later characterized as 'the part of me that remembers' – which begin to give her a more universal perspective on what has happened to her. She has the choice to see herself as the victim or the symbolic spiritual warrior, and the attempted murder is perhaps the ultimate test of faith in this respect. This might sound glib, but it is much more than a workshop 'learning opportunity' as the rest of the 'group' put it. It is a chance to recognize and remember the Self, 'to experience the truth of who we really are'.

One of the central episodes is a powerful dream which depicts an Egyptian initiation, a dream within a dream. She is incarcerated in a pyramid and has to find a way out. She 'hears' the walls telling her that 'inside is the way out' and subsequently has an out-of-body experience which is in fact the test: she comes out of the pyramid and finds the chief priest. It is all a question of waking up... In a short space it is not possible to convey the other threads of the

book: the reaction of the family and the doctor boyfriend, the collapse of her business, the commentary on the emergency services, the legal and insurance professions. The outcome is a sad reflection on our legal system, with paltry compensation for her, professional disgrace for the doctor boyfriend who had sent Helen along to their house to be looked after by Julie, and a substantial award for Helen herself. The point, however, is not to feel enraged, but to understand the significance of the whole, the alchemy of suffering, the courageous radiance of being.

*Beyond the Light* (yet another NDE title with Light in it!) is an unusual book on the subject written by someone who herself has had three NDEs and has spoken to about 700 other experiencers over a fifteen year period. It challenges a number of 'myths' about the NDE, asserting for instance that one in seven experiences is hellish, that the majority of people have life-reviews and that suicide attempters who have NDEs may try again; the basis of these revisions is that people seem to describe and interpret the experience according to their beliefs and that the personal response to the NDE is crucial. Her interesting thesis is that what she calls the four fundamental types of experience reflect the progression of an evolving consciousness: initial, hellish (inner cleansing and self-confrontation), pleasant (reassurance and self-validation) and transcendent (expansive revelation). She then illustrates these with graphic case histories. The second part is the most comprehensive analysis of the after-effects I know, including many facets of the psychological and physiological as well as comparisons with the effects of mystical experience. Other interesting features are the changing colour of the light experienced from yellow to gold and white, the discussion of the role of the limbic system, the levels of imagery experienced and the advice on readjustment. There is also a lucid chapter summarizing the main spiritual insights from NDEs, which one recognizes from other sources. An excellent book for those interested in keeping up with the field and gaining a new perspective, and one which raises new research questions to be pursued.

*At Peace in the Light* is the sequel to Dannion Brinkley's *Saved by the Light* which I reviewed in a previous issue. It continues the story of the after-effects of his experience: the sense of living inside other people – one amusing incident involves the perception of someone's thoughts during a sermon, his short-lived success at gambling where he has an insight into greed, some premonition episodes about accidents, and his path to his present work of helping the

dying. The philosophy can be summed up in the quotation that 'You are the difference that God makes, and that difference is love', and the recommendation that we should rely on our inner spiritual selves. This last message is one which applies to the other two books as well. Beyond all the disputes about NDEs being caused by oxygen deprivation or temporal lobe seizures is a spiritual understanding for all who have ears to hear and eyes to see.

---

## Daimonic Reality: Understanding Otherworld Encounters

---

by PATRICK HARPUR

Arkana, 1995 330 pp. L8.99 pb (Viking 1994) ISBN: 0-14-019485-1

---

### Review by Professor Arthur Ellison

If you have ever tried to explain (understand, model) UFOs, abductions, fairies, the Loch Ness and other monsters, banshees, guardian angels, Yetis, Bigfoot, Marian visions, crop circles, phantom hitch hikers, shamans and the like, it will surely have become clear to you, as it certainly has to me, that they all fall into the class of 'not understood'. They appear to be, all of them, something to do with the unconscious and yet they produce and leave physical traces of their presence. Jung has something to say about this area of consciousness with his idea of the self as a *complexio oppositorum* – a complex of opposites. From the point of view of the unconscious – that is, of daimonic reality – its existence is the real one and our conscious world a dream, a pattern of images much as we conceive it to be.

If this approximates to your own position then this excellent book is very well worth reading. Entities in the classes listed range from lovely and benevolent in their appearance to super- or sub-human and malevolent. They tend to be ambiguous in their nature: neither true nor untrue, straddling the border between fact and fiction. They have a misleading dualism: they are not either/or, but both.

'Our trouble', Harpur suggests, 'is that we have been brought up with a literal-minded world-view. We demand that objects have only a simple identity or meaning. We are educated to see with the eye only, in single vision. When the preternatural breaks in upon us, transforming the profane into something sacred, amaz-

ing, we are unequipped for it. Instead of seizing on the vision, reflecting on it – writing poetry if necessary – we react with fright and panic. ... we feebly telephone scientists for reassurance. We are told we are only seeing things; and so we miss the opportunity to grasp that different daimonic order of reality which lies behind the merely literal'.

Our problem here is literalism. 'Real', 'factual', 'true' mean literally real, factual, true. Harpur points out that there is another sense, another kind of reality, seen whenever we watch a drama on stage or screen. We are watching a revelation of some deeper normally-concealed reality in the middle of our mundane lives. The remedy is to cultivate a sense of metaphor – to translate our view of the world in terms of another. We need Blake's 'double vision'.

If Blake had been running the phone-in when Val of Peckham rang about her flying saucer he would not have told her that she had misidentified a planet, or a helicopter: he would have said she was privileged to have glimpsed the awesome form of foam-born Venus rising in splendour from the sea of night. She might then have been emboldened to prise wider that momentary crack in literal reality and to enter that other imaginative reality which alone infuses the world with beauty and terror.

We don't need to see UFOs in order to enter that reality because, to the poetic imagination, everything in the sky – stars, birds, the Earth itself – is a UFO whose final reality can never be known.



## Ecology/Economics/Future Studies

## Living Energies

BY CALLUM COATS

Gateway Books, Bath, UK, 1996. 311 pp., £13.95. ISBN 0-46551-97-9

## Review by Roger Taylor

Viktor Schauburger was an intuitive genius around whom, like others such as Reich, Tesla and Keely, has grown a dense jungle of myth and speculation. As a young man he refused university education because he did not want his mind contaminated with conventional ways of thought. Instead he gained employment as a forester, so that he could learn from nature. It seems clear that he had an extraordinary insight into the ways of water – almost as though he could in imagination *become* water, as it flowed through natural and man-made water ways. As a result of this he was able to design *flumes* for carrying logs that apparently worked much better than the conventional ones, to the satisfaction of his employers. (But whether his designs are still used, or indeed ever caught on for general use in forestry, the book does not tell us). He was a pioneer ecologist: warning us of ecological disaster even in the early thirties. Decades before James Lovelock, he was seeing the whole earth as an organism. In addition to his work with water-courses, he is credited with a great variety of inventions, ranging from devices to give ordinary water the healthy qualities of mountain spring water, to free energy turbines, anti-gravity and even flying saucers.

My hopes that this book would clear up some of the fog were sadly dashed. Mr Coats has obviously worked very hard with mountains of Schauburger's notes and diagrams. But what a pity that this work was not done by a scientist! Almost every page contains an error of fact, or a misunderstanding of some simple scientific idea. Thus:

Writing of vibrations, he confuses intensity with frequency (p. 44). What are we to make of the series of misapprehensions culminating in his conclusion that the sun is cold and dark? He argues, for example, that because, below a certain pressure of gas, the glow in a gas discharge tube disappears, that light from the sun

would not be able to pass through the extreme vacuum of space (p. 77). Hardly any of the description of electrolysis is correct – from 'negatively-charged hydrogen ions' and 'positively-charged oxygen ions' to the conclusion that these gases come from the added sulphuric acid and not from the water (p. 112). Since Avogadro's and Loschmitt's numbers are simply different ways of stating the same fundamental constant, the approximate relation,

$$\frac{\text{Golden Mean} \times 10^{52}}{\text{Avogadro's No.}} = \text{Loschmitt's No.}$$

must be a spurious coincidence – even without the unexplained factor  $10^{52}$  (Fig. 4.8). How can water be 'incompressible' and yet, in the deep sea, be 'of enormous density'? (p. 136). You cannot centrifuge oxygen out of water. Nor can you see it in the form of solid structures under the microscope. It is not 'savage oxygen' which attacks turbine blades, but cavitation (p. 177). Siliceous rocks (i.e., the usual kind, here confusingly called 'metalliferous'), unlike elementary silicon, are not semiconductors (p. 162).

Schauburger had some really whacky ideas. For example he divides the entire periodic table of elements into just three: hydrogen, oxygen and *carbones* – the latter term apparently serving to include all the other elements. It is often hard to sort out which of the misconceptions come originally from Schauburger, and which have first arisen in the author's mind. Here are some more:

Do trout really 'move upstream like a streak of lightning by *flapping their gills*'? Even if they did, they would need to be able to do it long before the supposedly important increase in 'carbones' ( $\text{CO}_2$ ) appeared in the outflow from their gills. In any case  $\text{CO}_2$  is not 'oxygen-hungry' nor, even if it was, would its combination with oxygen cause water to expand (p. 142). How does heat 'induce aggressiveness' in oxygen? One gathers that heat in gen-

eral and direct sunlight are bad for water, and cold (at least down to 4C) and shade are good. Are we to assume that open rivers not shaded by trees in hot climates are giving off 'deadly radiation'? If so, how come the Nile is (or was) full of fish, and its banks supportive of so much life? (p. 170). While blood vessels may well have special characteristics giving them very low resistance to the flow of blood, it is hard to see why the heart needs so much muscle if it is 'not a pump'. And to try to support this statement by imagining that it has to pump blood through all 60,000 km of capillaries *as if they were laid end to end* makes no sense at all (p. 188). Rise in body temperature during a fever is construed as if it were the *cause* of infection, rather than a response to it (p. 227). He claims that, as the trunk gets narrower towards the top of a tree, the annual rings should get closer together. Has he ever looked? (p. 247). The section on photosynthesis is almost complete rubbish. For example chlorophyll has 137 atoms. 137 is a prime number. Therefore chlorophyll is stable (p. 219).

One often comes across sentences composed from end to end of impenetrable verbiage. Thus: 'In its gradual descent the phloem encounters the suspended positively-charged material with which it interacts, an interaction which is enhanced as the positively-charged xylem is drawn towards the exterior under the influence of the prevailing positive temperature gradient'.

I could go on but, having got this much off my chest, I will try to seek out some positive aspects. In searching the book for further evidence that Schauberger had in fact developed a means to free energy, I was interested in the historical account with which it opens. Here is documentation of a serious interest, by various agencies, from Adolph Hitler to the FBI, and a detailed account of the Schaubergers' (father and son) visit to the USA, during which an American business consortium essentially stole all their plans, models and prototypes. This left Viktor a broken man, and he died soon afterwards.

But if he had really built functioning machines, there would need to be at least some

mathematical input. We know that Schauberger's son Walter was a mathematician, yet it is in this area, between the intuition and the hardware, that the book is most conspicuously lacking. It contains little meaningful mathematics and hardly any scientific evidence that Schauberger's ideas actually worked. What does seem of real significance, however, are the tests done by Prof. Pöpel on water flow in a variety of pipes. Unlike all the other shapes, the special double-helical pipe showed extraordinarily low resistance at certain flow rates – even at times going below zero. If true, this 'negative friction' would indicate a potential for free energy. Another disappointment is the lack of information about ongoing initiatives to follow up Schauberger's work. These certainly exist, and some can be found on the Internet, but I have not heard of them having any notable success.

I find myself coming back to the question of intuition in science. Intuition is a kind of felt sense, initially without conceptual content. Most scientists will quickly follow up their intuitions by clothing them in some conceptual framework, and so be able to communicate their ideas to others. Schauberger, on the other hand, appears to have gone an immense distance on intuition alone – perhaps even to the extent of developing workable machines. But when he came to formulate his intuitions in words, he seems to have left little in the way either of intellectual coherence or testability. Working as he did in isolation, without the benefit either of a scientific education or of peer contact, he was free to build an edifice of *suppositions*, about a diversity of subjects, many of which are demonstrably wrong. Intuition is a double-edged weapon: nature is often counter-intuitive – as seen in the demise of terracentrism, and the phlogiston theory.

But in addition Schauberger was, quite simply, *decades* before his time. Only now is chaos theory beginning to bear out his intuition that there must be a principle of order to set against the second law of thermodynamics. Only now is antigravity hovering on the borders of physics, to bear out his intuition that there must be a principle of 'levity' to set against gravity. (Indeed, so the grapevine informs me,

antigravity has just been achieved in a respectable university in Finland!). Only now has the quantum theory of water reached a stage where we might consider seriously his intuitions about the relation of flow dynamics to water structure. Above all, his intuitions

about the vortex as a fundamental form seem extraordinarily prescient. Many are speculating on ether vortices as the means by which form can arise out of the void, and experimental evidence seems already to exist in the Russian work on torsion fields.

---

## From Care to Action: Making a Sustainable World

by SIR MARTIN HOLDGATE

Earthscan, 1996, 346 pp., £15.95 p/b. ISBN 1-85383-306-1

---

Following his 1992 book, *Caring for the Earth*, Sir Martin Holdgate provides us with an update and reflections on progress and the lack of it since the Rio Summit. He is perhaps better placed than anyone to write such a comprehensive survey, having recently retired as Executive Director of the International Union for the Conservation of Nature (IUCN). He currently sits on a number of international panels, including the Royal Commission on Environmental Pollution. Readers could be forgiven for asking if we need yet another book about the environmental crisis; however, if you only read one book in this area in the coming year, this is it.

The author is acutely aware of what he calls the gaps between concept and action, and one of his most interesting chapters assigns a score on the 'index of impediment' to certain key areas. He suggests that we need 'a new political theory, tied to a new ethic, and expressed in new governance, new economics and new laws'. Such idealism does not make him impractical, since he remains acutely aware of the constraints and problems associated with a top-down approach. It rather gives him a compass and sense of direction as well as criteria of achievement. It also makes him advocate grass roots movements for change, which must themselves be informed by a new vision.

The background to our current predicament is to be found in the enormous impact of the human race on the planet, which has set alarm bells ringing in the last twenty years. Action plans have been announced and good intentions paraded at conferences. Holdgate assesses how these have been translated into action by compiling a balance sheet on sustainability

since 1992. Then, as mentioned above, he examines the barriers to success and self-deprecatingly confesses that his book is 'another attempt at explaining why the rocket remains grounded, fizzling faintly'. His approach to developing new values is detailed and specific, although I was surprised not to find Hans Küng in the index. He then moves on to a consideration of educational initiatives, the need to understand nature and use resources sustainably before considering how communities can be empowered and new alliances built. He recognizes that acceptance of the idea of sustainability does not automatically lead to a reorientation of priorities in the same way that 'cure does not follow from diagnosis, any more than people practise what they preach'.

Holdgate's section on building new alliances is an excellent analysis of the factors which make for success, which are derived from his practical experience as much as from theoretical ideas and strategies. For instance, he advocates partnerships based on sharing rather than giving and taking, listening to the community and concentrating on the poorest 10 per cent, and the advisability of never to over-estimating the value of formal education or under-estimating the value of traditional wisdom. The final chapter is based on asking questions about what kind of action should occur at local, national and international levels and ways in which individuals can help bring this about. He concludes that our need for global action and reform is outweighed by the need for international vision and inspiration which can galvanize hope and therefore energy and commitment. The book is a judicious balance of detailed diagnosis, impartial assessment of

progress and coherent strategies for a sustainable future. As such it deserves wide readership

and serious consideration and will surely help enable the grounded rocket to achieve lift-off.

---

## Ecological Feminism

edited by KAREN J WARREN

Routledge 1994, 209 pp., £11.99. p/b. ISBN 0-415-07298

---

Review by Eileen Conn

The term 'eco-feminism' was first coined as recently as 1984. This book aims to sketch out the *philosophical* aspects of ecological feminism, and to argue the case for it being a legitimate, serious and distinct topic for academic feminist and philosophical study. There are ten chapters, each by a different author taking a different philosophical aspect.

Feminism is best known for its activism against sexism, and the struggle to remove the domination of women by men. The book shows how eco-feminism has drawn attention to the connections between the domination of women and the domination of nature. The idea is that the domination of nature flows from the belief that humans are morally superior. Women have historically been associated with nature, the Earth, and things physical and emotional, while men have been associated with human mind and rationality. These associations lead logically to the twin domination of women and nature.

The book demonstrates that there are tendencies within the feminist, ecological and spiritual movements which help to confirm this thinking by assigning to women a superior intuitive understanding of the Earth and life, by virtue of being a woman, and that 'Goddess' cultures must by definition be in harmony with nature. To assign certain human qualities to a particular gender does not reflect reality, and accepts, consciously or unconsciously, the gender roles assigned by the current culture. Some modern psychology thinking also exacerbates this tendency by equating 'feminine' qualities with what are thought to be the earthy less rational aspects of life. Thus the feminine is said to be the softer, emotional, warm and feeling side of nature in men as well as in women (and vice versa for masculine qualities). In spite

of seeming to allow men to have these qualities, they remain associated with women by calling them 'feminine', and vice versa for 'masculine' qualities. I wonder why we define these qualities so much in gender terms. The personality differences across the genders call out for greater understanding. They may be nature's way of ensuring eco-diversity in the human species. This would be a fruitful area to explore alongside gender.

What is it then that eco-feminism brings to the academic table? A major theme, which appears in a variety of ways throughout the book, is that it is uniquely equipped to uncover the complexities which flow from gender bias. The untangling of some of the confusions around the equation of women with nature, and the equation of 'feminine' with certain qualities, are examples. Several of the chapters join in the internal green debate within and between deep ecology, social ecology and eco-feminism, by exposing some of the cultural dualistic and patriarchal assumptions buried in the respective philosophical positions of all three. They also contribute important ideas on the logic and dynamics of domination, affecting all unequal power relations far beyond gender issues. Occasionally the book's writers seem to fall prey to the tendency they criticize in deep ecologists and social ecologists – that their own school of thought is intrinsically superior. In spite of this, the book, for this reader, reinforced the feeling that the three approaches are obviously complementary, all travelling along different roads to the same destination.

I liked especially the eco-feminist ideas of theory-in-process, as distinct from abstract and universal theory. The use of the gender lens magnifies the detailed particularity of the human condition, and brings into appropriate prominence the importance of context. This

makes eco-feminism a post-modernist school of thought, but not a nihilistic deconstructionist one: 'it's nothing but language all the way down'. Its emphasis on (multi-dimensional) context adds the idea of oral cultures' view of language: 'it's world all the way up!' (p. 171). This may turn out to be a vital contribution to developing a way to deal with the complexities of the relationship between our individual inner lives and our outer collective selves which make up the whole human species. Eco-feminism, according to Karen Warren, 'con-

ceives of humans as *essentially*, and not accidentally, *socially constructed beings-in-relationships*' (page 189). That is a very important truth, which the dominant world-view seems to have lost.

The book uses technical language, addressing an academic readership. It is an introductory text for the philosophical aspects of eco-feminism. It is well referenced, with a useful index. It should be on the reading lists for students of feminism, ecology (of all kinds), philosophy and post-modernism.

## On the Track of Water's Secret

by HANS KRONENBERGER and SIEGBERT LATTACHER  
Uranus, 1995, 167 pp., h/b. ISBN 3-901626-03-5

**T**his short book describes the thinking of Viktor Schauberger and Johann Grandner about the nature of water: the difference between 'live' and 'dead' water and the beneficial effect of live water on animals and plants. One of the starting points is spiral shaped motion which characterizes the natural flow of water and growth, which implies that water loses its original energy through friction in the pipes and straight lines of transport. Grandner's technology claims to revitalize water by putting it through a spiral flow motion; anecdotal reports of health benefits are certainly striking, and perhaps not altogether surprising given the fact that so much of our body is made up of water.

Some pioneering experiments have been carried out on the industrial use of spiral Grandner units. Here tests have demonstrated prevention of microbiologically induced corrosion of the inside of pipes without the addition of large amounts of chemicals. In one case, use of water revitalization meant that it

was possible to have a chlorine free drinking supply. Other experiments have been carried out with lakes and ponds to reverse decline in fish and plant life. The water is sucked out of the pond, passed through a water energizer and then pumped back into the pond; in addition, charged Grandner water was added to the pond. Dr. Horst Felsch reported that, over a two month period, the bacterial count of the pond had been reduced by 95 per cent. It is as if the immune resistance of the water is enhanced so that bacterial 'infection' is correspondingly reduced, or that information is imparted to the water which changes its capacity. The final chapter speculates about the nature of water's 'information' in terms of 'hydration envelopes' around dissolved molecules, and suggests that the flowing of water may provide the same kinetic energy involved in succussion of homoeopathic remedies. It is early days in this research field, but this book provides directions for some exciting future research.

Epistemology without contact with science becomes an empty scheme. Science without epistemology is – insofar as it is thinkable at all – primitive and muddled.

Albert Einstein

---

**General**


---

**The Face of Glory**


---

by WILLIAM ANDERSON (SMN)

 Bloomsbury, 1996, 370 pp., £25 h/b. ISBN 0-7475-2006-2
 

---

The author would appreciate the fact that I began reading his wonderful book underneath a plane tree in the park at the Chateau de Chantilly in France and that I am now listening to Bach's violin concertos as I write (in Hong Kong). This book is not only the sequel to his study of the Green Man – the green of nature transformed into the gold of civilization – but is surely William Anderson's masterpiece, a book which will be read with pleasure and appreciation many decades hence. It is both personal, containing many beautifully written lyrical passages, and also a cultural feast drawing on his deep reservoir of literary and aesthetic erudition for the delight of the reader.

The first part exposes the author's theory of the Great Memory and its role in the renewal of civilization. Such reflections are particularly timely when we are seeking creative precedents for our own renewal. The hypothesis is that all great civilizations are founded upon ideal images of man and woman which provide the standards by which each civilization measures its achievements; that cultural renewal is accompanied by the recovery of some forgotten, dormant idea; and that the full assimilation of the past with the imaginative grasp of the future is brought about by people with a refined level of consciousness: the energies released are creative or destructive according to the ideal of humanity guiding that particular society. The author illustrates this with a wide range of examples extending through science, art, myth, religion and politics: Shakespeare, Dante, Kekulé, national revivals in Mexico and Iran, the relationship between artistic and political revolutions in America and France. Images of woman and man draw on St. Francis, St. Anthony of Padua, the Virgin and Christ as depicted at Chartres as well as indicating the perversions of such images in movements such as Nazism. The development of modern science and scholarship has enabled the recovery

of the past on an unprecedented scale but the prevailing mechanistic, reductionist understanding has also diminished the picture of the human being and undermined our creative confidence.

The author, however, sees reason for hope within science itself with the emergence of the anthropic principle and the Gaia hypothesis but warns that freedom always decays unless it is renewed by the spiritual forces of creativity and civilization. This leads him into the second part of the book 'Inspiration and the image of conscious humanity'. where 'conscious experience sets the creative process in motion' at the moment of knowing. This is again illustrated with examples from the likes of Tesla, Blake, Wagner, the physicist Lawrence Bragg, the French doctor Charles Nicolle, Hildegard of Bingen, Pushkin, Schiller, Beethoven and others. Consciousness is understood as the universal energy continuum, a light which brings about the inner equivalent of photosynthesis in what the author calls 'photopoeisis', manifesting in the lives of creative individuals. It takes various forms described in terms of metaphorical flashes of light, flooding of water and eruptions of springs into the minds of artists such as Brahms and Rilke.

The following chapter illustrates the role of metaphors, dreams and visions in creativity with figures such as Descartes, Coleridge and Shelley. It leads into a discussion of the factors influencing interpretation, itself a form of participation taken up as a major theme in the third part of the book: to see the world in new ways 'expands experience and releases originality', a proposition illustrated with paintings by Rembrandt and Velasquez. Symbolism is regarded as a major engine of creative renewal and holds out the possibility of a world-view based on an interpretation at several levels where the scientific does not exclude the artistic and spiritual. Underlying our present possibilities if renewal, according

to the author, is the archetype of the Eternal Feminine.

When consciousness is focused in the act of attention we ourselves partake in the creative process and 'the fullness of consciousness is the reservoir of creativity to be drawn on whenever needed'. We can reach that point of stillness within and realize why it is that a constant factor in the origins of civilizations is 'the presence in societies of men and women who have achieved the inner transformation and ... whose lives work a change in the climate of opinion through this subtle influence of their existence' (p. 218). Action and creativity flow from the being within, a point which we are inclined to forget with our overemphasis on outer, material manifestations. Our current challenge is to 'raise our own imaginations to that supreme level in order to heal the Earth and ourselves'.

The third part of the book develops the theme of what the author calls 'the perfect enjoyer', who is both the product and sustainer of civilization. Art and literature are nothing without the audience or reader; appreciation is itself a creative act. So far as reading is concerned, William Anderson coins the expression 'bibliophany' for that state when 'our awakened imagination seems to weave a tent of enjoyment about us'. It is a state applicable as much to visual art and music as well as literature and which is only achievable through genuine education leading to appreciation which engages the whole imagination and intellect. 'The Face of Glory' itself induces such a state in the reader. Any education system which neglects this process or subordinates it to vocational training is sowing the seeds of its own demise; applied to science, for instance, it

would encourage an attitude of curiosity, wonder and delight in the scientist.

The creation of audiences is shown to be related to the cultivation of taste and has in the past been catalysed by some outstanding patrons like Diane de Poitiers or St. Hugh of Cluny who have had the wealth, position and discernment to foster new creative developments and, more subtly, climates of opinion in which new images of man and woman are formed and realized. Part of the bankruptcy of our age is the debased forms of role models presented by the media and the corrosive cynicism towards ideals transcending them. Fritjhof Schuon has pointed out that the centre and ideal of traditional spirituality is the sage or wise woman who exemplifies virtues and noble human qualities. William Anderson reiterates that cultural renewal is impossible without a corresponding renewal of our ideal images of which the Green Man and Eternal Feminine are the masculine and feminine prototypes, a balance of head and heart rather than the clever but heartless technical fixer. As he felicitously puts it: 'In recovering the energy and insight of the hunter, the shaman and the wise woman, we would become the loving audience of Nature, realizing that our imaginations are as huge as hers and in fact include her imagination. It would also mean that we would begin to understand what we were given our individual selves and egos for: that we should become the transparent reflectors of the light of conscious love' (p. 321). The science of consciousness is also the science of love. The texture, quality, style, depth and content of this remarkable book are a reflection of and contribution towards this essential process of cultural renewal.

Poetry is the breath and spirit of all finer knowledge; it is the impassioned expression which is in the countenance of all science.

William Wordsworth

## Confronting the Experts

edited by BRIAN MARTIN (SMN)

State University of New York Press, 1996, 204 pp., \$14.95 p/b, ISBN 0-7914-2914-8

### Review by Don Eldridge

For years Brian Martin, a lecturer at Wollongong University in Australia, has researched and written about intellectual suppression and the need, at times, to challenge experts. Rather than seeing conspiracies, he writes (p. 10): 'Within establishments, the dominant view is so taken for granted that a radically different viewpoint is virtually inconceivable and certainly has no credibility. This means that the critics are easy to dismiss as ignorant and dangerous or both...'

There being little in the literature on what transpires when critics confront authority, Martin got six experts—from a range of fields—to relate their stories. While the contributors were in different situations, there is a common theme: that of establishment experts having so much prestige and power that it takes a huge effort to make an impression, and the dissenter usually must have the support of a pressure group and some access to the media.

It being impossible to review all six chapters, I concentrate on the two that I think will most interest Members. The four not looked at deal with sewage disposal in Sydney, art history in Italy, myths about international terrorism, and nuclear power policy in India.

Mark Diesendorf found himself forced to become an international expert on fluoridation in order to counter disinformation focusing on fluoride's purported benefits for teeth while ignoring harmful side effects.<sup>1</sup> In fact, some unfluoridated cities have shown an improvement in dental health that can't be explained by 'imported' water. Also, since fluoride is better absorbed by teeth through direct application rather than via drinking water, why force everyone to have a dose?

Experts recommend adding 1 p.p.m. to water, even though skeletal fluorosis is found in areas where naturally occurring fluoride is as low as 0.7 p.p.m.<sup>2</sup>, and even though the US. Public Health Service once felt water with 1 p.p.m. fluoride posed a health danger. At that time the aluminium industry needed to rid itself of fluoride, a toxic by-product. It persuaded authorities that small amounts widely spread would do more good than harm. To their delight, aluminium industry executives were able to turn a profit on what was once a problem. And so a vast medical experiment began in which humans were the guinea pigs.

Few countries, world-wide, ever began fluoridating water. Some European countries that once did this have since stopped. Today it is mainly in the English-speaking world that fluoride is forced upon people. Diesendorf's contribution is that, at great personal effort, he succeeded in taking on establishment experts and showing, scientifically, that their suppositions are dubious. Perhaps one day people will demand a stop to this mass medication, which simply *has* to be a violation of human rights. Even prisoners taking part in medical experiments are supposed to be volunteers!

The second chapter reviewed here should be of special interest to Network Members, as it involves research that challenges orthodox standards, research that forced a senior scientist to resign his tenured post at the University of Surrey.

From the start of his career, Henry Hillman seems to have had an ethical outlook somewhat above contemporary standards; this possibly made him unpopular to many colleagues. During his university days he saw routine deceit and flagrant bias in research. He saw so

1. Diesendorf's paper, 'The mystery of declining tooth decay' *Nature* 322: 125–29 (1986), was a decisive moment, as its publication legitimized anti-fluoridation criticism.

2. Skeletal fluorosis, common where there is naturally occurring fluoride, is similar to arthritis and may cripple people. It causes bones to be brittle and may be a factor in the reported increase of osteoporosis. There are other less serious problems, including allergies, associated with fluoride. Allegations that an increased fluoride intake causes cancer have yet to be validated.



much substandard work condoned that eventually he distrusted the basics of his profession. He therefore systematically looked at a range of techniques<sup>3</sup> to see if they had ever been validated. He discovered many taken-for-granted areas that had not formally been proven, meaning that much published research in biology could be suspect.

Needless to say, his requests for money to do research in this area were denied. The authorities did not want to fund anyone questioning the basics. The same thing happened with other research. He did hundreds of experiments showing that a chemical, ATP<sup>4</sup> (adenosine triphosphate), could have biochemical effects, but his papers were rejected as his results contradicted orthodoxy.

Using his own novel techniques, Hillman saw a membrane surrounding the nucleolus. Since standard electron microscopy did not detect the membrane, journals refused to accept his results. Hillman then demonstrated that the internal structure of cells, as shown in textbooks, could not be possible. While many colleagues privately admitted that the textbook examples were impossible, they refused to say anything openly, fearing censure.

Hillman's allegations regarding nervous tissue are controversial and hard to believe. He says that brains are made only of nerve

cells and naked cells; that synapses are an artefact of electron microscopy; and that our outlook on nerve transmission is wrong. Our nervous network makes little engineering sense, switching from electrical to chemical to electrical to chemical along a pathway. But then Mother Nature did not have the luxury of designing us de novo. She had to adapt existing features, twisting them into new uses along the way.

In a review of *Confronting the Experts* that appeared in *Nature*<sup>5</sup> (but written in the style of 'Skeptical Inquiry' pieces), Walter Gratzer consistently overlooked the basic reason for the book and, instead, portrayed the authors as a bunch of cranks. He dismissed Hillman with a sweep, saying he is 'deluded on all counts'. According to Gratzer, since 'everyone' knows Hillman is wrong, there is no need to waste scarce resources and time refuting scientific research. A show of hands, a demonstration of loyalty, is enough.

Throughout his review Gratzer exhibits the mannerisms of an establishment expert so sure of his position that any critic must be demented, and therefore ignored. Whether or not Gratzer is aware of his position is an interesting point, but it does demonstrate the value of Martin's effort in bringing together these examples of dissent.

3. In chromatography, electron microscopy, electrophoresis, histochemistry, radioactive measurements, and subcellular fractionation.

4. As ordinarily understood, ATP is involved in energy transference. Hillman's discovery that it can exhibit almost biological properties on its own seems a potentially vital point in how inert elements sprung into life. Also of interest is his finding that ATP exhibits maximum lability at near human body temperature, as does water, and that vibrations (music) can affect the way ATP functions. Numerous anecdotal accounts have classical music strengthening both plants and animals, with hard rock music doing the opposite. If in fact ATP is affected by musical vibration, as Hillman says, then we have an explanation as to why music can make us strong or weak.

5. WALTER GRATZER 'Cases of conviction' *Nature* 382: 35–36 (4 July 1996)

I would sooner expect a goat to succeed as a gardener as expect humans to become stewards of the earth.

James Lovelock

## The Architecture of the Jumping Universe

by CHARLES JENCKS

Academy Editions. p/b, 176 pages, 252 x 190 mm, ISBN 1-85490-406-X.

Review by Clive Hicks, B.Arch., RIBA

Charles Jencks has been an influential, and very controversial, voice in the architectural world for so long, that when I recently met him at the lecture he was giving on the subject of his new book I was greatly surprised to find him younger than I had anticipated, provoking speculation in my mind about how young he must have been when his influence first started to be felt.

He continues to be provoking, and in this book sets out to direct architecture towards the science of chaos, in the process illustrating the idea with intriguing design work of his own. Even his signature in the book was provoking, for to sign it he used four or five pens at once covering the space in a whirl of lines that is both chaotic and ordered!

Charles Jencks is best known for his development of the idea of Postmodernism, (which he prefers to be expressed 'Post-Modernism') and he is frequently cited as the creator of the idea, which he disputes, and points to earlier references to the concept. This is doubtless true, but his promotion of Postmodernism gave it currency in architecture very early, and he probably was the conduit that spread it into other fields. The idea of Postmodernism has by now been utterly fragmented, in architecture as in other fields, and the expression is almost useless without the user defining the intended meaning, and this is not helped by the fact that many who use the term either deny that meaning is possible or otherwise prefer to keep their ideas from scrutiny by employing a deliberate confusion. In architecture, Postmodernism has been used to describe almost any architecture that abandons the concept of the 'modern', from pure historical imitation, through idiosyncratic historical combinations, random and chaotic accretions, meaningless surprise, architecture adopting the aesthetic of the advertising billboard, finally to an architecture of Disneyland, and, even more. Out of this jumble, the idea that seems to me to offer real validity is that postmodernism is the cutting

edge where today's ideas are made invalid by time as tomorrow's ideas become relevant, the eternal transition from the past to the future in the present moment, now, the modern perpetually supplanted by the postmodern, which then becomes the newly modern, itself to be supplanted in due course by the newly postmodern.

In Charles Jencks's new book I have to speculate about a personal change in the writer, as this work seems to me to suggest a greater depth of psychological and philosophical understanding than I have previously considered implicit in his work, and this depth may attract many who might otherwise not have devoted time to a book on contemporary architecture. The exploration of frontiers in science seem to have evoked in Jencks a cosmological approach in which he perceives a creative link between everyday experience and fundamental causation. He offers us the idea of a self-developing cosmos, which grows in jumps, making four transitions from the Platonic World of all possible laws to the Era of Consciousness. Many will find this cosmology arising from modern science exciting and thought-provoking.

Charles Jencks reflects this cosmology in his own field of knowledge, architecture, in both the theory and the practice, and others, working in other fields, may find it relevant to consider the reflection of their own philosophy in their work. There is thus behind his explanations of his own subject a strong sense of unity, but in many ways I did not find that this unity permeated the details of his arguments, even though a good deal of the subject matter is familiar to me.

Charles Jencks strongly deprecates 'Modernism', and not only in architecture, but he writes from a world of study and thought that is steeped in modernist values, i.e. the world of contemporary aesthetic philosophy. It has a language that may seem to many obtuse and convoluted. He is writing of complexity, and proposing a complex richness in architec-

ture, and this is explicit in his own writing, which might almost be described as 'fractal' in its complex richness. In spite of the simplicity of his diagrams, such as the 'Four Jumps to Consciousness' diagram, his arguments become so complex that it is sometimes easy to lose the thread, and often difficult to marshal the ideas, or to test them intellectually, in a profusion of richness that makes discrimination difficult.

His architectural examples are exciting and often beautiful, in particular his own work, suggesting a discrimination in taste and in ability, but in many respects their complexity is qualified by associated simplicity. Buildings cannot be complex without reservation, because they have to be used, so many of the complex buildings are set off against the contrast of smooth reflecting water or other defined plane surfaces. This needs reconciliation with the theory proposed.

Included in Charles Jencks's idea structures are a number of social and ecological ideas, to

some extent undermining the validity of majority of the buildings illustrated. Highly complex buildings are highly expensive, affordable only as an adjunct to modern economics and modern industrial production. These are mainly buildings of affluence and privilege. The buildings that would be socially and ecologically justifiable would be quite different.

Although it seems to me that Charles Jencks needs to integrate more thoroughly Pusey's cosmology and his architectural criticism, this book is a first step on a new path, and will offer interesting and stimulating ideas to most of us, as well as the measure of irritation and difficulty that we all need to be kept awake.

*Clive Hicks is an architect (in the hospice movement), a photographer (of churches and landscapes), and a lecturer on both subjects. He has worked with his friend William Anderson on several books, the most recent being 'Green Man', and is now preparing to write and illustrate a book on Chartres Cathedral.*



The true man is he who is present in the world in the right way. Whether he be dense or transparent, withdrawn into himself or open to life, in form or out of form, centred or without centre, he is all these things with his whole being, which is to say, also with his body!

Karlfried, Graf Dürckheim

## BOOKS IN BRIEF

### Science/Philosophy of Science

*The Infinite in the Finite* by Alistair Macintosh Wilson, Oxford University Press 1995, (524 pp), £25.00, h/b. An engaging history of mathematics which shows how it arose in the context of the problems of the time – for instance the building of pyramids and the prediction of eclipses.

*Chaosmos* by Philip Kuberski, State University of

New York Press 1994. (211 pp), no price given, p/b. A fascinating interdisciplinary study which argues that certain works of literature, theory and science confirm the shift from a modern to a truly postmodern culture, focusing on the paradoxical coincidence of order and disorder, cosmos and chaos. Features Joyce, Heisenberg, Bateson, Prigogine, Bohm, Bell, Heidegger, Derrida and others.

*Technoscience and Cyberculture* edited by Stanley Aronowitz, Barbara Martinsons and Michael Menser with Jennifer Rich, Routledge 1996, (323 pp), £12.99, p/b. Essays which argue that technology is culture, having become the dominant discourse in modern society. Under the rubric of the cultural studies of science, the contributors investigate such issues as violence in American culture and the implications of the Human Genome project.

*A Historical Introduction to the Philosophy of Science* by John Losee, Oxford University Press 1993, (323 pp), £8.99, p/b. The third edition of a book widely regarded as the best available introduction of its kind.

*Nothing but Atoms & Molecules?* by Rodney D Holder, Monarch Publications 1993, (253pp), £8.00, p/b. Responds to the challenge of 'nothing-buttery' by examining the presuppositions and limits of science. An accessible and well written book covering cosmology, history of science, mathematics, physics, biology, AI and defending the rationality of a Christian approach.

*Thinking Clearly about God & Science* by David Wilkinson and Rob Frost, Monarch Publications 1996, (224 pp), £5.99, p/b. Tackles what the authors regard as six key errors: that the existence of God is susceptible to proof or disproof, that science = proof and Christianity = faith, that science has all the moral answers, does away with the Creator and miracles, and that science and Christianity are incompatible.

*God, The Big Bang and Stephen Hawking* by David Wilkinson, Monarch Publications 1996, (176 pp), £5.99, p/b. A widely acclaimed book by an astrophysicist with a degree in theology. Examines the question of possible origins of the universe from scientific and religious angles and argues that a scientific explanation for the beginning does not destroy belief in God.

*Designer Universe* by John Wright, Monarch Publications 1994, (158 pp), £7.99, p/b. A book by a distinguished scientist about the compatibility of science with Christianity.

*Normal and Abnormal Processes in the Basic Sciences* by National Medical School Review, Williams & Wilkins 1996, (253 pp), £16.95, p/b. *General Principles in the Basic Sciences* by National Medical School Review, Williams & Wilkins 1996, (263 pp), no price given, p/b. Useful medical revision texts which simulate US medical exams, each with 650 questions and annotated answers.

### Medicine/Health

*The Complete Family Guide to Alternative Medicine* by C Norman Shealy, MD, PhD, Element 1996, (288 pp), £18.99, h/b. A lavishly illustrated and authoritative handbook by the founder of the American Holistic

Medical Association. Fully cross-referenced and easy to use.

*Cancer as a Turning Point* by Lawrence LeShan (SMN), Gateway Books 1996 (256 pp), £8.95, p/b. A revised edition of Larry's classic handbook for people with cancer, their families and health professionals, containing an appendix based on a workshop. Themes covered include the philosophy of mind-body medicine, psychological change, despair, surviving in a hospital, minimizing burnout and the use of meditation.

*A Time to Heal* by Beata Bishop, Penguin 1996, (328 pp), £8.99, p/b. I reviewed an earlier edition of this book about Beata Bishop's recovery from cancer through Gerson therapy and commend it enthusiastically to any reader who has not yet come across it. Witty, well-written, incisive and laced with dry humour, the book is hard to put down and will inspire anyone interested in alternative naturopathic approaches to disease.

*Transformation through Bodywork: Using Touch Therapies for Inner Peace* by Dan Menkin, Bear & Company Publishing 1996, (228 pp), \$16.00, p/b. An unusual book bringing together inner and outer from a starting point of bodywork. Contains a wealth of case histories and spiritual insights.

*Healing Sounds – The Power of Harmonics* by Jonathan Goldman, Element 1996 (1992), (170pp), £9.99, p/b. A well-informed expert introduction to this field which traces its historical roots in hermetic, tantric, shamanistic and occult philosophies, then treats harmonics in relation to meditation and healing. Also gives instructions about overtone chanting.

*The Bach Remedies and The Chakras* by Philip Salmon and Anna Jeoffroy, Energy Works 1996, (41 pp), no price given, p/b. This essay will be of special interest to practitioners already working with the flower remedies as it links them to colour therapy and the chakras.

*The Elements of the Chakras* by Naomi Ozaniec, Element 1996, (136 pp), £5.99, p/b. An introductory overview based on wide reading and experience.

*The Unseen Self* by Brian Snellgrove (SMN). C.W. Daniel, 1996 (1979), (130 pp), £7.95 p/b. An introduction to Kirlian photography written from the viewpoint of a healer and sensitive.

### Philosophy/Religion

*The Philosophy of Sarvepalli Radhakrishnan* edited by Paul Arthur Schilpp. Open Court, 1991, 883 pp., \$26.95 p/b. The paperback edition from the Library of Living Philosophers consisting of an autobiographical introduction, 23 descriptive and critical essays on Radhakrishnan's thought, a reply to his critics and a bibliography of his work. An essential addition to the library of anyone interested in Radhakrishnan's work.

*Indian Philosophy*, Vol. 1, by S Radhakrishnan, Oxford University Press 1996, (738 pp), £8.99, p/b. *Indian Philosophy*, Vol. 2, by S Radhakrishnan, Oxford University Press 1996, (807 pp), £8.99, p/b. These classic volumes are now available again in paperback – the only difficulty is finding the time to read them in!

*The Shambhala Guide to Yoga* by Georg Feuerstein (SMN), Shambhala 1996, (180 pp), US \$12.00, p/b. An overview of the essentials of Yoga as a spiritual tradition, covering both theory and practice. Topics covered include meditation and concentration, physical exercises and control of the breath, Kundalini and moral principles.

*The Philosophy of Classical Yoga* by Georg Feuerstein (SMN), Inner Traditions International 1996 (1979), (140 pp), \$12.95, p/b. A book described by Mircea Eliade as 'one of the most profound and original contributions to the understanding of classical yoga'. Details the key concepts and elucidates their contemporary context.

*The Bhagavad Gita* by Geoffrey Parrinder, One World 1996 (128 pp), £6.99 (p/b). A new verse translation by a scholar well known in the field. Contains helpful marginal notes for and an appendix. An essential edition for lovers of this sacred text.

*How Should One Live?* by Roger Crisp, Clarendon Press 1996, (263 pp), no price given, h/b. The first general survey of the philosophical revival of interest in the virtues, with essays on ancient views, partiality, Kant, utilitarianism, the good life, emotions, moral education and the community.

*Arguing for Atheism* by Robin Le Poidevin, Routledge 1996, (159 pp), £37.50 h/b, £10.99 p/b. Designed as an introduction to the philosophy of religion, one does not need to agree with the thesis of this book in order to find it a lucid and valuable discussion of the issues it raises about purpose, God, ethics, evil and immortality.

*The Mysticism of Sound and Music* by Hazrat Inayat Khan. Shambhala 1996 (1991), (322 pp), US \$18.00, p/b. A wonderful compilation of the teaching of Hazrat Inayat Khan who exemplified the Sufi approach of music as an expression of the overwhelming and perfect harmony of the universe. It contains lectures, responses to questions and a few aphorisms. Main headings are music, the mysticism of sound, cosmic language and the power of the word. Vital reading for anyone interested in mysticism and music.

*Modern Mysticism* by Michael Gellert, Nicolas-Hays Inc. 1994, (218 pp), \$12.95, p/b. Drawing on his own life experience and that of his clients, the author weaves together Jung, Zen and mysticism to reveal the unconscious as the seat of religious experience, a matrix through which higher powers enter and guide our lives.

*The Teachings of Ramana Maharshi* by Arthur Osborne, Samuel Weiser Inc. 1996, (200 pp), \$12.95, p/b. A new edition of this classic book of teachings which covers the whole spiritual field and specifically the practice of Self-Enquiry as a key to understanding Advaita Vedanta.

*Living and Dying with Grace* by Hadrat Ali, Shambhala 1996, (108 pp), US \$11.00, p/b. A compilation from a 7th century Sufi Master with gems such as 'Everything with which one is content is sufficient' and 'Do not say what you do not know, but neither say all of what you do know'. Ideal for daily reflection.

*The Hermetic Brotherhood of Luxor* by Joscelyn Godwin, Christian Chasel and John P Deveney, Samuel Weiser Inc. 1995, (452 pp), US \$25, h/b. A major collaborative study of this well known 19th century occult group. Presents its history and background, the secret manuscripts of its instructions and a historical dossier of its secret teachings. A goldmine for those interested in the occultism of this period.

*The Ground We Share* by Robert Aitken and David Steindl-Rast, Shambhala 1996, (233 pp), US \$15.00, p.b. Subtitled 'Everyday Practice, Buddhist and Christian', this volume of dialogues begins with the everyday rather than with philosophical and theological concepts. It reads like an intimate conversation between knowledgeable friends and examines the foundations of practice, its everyday nature and questions relating it to community and society.

*God and the Web of Creation* by Ruth Page, SCM Press Ltd 1996, (188 pp), £14.95, p/b. A theological response to the ecological predicament which argues against excessive anthropocentrism in doctrines of creation and proposes the view that God created possibility; creation is then seen as a response in terms of presence and relationship.

*Glory, Jest and Riddle* by James Byrne, SCM Press Ltd 1996, (253 pp), £14.95, p/b. A historical study of the impact of the Enlightenment on religion which covers figures such as Descartes, Pascal, Rousseau and Kant and traces the emerging conflict between science and religion. An erudite account of this watershed period and its implications for current thinking.

*Mithras* by D. Jason Cooper, Samuel Weiser Inc. 1996, (177 pp), \$12.95, p/b. A illustrated scholarly exploration of this religion which vied for dominance in the Roman Empire of the early Christian era and bequeathed elements still present in the Christian tradition today.

*The Vision of Nietzsche* by Philip Novak, Element 1996, (186 pp), £6.99, p/b.

*The Vision of James* by Stephen C Rowe, Element 1996, (144 pp), £6.99 p/b.

*The Vision of Hume* by David Appelbaum, Element 1996, (149 pp), £6.99 p/b.

This series is designed to reposition the thinking of famous philosophers so as to make it relevant to the crises of our own time. Readers will probably find the volume on William James the most interesting. I was delighted to see excerpts from some of his lesser known essays and talks, which are well worth reading for their style as well as content.

*A Wider Vision* by Marcus Braybrooke, OneWorld 1996 (192 pp), £10.99, p/b. A history of the World Congress of Faiths by its current chairman, which shows how its work has provided a basis for the growth of inter-religious understanding and cooperation.

*The Mysteries of Love* by Arthur Versluis (SMN), Grail 1996, (163 pp), no price given, h/b. A profound exploration of the meaning of love in Western culture looking at the traditions of Johannine Christianity and the chivalric ethos. It contends that the restoration of paradise is the real secret of the mysteries of love or eros tradition and traces its impulses from antiquity through the Middle Ages to the Renaissance and beyond.

*Visions and Longings* by Monica Furlong, Shambhala 1996, (246 pp), US \$20.00, h/b. A beautiful book of writings by mediaeval women mystics which reminds us that they were the very first feminine voices heard in a world where women were nearly silent. Provides both a general introduction and specific prefaces. An excellent starting point.

*Secrets of God* by Hildegard of Bingen, Shambhala 1996 (190 pp), \$14.00, p/b. A sampler which introduces the many facets of Hildegard's writing including her visions, medical and scientific writings, poetry and letters.

*Meister Eckhart, from Whom God Hid Nothing*, edited by David Steindl-Rast, Shambhala 1996, (128 pp), US \$11.00, p/b. A book of extracts from Eckhart containing shorter sayings and longer pieces from his sermons. A good place to start for those coming to Eckhart for the first time.

*The Last Barrier* by Reshad Feild, Element Books Inc 1996, (181 pp), £5.95, p/b.

*Going Home* by Reshad Feild, Element 1996 (170 pp), £12.99 h/b.

The first and third part of Reshad Feild's autobiography which delightfully draws the spiritual lessons out of everyday life.

*Beyond Belief* by Peter Spink, Piatkus Books 1996 (166 pp), £8.99, p/b. Subtitled 'How to develop mystical consciousness and discover the God within, this book charts a spiritual journey with practical exercises involving reflection, imagination and intuition at the end of each chapter. There is an instructive section called 'Twelve pointers along the contemplative path' which contains sound advice such as 'learn to discriminate without judging' and 'Begin the journey afresh each day'. A good spiritual course for Lent 97?

*The Portal of the Mystery of Hope* by Charles Peguy, T & T Clark Ltd 1996, (165 pp), £11.95, p/b. The first critical in English of this great epic poem by the Catholic writer, Charles Peguy, who died in the First War. The translation is sympathetic and conveys the lyricism and insight of a man who learned the value of hope through his own suffering.

*What Do You Think of Christ?* by John Moss (SMN), The Pentland Press Ltd 1996, (190 pp), £12.00, p/b. An unusual study investigating what modern mystics and discarnate sources say about Christ. Sources include Stainton Moses, Daskalos, Steiner and Tudor Pole and themes covered the modelling of revelation, the nature of Jesus Christ, love, suffering, metanoia and, controversially, reincarnation, an idea which is supported by all the communicators. The author then assesses the validity of the communicators and their messages. He has performed a useful service by bringing this material under critical scrutiny in a single volume.

*The God Shift* by Adrian B Smith, New Millennium 1996 (288 pp), £9.95, p/b. A wide-ranging and open-minded book by a Catholic priest examining thirteen contemporary factors requiring us to shift our perception of God as we move into what the author calls an emerging New Era of Consciousness. This is one of the key trends he identifies along with an increasing humanization, a global movement towards unity and what he calls 'a new perception of the Divine Mystery'.

*The Feminine Face of God* by Sherry Ruth Anderson & Patricia Hopkins, Gill & Macmillan 1996, (253 pp), £9.99, p/b. A significant book about women's spirituality which draws on many experiences to weave a picture of the unfolding of the sacred in women and addresses deep human concerns about relationships, spiritual practice and sexuality.

*The Light of the Spirit* by Mary Bassano, Samuel Weiser Inc. 1996, (109 pp), \$9.95, p/b. Coming from a background of healing with music and colour, the author of this wise little book suggests that enhanced spiritual awareness enables us to learn to work with light in a new way.

*A Handbook of Angels* by H.C. Moolenburgh, C W Daniel, 1988, (254 pp.), £6.95.

*The Sacred Magic of Angels* by David Goddard, Samuel Weiser Inc. 1996, (207 pp), \$14.95, p/b.

The first book is the original study written by a Dutch doctor whose subsequent book, *Meetings with Angels*, I reviewed a few issues ago. The central point is that if we have forgotten about angels, they have nevertheless not forgotten about us and that help is available from the angelic world. The second book takes an esoteric approach to the subject based on many years experience of teaching and contains a variety of invocations and exercises.

*In Search of the Miraculous* by Osho, The C W Daniel Company Limited, 1996, (269 pp), £8.95, p/b.

Lectures and responses about the chakras, kundalini and the esoteric dimensions of Tantra.

### Psychology/Parapsychology

*The Atman Project* by Ken Wilber, Quest Books 1996 (1980), (240 pp.) \$14.00 p/b. A new edition of this seminal work which defines the Atman Project as the attempt to find Spirit in ways that prevent it and force substitute gratifications. A must for anyone interested in the evolution of consciousness and who has not yet read it.

*How to Read Your Mother's Mind* by James M Deem, Houghton Mifflin 1994, (192 pp), no price given, h/b. An excellent child's guide to ESP with apt cartoons and guides to designing experiments and testing ESPower – adults will find it informative and amusing too.

*Fraud or Framed* by Cyril Burt, Oxford University Press 1995, (156 pp), £18.99, h/b. An up-to-date and unbiased analysis of the Burt affair – where an eminent psychologist was accused of fabricating his data – with a number of contributors concluding that the prosecution and defence cases are both seriously flawed.

*Meditations for Busy People*, by Stephen Bowkett, Thorsons, 1996, £7.99 p/b. Subtitled 'How to stop worrying and stay calm', the format of this book is a quotation followed by a short discussion then a corresponding affirmation or resolution. Good for reflective dipping.

*The Book of Reincarnation and The Afterlife* by Martin Palmer and Joanne O'Brien, Judy Piatkus (Publishers) Ltd, 1996, (120 pp), £7.99, p/b. An introduction to Chinese beliefs on life after death based on Confucian, Taoist and Buddhist sources.

*Echoes from the Battlefield* by Barbara Lane, A.R.E. Press 1996, (244 pp), \$13.95, p/b. A responsibly written book about hypnotic regression memories from the American Civil War which comes up with some remarkable historical detail. One intriguing feature is that, although all the subjects are Civil War re-enactors, they nevertheless produce material matching recorded events to claimed recollections.

*Metamorphosis* by Dr Joy Hinson-Rider and Kathryn White Birch Cochrane, Spiral Light Press 1993, (370 pp), \$18.00, p/b. An account of 91 'past-life' case histories of five individuals written by two members of the Association for Past-Life Therapy, which also describes their technique. Of more interest to practitioners in the field rather than readers concerned with verifying this kind of material.

*Past Lives, Future Lives* by Jenny Cockell, Piatkus Books 1996, (168 pp), £9.99, p/b. By the author of the fascinating book *Yesterday's Children*, reviewed in an earlier issue. Expands on claimed memories of previous lives, the period in between and then

moves into precognition and impressions of a future life at which period the population of the planet will be greatly reduced. Although the assertions in the book are daring, the tone is level-headed and informed by consideration of other similar material.

*A Good Death* by Michael Young and Lesley Cullen, Routledge 1996, (249 pp), £13.99 p/b. Touching conversations with East Londoners about death and dying, suggesting four approaches: the rational, the spiritual, the humorous and the poetic.

*Between Death and Life* by Dolores Cannon, Gateway Books 1996, (242 pp), £7.95. p/b. A mind-stretching conversation between the author and an alleged discarnate entity about the mysteries of life and death. The narrative is coherent and balanced.

*Guide to Ghosts & Haunted Places* by Peter Underwood, Piatkus 1996, (218 pp), £14.99, h/b. A casebook based on the author's fifty years of study and investigation. Covers houses, battlefields, hauntings and aerial phenomena, among other things.

*Listening to Midlife* by Mark Gerzon, Shambhala 1996, (315 pp), \$16.00, p/b. Subtitled 'turning your crisis into a quest', this is one man's story of growth and change in a world context which is growing and changing all the time. Endorsed by Scott Peck.

*Holy Ghostbuster* by J Aelwyn Roberts, Element Books Ltd 1996, (175 pp), £7.99, p/b. Engagingly written account of the experiences of a vicar in North Wales and his encounters with a variety of entities; the second section discusses mediums and their gifts of clairvoyance, telepathy, healing and dowsing.

### Future Studies/Economics/Ecology

*Earth Summit Ethics* edited by J Baird Callicott and Fernando J R da Rocha, State University of New York Press 1996, 247 pp, \$19.95 p/b. Subtitled 'Toward a reconstructive postmodern philosophy of education', this book addresses the conceptual and moral double binds that characterize modernity's relationship to the environment. It is the outcome of an Earth Summit pre-conference challenging universities to engender ecological literacy and environmental ethics.

*The Way: An Ecological World-View* by Edward Goldsmith (SMN), Themis Books 1996, 553 pp, £28.50 h/b. The second edition of Edward Goldsmith's magisterial work extensively reviewed in the summer 1993 issue. It is a root and branch attack on modernism which presents the underlying principles of an ecological world-view.

*Learning To Think Environmentally While There Is Still Time* by Lester W Milbrath, State University of New York Press 1996, 136 pp, \$9.95 p/b. Written as a conversation between two neighbours and spiced with telling cartoons, this book makes the case for a

new way of thinking to ensure a sustainable future. A very engaging format which nevertheless presents the salient facts in a palatable form.

*The Human Costs of Managerialism* edited by Stuart Rees and Gordon Rodley, Pluto Press Australia 1995, Aust. \$29.95. A series of essays criticizing the kind of managerialism which claims that public sector enterprises imitating private ones will be transformed into streamlined efficient operations. In this context, efficiency has little reference to human costs and can arguably lead to low morale, unemployment and lower standards of public service. The authors advocate what they call 'the recovery of humanity' by putting people before procedures.

*Atlas of Earthcare* by Miles Litvinoff, Gaia Books Ltd 1996, 191 pp, £14.99 p/b. A comprehensive atlas specially designed for young people. Includes sections on land, farming, the oceans, energy, water, plants and animals and civilization; also an excellent reference section. Should be taken up by all schools – and it's a good guide for adults too.

### General

*The Social Construction of Virtue – The Moral Life of Schools* by George W Noblit and Van O Dempsey, State University of New York Press 1996, 225 pp, no price given, p/b. Addresses the shortcomings of school reform and argues that schools are not primarily about knowledge but rather about the construction of meaning and morality in the lives of students and communities. The book focuses on two elementary schools and the way in which the virtues constructed came to influence lives.

*DIY Futures – People's Ideas & Projects for a Better World* by Nicholas Albery, Lindesay Irvine, Philip Buckley & Stephanie Pieau, The Institute for Social Inventions 1996, 288 pp, £14.85 p/b. A pot pourri of 250 people's ideas and projects for a better world, under headings such as education, relationships, housing, economics, welfare, health, law and crime.

*Creative Endings – Designer Dying & Celebratory Funerals* by Nicholas Albery, Lindesay Irvine, Philip Buckley & Stephanie Pieau, The Natural Death Centre 1996, 79 pp, £5.95 p/b. Contains the best new projects and award-winning ideas collected by the Natural Death Centre in 1996. The centre has been receiving between 200 and 1,000 letters a week from people wanting to know about green funerals and new understandings of death.

*Angels Don't Play This Haarp – Advances in Tesla Technology* by Nick Begich & Jeane Manning, Earthpulse Press 1995, 233 pp, \$14.95, p/b.

*Earthpulse Flashpoints* by Nick Begich, Earthpulse Press 1996, 59 pp, \$4.95 p/b.

The first book documents an alarming 'security' development within the US military: a new ground

based 'Star Wars' weapon which is being tested in remote Alaska. The High-frequency Active Auroral Research Program allegedly has the capacity to cause widespread environmental and electromagnetic disturbances and pollution, as well as changing weather patterns and negatively affecting health. Scientists who have studied the project are dismayed at its destructive capability and the secrecy surrounding its development. The second booklet is an update on various developments in frontier sciences such as the neurophone and new sources of energy. Address for enquiries: Earthpulse Press, PO Box 201393, Anchorage, Alaska 99520, USA.

*The Secret of the Incas* by William Sullivan, Crown Publishers 1996, 413 pp, \$35 h/b. A fascinating exploration of the world of the Incas. In decoding their myths, the author discovers that they embody an extremely accurate record of astronomical events. It turns out that the priest-astronomers foresaw the collapse of their own culture at the time when the Spanish actually arrived – hence the lack of resistance and a rationale for their bloody rituals which are interpreted as an attempt to stop time.

*The Mayan Prophecies – Unlocking the Secrets of a Lost Civilization* by Adrian G Gilbert & Maurice M Cotterell, Element Books Ltd 1996, 379 pp, £5.99 p/b. Readers may know that the Mayans expected the present world to end on 22 December 2012. The authors of this controversial book claim that the rise and fall of world ages coincides with sun-spot cycles and that reduced sunspot activity caused a decline in Mayan fertility and the sudden death of their civilization.

*The Sirius Connection: Unlocking the Secrets of Ancient Egypt* by Murry Hope, Element Books Limited 1996, 251 pp, £16.99 h/b. An intriguing book linking ancient Egyptian culture to a much older metaphysical tradition in which Sirius played a prominent role and placing the evolution of human life on earth in a wider cosmic context.

*Homage to Hope – South African Memories* by Lynn Carneson-McGregor (SMN), Container Marketing Ltd 1996, 230 pp, no price given, p/b. A diary narrative of the daughter of anti-apartheid activists which paints a vivid and moving picture of those years and provides the human background for the current liberation.

*The Healing Power of Stories – Creating Yourself Through The Stories of Your Life* by Daniel Taylor, Gill & Macmillan Ltd 1996, 182 pp, £8.99 p/b. The starting point of this personal and literary book is that we are our stories, as they have shaped how we see ourselves. The book draws on the author's own experiences as well as writers like Solzhenitsyn, Camus and Thoreau. An appendix raises questions which would enable readers to define themselves by means of stories and perceive a thread of meaning running through life.